



APR 22 2003

SERIAL: HNP-03-043

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
ANNUAL ENVIRONMENTAL (NON-RADIOLOGICAL) OPERATING REPORT

Ladies and Gentlemen:

In accordance with Section 5.4.1 of the Environmental Protection Plan issued as Appendix B to the Operating License (NPF-63) for the Harris Nuclear Plant, Progress Energy Carolinas, Inc. (also known as Carolina Power & Light Company) provides the enclosed Annual Environmental (Non-Radiological) Operating Report for 2002.

If you have any questions regarding this information, please contact me at (919) 362-3137.

Sincerely,

A handwritten signature in cursive script, reading 'John R. Caves'.

J. R. Caves
Supervisor – Licensing/Regulatory Programs
Harris Nuclear Plant

MGW

Enclosure

c: Mr. J. B. Brady (NRC Senior Resident Inspector, HNP)
Mr. C. P. Patel (NRR Project Manager, HNP)
Mr. L. A. Reyes (NRC Regional Administrator, Region II)

Handwritten initials 'IE25' in a stylized, cursive font.

SHEARON HARRIS NUCLEAR POWER PLANT

UNIT 1

**ANNUAL ENVIRONMENTAL
(NONRADIOLOGICAL)
OPERATING REPORT**

January 1- December 31, 2002

PROGRESS ENERGY CAROLINAS, INC.

Docket No. 50-400

Facility Operating License No. NPF-63

Appendix B

1.0 INTRODUCTION

Carolina Power & Light Company (CP&L) received a low-power Facility Operating License (No. NPF-53) and full-power Facility Operating License (No. NPF-63) for the Shearon Harris Nuclear Power Plant (SHNPP), Unit 1, from the U.S. Nuclear Regulatory Commission (NRC) on October 24, 1986, and January 12, 1987, respectively. Appendix B (the Environmental Protection Plan [nonradiological]) of the full-power license requires submittal of an Annual Environmental (nonradiological) Operating Report to the NRC describing the implementation of the plan during the previous year. The purpose of this document is to fulfill the requirement for the period January 1-December 31, 2002.

On January 1, 2003, Carolina Power & Light Company adopted the brand name Progress Energy Carolinas, Inc.

2.0 PLANT CONSISTENCY REQUIREMENTS

[EPP Section 3.0]

2.1 Plant Design and Operation

An additional security facility was constructed at the Harris Nuclear Plant (HNP) during 2002. This facility was a requirement of the U.S. Nuclear Regulatory Commission. This project had no significant environmental impact. See Section 6.2 for additional detail.

The ground work and initial construction for the new Apex US 1 230 kV Substation was started in 2002 on HNP property. Permitting and construction is being directed by the Progress Energy Carolinas, Inc., Energy Delivery Department. Completion of this project is scheduled in 2003. This project had no significant environmental impact. See Section 6.2 for additional detail.

There were no changes in plant design or operation and there were no tests or experiments performed which involved a potentially significant unreviewed environmental question during the reporting period.

2.2 Reporting Related to the NPDES Permit

Required National Pollutant Discharge Elimination System (NPDES) monitoring data were submitted to the North Carolina Division of Water Quality (NCDWQ) *via* monthly discharge monitoring reports and separate correspondence as warranted.

The NCDWQ issued an NPDES permit (NC0039586) renewal on April 12, 2002, which became effective on May 1, 2002. By letter dated May 6, 2002, HNP notified the USNRC of the renewal in accordance with Section 3.2 of the Environmental Protection Plan.

3.0 UNUSUAL OR IMPORTANT ENVIRONMENTAL EVENTS [EPP Section 4.1]

No occurrence of an unusual or important environmental event that would indicate or could result in a significant environmental impact causally related to plant operations occurred during the reporting period. No releases or exceedances of permit conditions caused any significant environmental impact. The existence of biofouling organisms (Asiatic clams, *Corbicula fluminea*) and the presence of troublesome aquatic vegetation (hydrilla, *Hydrilla verticillata*, water lettuce, *Pistia stratiotes*, and water hyacinth, *Eichhornia crassipes*) in the Harris Reservoir, as well as discovery of Red Fire Ants on HNP property (see Section 4.2) were considered worthy of inclusion in this report.

3.1 Aquatic Biological Monitoring

A. Inspections for Asiatic clams (*Corbicula fluminea*) in the Harris Nuclear Plant (HNP) Emergency Service Water System (e.g., intake structures)

Inspections of intake bays are conducted via site procedure EPT-168 and are scheduled and implemented in conjunction with HNP's program for implementing NRC Generic Letter 89-13. An inspection of the Cooling Tower Makeup (CTMU) Bay for Pump 1X at the Emergency Service Water Intake Structure was conducted on March 21, 2002. Approximately 500-1000 Asiatic clams were seen in the bay. The CTMU Bay for Pump 1X was dewatered and thoroughly cleaned.

No clogging events of HNP cooling water systems occurred during 2002 as a result of Asiatic clam infestation.

B. Monitoring for Hydrilla (*Hydrilla verticillata*), a nonnative aquatic weed.

On November 19, 2002 an intensive, visual survey of the shoreline was conducted in the Thomas Creek arm of the Harris Reservoir and in the HNP intake canal. Similar to previous years, the dominant species of aquatic vegetation was hydrilla and creeping water primrose (*Jussiaea repens*). The areal coverage of water primrose was similar to the previous year. The areal coverage of hydrilla was slightly less than the previous year. The reduced coverage of hydrilla was most evident in the extreme shallows and possibly due to drought conditions that existed during a portion of 2002. No additional habitat colonized by either species was observed.

The shoreline of the HNP auxiliary cooling reservoir intake canal was surveyed and no hydrilla was found. Neither was hydrilla found at other locations in the auxiliary cooling reservoir including the back portions of the reservoir. The current population size of grass carp was sufficient to prevent the infestation and spread of hydrilla in the auxiliary cooling reservoir during 2002.

On November 7, 2002 two new species of invasive aquatic plants were found in the Harris Reservoir. Water hyacinth and water lettuce were found across the lake from the Holleman's Crossroads boat ramp. Both are free floating vascular plants native to South America. These species are widely imported for the ornamental pond trade. Approximately 24 water hyacinth and 48 water lettuce plants were discovered and removed from the lake at this location. No specimens were found at other locations.

A visual survey of Harris Reservoir was also conducted on November 19, 2002 to check for any additional infestation of water hyacinth and water lettuce. No additional specimens were discovered.

No impacts to HNP operations from aquatic vegetation occurred in 2002.

4.0 ENVIRONMENTAL MONITORING

[EPP Section 4.2]

4.1 Aquatic Monitoring

[EPP Section 4.2.1]

Under the authority of the Clean Water Act, the state of North Carolina issued a National Pollutant Discharge Elimination System (NPDES) permit (NC0039586) renewal for the Harris Nuclear Plant (HNP) on April 12, 2002 which became effective on May 1, 2002, and remains in effect until July 31, 2006. This permit includes the Harris Energy & Environmental Center (HE&EC) sewage treatment plant discharge as an outfall (007).

This permit requires that a state-certified laboratory perform the laboratory analyses performed on all non-field parameters analyzed for effluent samples. In accordance with this requirement, the HNP Environmental & Chemistry Laboratory was certified by the North Carolina Division of Water Quality (NCDWQ) as a Wastewater Laboratory, effective January 1, 2002, and valid through December 31, 2002. In addition, during 2002 the CP&L Chemistry Laboratory at the HE&EC contracted with an NCDWQ-certified private laboratory, Tri-Test Laboratories, to perform analyses.

4.1.1 Effluent Monitoring

Routine effluent monitoring was conducted and reported to the NCDWQ as required by the NPDES permit. No reportable NPDES events occurred during 2002.

A notification was made to the NCDWQ concerning the inadvertent continued use of the Fathead minnow 48-hour Whole Effluent Toxicity Test during May 2002. The renewed NPDES permit required the Fathead Minnow 24-hour Static Whole Effluent Toxicity Test for Outfall 006. The effective date of the renewed permit was May 1, 2002. The facility received the renewed permit on April 29, 2002. This short duration, from time of receipt to permit effective date, posed a timing difficulty in communicating the change in protocols. The appropriate personnel

and contract lab were notified of the change in protocol and the testing protocol performed for the May 2002 reporting of Outfall 006 was considered acceptable.

A notification was made to the NCDWQ regarding the whole effluent toxicity (WET) samples obtained and analyzed for Outfalls 006 and 007 during August 2002. The contract lab found an error in their standard operating procedure (SOP) for WET. As a result of the error the lab invalidated the August 2002 samples and corrected the error in their SOP for WET. Follow-up samples were obtained and analyzed and the results reported in the September Discharge Monitoring Report.

A severe ice storm occurred on December 4-5, 2002 causing power outages throughout North Carolina. The contract lab performing analysis on effluent samples was without power and several samples were lost due to being out of the holding time and/or temperature protocol. The North Carolina Department of Environment and Natural Resources (NCDENR) advised no resampling was required for any of the lost samples.

4.2 Terrestrial Monitoring

[EPP Section 4.2.2]

Terrestrial monitoring is not required.

Worthy of mention is the discovery of Red Fire Ants established inside of the protected area and owner control area of the HNP. Plant personnel were notified of the presence of Red Fire Ants on site and recommended treatment for control was implemented.

Additionally, HNP submitted a Landfill Closure Transition Plan as requested by the NCDENR. The plan incorporates engineering controls for closure of the existing HNP landfill (Permit Number 92-10) in the transition to future waste management plans. New material was not added to the HNP landfill after December 31, 2002 as directed by the NCDENR.

4.3 Noise Monitoring

[EPP Section 4.2.3]

Noise monitoring is not required.

5.0 EPP AUDIT

[EPP Section 5.1]

An audit conducted by an independent corporate entity was performed to verify the completeness and accuracy of the conditions and activities described in this annual environmental operating report. The results of the audit are available for inspection.

6.0 PLANT REPORTING REQUIREMENTS [EPP Section 5.4]

6.1 EPP Noncompliance's

There were no EPP noncompliance's identified during the reporting period. No reportable NPDES events occurred during 2002.

6.2 Changes in Station Design

An additional security facility was constructed at the HNP during 2002 as required by the U.S. Nuclear Regulatory Commission. The total disturbed area was three acres. An Erosion and Sedimentation Control Plan and septic tank permit were applied for and received from the NCDENR and Wake County, respectively. There were no violations of the approved plan or permit during construction. This project had no significant environmental impact.

During 2002 the new Apex US 1 230 kV Substation was under construction on HNP property to serve a new transmission line. An Erosion and Sedimentation Control Plan and a Stormwater Permit were applied for and received from the NCDENR. Permits were applied for and received from the US Army Corps of Engineers. Completion of this project is scheduled in 2003. There were no violations of these plans or permits during construction. This project had no significant environmental impact.

6.3 Non-routine Reports

There were no non-routine reports submitted in accordance with EPP Section 5.4.2. There were no NPDES reportable events identified during the reporting period.