

NCDEQ Coal Ash Impoundment Closure Plan Decision

Attachment 1: Hearing Officer's Report

April 29, 2020



Hearing Officer's Report – Proposed Closure Plan for the Coal Ash Impoundment at Marshall Steam Station

Date: April 28, 2020

Facility: Marshall Steam Station
County: Catawba
Owner & Operator: Duke Energy Carolinas, LLC

Purpose

The purpose of this document is to provide an administrative record of the public input process on the proposed Closure Plan for the subject facility as required by G.S. 130A-309.214(b) of Session Law 2016-95 House Bill 630 (referred to as the Coal Ash Management Act or CAMA).

Regulatory Background Summary

CAMA required that the North Carolina Department of Environmental Quality (NCDEQ) develop classifications for all coal combustion residuals surface impoundments, including active and retired sites, for the purpose of closure and remediation based on these sites' risks to public health and the environment.

On November 13, 2018, NCDEQ issued a final low-risk classification for the Marshall Steam Station based on the determination that Duke Energy met the requirements of G.S. 130A-309.213(d)(1). On April 1, 2019, NCDEQ further determined that coal combustion residuals (CCR) impoundment at the Marshall Steam Station required closure via excavation per G.S. 130A-309.214(a)(3)(a). On April 26, 2019, Duke Energy appealed the determination that the impoundment should be excavated.

On December 31, 2019, NCDEQ received the Closure Plan for the Marshall Steam Station per the CAMA deadline. Staff from the NCDEQ's Division of Waste Management; Division of Energy, Mineral, and Land Resources; and Division of Water Resources have reviewed the Closure Plan for completeness and the requirements of 130A-309.214(a)(4). NCDEQ also received the Corrective Action Plan for groundwater remediation for the Marshall Steam Station. The Division of Water Resources staff also reviewed the Corrective Action Plan as it includes provisions that are elements of the Closure Plan.

On December 31, 2019, NCDEQ entered into a Settlement Agreement with Duke Energy and the community groups represented by the Southern Environmental Law Center regarding the closure of the Marshall Steam Station. Duke Energy agreed to excavate most of the coal ash in the impoundment at Marshall. The Settlement Agreement added further requirements to the closure efforts and corrective action activities at the site and established some milestone dates for reporting, corrective action, and closure goals.

On January 31, 2020, the parties from the Settlement Agreement filed a Consent Order with the Wake County Superior Court. The Consent Order was subsequently signed by Wake County Superior Court Judge Paul Ridgeway on February 5, 2020.

Site History/Background Summary

The Marshall Steam Station (MSS) is owned and operated by Duke Energy Carolinas in Catawba County on the west bank of Lake Norman (Catawba River), near the town of Terrell, North Carolina. The MSS is a four-unit, 2,090 MW, coal-fired station. Units 1 and 2 began operation in 1965 and 1966, respectively, while units 3 and 4 began operation in 1969 and 1970, respectively. Duke Energy has historically operated a single impoundment for storing wet sluiced coal ash referred to as “the Basin” at the MSS. The Basin was constructed in conjunction with MSS construction in 1965 and is impounded by an earthen dike (Basin Dam) located at the southeastern end of the Basin, adjacent to Lake Norman. Based upon the CCR unit boundary, the MSS Basin historically had a surface area of approximately 394 acres. It is now approximately 360 acres, due to the construction of three permitted disposal facilities over areas of the original Basin limits. Based on CCR inventory data provided by Duke Energy as of July 2019, the Basin contains approximately 14 million cubic yards of CCR or an estimated 16.8 million tons.

Closure Plan Summary

The closure plan indicates that most of the coal ash will be excavated. For the coal ash that remains in place under the permitted structural fill and permitted landfill at Marshall, additional protective measures, including stabilization features, synthetic covers, and groundwater monitoring will be incorporated. NCDEQ believes that these additional protective measures will ensure that the coal ash remaining in place will not adversely affect public health, safety, and welfare, the environment, and natural resources.

Closure activities for the Basin have already begun with the initiation of decanting under the Special Order by Consent, effective on April 1, 2018. Upon approval of the Closure Plan by NCDEQ additional actions will commence, including finalization of detailed designs, dewatering and removal of interstitial water, contracting and detailed planning for the closure work, development of the new lined landfill in conjunction with excavation of the CCR, final grading of the site, and development of stormwater features and vegetative covers. The Basin CCR will be removed to a new lined landfill on the plant property, located partially within the prior footprint of the ash basin near Island Point Road. The landfill will rise approximately 200 feet above Island Point Road. Post-excavation, the Basin site will resemble the land’s valley shape before the Basin was created. Soil will be graded to restore contours for stormwater flows, then planted with native grasses for erosion control. The existing Basin dam will remain, with a new stormwater pathway cut to a cove of Lake Norman. The stormwater outlet elevation will impound stormwater over approximately 100 acres within the former Basin footprint. The existing structural fill and landfills will remain in place, with structural features added to ensure long-term stability against adjacent areas of excavation. The on-site CCR landfill represents a lateral and vertical expansion of the existing Industrial Landfill in accordance with North Carolina Solid Waste regulations.

Public Input Summary

In accordance with the requirements of G.S. 130A-309.214(b)(1), the Closure Plan was made available to the public for review and input on January 24, 2020. A copy of the proposed closure plan was available to be reviewed at the Catawba County Health Department, Catawba County Public Library, and at the NCDEQ Mooresville Regional Office. The Closure Plan was also made available online at:

<https://NCDEQ.nc.gov/news/key-issues/coal-ash-excavation/marshall-steam-station-coal-ash-closure-plan>

Per 130A-309.214(b)(2)(a), a notice and summary of the proposed Closure Plan was published in the Hickory Daily Record newspaper for three consecutive weeks beginning on January 27, 2020. Copies of the Notice were provided as required by G.S. 130A-309.214(b)(2)(b) and (c). Per G.S. 130A-309.214(b)(4), the 60-day comment period began on January 27, 2020 and ended on March 18, 2020. Comments could be sent to the NCDEQ via email, mail, and oral and/or written comments submitted during the public hearing.

Public Hearing and Oral Comments Summary

In accordance with the requirements of G.S. 130A-309.214(b)(3), a public hearing was held on February 26, 2020 at 6:00 pm in the Maiden High School auditorium, located at 600 West Main Street in Maiden, North Carolina. The purpose of the public hearing was to allow the public to comment on the Marshall Steam Station Closure Plan. Interested parties were able to submit oral or written statements regarding the proposed Closure Plan. Persons wishing to speak registered at the hearing. Speaking times were allotted per speaker as time allowed.

Approximately 80 people attended the public hearing including 10 staff members from the Division of Waste Management; Division of Energy, Mineral, and Land Resources; Division of Water Resources, and Division of Air Quality, as well as Public Information Officers and the Hearing Officer. A total of 70 individuals signed the attendance sign-in sheets at the hearing. The Hearing Officer provided opening comments and Sheila Holman, Assistant Secretary for the Environment, gave a brief overview of the Closure Plan. Five individuals registered in advance of the hearing to make comments. Speakers had three minutes for initial presentations and additional time was provided after everyone that registered to speak was finished.

Response to Comments

As indicated above, during the public hearing, five individuals made comments on the Closure Plan. Additionally, NCDEQ received twelve written comments regarding the Closure Plan. All of the commenters expressed support for excavating and relocating coal ash into lined landfills. A discussion of the substantive concerns raised in these comments follows. All written comments are included as Attachment 2.

Comment: A number of commenters expressed support for the closure plan as they feel that excavation and transportation to dry lined storage is the best way to protect the environment and surrounding communities.

Response: NCDEQ agrees with this comment and has determined that excavation of the CCR impoundment at Marshall, followed by transportation to an approved onsite landfill or utilization for approved beneficial reuse activities, is the best closure method to protect the environment and surrounding communities.

Comment: One commenter expressed concerns over negative effects to their community's home values.

Response: NCDEQ has determined that excavation, followed by transportation to an onsite lined landfill or utilization for approved beneficial reuse activities, is the best closure method for Marshall in order to protect the environment and the community.

Comment: Two commenters requested that DEQ work to ensure the safety of the workers who will be responsible for cleaning up the coal ash and for Duke to protect its workers and contractors by creating a safe work environment with protective equipment.

Response: Duke Energy will be required to meet all applicable legal statutes and regulations addressing worker safety at Marshall. Generally, the statutory authority to regulate worker safety laws is vested in state and federal agencies other than NCDEQ.

Comment: One commenter expressed concern over the location of the lined coal ash landfill and requested that it not be located near their home.

Response: Landfill construction and operation requirements are designed to be protective of public health and the environment. Extensive investigations are required as well as strict operation and monitoring requirements to protect public health and the environment. The current landfill has a 200-foot buffer from the waste to the property line. In its configuration the landfill is as close to the property line as it will come, with future development to the south and east of the existing landfill footprint.

Comment: Several commenters expressed concern over increased cancer rates for some residents living near the facility and requested additional cancer studies related to coal ash.

Response: NCDEQ has determined that excavation is the best closure method to protect the health of residents in affected communities near Marshall. The request for cancer rate studies has been communicated to the NC Department of Health and Human Services.

Comment: One commenter expressed concern that citizens would end up footing the bill for any cleanup at the site.

Response: The North Carolina Utilities Commission has statutory authority to determine who will pay the costs associated with cleanup of coal ash at the site, including those costs associated with storage of excavated coal ash in a lined landfill. These cleanup costs will be the subject of future rate cases before the North Carolina Utilities Commission. The public will have an opportunity to provide comments during those rate case hearings.

Comment: A number of commenters who live in neighborhoods near or downstream from the facility conveyed concerns about clean drinking water and requested additional monitoring and further extension of water lines into affected communities.

Response: NCDEQ considered drinking water quality concerns when determining that excavation, followed by transportation to an onsite, lined landfill or utilization for approved beneficial reuse activities, is the best closure method for the CCR impoundment at Marshall. NCDEQ reserves the right to require Duke Energy to conduct additional groundwater monitoring if needed.

Comment: One commenter feels overwhelmed by the amount of data related to coal ash contamination and requested additional public meetings to more thoroughly explain the effects of coal ash on the community.

Response: NCDEQ will consider this comment when planning future public meetings.

Comment: Several commenters expressed concerns over the water quality at Lake Norman and requested that excavation be done in a manner that will not cause further contamination to the lake. Some commenters also requested further testing at Lake Norman to ensure that the water is safe to drink and recreate in.

Response: NCDEQ has determined that excavation at Marshall is the best closure method to protect the water quality of Lake Norman. The impounded coal ash will be excavated and moved

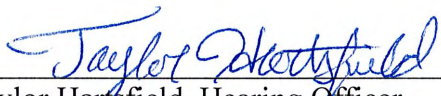
to a lined landfill further from Lake Norman in order to better protect this resource from future contamination. Further, NCDEQ will require additional groundwater monitoring downgradient of the coal ash that will be left in place under the landfill and structural fill, and can require remediation if needed.

Comment: One commenter stated that DEQ should require Duke Energy to submit its plan for fully removing saturated ash which may be discovered in groundwater now to ensure that the plan is adequate and all saturated ash will be removed.

Response: NCDEQ has determined that the excavation of all coal ash at the site, including coal ash that may be later discovered in saturated groundwater, must be excavated and removed to an onsite landfill or for utilization in approved beneficial reuse activities. It is not known at this time to what extent, if any, fully saturated ash will be present at the site during excavation. Should this condition occur, Duke will need to submit an additional plan to NCDEQ for its removal.

Hearing Officer Recommendations

Based on my review of the record and in consultation with subject matter experts in NCDEQ, I recommend approval of the submitted Closure Plan for the coal ash impoundment located at Duke Energy's Marshall Steam Station located in Catawba County. I conclude 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.



Taylor Hartsfield, Hearing Officer

4/29/2020

Date