

# HF Lee Steam Station Coal Ash Impoundment Closure Plan Beneficiation Facility

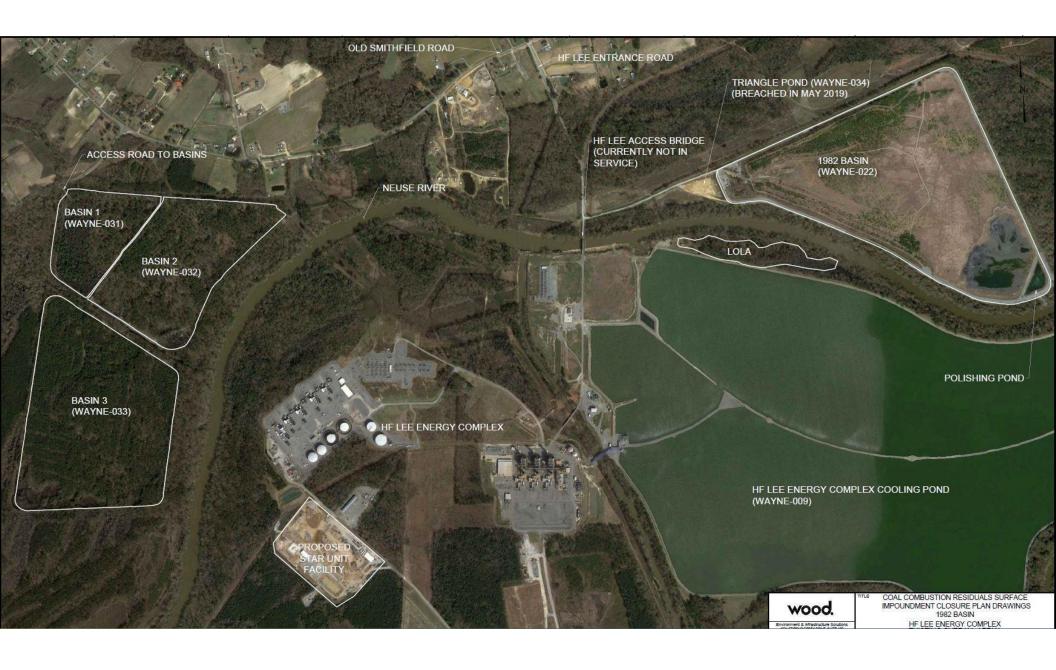
Public Hearing February 11, 2020



#### HF Lee Steam Station

- Located in Wayne County
- Owned by Duke Energy Progress
- Three-unit, 382-megawatt coal-fired plant
  - Began operation in 1951
  - Retired September 2012
  - Demolished in 2017
- Began construction of gas-fired combined cycle plant in 2009
  - Began operation in December 2012
  - 920-megawatts
- Four coal ash basins
  - 297 acres
  - Currently contains 6.2 million tons of ash





## 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 (did not cover H.F. Lee)
- 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

- Four coal ash impoundments will be excavated 6,225,000 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 2.2 million tons might require another handling process



## Closure by Excavation Beneficially Reuse Ash

#### **Estimated Project Schedule**

- Began construction of STAR® Plant 2018
- Dewatering of ash basins ongoing
- Complete coal ash excavation 4<sup>th</sup> Quarter of 2029
- Site Restoration 4<sup>th</sup> Quarter of 2030





Example of a STAR® Plant





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:

<u>leecomments@ncdenr.gov</u> - 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

