



**U.S.NRC**

United States Nuclear Regulatory Commission

*Protecting People and the Environment*

**BRIEFING PACKAGE**  
**FOR**  
**THE COMMISSIONERS**  
**FOR A DROP-IN VISIT WITH DUKE ENERGY**  
**AUGUST 7, 2012**

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## **Drop-In Visit Agenda**

August 7, 2012

### **ITINERARY**

<b>TIME</b>	<b>PERSON VISITED</b>	<b>CONTACT PERSON</b>	<b>EXTENSION</b>
1:30 PM – 2:00 PM	Comm. Ostendorff	Mike Franovich, OCM	301-415-1800
2:30 PM – 3:30 PM	Comm. Magwood	William Orders, OCM	301-415-1971
4:15 PM – 4:45 PM	Chmn. Macfarlane	Patti Pace, OCM	301-415-1820

### **VISITORS REPRESENTING DUKE ENERGY (MERGED WITH PROGRESS ENERGY)**

- Dhiaa M. Jamil, Chief Nuclear Officer
- John W. (Bill) Pitesa, Senior Vice President for Operations (Brunswick and Robinson)
- Robert J. (Bob) Duncan, II, Senior Vice President for Operations (Catawba, Harris, and McGuire)
- M. Christopher (Chris) Nolan, Director of Regulatory Affairs

### **TOPICS OF DISCUSSION**

- Update on recent merger of Duke Energy and Progress Energy
- Leadership for the new nuclear fleet
- Plant status

**TOPICS OF DISCUSSION****1. Merger of Duke Energy and Progress Energy**

On March 30, 2011, pursuant to Section 184 of the Atomic Energy Act, as amended, 10 CFR 50.80, and 10 CFR 72.50, Carolina Power and Light Company (CP&L) and Florida Power Corporation (FPC) (licensees who are subsidiaries of Progress Energy) submitted an application seeking NRC consent to the indirect transfers of control of the following NRC licenses:

- Brunswick Steam Electric Plant, Units 1 and 2 (Brunswick), Renewed Operating Licenses DPR-71 & DPR-62;
- Crystal River Nuclear Generating Plant, Unit 3 (Crystal River), Operating License DPR-72;
- Shearon Harris Nuclear Power Plant, Unit 1 (Harris), Renewed Operating License NPF-63;
- H.B. Robinson Steam Electric Plant, Unit 2 (Robinson), Renewed Operating License DPR-23; and
- H.B. Robinson Steam Electric Plant Independent Spent Fuel Storage Installation Facility, Renewed Materials License No. SNM-2502.

On December 2, 2011, the NRC approved the indirect transfers of control of these licenses as the result of the proposed merger of Duke Energy and Progress Energy. By letters dated July 2, 2012, and July 3, 2012, Progress Energy and Duke Energy notified the NRC that the merger had been completed on July 2, 2012.

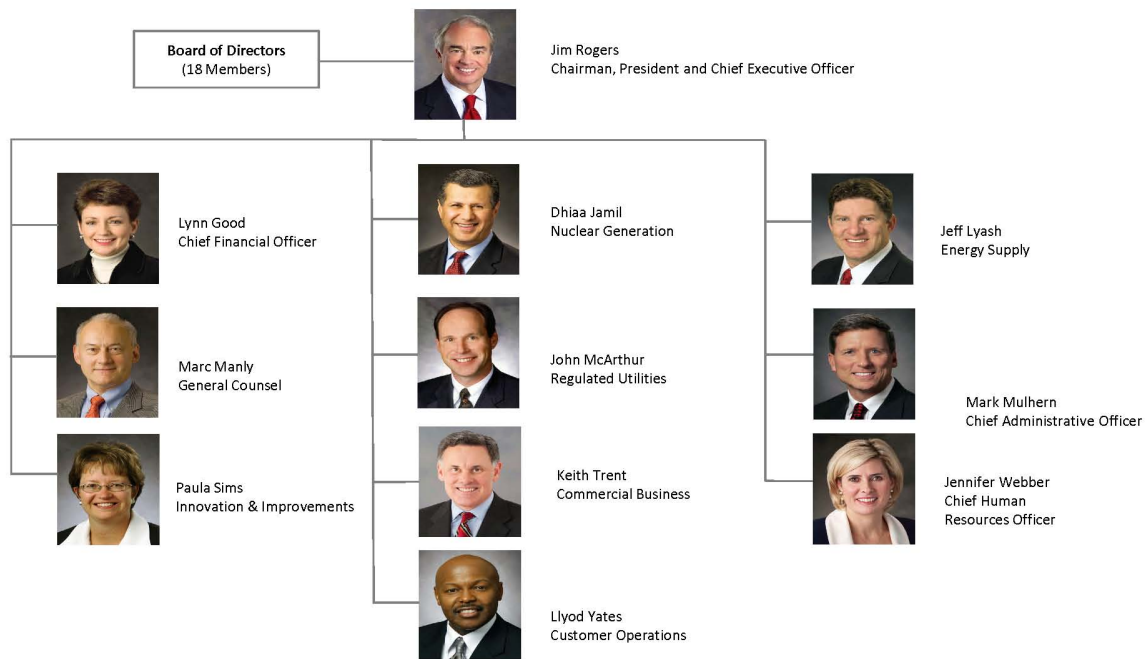
CP&L's and FPC's parent company, Progress Energy, has become a direct, wholly owned subsidiary of Duke Energy. CP&L and FPC will remain electric utilities. The Merger Agreement provides that Duke Energy will have an 18-member board of directors. All 11-current directors of Duke Energy will continue as directors when the transaction is complete, subject to their ability and willingness to serve. Progress Energy, after consultation with Duke Energy, designated seven of the current directors of Progress Energy who will be added to the board of directors of Duke Energy, similarly subject to their ability and willingness to serve. Although the original plan was for William D. Johnson, the CEO of Progress Energy, to become the CEO of the combined company, it has been announced that Mr. Johnson is no longer with the company and that Mr. James Rogers, who was the Chairman, CEO and President of Duke Energy, is the CEO of the combined company. This has resulted in a high level of concern among Progress Energy employees and the North Carolina Utilities Commission.

**2. Plant Status**

Refer to Tab 6.

**Leadership Team after the Merger (under Duke Energy)\***

## Top Tier Leaders of Duke Energy



*For Information Purposes Only*

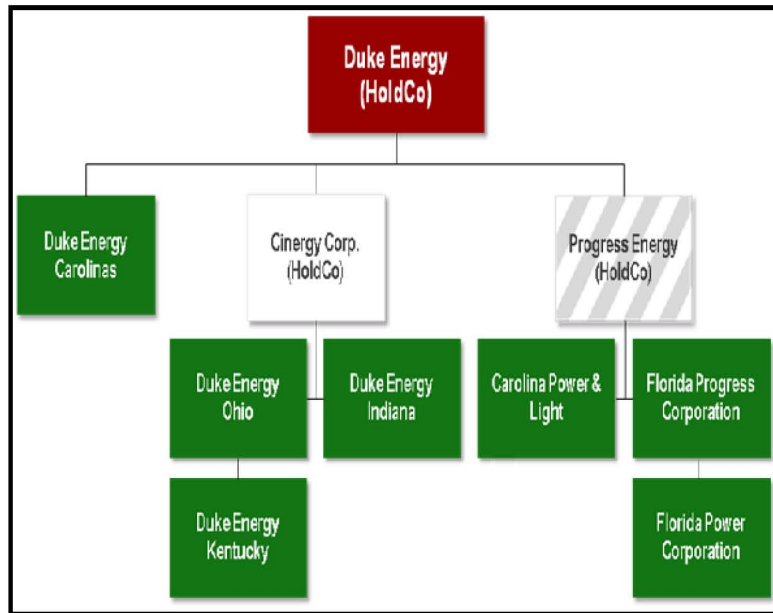


Effective July 3, 2012

1

## Duke Energy Corporate Structure

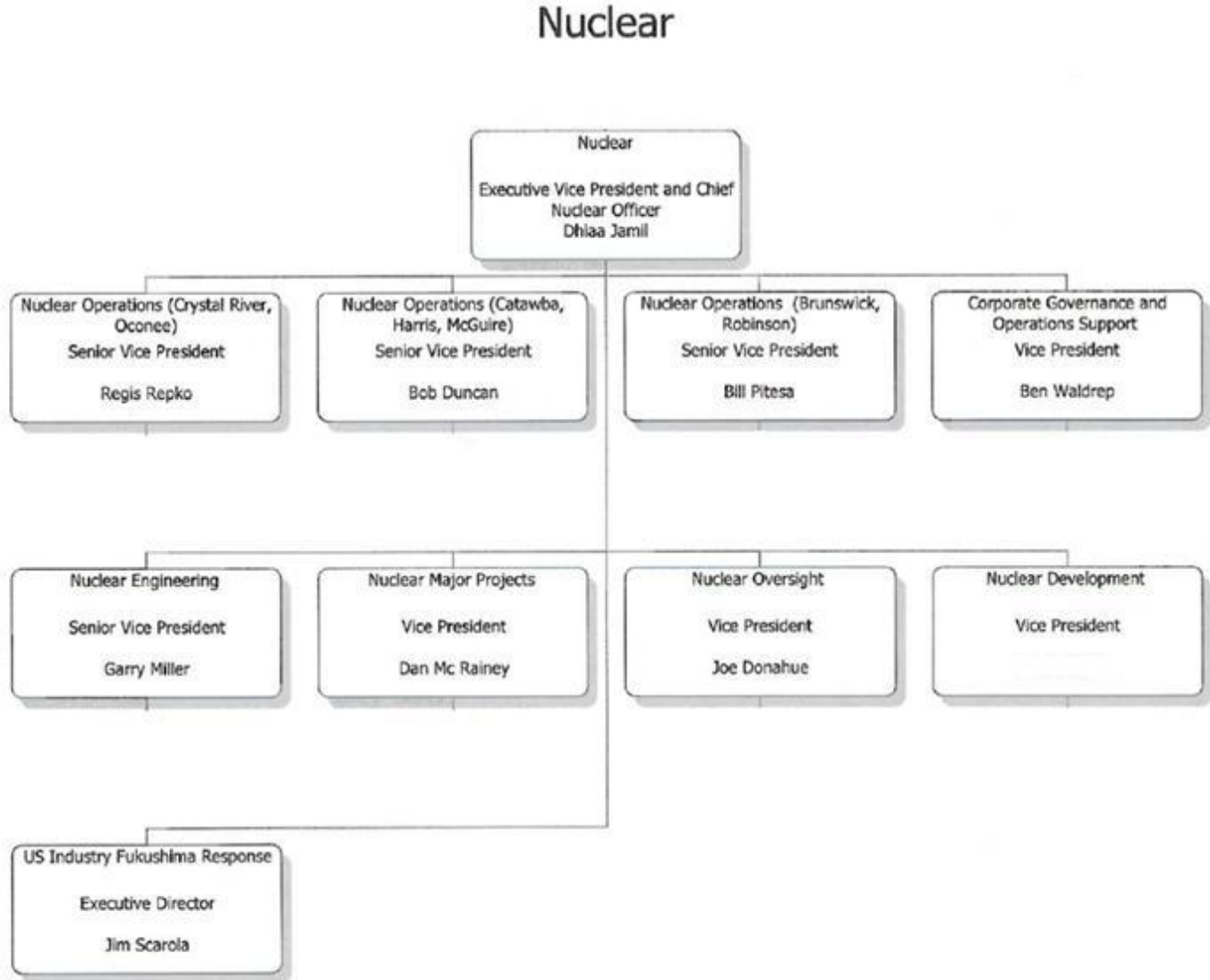
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*For Information Purposes Only*



Nuclear Organization after the Merger (under Duke Energy)





**Biographical Information**

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**Dhiaa M. Jamil  
Chief Nuclear Officer**

Dhiaa Jamil is executive vice president and chief nuclear officer for Duke Energy. He is responsible for the safe and efficient operation of the largest regulated nuclear generation fleet in the U.S., consisting of plants in North Carolina, South Carolina and Florida.

Jamil has more than 30 years of experience in the energy industry. Most recently, he served for three years as a group executive, chief generation officer and chief nuclear officer responsible for the safe and efficient operation of nuclear, fossil and hydro generation fleets across Duke Energy's five-state service territory. He was also responsible for the supply chain function.

He joined Duke Power in 1981 as a design engineer in the design engineering department. After a series of promotions, he was named electrical systems engineering supervisor of Oconee Nuclear Station in 1989 and electrical systems engineering manager in 1994. He was named maintenance manager of McGuire Nuclear Station in 1997, station manager in 1999 and site vice president of McGuire Nuclear Station in 2002. In that role, Jamil was responsible for all aspects of the safe and efficient operation of the nuclear site. In 2003, he was named site vice president of Catawba Nuclear Station. In 2006, Jamil was named senior vice president of nuclear support. He led the organization responsible for plant support, major projects and fuel management for Duke Energy's nuclear fleet. In addition, he was responsible for regulatory support, nuclear oversight and safety analysis functions. He was named chief nuclear officer in 2008 and chief generation officer in 2009. He assumed his current position in July 2012, following the Duke Energy/Progress Energy merger.

Jamil received a Bachelor of Science degree in electrical engineering from the University of North Carolina at Charlotte and has completed the Harvard Business School Advanced Management Program. He is a registered professional engineer in North Carolina and South Carolina. He also completed the Institute of Nuclear Power Operations' (INPO) senior nuclear plant management course and received Duke Energy's technical nuclear certification.

He is currently a member of the INPO Executive Advisory Group and the Nuclear Energy Institute's Nuclear Strategic Issues Advisory Committee Steering Group. He has completed a three-year assignment as a member of the Council of the National Academy for Nuclear Training and was a member of Dominion Energy Management Safety Review Advisory Committee, TVA Nuclear Safety Review Board and Pacific Gas & Electric Nuclear Safety Oversight Committee.

Jamil is currently a trustee at the University of North Carolina at Charlotte and serves as chair of the Energy Production and Infrastructure Center at UNC Charlotte. He also serves as a trustee of The Duke Energy Foundation.

**Biographical Information**

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**John W. (Bill) Pitesa**  
**Senior Vice President – Nuclear Operations**

Bill Pitesa is a senior vice president of nuclear operations for Duke Energy. He provides oversight for the safe and reliable operation of two Duke Energy-operated nuclear plants – Brunswick near Southport, N.C., and Robinson near Hartsville, S.C.

Pitesa has more than 30 years of experience in the nuclear field. He joined the company in 1980 as an engineer at McGuire Nuclear Station in Huntersville, N.C. He was named senior reactor operator in 1986, and in 1992, served two years as a loaned employee to the Institute of Nuclear Power Operations.

Pitesa returned to McGuire Nuclear Station in 1995 as an independent oversight manager and later moved to the corporate office as the nuclear operating experience manager. In 2000, he moved to Catawba Nuclear Station as an engineering supervisor. After a series of promotions, including operations training manager and training manager, Pitesa was named as the station's operations manager in 2004 and station manager of Catawba Nuclear Station in 2005. In 2009, Pitesa was named vice president of nuclear support for Duke Energy. He was responsible for corporate nuclear engineering, major projects, licensing and regulatory support, fleet outage management and other plant support functions. Pitesa was named senior vice president of nuclear operations for Oconee Nuclear Station in January 2010, and assumed the additional responsibility for Catawba and McGuire nuclear stations in December 2010. He was named to his current position following the merger between Duke Energy and Progress Energy in July 2012.

Pitesa earned a Bachelor of Science degree in electrical engineering from Auburn University. He is a registered professional engineer in North Carolina.

In support of the International Atomic Energy Agency (IAEA) and the World Association of Nuclear Operators (WANO), Pitesa has served on nuclear plant review teams in the United States, Korea, France, South Africa, and Ukraine.

**Biographical Information**

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**Robert J. (Bob) Duncan, II**  
**Senior Vice President – Nuclear Operations**

Bob Duncan is a senior vice president of nuclear operations for Duke Energy. He provides oversight for the safe and reliable operation of three Duke Energy-operated nuclear plants – Catawba in York, S.C., Harris near New Hill, N.C., and McGuire in Huntersville, N.C.

Previously, Duncan served as vice president of nuclear operations for Progress Energy, from 2008 to 2010, and again from 2011 to July 2012. He was responsible for ensuring reliable operations; improving work efficiencies; and effectively aligning practices, policies and procedures. From 2010 to 2011, he was on special assignment as vice president of Progress Energy's Robinson Nuclear Plant.

Duncan has more than 30 years of experience in the nuclear field. After a brief stint as an assistant engineer with Virginia Power, he began his career with Progress Energy in 1980 as a start-up engineer at the Harris Nuclear Plant. He received his senior reactor operator certification in 1997. Through the years, Duncan held leadership roles in several areas within the nuclear organization, including engineering, mechanical systems, technical support, and reactor and performance engineering. In 2007, he was named vice president of Harris Nuclear Plant, where he was responsible for managing all activities to ensure the safe and efficient operation of the 900-megawatt generating facility. Duncan assumed his current position following the merger between Duke Energy and Progress Energy in July 2012.

Duncan graduated from the University of Florida at Gainesville with a bachelor's degree in nuclear engineering. He earned a master's degree in business administration from the University of North Carolina at Chapel Hill.

**Biographical Information**

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**M. Christopher (Chris) Nolan  
Director - Regulatory Affairs**

Chris Nolan is director of regulatory affairs for Duke Energy's Nuclear Generation organization. In this role, he has fleet responsibilities in the areas of licensing, regulatory compliance and emergency preparedness. He assumed this role following the Duke Energy/Progress Energy merger in July 2012.

Previously, Nolan served as fleet manager for Duke Energy's nuclear safety assurance organization. He was responsible for providing programmatic oversight for the fleet in the areas of security, emergency preparedness, performance improvement, licensing, and regulatory compliance. Before that, Nolan served as the licensing manager in nuclear plant development for Duke Energy, where he was responsible for managing licensing, site characterization and project development activities for new nuclear interests in Duke's Midwest service territory.

Nolan joined Duke Energy in 2006 after serving the U. S. Nuclear Regulatory Commission (NRC) for nine years. During this period, he held positions of increasing responsibility in the Office of Nuclear Reactor Regulation, Office of Nuclear Security and Incident Response, and the Office of Enforcement. Nolan was chief of the New Reactors Environmental Projects Branch in the Office of Nuclear Reactor Regulation when he accepted a position with Duke Energy. Prior to his service with the NRC, Nolan was a senior design engineer at Calvert Cliffs Nuclear Power Plant where he worked for nine years.

Additionally, Nolan was a qualified operator in the U. S. Navy's nuclear power program while employed at the Knolls Atomic Power Laboratory for General Electric Co.

A native of Garret Park, Md., Nolan graduated from the University of Maryland where he earned a Bachelor of Science degree in mechanical engineering. He is a graduate of the U. S. Navy's Nuclear Power School and holds a master's degree in engineering management from the University of Maryland. He is a registered professional engineer in Virginia.

**Facility Data****OCONEE NUCLEAR STATION**

Licensee Duke Energy Carolinas, LLC  
Location 8 miles northeast of Seneca, South Carolina  
County Oconee County, South Carolina

	<u>UNIT 1</u>	<u>UNIT 2</u>	<u>UNIT 3</u>
Docket Nos.	50-269	50-270	50-287
License Nos.	DPR-38	DPR-47	DPR-55
Full Power License Date	02/06/1973	10/06/1973	07/19/1974
Commercial Operation Date	07/15/1973	09/09/1974	12/16/1974
OL Expiration Date	02/06/2033	10/06/2033	07/19/2034

**Plant Characteristics****All Units**

Reactor Type PWR  
Containment Type Dry, Ambient Pressure  
Power Level 2568 MWt (900 MWe)  
NSSS Vendor Babcock and Wilcox (Lowered Loop design)

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**MCGUIRE NUCLEAR STATION**

Licensee Duke Energy Carolinas, LLC  
Location Huntersville, NC (17 miles north of Charlotte, NC)  
County Mecklenburg County, South Carolina

	<u>UNIT 1</u>	<u>UNIT 2</u>
Docket Nos.	50-369	50-370
License Nos.	NPF-9	NPF-17
Full Power License Date	07/08/1981	05/27/1983
Commercial Operation Date	12/01/1981	03/01/1984
OL Expiration Date	06/12/2041	03/03/2043

**Plant Characteristics****All Units**

Reactor Type PWR  
Containment Type Ice Condenser  
Power Level 3411 MWt (1100 MWe)  
NSSS Vendor Westinghouse (4 Loop)

**Facility Data****CATAWBA NUCLEAR STATION**

Licensee	Duke Energy Carolinas, LLC
Location	York, SC (18 miles south of Charlotte, North Carolina)
County	York County, South Carolina

	<u>UNIT 1</u>	<u>UNIT 2</u>
Docket Nos.	50-413	50-414
License Nos.	NPF-35	NPF-52
Operating License Date	01/17/1985	05/15/1986
Commercial Operation Date	06/29/1985	08/19/1986
OL Expiration Date	12/05/2043	12/05/2043

**Plant Characteristics****All Units**

Reactor Type	PWR
Containment Type	Ice Condenser
Power Level	3411 MWt (1129 MWe)
NSSS Vendor	Westinghouse (4 Loop)

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**H.B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2**

Licensee	Carolina Power & Light
Location	Hartsville, South Carolina
County	Darlington County
Docket No.	50-261
License No.	DPR-23
Full Power License	09/23/1970
Commercial Operation	03/07/1971
OL Expiration Date	07/31/2030

**Plant Characteristics**

Reactor Type	PWR
Containment Type	Dry, Ambient Pressure
Power Level	2339 MWt (739 MWe)
NSSS Vendor	Westinghouse (3 Loop)

**Facility Data****CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT**

Licensee	Florida Power Corporation (FPC)
Location	Crystal River, Florida
County	Citrus County
Docket No.	50-302
License No.	DPR-72
Full Power License	01/28/1977
Commercial Operation	03/13/1977
OL Expiration Date	12/03/2016

**Plant Characteristics**

Reactor Type	PWR
Containment Type	Dry, Ambient Pressure
Power Level	2609 MWt (915 MWe)
NSSS Vendor	Babcock and Wilcox (Lowered Loop design)

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**BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2**

Licensee	Carolina Power & Light	
Location	Southport, NC	
County	Brunswick County, North Carolina	
	<b><u>UNIT 1</u></b>	<b><u>UNIT 2</u></b>
Docket Nos:	50-325	50-324
License Nos.	DPR-71	DPR-62
Full Power License	11/12/1976	12/27/1974
Commercial Operation	03/18/1977	11/03/1975
Operating License Expiration Date	09/08/2036	12/27/2034

**Plant Characteristics - Units 1 and 2**

Reactor Type	BWR
Containment Type	Mark I
Power Level	2923 MWt (974 MWe)
NSSS Vendor	General Electric (BWR – 4)

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

Licensee	Carolina Power & Light
Location	New Hill, NC
County	Wake County
Docket No.	50-400
License No.	NPF-63
Full Power License	01/12/1987
Commercial Operation	05/02/1987
Operating License Expiration Date	10/24/2046

Plant Characteristics - Unit 1

Reactor Type	PWR
Containment Type	Dry, Ambient Pressure
Power Level	2948 MWt (982 MWe)
NSSS Vendor	Westinghouse (3 Loop)



**REACTOR OVERSIGHT PROCESS (ROP) INFORMATION**

The following URLs are for Oconee Units 1, 2 and 3, McGuire Units 1 and 2, Catawba Units 1 and 2, H.B Robinson, Crystal River, Brunswick Units 1 and 2, and Shearon Harris ROP Performance Summary web pages.

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/OCO1/oco1\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/OCO1/oco1_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/OCO2/oco2\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/OCO2/oco2_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/OCO3/oco3\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/OCO3/oco3_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/MCG1/mcg1\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/MCG1/mcg1_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/MCG2/mcg2\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/MCG2/mcg2_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/CAT1/cat1\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/CAT1/cat1_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/CAT2/cat2\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/CAT2/cat2_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/ROB2/rob2\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/ROB2/rob2_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/CR3/cr3\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/CR3/cr3_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/BRU1/bru1\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/BRU1/bru1_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/BRU2/bru2\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/BRU2/bru2_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/HAR1/har1\\_chart.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/HAR1/har1_chart.html)

[http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/pi\\_summary.html](http://nrr10.nrc.gov/NRR/OVERSIGHT/ASSESS/pi_summary.html)

**ROP Performance Status (1st Quarter 2012)**

**OCONEE**

Licensee Response Column

**MCGUIRE**

Licensee Response Column

**CATAWBA**

Licensee Response Column

**H.B. ROBINSON**

Licensee Response Column

CRYSTAL RIVER

## Regulatory Response Column

Plant performance for the most recent quarter at Crystal River is in the Regulatory Response column of the NRC's Action Matrix, based on one White finding in the Emergency Preparedness (EP) Cornerstone originating in the 3rd quarter of 2011. The White finding was identified for failure to follow and maintain in effect emergency plans that use a standard emergency classification and action level scheme. Specifically, the licensee's emergency plan emergency action level 1.4, General Emergency - Gaseous Effluent, specified instrument values that were beyond the limits of the effluent radiation monitors capabilities to accurately measure.

The ROP is implemented at Crystal River in accordance with Inspection Manual Chapter (IMC) 0351, "Implementation of The Reactor Oversight Process at Reactor Facilities in an Extended Shutdown Condition for Reasons Other Than Significant Performance Problems."

On August 19, 2011, the NRC updated the NRC's public website to indicate that some of the plant's performance indicators (PIs) were "Not Applicable." NRC staff determined that Unplanned Scrams and Mitigating Systems Performance Index PIs no longer provided valid indications of performance due to the extended shutdown.

BRUNSWICK UNITS 1 AND 2

## Regulatory Response Column

The performance at Brunswick Units 1 and 2 during the most recent quarter is in the Regulatory Response Column of the NRC's ROP Action Matrix based on one inspection finding classified as low to moderate safety significance (White) in the Mitigating Systems Cornerstone, related to the failure to identify and correct a condition adverse to quality associated with the entrance enclosures for the EDG fuel oil tank rooms. Specifically, the entrance enclosures that house the EDG fuel oil tanks had several openings, unsealed pin holes, and a narrow gap along the perimeter of the base walls, which would allow water intrusion into the EDG fuel oil tank rooms during a design basis external event (hurricane). The final significance of this violation was issued December 27, 2011. Region II conducted a supplemental inspection in accordance with IP 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," for the review of the White inspection finding. The inspection report was issued on July 25, 2012. The NRC determined that the licensee had adequately addressed the finding. This finding will remain under consideration for plant assessment under the action matrix through the end of the 3rd quarter 2012.

SHEARON HARRIS

## Licensee Response Column

## **CURRENT ISSUES**

### **OCONEE UNITS 1, 2, AND 3**

#### **A. EXPECTED DISCUSSION TOPICS- OCONEE**

##### **Oconee External Flooding**

An issue related to the potential impact of external flooding on the Oconee Nuclear Station site has been raised as a result of the potential random failure of the Jocassee Dam, which is located approximately 12 miles upstream from the Oconee site. On August 15, 2008, the NRC issued a request for information pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.54(f), regarding the protection against external flooding at the Oconee site, including the potential failure of the Jocassee Dam.

In January 2010, the licensee began taking actions to ensure the Oconee site would be protected from external flooding as a result of the potential failure of the Jocassee Dam by implementing interim compensatory measures (ICMs). The NRC inspected the ICMs in June 2010 and no significant issues were identified.

On June 22, 2010, the NRC issued a confirmatory action letter (CAL). The CAL confirmed actions to be taken by the licensee concerning external flooding:

The NRC is currently reviewing the licensee's letter dated October 17, 2011, and will be coordinating with FERC and the Japan Lessons-Learned Project Directorate task force to ensure there is regulatory consistency between the licensee's proposed modifications, and forthcoming requirements concerning external flooding.

##### **Oconee Tornado & High Energy Line Break (HELB) Mitigation**

The licensee is implementing a number of major modifications designed to minimize the risk exposure resulting from events such as tornado and a HELB, as well as adding equipment that was not part of Oconee's initial design basis; i.e., fiber reinforced polymer (FRP) on exterior walls, hardening of structures, the protected service water (PSW) system modification, and the addition of main steam isolation valves.

The application of FRP on building exterior walls, and the hardening of structures at the Oconee site helps the site to withstand wind loads, differential pressure and missiles generated by a tornado. These modifications are complete.

The PSW system modification includes a new main pump and a booster pump to provide a diverse source of water to feed the steam generators in all 3 units. In addition, the PSW system modification includes installing new diverse power sources to existing plant high pressure emergency core cooling system pumps, which can provide cooling to the reactor coolant pump seals in the event of a fire, tornado or HELB, if normal plant systems have been damaged. Damage can be likely for some events, primarily due to the location of the safety buses in the common turbine building. The licensee is scheduled to complete the modification by January 1, 2013, but is behind schedule.

As part of the PSW modification and the design basis reconstitution for the tornado and HELB mitigation strategies, the licensee has submitted license amendments requesting review and approval of the PSW system modification, incorporating the system into the plant's Technical

Specifications, and approving the new proposed mitigation strategies. The NRC staff is currently reviewing the amendments. The NRC staff has requested additional information from the licensee which is required for the NRC staff to complete its review.

**B. OTHER TOPICS OF INTEREST- OCONEE**

Labor/Management Issues

None.

License Renewal Activities

Oconee has renewed plant licenses.

Escalated Enforcement, Non-Green Performance Indicators and Greater-than-Green Inspection Findings Not Included In Section A

None within the last year.

Open Investigations

One, related to the unauthorized repair to a non-QA hanger at Oconee.

Open Allegations

Three, related to an unauthorized repair to a non-QA hanger, failure to report an arrest, and fitness for duty.

Congressional Interest

None

Harassment and Intimidation Issues

None

2.206 Petitions

None.

Selected News Articles

**NRC Says Oconee's Pre-Fukushima Safety Upgrades Should Help It Meet New Rules**

The Greenville (SC) News (1/19/12, Simon, 65K) reports, "A \$2 billion package of safety upgrades should give Oconee Nuclear Station a jump on coming requirements for the nation's nuclear power plants, a Nuclear Regulatory Commission official said Wednesday." NRC Regional Administrator, Victor McCree said projects planned for the plant years before the Fukushima catastrophe "give Oconee a head start," in "adding safety margins." The News notes that McCree said, "It's likely that Oconee and Duke will be able to take credit for the enhancements it is making in response to Fukushima."

**MCGUIRE UNITS 1 AND 2**

**A. EXPECTED DISCUSSION TOPICS- MCGUIRE**

None.

**B. OTHER TOPICS OF INTEREST- MCGUIRE**

Labor/Management Issues

None.

License Renewal Activities

McGuire has renewed plant licenses.

Escalated Enforcement, Non-Green Performance Indicators and Greater-than-Green Inspection Findings Not Included In Section A

None within the last year.

Open Investigations

None.

Open Allegations

None.

Congressional Interest

None

Harassment and Intimidation Issues

None

2.206 Petitions

None.

Selected News Articles

**Trespasser Arrested After Jumping Fence At McGuire Station.**

On its website, [WBTV-TV](#) Charlotte, NC (1/3/12, Hill) reports, "An emergency was declared at the McGuire nuclear plant in Huntersville early Sunday morning after a security breach, according to a report from Duke Energy." According to the report, plant security "saw someone climb over a fence into an unauthorized area around 3:30 a.m. on January 1." WBTV-TV added, "Security detained the suspect until Charlotte Mecklenburg Police arrived," and arrested 18-year-old David Hamilton Drake Jr. "for first degree Trespassing." The plant reported the incident "as an 'unusual event.'"

**CATAWBA UNITS 1 AND 2**

**A. EXPECTED DISCUSSION TOPICS- CATAWBA**

Possible discussion of plant response and licensee corrective actions for inadequate generator protection modification (replaced electro-mechanical relays with digital processors) which resulted in dual unit loss of offsite power in April 2012.

**B. OTHER TOPICS OF INTEREST- CATAWBA**

Labor/Management Issues

None.

License Renewal Activities

Catawba has renewed plant licenses.

Escalated Enforcement, Non-Green Performance Indicators and Greater-than-Green Inspection Findings Not Included In Section A

None within the last year. However, Region II is processing a finding for the inadequate generator protection modification which caused the dual unit loss of offsite power. This caused offsite power to be inoperable for Units 1 and 2. The finding is screening greater than green for both units (preliminary information).

Open Investigations

None.

Open Allegations

One, related to an unauthorized repair of a QA-1 nuclear service water pipe.

Congressional Interest

None

Harassment and Intimidation Issues

None

2.206 Petitions

None.

Selected News Articles

None.

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT 2 (ROBINSON)**

**A. EXPECTED DISCUSSION TOPICS- ROBINSON**

**Fire Protection and Transition to NFPA-805**

Robinson is a National Fire Protection Association (NFPA) 805 transition plant. The licensee started the NFPA 805 transition process in February 2007. The LAR submittal was originally due to the NRC in 2011, but the licensee was granted an extension to September 2013 as part of the NRC staff staggered approach for the review of NFPA 805 LARs.

**B. OTHER TOPICS OF INTEREST- ROBINSON**

Labor/Management Issues

None.

License Renewal Activities

Robinson has a renewed plant license.

Escalated Enforcement, Non-Green Performance Indicators and Greater-than-Green Inspection Findings Not Included In Section A

None within the last year.

Open Investigations

None.

Open Allegations

None.

Congressional Interest

None

Harassment and Intimidation Issues

None

2.206 Petitions

None.

Selected News Articles

None.

**CRYSTAL RIVER NUCLEAR GENERATING PLANT, UNIT 3 (CRYSTAL RIVER)**

**A. EXPECTED DISCUSSION TOPICS- CRYSTAL RIVER**

**Crystal River Plant Performance**

The unit currently is in "No Mode" with the full core off-loaded to the spent fuel pool. The plant entered an extended outage when it was discovered that the concrete in the containment building wall delaminated during the creation of a temporary opening in the containment building to support steam generator replacement. Additional delaminations occurred when the building's tendons were partially re-tensioned. The unit has been shut down since September 26, 2009.

**Crystal River Containment Repair Status**

During the creation of a temporary opening through the concrete containment, a delamination was found (in one of six bays) that ran parallel with the horizontal tendons. In order to repair the containment, a tendon detensioning sequence had to be developed that would not cause additional damage to the containment. The containment was successfully partially detensioned in April 2010. The repair of the delaminated bay was completed in October 2010. The core reload was completed on November 21, 2010, in preparation for restart in 2011. The retensioning sequences of the containment started on January 4, 2011.

On March 14, 2011, during final sequence (sequence 11) of the containment building tendon retensioning activities, a second bay delaminated. On May 19, 2011 the unit entered Mode 6 in preparation for a full core off-load to the spent fuel pool. The unit entered a "No Mode" condition on May 28, 2011, when the last fuel assembly was placed in the spent fuel pool. The unit has remained in a "No Mode" condition.

On June 27, 2011, Progress Energy issued a press release that stated that the licensee planned to repair the Crystal River Unit 3 concrete containment building. The licensee estimated that the unit would return to service in 2014.

On July 26, 2011, the containment building experienced a delamination within a third bay. To prevent any additional delamination, the licensee installed radial anchors in all bays except the bay that had been repaired in 2010. The licensee also detensioned all of the vertical tendons to 75 percent in an effort to reduce stresses in the reactor building concrete and add additional margin to prevent any further delamination events.

On May 25, 2012, Progress Energy selected URS (the parent company of SGT) to repair the Crystal River containment. SGT was previously involved with the repair of Bay 3-4. Several items are necessary before a final decision can be made for the containment repair :

1. Regulatory certainty with Florida Public Service Commission (settlement was approved on February 22, 2012).
2. Resolution on the cost of the containment repairs with the insurance company Nuclear Electric Insurance (ongoing).
3. Duke Energy's independent assessment of the containment repair project (ongoing).



## **B. OTHER TOPICS OF INTEREST- CRYSTAL RIVER**

### Labor/Management Issues

None.

### License Renewal Activities

Due to the condition of the containment building, the NRC is not currently reviewing Crystal River's application for license renewal, which was submitted on December 18, 2008. On June 10, 2011, the NRC staff revised the schedule for the review of the license renewal application. The NRC staff will continue the review after the licensee submits information describing containment repair plans and related aging management information.

### Escalated Enforcement, Non-Green Performance Indicators and Greater-than-Green Inspection Findings Not Included In Section A

None within the last year.

### Open Investigations

Currently, there are two open OI investigations.

### Open Allegations

There are 2 open allegations. One is related to instrumentation and controls. The other allegation covers health physics and safety concerns.

### Congressional Interest

None

### Harassment and Intimidation Issues

None

### 2.206 Petitions

There is one open 2.206 petition for Crystal River. On December 5, 2009, Mr. Thomas Saporito (the petitioner) submitted a request for enforcement against Progress Energy at Crystal River. The petitioner requested that the NRC issue a confirmatory order requiring the licensee take additional action in regards to the Crystal River containment delamination. An acknowledgment letter was sent to the petitioner on March 3, 2010, that stated that the NRC accepted the petition in part (one item). The NRC, by letter dated September 3, 2010, consolidated the original petition with the supplemental information in the petitioner's letter dated August 6, 2010. The current due date with the proposed director's decision for this petition is December 3, 2012.

### Selected News Articles

**Progress Energy Says There Was No Way To Predict Crystal River Containment Cracking**  
Engineering News-Record (October 19, 2011, Russell) reports, "The separation of a concrete wall at Progress Energy Inc.'s Crystal River nuclear power plant in northwest Florida has

'fundamentally changed the way the [nuclear power] industry analyzes post-tensioned, pre-stressed concrete structures,' according to the utility's Oct. 10 filing with the Florida Public Service Commission." The PSC is considering whether to approve the utility's "request to have ratepayers cover repair costs." Progress Energy wants to recover the costs "related to the delamination of a wall at Crystal River's" Unit 3 reactor, "a problem first identified in October 2009 and again in March 2010 as the company was replacing steam generators in the unit."

### **Johnson's Departure Calls Crystal River Nuclear Plant's Future Into Question**

According to Reuters (7/12/12, O'Grady), it is unlikely that Progress Energy's damaged Crystal River nuclear reactor in Florida will be up and running again following Johnson's departure, after it has been suggested that the plant's woes, as well as problems at other Progress-owned nuclear plants, played a part in his exit. During Tuesday's hearing, Rogers discussed Crystal River with the NCUC, saying, "We had expressed clearly to them that we really needed, as a new board, to consider whether to retire or replace." In response, Charles Rehwinkel, deputy public counsel with Florida's Office of Public Counsel, said in a statement that he was "gravely concerned" about Rogers comments regarding Crystal River.

### Fire Protection and Transition to NFPA-805

Crystal River is a National Fire Protection Association (NFPA) 805 transition plant. The licensee started the NFPA 805 transition process in February 2007. The LAR submittal was originally due to the NRC in 2011, but the licensee was granted an extension to July 2014 as part of the NRC staff staggered approach for the review of NFPA 805 LARs.

### New Reactors

In a letter dated October 6, 2008, the staff informed Progress Energy Florida (PEF) that the Levy County Units 1 and 2 Combined Operating License application (COLA), which included a Limited Work Authorization (LWA) request, was docketed. Due to the complex characteristics of the Levy County site related LWA review, the licensee determined that the LWA activities were not feasible due to the timeframe of the NRC review. As a result, Progress Energy has decided to no longer pursue an LWA.

On January 5, 2009, PEF signed a contract with Westinghouse Electric Company LLC and The Shaw Group Inc.'s Power Group for the engineering, procurement and construction of two nuclear units for a proposed nuclear power plant in Levy County, Florida.

On May 2010, PEF made a decision to delay for 3 years major construction on its proposed Levy County nuclear plant. The Final Environmental Impact Statement for Levy County Units 1 and 2 was issued by the NRC staff to the Environmental Protection Agency on April 27, 2012. The NRC staff expects to issue the COLA in 2013.

**BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2**

**A. EXPECTED DISCUSSION TOPICS- BRUNSWICK**

None.

**B. OTHER TOPICS OF INTEREST- BRUNSWICK**

Labor/Management Issues

None.

License Renewal Activities

Brunswick has renewed plant licenses.

Escalated Enforcement, Non-Green Performance Indicators and Greater-than-Green Inspection Findings Not Included In Section A

A low to moderate safety significance (White) finding in the Mitigating Systems Cornerstone, related to the failure to identify and correct a condition adverse to quality associated with the entrance enclosures for the EDG fuel oil tank rooms. Specifically, the entrance enclosures that house the EDG fuel oil tanks had several openings, unsealed pin holes, and a narrow gap along the perimeter of the base walls, which would allow water intrusion into the EDG fuel oil tank rooms during a design basis external event (hurricane). This finding was issued in the fourth quarter of 2011.

Open Investigations

None.

Open Allegations

None.

Congressional Interest

None

Harassment and Intimidation Issues

None

2.206 Petitions

On July 10, 2012, Mr. David Lochbaum (petitioner), on behalf of the North Carolina Waste Awareness & Reduction Network, the Nuclear Information and Resource Service, and the Union of Concerned Scientists filed a petition under 10 CFR 2.206 requesting the NRC take an enforcement action in the form of an order either modifying the Brunswick operating licenses or requiring the licensee to submit amendment requests to revise specific technical specifications regarding irradiated fuel stored in the spent fuel pools at Brunswick. Per the petitioner's

request, a teleconference is scheduled to be held on August 15, 2012, for the petitioner to address the petition review board.

Selected News Articles

**Power Disruption Forces Reactor Shutdown At Brunswick Plant Unit 1**

The Wilmington (NC) Star News (February 24, 2012, Brumm) reports, "Progress Energy shut down Unit 1 of the Brunswick Nuclear Plant on Thursday after a disruption in the electricity supply at the Southport power plant, spokesman Ryan Mosier said." Progress told the NRC that shortly before 7 pm Wednesday, "an electrical connector – or bus – providing power for non-nuclear systems for both of the plant's nuclear reactors failed. One of the systems that lost power maintains pressure in the emergency core cooling systems for both reactors, Mosier said." Once the power loss resulted in a "low discharge pressure alarm for both units," they were required to shut down. Unit 2 was returned to service after "temporary power was provided to both cooling systems." Unit 1 remained offline because the power failure knocked out the circulating water intake pumps.

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**SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 (HARRIS)**

**A. EXPECTED DISCUSSION TOPICS- HARRIS**

**Harris Plant Performance**

**Harris Emergency Facility Open Items**

During the first quarter of 2012, the inspectors identified several issues that are under review.

- Removal of the Emergency Operating Facility (EOF) ventilation system from service, which rendered the EOF non-functional on multiple occasions with inadequate compensatory measures.
- Failure to report the loss of emergency assessment capability in the EOF. Specifically, the EOF was unavailable to perform its intended function for a continuous period greater than 4 hours without adequate compensatory measures on multiple occasions from August 2009 to November 2011.
- Technical Support Center (TSC) not meeting the radiological habitability requirements and failure to implement the TSC habitability, equipment and functional requirements during a radiological emergency with the loss of offsite power.

**Special Inspection to Evaluate the Failure of Two Main Steam Isolation Valves (MSIVs) to Close**

A special inspection was conducted at Harris from May 7 through May 11, 2012, to assess the failure of the MSIVs to close. On April 21, 2012, Harris was at 0% power in Mode 4 and in the process of a normal plant shutdown for a refueling outage. During the performance of procedure OST-1046, MSIV Operability Test, 'B' and 'C' MSIVs failed to close from the main control board. The 'B' MSIV shut 37 minutes after the instrument air supply was isolated to the valve. The 'C' MSIV shut about 3 hours after the instrument air was isolated. On July 12, 2012, the NRC staff issued an inspection report documenting the results of the special inspection. The cause of the valves failing to shut was due to the corrosive swelling of piston rings on the valve's disc. One unresolved item was identified. The inspectors are currently completing a review of the unresolved item to determine if a performance deficiency occurred.

**B. OTHER TOPICS OF INTEREST- HARRIS**

**Labor/Management Issues**

None.

**License Renewal Activities**

Harris has a renewed plant license.

**Escalated Enforcement, Non-Green Performance Indicators and Greater-than-Green Inspection Findings Not Included In Section A**

None within the last year.

Open Investigations

One allegation is currently open, pending an investigation from the Office of Investigations.

Open Allegations

Three allegations are currently open. One is pending an investigation from the Office of Investigations. The other two allegations cover Maintenance and Emergency Response.

Congressional Interest

None

Harassment and Intimidation Issues

None

2.206 Petitions

None.

Selected News Articles

**NRC To Investigate Safety Valve Incident At Shearon Harris Plant**

The Raleigh (NC) News & Observer (May 7, 2012, Murawski) reports, "The Nuclear Regulatory Commission has launched a special inspection to figure out why a pair of safety valves failed to close last month at the Shearon Harris nuclear plant when the Wake County facility was shut down for refueling." Four "NRC inspectors will spend the week reviewing the mechanical malfunction" at Shearon Harris, because, while it "did not cause a safety hazard," it "could have jeopardized lives and equipment if the plant's pipes had burst and blasted scalding steam onto equipment and plant workers, as has happened at other US nuclear plants." The News & Observer adds "Progress has its own team investigating the mishap to determine if the enormous industrial valves can be repaired or if they will have to be replaced."

New Plant Construction (Shearon Harris COLA)

On February 19, 2008, Progress Energy Carolinas, Inc., submitted a combined operating license application for two AP1000 units to be located at its Harris site, near New Hill in Wake County, North Carolina. The applicant filed an updated integrated resource plan on September 13, 2010, with the North Carolina Utilities Commission. This action delays the operational need of the two new reactors at the Harris plant site until 2025, or later. Currently, the Final Environmental Impact statement is scheduled to be issued to the Environmental Protection Agency in January 2014 and the Final Safety Analyses Report is scheduled to be issued in September 2013.