

Fact Sheet

NPDES Permit No. NC0003433

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Date: May 27, 2020

Division/Branch: NC Division of Water Resources/NPDES Complex Permitting

Fact Sheet Template: Version 09Jan2017

Permitting Action:

- Renewal
- Renewal with Expansion
- New Discharge
- Modification (Fact Sheet should be tailored to mod request)

Note: A complete application should include the following:

- For New Dischargers, EPA Form 2A or 2D requirements, Engineering Alternatives Analysis, Fee
- For Existing Dischargers (POTW), EPA Form 2A, 3 effluent pollutant scans, 4 2nd species WET tests.
- For Existing Dischargers (Non-POTW), EPA Form 2C with correct analytical requirements based on industry category.

Complete applicable sections below. If not applicable, enter NA.

1. Basic Facility Information

Facility Information	
Applicant/Facility Name:	Duke Energy Progress LLC – Cape Fear Steam Electric Plant
Applicant Address:	500 CP&L Road, Moncure, NC 27599
Facility Address:	500 CP&L Road, Moncure, NC 27599
Permitted Flow:	Outfall 007 – 0.73 MGD Daily Maximum Outfall 008 – 0.72 MGD Daily Maximum Outfall 009 – 0.005 MGD Daily Maximum
Facility Type/Waste:	100% Industrial (Ash basin clean up, remediation)
Facility Class:	Grade I Physical Chemical WPCS
County:	Chatham
Region	Raleigh

Briefly describe the proposed permitting action and facility background: Duke Energy Progress LLC (Permittee) has requested a permit modification and submitted a modification request on March 17, 2020. The permit is being modified to add an Emergency Spillway for the 1963/1970 inactive ash basin. The new Emergency Spillway will be designated as Outfall 008B, it will be adjacent to Outfall 008A. The monitoring will be waived due to unsafe conditions associated with sampling during an overflow event. The location of new Outfall is described in Table 2.

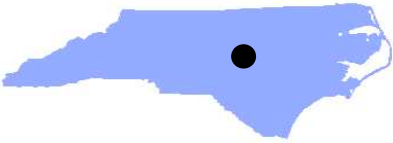
Table 2. Outfall 008B Location

Coordinates
Latitude: 35°34'57.37" N
Longitude: -79°02'57.50" W

The new Emergency Spillway is needed to comply with the new Dam Safety regulations for ash basin dams passed in April 2019. The current regulatory design storm has been updated from 0.5 Probable Maximum Flood (PMF) to the full PMF. The full PMF equates to 27.5 inches of rainfall in 6-hour period. In order to safely pass the full PMF a new auxiliary emergency overflow spillway is required to be constructed to release stormwater to the Cape Fear River.

2. Receiving Waterbody Information:

Table 3.

Receiving Stream		Index	7Q10s (cfs)	QA (cfs)	IWC (7Q10s)
Outfall 007 – Unnamed tributary to Cape Fear River		18-(1)	0	0	100%
Outfalls 008 – Cape Fear River		18-(1)	65	3,170	1.7%
Outfall 009 – Cape Fear River		18-(1)	65	3,170	0.012%
Outfall 008A – Cape Fear River					
Outfalls 001 & 005– Internal Outfalls					
Stream Classification:	WS-IV	Regional Office:	Raleigh		
303(d) Listed?:	No	USGS Topo Quad:	E22SE Moncure, NC		
HUC No.:	03030002	Permit Writer:	Sergei Chernikov, Ph.D.		
Subbasin:	03-06-07	Date:	May 27, 2020		
Cape Fear River Stream Statistics – 2016					
Drainage (mi ²):	-				
Summer – 7Q10 (cfs):	65 ¹				
Winter – 7Q10 (cfs):	89 ¹				
30Q2 (cfs):	150 ¹				
QA (cfs):	3,170 ¹				

1. Based on USGS recommendation and data

3. Instream Monitoring

Instream monitoring may be required in certain situations, for example: 1) to verify model predictions when model results for instream DO are within 1 mg/l of instream standard at full permitted flow; 2) to verify model predictions for outfall diffuser; 3) to provide data for future TMDL; 4) based on other instream concerns. Instream monitoring may be conducted by the Permittee, and there are also Monitoring Coalitions established in several basins that conduct instream sampling for the Permittee (in which case instream monitoring is waived in the permit as long as coalition membership is maintained).

If applicable, summarize what instream monitoring will be proposed for this permit action: The current permit requires instream monitoring for total arsenic, total selenium, total mercury, total chromium, dissolved lead, dissolved cadmium, dissolved copper, dissolved zinc, total bromide, total hardness (as CaCO₃), temperature, turbidity, and total dissolved solids (TDS) at locations specified in Table 4:

Instream sampling location descriptions are shown in Table 4.

Table 4. Instream Sampling Locations Description

Instream Sample Description	Location
Upstream Outfall 008	0.9 miles upstream from Outfall 008A in Cape Fear River
Downstream Outfall 008	Approximately 250 meters downstream from Outfall 008 in Cape Fear River

Is this facility a member of a Monitoring Coalition with waived instream monitoring (Y/N): **NO**

Name of Monitoring Coalition: **NA**

4. Antidegradation Review (New/Expanding Discharge):

The objective of an antidegradation review is to ensure that a new or increased pollutant loading will not degrade water quality. Permitting actions for new or expanding discharges require an antidegradation review in accordance with 15A NCAC 2B.0201. Each applicant for a new/expanding NPDES permit must document an effort to consider non-discharge alternatives per 15A NCAC 2H.0105(c)(2). In all cases, existing instream water uses and the level of water quality necessary to protect the existing use is maintained and protected.

If applicable, describe the results of the antidegradation review, including the Engineering Alternatives Analysis (EAA) and any water quality modeling results: **NA**

5. Antibacksliding Review:

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding of effluent limitations in NPDES permits. These provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed (e.g., based on new information, increases in production may warrant less stringent TBEL limits, or WQBELs may be less stringent based on updated RPA or dilution).

Are any effluent limitations less stringent than previous permit (YES/NO): **NO**

If YES, confirm that antibacksliding provisions are not violated: **NA**

6. Summary of Proposed Permitting Actions:

A proposed new outfall 008B (emergency spillway) was added to the permit.

7. Public Notice Schedule:

Permit to Public Notice: 06/08/2020

Per 15A NCAC 2H .0109 & .0111, The Division will receive comments for a period of 30 days following the publication date of the public notice. Any request for a public hearing shall be submitted to the

Director within the 30 days comment period indicating the interest of the party filing such request and the reasons why a hearing is warranted.

8. Fact Sheet Addendum (if applicable):

Were there any changes made since the Draft Permit was public noticed (Yes/No):

If Yes, list changes and their basis below:

9. Fact Sheet Attachments (if applicable): **NA**