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Certified Mail # 7008 1830 0003 8422 0224 (2 copies)

File No.: 13580-C

June 2, 2011

US Environmental Protection Agency (5304P)  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Subject: Carolina Power & Light Co. d/b/a Progress Energy Carolinas, Inc. (Progress Energy)  
Sutton Steam Electric Plant Ash Pond Embankment  
Comments on DRAFT Coal Combustion Residue Impoundment Dam Assessment Report

Dear Mr. Stephen Hoffman:

Thank you for the opportunity to review and provide comments on the subject report. As you may recall, the coal fired generation units at this facility are scheduled to be retired by January 2014. Plans are currently being developed to identify steps necessary to adequately close the ash pond after it is no longer used. The following comments are offered for consideration and inclusion in the final report.

#### **TITLE PAGE**

- (1) The company name should read *Progress Energy Carolinas, Inc.*

#### **PURPOSE AND SCOPE**

- (2) Page ii, first paragraph, parenthetical reference  
Please change reference to read: "(For Classification, see pp. 3-8 of the **FEMA 2004 Federal Guidelines for Dam Safety.**)".

#### **PART 1.0 CONCLUSIONS AND RECOMMENDATIONS**

- (3) Page 1-1, Section 1.1.5, second sentence  
The 1971 Ash Pond is **active**. Although this pond does not receive ash sluice continuously, it is a NPDES-permitted pond that receives coal ash sluice water.
- (4) Page 1-2, Section 1.1.5  
The overflow topped the exterior dike. No interior dikes were involved. Reword the first two sentences to read: "In September of 2010, an intense local rainfall event of approximately 20 inches caused minor overflow of the 1984 Ash Pond primary dike leading to down cut erosion along the dike exterior."
- (5) Page 1-2, Section 1.1.5  
The dike has been permanently repaired and repair approved by NCDENR.
- (6) Page 1-2, Section 1.1.8  
Dewberry indicated that the FAIR rating is based on the lack of sufficient engineering data. All requested data was provided. The statements in Sections 1.1.3 and 6.2 also state that the supporting documentation is adequate. Progress Energy requests that this rating be reassessed.

Progress Energy Carolinas, Inc.  
Sutton Steam Plant  
801 Sutton Steam Plant Road  
Wilmington, NC 28401

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- (7) Page 1-2, Section 1.3  
Please add Mr. Kent Tyndall, Progress Energy, to the List of Participants.

#### **PART 2.0 DESCRIPTION OF THE COAL COMBUSTION RESIDUE MANAGEMENT UNIT**

- (8) Page 2-2, Section 2.1, Figure 2.1b  
The labeling for the two ash ponds was reversed. Further, the second pond should be labeled as the "1984 Ash Pond" not 1983.
- (9) Page 2-2, Section 2.2.1, first sentence  
Please delete the wording "at the base of the stack."
- (10) Page 2-4, Section 2.3, second sentence  
The 1971 Ash Pond is an active pond. Please correct.

#### **PART 3.0 SUMMARY OF RELEVANT REPORTS, PERMITS, AND INCIDENTS**

- (11) Page 3-1, third bullet  
Delete bullet. The 1971 is active and the exterior slopes of this pond are routinely inspected.
- (12) Page 3-2, Section 3.2, first sentence  
The overflow topped the exterior dike. No interior dikes were involved. Reword the first two sentences to read: "In September of 2010, an intense local rainfall event of approximately 20 inches caused minor overflow of the 1984 Ash Pond primary dike leading to down cut erosion along the dike exterior."
- (13) Page 3-2, Section 3.2, last sentence  
Permanent repair was completed and was approved by NCDENR.

#### **PART 4.0 SUMMARY OF HISTORY OF CONSTRUCTION AND OPERATION**

- (14) Page 4-1, Section 4.2.1, first sentence  
We request the word "reservoir" be removed from this sentence. This term may cause confusion with other reservoirs used by the company that have different purposes.
- (15) Page 4-1, Section 4.2.1, first sentence  
Delete the term "fly". Both fly and bottom ash is sluiced to one or both of the ash ponds.
- (16) Page 4-1, Section 4.2.1, second sentence  
Delete "Ash Pond facility" and replace with "facility" to indicate the power plant.
- (17) Page 4-1, Section 4.2.1, second sentence  
We request the word "reservoir" be removed from this sentence. Use "ash pond" instead. This term may cause confusion with other reservoirs used by the company that have different purposes.
- (18) Page 4-1, Section 4.2.1, last sentence  
Delete "and stormwater runoff" from this sentence.
- (19) Page 4-1, Section 4.2.1, last sentence  
Change the word "unregulated", which has defined permitting connotations to "passive".

#### **PART 5.0 FIELD OBSERVATIONS**

- (20) Page 5-1, Section 5.2, heading  
The 1971 Ash Pond is an active pond. Please correct.

- (21) Pages 5-1, Section 5.2.1, photograph  
This photograph was taken along the 1984 ash pond.
- (22) Pages 5-2, Section 5.2.2, photograph  
This photograph was taken along the 1984 ash pond. The work conducted in this area was to repair the small overflow from the 1984 pond.
- (23) Pages 5-3, Section 5.2.3, top photograph  
This photograph was taken along the 1984 ash pond. The work conducted in this area was to repair the small overflow from the 1984 pond.
- (24) Page 5-4, Section 5.3.1  
Increased vehicular traffic, especially in the area of the overflow repair, contributed to the rutting. At construction completion, the roadway was restored.
- (25) Page 5-4, Section 5.3.2, first sentence  
Please delete "and other wetland vegetation."
- (26) Page 5-5, Section 5.3.3, top photograph  
The rill erosion was along the downstream slope of the internal dike of the 1984 Ash Pond.

#### **PART 7.0 STRUCTURAL STABILITY**

- (27) Page 7-7, Section 7.1.5  
Liquefaction documentation was not requested.

#### **9.0 ADEQUACY OF SURVEILLANCE AND MONITORING PROGRAM**

- (28) Page 9-1, Section 9.1  
In addition to the annual inspection by Progress Energy, NCDENR conducts an annual inspection.

We certainly appreciate your attention to this matter. If there are any regulatory questions or requests for additional information, please contact Robin Bryson, Environmental Specialist at our corporate office at (919) 546-3962 or robin.bryson@pgnmail.com. For any questions concerning technical aspects of the plan, please contact Rob Miller, Engineer at our corporate office at (919) 881-3849 or Robert.Miller2@pgnmail.com.

Sincerely,



J. Mark Frederick, Plant Manager  
Sutton Steam Electric Plant

JMF/rb

c: Robin Bryson  
Rob Miller



## NOTE

Subject: EPA Comments on Progress Energy Carolinas Inc, L. V. Sutton Power Station, Wilmington, NC  
Round 9 Draft Assessment Report

To: File

Date: September 19, 2011

1. On p. ii, INTRODUCTION, SUMMARY CONCLUSIONS AND RECOMMENDATIONS, second paragraph, replace “As detailed in Section 1.2.5” with “As detailed in Section 1.2.2.”
2. On p. 1-2, section 1.1.5, replace “schedule” with “scheduled.”
3. LV Sutton has a 1983 Pond as well as a 1984 Pond. There are numerous referenced throughout the report on the 1983 Pond. On p. 2-2, the figure shows the 1983 Pond, where is the 1984 Pond? On p. 42 of the document (MACTEC Information Summary dtd January 25, 2011) Item 1 refers to a 1983 Pond and a 1984 Pond. Item 2 has a foot note indicating that “the 1983 pond is listed as the 1971 ash pond in the NC Dam Inventory.” If this is the case throughout the report, it needs to be addressed right upfront in the Introduction section. Please ensure that any reference to a 1983 Pond is actually referring to the 1971 Pond and not the 1984 Pond.
4. On p. 2-6, section 2.6, the report states: “There are numerous roads, businesses, schools, places of worship, and other critical areas within the 5-mile radius of the plant.” With so many critical structures within a 5 mile radius mentioned, in addition to the statement made on p. 6.2, section 6.1.4: “A dam breach analysis and inundation map development was performed for the site and the result was that there could potentially be commercial properties affected if a breach occurred on the east side of the ash ponds,” one might suggest entertaining a “significant” potential hazard rating?
5. On p. 1-2, section 1.1.5 and p. 3-2, section 2.2, the report states that a repair is scheduled to be implemented in 2011. When in 2011?
6. On p. 4-1, section 4.1.1, second paragraph. It is presumed that the 1984 Pond was constructed in 1984, but it is not actually stated in the report when it was constructed.
7. On p. 7-2, Table 4a, in the title, the use of 1971/1983 Ash Pond is confusing. See comment number 3.
8. On p. 7-8, section 7.3 ASSESSMENT OF STRUCTURAL STABILITY, the statement made in this section: “Overall, the structural stability of the dam appears to be satisfactory.” is contradictory to the condition rating of fair for both ponds.

9. Please label or identify each appendix document with a cover sheet so the reader knows which document they are reading as they go through the appendix, without having to continue to scroll up to the table of contents.
10. Remove the blank pages – p. 267, p. 269, p. 277, p. 283, p. 291, p. 293 of document.
11. The following was not addressed in the report for either pond: “Is any part of the impoundment built over wet ash, slag, or other unsuitable materials (like TVA)?” Please address for each Pond.

## MEMORANDUM

TO: Jana Englander

FROM: Jerry Strauss

CC:

Date: December 09, 2011

SUBJECT: PEC, L.V. Sutton, Response to Comments

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### EPA Comments:

- Both Ash Ponds are now rated Satisfactory, since our geotechnical engineers agree that a 1.46 Factor of Safety would be rounded to 1.5 for comparison with the standards and therefore does meet minimum Factors of Safety.
- There are 2 Ponds: 1971 Ash pond (referred to in several State docs as 1983 Ash Pond) and the 1984 Ash Pond. This has been noted in the Introduction and corrected throughout the document.
- Dike Hazard Ratings: now rated as Significant. Checklists changed to agree with this rating.
- Repairs completed March 29, 2011. Cited in the report.
- Editorial changes made.

### Utility Comments:

- In their responses and on their letterhead they refer to themselves as Progress Energy. The utility asked that *Progress Energy Carolinas, Inc.* be cited on the cover.
- Rating: see 1<sup>st</sup> EPA Comment above.
- Photos re-titled and moved as appropriate.
- Editorial changes completed.