

US EPA ARCHIVE DOCUMENT

ROXBORO POWER STATION - Semora, NC

	Ash Pond	FGD Settling Pond	FGD Flush Pond
INFORMATION REQUEST	RESPONSE	RESPONSE	RESPONSE
1. Relative to the National Inventory of Dams criteria for High, Significant, Low, or Less-than-Low Hazard Potential, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is, and what federal or state agency regulates the unit(s). If the unit(s) does not have a rating, please note that fact.	Hazard Classification – Significant. A professional engineering firm established the rating based on USCOE guidelines and NCDENR Regulations. The unit is under the purview of the North Carolina Utilities Commission.	Using the National Inventory of Dams criteria we rate the unit Significant.	Using the National Inventory of Dams criteria we rate the unit Significant.
2. What year was each management unit commissioned and expanded?	The original pond was commissioned in 1973. The dam was raised in 1986.	In 2008 a FGD settling pond was constructed within the boundary of the ash pond.	In 2008 a FGD flush pond was constructed within the boundary of the ash pond.

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3. What materials are temporarily or permanently contained in the unit? Use the following categories to respond to this question: (1) fly ash; (2) bottom ash; (3) boiler slag; (4) flue gas emission control residuals; (5) other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other," please specify the other types of materials that are temporarily or permanently contained in the unit(s).	The unit contains fly ash, bottom ash, boiler slag, Other- ash sluice water, storm water, categorical low volume.	The unit contains Flue Gas Desulfurization residuals/wastewater.	The unit contains Flue Gas Desulfurization residuals/wastewater from backflushing the wastewater treatment unit .
4. Was the management unit(s) designed by a Professional Engineer? Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?	The unit was designed by a professional engineer. The construction was under the supervision of a professional engineer. Some inspections are under the supervision of a professional engineer, some are not. See response to item 5. below.	The unit was designed by a professional engineer. The construction was under the supervision of a professional engineer. Current inspections are under the supervision of a professional engineer. The berms are inspected five to seven days per week. Attached is an example inspection form.	The unit was designed by a professional engineer. The construction was under the supervision of a professional engineer. The unit is currently de-constructed and will undergo a rebuild in near future.

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5. When did the company last assess or evaluate the safety (i.e., structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?	<p><u>Monthly</u> inspections that include visual inspections and data gathering to detect any problems at an early stage of development are conducted by plant personnel. Attached is a copy of the most recent inspection report available.</p> <p>Actions or planned: None taken or planned.</p>	<p>The company last conducted a comprehensive inspection in 2008. The engineering firms that conducted the inspections have expertise in geotechnical and civil engineering. Actions taken: lower the operating level of the pond. It was further determined that the pond should be taken off line and possibly rebuilt using a different lining. A new pond located adjacent to the existing pond is under design.</p>	<p>The company last conducted a comprehensive inspection in 2008. The engineering firms that conducted the inspections have expertise in geotechnical and civil engineering. Actions taken: take the unit off line, de-construct it and reconstruct with different liner. These activities are underway.</p>

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	<p><u>Annual</u> inspections are conducted by a third-party professional engineering contractor. The engineering firms that conduct the inspections have expertise in geotechnical and civil engineering. Attached is the most recent annual inspection report which is also the five year report.</p>	<p>This unit will be incorporated into the company's procedure for a weekly/monthly, annual, and five year inspection program.</p>	<p>This unit will be incorporated into the company's procedure for a weekly/monthly, annual, and five year inspection program.</p>

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Comprehensive <u>five-year</u> inspections are conducted by a third-party professional engineering contractor. The engineering firms that conduct the inspections have expertise in geotechnical and civil engineering. Attached is the most recent comprehensive inspection dated 2008. Actions taken or planned: EMBANKMENT STRUCTURES - Drain outlet channels at the toe of the dam will require regular maintenance to clear vegetation and sediment. This should be done every two years. Continue vegetation control program. Continue observation at east end of dam where seepage has been observed on occasion. Place rip rap where needed to retard erosion.		This unit will be incorporated into the company's procedure for a weekly/monthly, annual, and five year inspection program.	This unit will be incorporated into the company's procedure for a weekly/monthly, annual, and five year inspection program.

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6. When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is planning the inspection or evaluation. Please provide a copy of the most recent official inspection report or evaluation.	The North Carolina Utilities Commission requires a five year inspection report. We are not aware of any planned inspections by state or federal officials. Refer to the five year report submitted in response to item 5 above for the most recent official report.	In 2008 a state dam safety inspector visited the site and concurred with the company findings. The company is not aware of any planned state or federal inspections in the future. A copy of the state's inspection report is attached.	In 2008 a state dam safety inspector visited the site and concurred with the company findings. The company is not aware of any planned state or federal inspections in the future. A copy of the state's inspection report is attached.
7. Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or are being taken to deal with the issue or issues. Please provide any documentation that you have for these actions.	There have been no inspections conducted by state or federal official that evaluated the structural integrity other than a visual observation by NPDES inspectors. There have been no follow-up actions.	Refer to item five and six above.	Refer to item five and six above.

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8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s). Please provide the date that the volume measurement was taken. Please provide the maximum height of the management unit(s). The basis for determining maximum height is explained later in this Enclosure.	The surface area is approximately 240 acres. The total storage capacity is approximately 4,800 acre-feet. The volume of material currently stored is approximately 4,526 acre-feet and was estimated in March 2007. The maximum height is 70 feet.	The surface area is approximately 16.6 acres. The total storage capacity is approximately 419.5 acre-feet. The volume of material (wastewater) currently stored is approximately 103 acre-feet and was determined on March 19, 2009. The maximum height is 32 feet.	The surface area is approximately 3 acres. The total storage capacity is approximately 53 acre-feet. No material is currently stored in the unit. The maximum height is 33 feet.
9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater).	There have been no known spills or releases	2008 - Wastewater from the unit was diverted to the adjacent ash pond for a two week period in order to lower the operating level. This activity was reported to the state regulatory agency.	2008 - Pond dike experienced a breach with contents being released to adjacent ash pond. Incident was reported to state regulatory agency.

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10. Please identify all current legal owner(s) and operator(s) at the facility.	The Roxboro Power Station consists of four generation units. Units 1, 2, & 3 are owned by Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. Unit 4 has 12.94% ownership by the North Carolina Eastern Municipal Power Agency (NCEMPA). Roxboro Common has 3.77% ownership by the NCEMPA.	The Roxboro Power Station consists of four generation units. Units 1, 2, & 3 are owned by Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. Unit 4 has 12.94% ownership by the North Carolina Eastern Municipal Power Agency (NCEMPA). Roxboro Common has 3.77% ownership by the NCEMPA.	The Roxboro Power Station consists of four generation units. Units 1, 2, & 3 are owned by Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. Unit 4 has 12.94% ownership by the North Carolina Eastern Municipal Power Agency (NCEMPA). Roxboro Common has 3.77% ownership by the NCEMPA.