



# **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 Mayo Steam Station**

Date: April 28, 2020

Facility: Mayo Steam Electric Plant  
County: Person  
Owner & Operator: Duke Energy Progress, 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 proposed 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 Mayo Steam Electric Plant based on the determination that Duke Energy met the requirements of 130A-309.213(d)(1). On April 1, 2019, NCDEQ further determined that the coal combustion residuals (CCR) impoundment at the Mayo Steam Electric Plant required closure via excavation per 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 Mayo Steam Electric Plant 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 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 Mayo Steam Electric Plant. The Division of Water Resources staff also reviewed the Corrective Action Plan, portions of it provide required 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 Mayo Steam Electric Plant. In the Settlement Agreement, Duke Energy agreed to close the Mayo CCR impoundment by excavation of the coal ash and placement in an onsite lined landfill. The Settlement Agreement added further requirements to the closure efforts and corrective action activities at the site and as 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 Mayo Steam Electric Plant (Mayo Plant) is owned and operated by Duke Energy Progress in Person County, approximately 10 miles northeast of Roxboro, North Carolina. The Mayo Plant is a single unit, 727-megawatt coal-fired plant located less than one-half mile south of the North Carolina-Virginia state line. It began commercial operation in 1983 with a single coal-fired unit, and the plant is currently in active operation.

Duke Energy has historically operated a single impoundment for storing wet sluiced CCR referred to as “the Basin” at the Mayo Plant. The Basin was constructed during the early 1980s and was completed in 1982. The Basin was constructed above a section of Crutchfield Branch, which is part of the Roanoke River Basin. Based on the CCR unit boundary, the Mayo Plant Basin has a surface area of approximately 153 acres (including the Basin Dam). Based on topographic and bathymetric surveys performed in 2015 and updated with production data provided by Duke Energy as of July 31, 2019, the Basin contains approximately 5.5 million cubic yards of CCR or an estimated 6.6 million tons as of June 2019. Two additional basins for storage of wet sluiced Flue-Gas Desulfurization (FGD) process residuals (also CCR) were constructed in 2009 and collectively have a surface area of approximately 5 acres. These FGD Ponds are perched at the eastern edge of the Basin. Process flows of CCR waste streams have ceased for all 3 basins and decanting operations have been initiated to remove bulk water.

#### Closure Plan Summary

The closure plan indicates that the coal ash will be excavated. The Basin CCR would be removed to a new lined landfill within plant property, located partially within the prior footprint of the Basin, adjacent to Boston Road. The landfill would rise approximately 170 feet above Boston 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. A portion of the existing Basin dam will be removed, and detention basins constructed for stormwater management. Stormwater flows will then make their way into Crutchfield Branch.

#### Public Input Summary

In accordance with the requirements of 130A-309.214(b)(1), the Closure Plan was made available to the public for review and input on January 10, 2020. A copy of the proposed closure plan was available to be reviewed at the Person County Health Department, Person County Public Library, and at the NCDEQ Raleigh Regional Office. The Closure Plan was also made available online at: <https://NCDEQ.nc.gov/news/key-issues/coal-ash-excavation/mayo-power-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 Courier Times newspaper for three consecutive weeks beginning on January 15, 2020. Copies of the Notice were provided as required by 130A-309.214(b)(2)(b) and (c). Per 130A-309.214(b)(4), the 60-day comment period began on January 11, 2020 and ended on March 12,

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 130A-309.214(b)(3), a public hearing was held on February 10, 2020 at 6:00pm in the North End Elementary School located at 378 Mill Creek Road, Roxboro, North Carolina. The purpose of the public hearing was to allow the public to comment on the Mayo Steam Electric Plant 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 43 people attended the public hearing including 18 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 43 individuals signed the attendance sheets at the hearing. The Hearing Officer provided opening comments and Elizabeth Werner of the Division of Waste Management gave a brief overview of the Closure Plan. One individual registered in advance of the hearing to make comments. He was provided unlimited time to speak.

#### Response to Comments

As noted above, during the public hearing, one individual made comments on the Closure Plan. Additionally, NCDEQ received four 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:** NCDEQ received four comments from the public regarding the Mayo closure plan. Every comment thanked NCDEQ for listening to the public and cleaning up the coal ash.

**Response:** NCDEQ appreciates the participation of the public in the public comment process and looks forward to completing the cleanup process of the coal ash at the Mayo facility.

**Comment:** One comment requested that NCDEQ ensure ash handling protocols are of the highest measure.

**Response:** As per State law, Duke Energy will be developing a Construction Quality Assurance Plan to ensure ash handling protocols comply with all State and Federal requirements.

**Comment:** Two comments requested that NCDEQ keep all workers safe that are involved in the cleanup process.

**Response:** Duke Energy is required to comply with all applicable state and federal regulations during the cleanup process, including those regulations pertaining to worker safety. It should be noted, however, that the authority to regulate worker safety is vested in state and federal agencies other than NCDEQ.

**Comment:** Three comments requested that NCDEQ ensure testing is performed on the storage materials used to make sure no contamination occurs.

**Response:** In order to ensure no contamination occurs, NCDEQ is requiring that Duke Energy adhere to the specific materials and procedures listed for the new landfill, including the usage of

multiple High Density Polyethylene (HDPE) geomembranes, multiple clay liners, multiple drainage layers and a clay buffer.

**Comment:** Two comments requested that NCDEQ require special construction quality assurance measures be performed to ensure the storage system is installed properly.

**Response:** As per State law, Duke Energy will be developing a Construction Quality Assurance Plan to ensure the storage system in the landfill is properly installed and monitored.

**Comment:** Three comments requested that NCDEQ prevent any further leaching after the ash is moved, including monitoring leachate.

**Response:** In order to prevent any future leaching, NCDEQ is requiring Duke Energy to comply with the closure plan it submitted to NCDEQ, which includes a leachate collection system, a secondary leak detection system and groundwater monitoring wells for the landfill where the excavated coal ash will be stored long term.

**Comment:** One comment requested that Duke Energy not recycle the coal ash into bricks.

**Response:** At this time, Duke Energy has not requested to recycle any of the coal ash from the Mayo facility. All of the excavated coal ash is intended to be moved into the new coal ash landfill.

**Comment:** One comment requested that Duke Energy consider using the monofill location across Highway 501 instead of creating a new lined ash landfill near the current coal ash impoundment location.

**Response:** At this time, NCDEQ is not considering use of the monofill location across Highway 501 from the Mayo facility. Duke Energy's closure plan currently only contemplates the creation of a single new lined landfill location at the Mayo Facility, close to the location of the coal ash impoundment to reduce truck traffic and safety concerns. Using the existing monofill location across Highway 501 for storage of the excavated coal ash would require continued transport across the highway to the site of the existing monofill.

**Comment:** One comment requested that Duke Energy submit its plan for removing fully saturated ash now rather than later.

**Response:** At this time, it is not known to what extent, if any, fully saturated ash will be present at the Mayo site during excavation. Should this condition occur, Duke Energy will be required to submit an additional plan to NCDEQ prior to 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 at Duke Energy's Mayo Steam Electric Plant located in Person 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.

  
\_\_\_\_\_  
Bradley Newland, Hearing Officer

  
\_\_\_\_\_  
Date