



ROY COOPER

Governor

MICHAEL S. REGAN

Secretary

S. JAY ZIMMERMAN

Director

January 21, 2017

Mr. Mike Mosley, Plant Manager
Duke Energy Progress
Roxboro Steam Electric Plant
1700 Dunnaway Rd
Semora, North Carolina 27343

Subject: Draft NPDES Permit Renewal
Permit NC0003425
Roxboro Steam Electric Plant
Person County
Class II Facility

Dear Mr. Mosley:

Enclosed with this letter is a copy of the revised draft permit renewal for your facility. A public notice for this draft permit was posted on August 24, 2016. The Division is posting a second public notice due to a technical error that resulted in publishing of the notice in the incorrect newspaper. Please review this draft carefully to ensure thorough understanding of the conditions and requirements it contains. There are several changes from the existing permit, including the following:

- Effluent Limits and Monitoring Requirements were added for outfall 002 for the dewatering phase of the ash pond.
- Outfall 001 was reinstated in the permit to monitor the discharge of seeps and stormwater.
- Monitoring for beryllium, vanadium, antimony and silver were eliminated for outfall 010.
- Outfall 011 was added to the permit for the discharge of a proposed FGD treatment system.
- Limits for arsenic, selenium, mercury and nitrate/nitrite were added for outfall 010 and 011 as per 40 CFR 423.
- Special condition A. (8) Effluent Limits and Monitoring Requirements (Outfall 008) was added for the expansion of the wastewater treatment system to 0.025 MGD.
- The NC 2007-2014 Water Quality Standard (WQS) Triennial Review was approved by the NC Environmental Management Commission (EMC) on November 13, 2014. The US EPA subsequently approved the WQS revisions on April 6, 2016 with some exceptions, one being the disapproval of action level policy for permitting silver, copper and zinc. In addition, the total metal aquatic life criteria for chromium, iron, and manganese were deleted from the NC water quality standards rules.

The NC Division of Water Resources NPDES Permitting Unit is required to implement the new dissolved metal standards in all permits public noticed after April 6, 2016. The new standards for most metals include acute standards. Further, the freshwater standards for several metals are expressed as the dissolved form of the metals, and seven metals have hardness-dependent equations. The permit includes the requirement to sample for hardness at instream stations 4C and 4D.

- A reasonable potential analysis (RPA) was performed for outfall 003 utilizing the new standards. As a result of the RPA the following changes were incorporated to the permit:
 - Monthly monitoring for total arsenic, total thallium, and chloride.
- Special Condition A. (14) was eliminated from the permit. The cooling water blowdown can be discharged to the ash pond or to the discharge canal.
- Special Condition A. (28) was added to the permit regarding the submittal of all the required information under 40 CFR 125.95 with the next permit application.
- Special Condition A. (31) was added to the permit describing requirements for electronic submittal of all discharge monitoring reports (DMRs).
- The following special conditions were added to the permit to be consistent with other Duke Energy permits: A. (21) Applicable State Law, A. (22) PCB Prohibition, A. (26) Ash Pond closure, A. (30) Biocides, A. (32) Additional Conditions and Definitions.

This draft permit includes the following modifications from the draft issued in October:

- Supplement to Cover Sheet was revised to include three new outfalls, two for proposed low volume waste treatment systems and one for the overflow from one of the treatment basins. Outfalls 012A and 012B replace outfall 012. Outfall 012C is the overflow from basin 012B.
- Condition A. (2) Effluent Limitations and Monitoring Requirements for the ash basin – monitoring was added for arsenic, molybdenum, and chromium. In addition, a statement was added with the requirement to use physical/chemical treatment during dewatering.
- Condition A. (2) & A. (3) Effluent Limitations and Monitoring Requirements for the ash basin– Statement regarding no discharge of fly ash was modified to read that no discharge of fly ash is allowed. The statement pertaining to the schedule of compliance with the ELG for zero discharge of bottom ash was corrected to read April 30, 2021 instead of November 1, 2018.
- Condition A. (10) & A. (11) Effluent Limitations and Monitoring Requirements for the FGD - footnote 3 was corrected to read December 31, 2023.
- Turbidity sampling was eliminated from internal outfall 002. Turbidity monitoring is included at outfall 003.
- Condition A. (6) Effluent Limitations and Monitoring Requirements outfall 006:
 - Oil and Grease limits were added since it discharges truck wash waters.
 - The RPA was revised, as a result limits for total selenium were added.
- Condition A. (4) Effluent Limitations and Monitoring Requirements for outfall 003:
 - Footnote 4 was modified to include a statement regarding the addition of temperature limits if the facility is not in compliance with the temperature water quality standard.
 - Reporting of the temperature at the after bay station was added to the monitoring requirements for outfall 003, reporting of temperature at 4C, 4D was eliminated.
 - The RPA was revised and limits for thallium were added.
- Condition A. (18) Temperature Requirements - temperature reporting requirements were modified.
- Condition A. (8) Effluent Limitations and Monitoring Requirements for outfall 008 – monitoring requirements were modified to require quarterly monitoring for one year after the new plant start operations, annual monitoring is required after one year of quarterly monitoring.
- Two new internal outfalls (Outfall 012A and 012B) were added to the permit for the two proposed retention basins for the treatment of low volume wastes that are now sent to the ash basin. Duke will build two separate wastewater treatment systems to handle the wastes that go to the ash pond. These ponds will be in different locations within the site and will require each a separate outfall into the effluent channel.
- A table including a list of the seeps locations was added to Condition A. (15).

Concurrent with this notification the Division is publishing a notice in a newspaper having circulation in the general Person County area, soliciting public comments on this permit draft. Please provide any

comments you may have to the DEQ - DWR, NPDES Program no later than 30 days after receiving this draft permit.

Following the 30-day public comment period, the Division will review all pertinent comments and take appropriate action prior to issuing a final permit. If you have questions concerning this draft permit, please call me at (919) 807-6387 or by email at teresa.rodriguez@ncdenr.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Teresa Rodriguez", with a stylized flourish at the end.

Teresa Rodriguez
NPDES Complex Permitting Unit

cc: NPDES Files
EPA Region 4 (e-copy)
Raleigh Regional Office / Water Quality Program (e-copy)
Raleigh Regional Office / Public Water Supply (e-copy)