



*Cape Fear Steam Station
Coal Ash Impoundment Closure Plan
Beneficiation Facility*

Public Hearing
February 12, 2020



Cape Fear Steam Station

- Located in Chatham County
- Owned by Duke Energy Progress
- Two-unit, 306-megawatt coal-fired plant
 - Began operation in 1923
 - Retired October 2012
 - Demolished in 2017
- Five coal ash impoundments
 - 158 acres
 - Currently contains 5.7 million tons of ash





1956

1985

1956

1963

1970



Coal Ash Management Act – House Bill 630 – July 2016

- Ash Beneficiation
 - By January 1, 2017 – Duke had to identify two facilities to beneficially reuse ash for cement production
 - By July 1, 2017 – Duke had to identify a third facility for beneficial reuse
 - Process at least 300,000 tons annually
 - Close basins by December 31, 2029
- Deemed HF Lee, Cape Fear and Weatherspoon intermediate-risk
- December 31, 2019 – Duke submitted Closure Plans for closure by excavation for Buck, Cape Fear, HF Lee and Weatherspoon
- December 31, 2019 – Duke, DEQ and several community environmental groups entered into a Settlement Agreement
- January 31, 2020 – Consent Order incorporating the terms of the Settlement Agreement filed with the Wake County Superior Court
- February 5, 2020 – Consent Order entered by Judge Paul Ridgeway



Closure by Excavation Beneficially Reuse Ash

- Five impoundments will be excavated – 5,735,000 tons of ash
- Excavated ash will be beneficially reused by the STAR[®] (Staged Turbulent Air Reactor) Technology process
 - Thermal process to reduce amount of unburnt carbon
 - Transforms ash into high-quality product for use in concrete industry
 - Full production designed to process 400,000 tons of ash per year
 - Ten years of production will reuse 4 million tons of ash
 - Remaining 1.7 million tons might require another handling process



Closure by Excavation Beneficially Reuse Ash

Estimated Project Schedule

- Began construction of STAR® Plant – 2019
- Dewatering of ash basins – ongoing
- STAR® Plant in operation – 3rd Quarter 2021
- Complete coal ash excavation – 1st Quarter of 2029
- Site Restoration – 4th Quarter of 2029





Example of a STAR® Plant



Source: The SEFA group

Submit comments by mail to:

Louise Hughes
N.C. Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

Submit comments by email to:

capefearcomments@ncdenr.gov - Include Closure Plan in the subject

The Closure Plan may be found at:

<https://deq.nc.gov/news/key-issues/coal-ash-excavation/2020-coal-ash-closure-plans-buck-cape-fear-hf-lee-and#h.f.-lee-coal-ash-closure-plan>

