NCDENR
North Carolina Department of Environment and Natural Resources
Division of Energy, Mineral, and Land Resources
Land Quality Section

Tracy E. Davis, PE, CPM
Director

Pat McCrory, Governor
John E. Skvarla, III, Secretary

March 11, 2014

Notice of Inspection

Duke Energy
ATTN: Ms. Kimberlee Hutchinson
526 South Church Street ECI-013
Charlotte, North Carolina 28202

RE: H.F. Lee Power Station Cooling Lake Dam
Wayne-009 High
County: Wayne
River Basin: Neuse

Dear Sir or Madam:

The "Dam Safety Law of 1967, as amended" provides for the certification and inspection of dams in the interest of public health, safety, and welfare, in order to reduce the risk of failure of such dams; to prevent injuries to persons, damage to property; and to insure the maintenance of stream flows.

Our records indicate you are the owner of the referenced dam, which was inspected by personnel of the Land Quality Section on February 25, 2014. This inspection found no apparent problems with the dam.

During this inspection we also investigated the potential for property damage and loss of life in the event your dam fails. This investigation determined that failure of your dam could result in severe property damage and/or possible loss of life downstream. Therefore, we are listing your dam in the "High Hazard" category.

As a reminder, the Division of Energy, Mineral, and Land Resources must approve any excavation, modification, or major repair of the dam. Draining the lake by cutting a notch in the dam, or otherwise breaching the dam, without prior approval, is a violation of State Law.

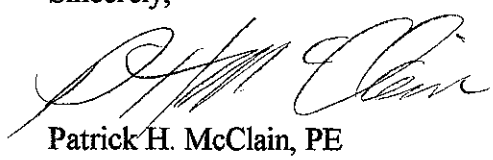
The "Dam Operation Maintenance and Inspection" manual published by this Department provides inspection guidelines and recommended routine dam maintenance for the owner and emergency procedures in the event of possible dam failure. A copy of this manual is available online at http://portal.ncdenr.org/web/lr/dams.

Although we make every reasonable effort to determine the safety of your dam, our resources limit us to a visual inspection. We hope that you will use the information provided in this letter as you fulfill your obligation to safely maintain and operate your dam. Dams are constantly changing, their spillways and conduits deteriorate and the dam itself is under constant pressure. Therefore, you should keep a close watch on your dam and notify us if you detect any changes, especially cracks, ground movements, or changes in seepage rate or color.

In the event that a possible problem is found, you should contact a registered professional engineer and this office to inspect the dam. To assist us in keeping our records up-to-date so we may serve you better, please notify us concerning any changes in ownership or contact information. Your cooperation in this effort is greatly appreciated.

If you have an emergency situation during non-office hours, you should notify the Division of Emergency Management's State Warning Point at 1-800-662-7956. They will notify the appropriate personnel in this office of the situation. Should you have any questions concerning this inspection, please contact me at (252) 946-6481 during normal office hours.

Sincerely,



Patrick H. McClain, PE
Regional Engineer

PHM:

cc: Mr. Steve McEvoy, PE, State Dam Safety Engineer
File

DAM SAFETY INSPECTION REPORT

Name	County	No.	Inspected By	Date
H.F Lee Power Station Cooling Lake Dam	Wayne	009	G. Novak, P. McClain, C. Pullinger	2/25/2014

Owner	Address	Phone No.
Progress Energy Carolinas, Inc./Mr. Fred Hoff, c/o Duke Energy Progress/ Ms. Kimberlee Hutchinson	526 South Church Street, ECI-013 Charlotte, NC 28202	919-722-6491

Type of Dam ☐Concrete Gravity ☐Concrete Arch ☐Other ☒Embankment ☐Concrete Buttress ☐Stone Masonry

Type of Inspection ☐Initial ☐Follow up ☒Periodic ☐Other

Site Conditions ☒Wet ☐Dry ☐Snow Cover ☐Other

Hazard Description

Condition Assessment ☒Satisfactory ☐Fair ☐Poor ☐Unsatisfactory ☐Not rated

Hazard Class ☐Low (A) ☐Intermediate (B) ☒High (C)

Remarks
accompanied by Mr. Ricky Miller and Max Gardner - Duke Energy Progress. Lake not discharging from concrete spillway. No Problems observed.

Action ☒None ☐Maintenance ☐Monitoring ☐Minor Repair ☐Engineering

Recommendations ☑Inspection letter ☐Deficiency letter ☐RE notice ☐Engineering study ☐Inspection by RE ☐Inspection by DSE ☐Dam safety order ☐Enforcement ☐Periodic reinspection ☐Other reinspection

AREA	PROBLEMS	COMMENTS
UPSTREAM SLOPE / FACE	☒1. None ☐2. Trees ☐3. High bushes ☐4. Burrows ☐5. Wave erosion ☐6. Livestock damage ☐7. Slides ☐8. Depressions ☐9. Bulges ☐10. Sparse rip rap ☐11. Displaced rip rap ☐12. Cracks ☐13. Undermining ☐14. Holes ☐15. Spalling ☐16. Displaced joints ☐17. Deteriorated joints ☐18. Exposed reinforcement ☐19. Other	COVER: ☒Vegetation ☐Rip rap ☐Concrete ☒Asphalt ☐Other Rip rap being added near spillway
TOP OF DAM	☒1. None ☐2. Trees ☐3. High bushes ☐4. Burrows ☐5. Ruts ☐6. Livestock damage ☐7. Depressions ☐8. Unlevel ☐9. Misalignment ☐10. Has overtopped ☐11. Cracks ☐12. Spalling ☐13. Deteriorated joints ☐14. Displaced joints ☐15. Exposed reinforcement ☐16. Other	COVER: ☒Vegetation ☐Gravel ☐Concrete ☐Asphalt ☐Other accessible by vehicle
DOWNSTREAM SLOPE / FACE	☒1. None ☐2. Trees ☐3. High bushes ☐4. Burrows ☐5. Erosion ☐6. Livestock damage ☐7. Slides ☐8. Depressions ☐9. Bulges ☐10. Wetness ☐11. Seepage ☐12. Boils ☐13. Cracks ☐14. Holes ☐15. Spalling ☐16. Displaced joints ☐17. Deteriorated joints ☐18. Exposed reinforcement ☐19. Other	COVER: ☒Vegetation ☐Rip rap ☒Concrete ☐Other
TOE CONTACT	☒1. None ☐2. Trees ☐3. High bushes ☐4. Burrows ☐5. Erosion ☐6. Livestock damage ☐7. Slides ☐8. Depressions ☐9. Bulges ☐10. Wetness ☐11. Seepage ☐12. Boils ☐13. Cracks ☐14. Holes ☐15. Spalling ☐16. Displaced joints ☐17. Deteriorated joints ☐18. Exposed reinforcement ☐19. Other	COVER: ☒Vegetation ☐Rip rap ☐Concrete ☐Other

AREA	PROBLEMS		COMMENTS
ABUTMENT CONTACTS	☒1. None ☐2. Trees ☐3. High bushes ☐4. Burrows ☐5. Erosion ☐6. Livestock damage ☐7. Slides ☐8. Depressions ☐9. Bulges ☐10. Wetness	☐11. Seepage ☐12. Boils ☐13. Cracks ☐14. Holes ☐15. Spalling ☐16. Displaced joints ☐17. Deteriorated joints ☐18. Exposed reinforcement ☐19. Undermining ☐20. Other	COVER: ☒Vegetation ☐Rip rap ☐Concrete ☐Other
PRINCIPAL SPILLWAY	☒1. None ☐2. No trashguard ☐3. Obstructed ☐4. Plugged ☐5. Rusted ☐6. Damaged ☐7. Gates leaking ☐8. Joints leaking ☐9. Cracks ☐10. Joint deterioration	☐11. Joint displacement ☐12. Undermined ☐13. Voids ☐14. Erosion ☐15. Holes ☐16. Conduit collapsed ☐17. Spalling ☐18. Outlet undercutting ☐19. Misalignment ☐20. Other	TYPE/SIZE: No problems observed
EMERGENCY SPILLWAY	☒1. None ☐2. No ES ☐3. Same as ES ☐4. Obstructed ☐5. Erosion ☐6. Displaced rip rap ☐7. Sparse rip rap ☐8. Joints leaking ☐9. Cracks ☐10. Joint deterioration	☐11. Joint displacement ☐12. Undermined ☐13. Voids ☐14. Holes ☐15. Exposed reinforcement ☐16. Spalling ☐17. Outlet erosion ☐18. Misalignment ☐19. Inadequate capacity ☐20. Other	TYPE/SIZE:
DRAINS/OTHER OUTLETS	☒1. None ☐2. No bottom drain ☐3. Bottom drain inoperable ☐4. Subsurface drain dry ☐5. Subsurface drain muddy flow ☐6. Subsurface drain obstructed ☐7. No animal guard ☐8. Other		TYPE:

SKETCHED/COMMENTS: