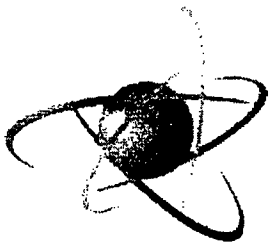

U.S.NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment

BRIEFING BOOK

FOR

MARTIN J. VIRGILIO

OCONEE NUCLEAR STATION

February 14, 2011

E-26

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TAB 1

Agenda for Mr. Martin Virgilio's Visit to Oconee Nuclear Station

February 14, 2011

8:10 a.m.	Arrive at Atlanta Hartsfield Airport. Mr. Virgilio will be met by the Regional Administrator
9:00 a.m.	Drive to the Oconee site via car with Regional Administrator
11:00 a.m.	Arrive at the Oconee Nuclear Station Protected Area Entrance Facility. Group will be met by the Senior Resident Inspector.
11:15 a.m.	Meet with the Oconee Resident Inspector office staff
11:45 a.m.	Working lunch with the Oconee senior management team
12:45 p.m.	Tour of areas within the Protected Area
2:30 p.m.	Tour of areas within the Radiologically Controlled Area
3:30 p.m.	Tour of areas outside of the Protected Area:
5:00 p.m.	Open discussion with Duke senior management on industry/regulatory issues
6:00 p.m.	Group departs Oconee Nuclear Station for Clemson; staying at the Holiday Inn Express

February 15, 2011

8:30 a.m.	Travel to Vogtle Electric Generating Plant, Waynesboro, GA

TAB 1

Executive Summary

Purpose of the visit/meeting

- Meet the Oconee Resident office staff.
- Meet the Oconee senior management team.
- Tour portions of the plant including ongoing tornado and HELB modifications.
- Observe the new digital RPS / ESPS equipment being installed at Oconee.
- Discuss NFPA 805 implementation plans

Issues to be addressed (See TAB 6)

- NFPA 805 transition
- Tornado and HELB mitigation
- Digital Reactor Protective System / Engineered Safeguards Protective system project
- External flooding

Persons to meet

Oconee Personnel (See TAB 8)
- Bill Pitesa, Senior Vice President (if on-site)
- Benjamin C. (Ben) Waldrep, Vice President – Nuclear Corporate
- Preston Gillespie, Site VP
- Joel E. Bohlmann, Organizational Effectiveness Manager
- Scott Batson, Station Manager
- Tom Ray, Engineering Manager
- Terry Patterson, Safety Assurance Manager

Region II Personnel (See TAB 9)
- Andy Sabisch, Senior Resident Inspector
- Kevin Ellis, Resident Inspector
- Geoffrey Ottenberg, Resident Inspector
- Joyce Hamman, Resident Inspector

Activities on site

- Meet with Resident office staff and the plant senior management team.
- Meet with plant supervisors during a working lunch.
- Plant Tour with the resident inspectors, licensee, and Deputy Regional Administrator.
- Observe demonstration of the new digital RPS / ESPS system being installed in the station.
- Meet with licensee's NFPA 805 staff to discuss implementation and vulnerabilities.

Message to be communicated by the DEDO (Reference TAB 6)

- Continue to focus on safe plant operation
- Important to keep Tornado/HELB modifications on track
- Recognize the challenge of managing multiple major projects
- Seek opportunities to modify schedule based on risk reduction

Licensee's briefing topics

- The Duke Fleet is implementing actions to improve corporate governance and oversight
- Oconee Performance and Direction
- Major investments to enhance safety, improve reliability, resolve licensing basis issues, and reduce overall station risk profile are continuing.

Licensee Ownership Information

Duke Energy Carolinas owns and operates the three-unit Oconee Nuclear Station located near Seneca, SC and the two-unit McGuire Nuclear Station located near Huntersville, NC. In addition, Duke Energy Carolinas operates and has a partial ownership interest in the two-unit Catawba Nuclear Station located in York, SC.

Recent Oconee Management Changes (Reference TAB 7)

The following management changes have been implemented over the past six months:

- Bill Pitesa was named Senior Vice President - Nuclear Operations on December 15, 2010, having responsibility for all three operating plants.
- Ben Waldrep was selected as Vice President, Nuclear Corporate on December 15, 2010, over the General Office in downtown Charlotte, NC.
- Preston Gillespie was named Site Vice President, Oconee Nuclear Station on October 1, 2010.
- Scott Batson was named Oconee Nuclear Station Manager on October 1, 2010.
- Tom Ray became Engineering Manager on October 1, 2010.
- Joel Bohlmann was named as Manager, Organizational Effectiveness, Oconee Nuclear Station. In this role he is responsible for managing station support functions.
- Rich Freudenberger was reassigned from the Safety Assurance Manager position to Manager, Regulatory Interface. In this role he is responsible for management of site programs and processes related to regulatory compliance.

ROP Assessment - Significant ROP Inspection Findings (Reference TAB 5)

Plant performance for the period from the 1st quarter of 2010 to the 4th quarter of 2010 was within the Degraded Cornerstone Column of the NRC's Action Matrix for Oconee Units 1, 2, and 3. This was a result of one Mitigating Systems Cornerstone finding of substantial significance (Yellow) for Units 1, 2, and 3, and one Mitigating Systems Cornerstone finding of moderate safety significance (White) for Units 2 and 3, both originating in the 1st quarter of 2010. The NRC performed a 95002 supplemental inspection the week of December 13, 2010, and the findings were closed at the end of the fourth quarter of 2010.

Potential Discussion Topics (Reference TAB 6)

External Flood Action Plan

An issue related to the potential impact that external flooding would have on the Oconee Nuclear Station is currently being addressed by both the licensee and NRC. The licensee has developed Interim Compensatory Measures to address the external flooding concerns and is working on permanent actions to ensure the station is not adversely affected by a potential external flooding scenario. A Confirmatory Action Letter (CAL) was issued on June 22, 2010.

NFPA 805 Transition

Oconee is one of two pilot plants that are in the process of transitioning to NFPA 805 for fire protection. The NRC staff completed its review of the License Amendment Requests (LAR) and issued the final licensee amendment on December 29, 2010.

Tornado & HELB Mitigation

As a result of a 95002 supplemental inspection of two White Mitigating System tornado-related findings in 2001, it was determined that Oconee has a number of tornado-related vulnerabilities that collectively represented a deficient tornado mitigation strategy. The licensee is implementing a number of major modifications designed to minimize the risk exposure resulting from events such as tornado and a high-energy line break. The licensee submitted several LARs to update the UFSAR in June 2009. The staff has issued numerous Requests for Additional Information and the licensee is in the process of responding.

Digital Computer Based Reactor Protective System (RPS)/Engineered Safeguards Protective System (ESPS)

The licensee is currently implementing a major modification to all three units' Reactor Protection System and Engineered Safeguards Features Actuation System (RPS/ESFAS). Currently, the licensee is performing site acceptance testing on the digital upgrade to the RPS/ESFAS for Unit 1. This modification is anticipated to be installed during the next Unit 1 refueling outage in Spring 2011.

William States Lee III Nuclear Station Combined Operating License (COL) Application

The licensee submitted a 10 CFR 52 application for a combined operating licensee to the NRC on December 12, 2007, which was docketed on February 25, 2008. This project is on the site of the old Cherokee Nuclear Station project that was cancelled in the 1980's.

Tritium

Elevated levels of tritium have been detected in ground water monitoring wells within the Owner Controlled Area.

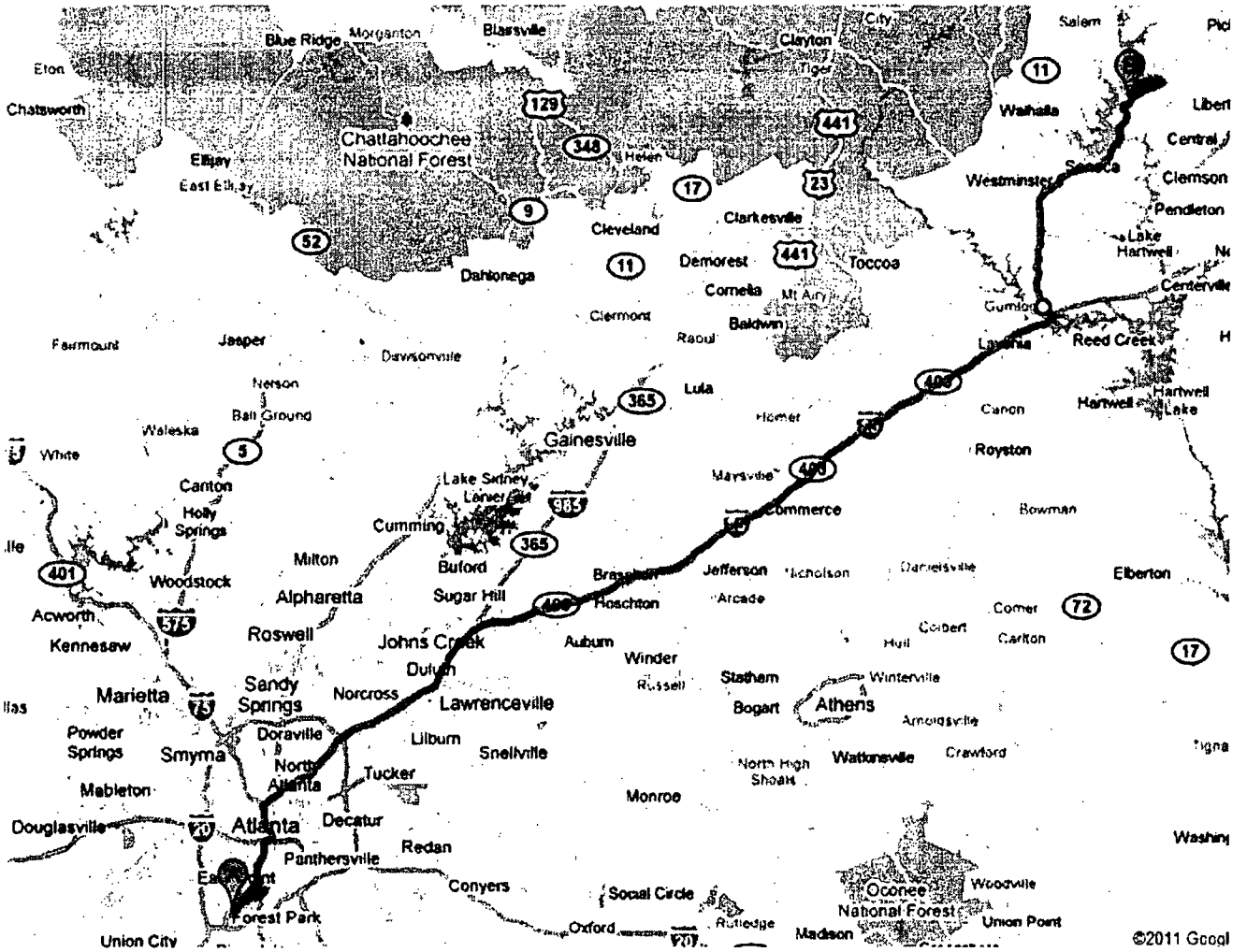
Approval for Additional Resident Inspector

A temporary third resident has been authorized for the Oconee site due to the large number of major plant modifications.

TAB 2

Facility Location Map and Directions

Map and Directions from Atlanta, GA to Oconee Nuclear Station

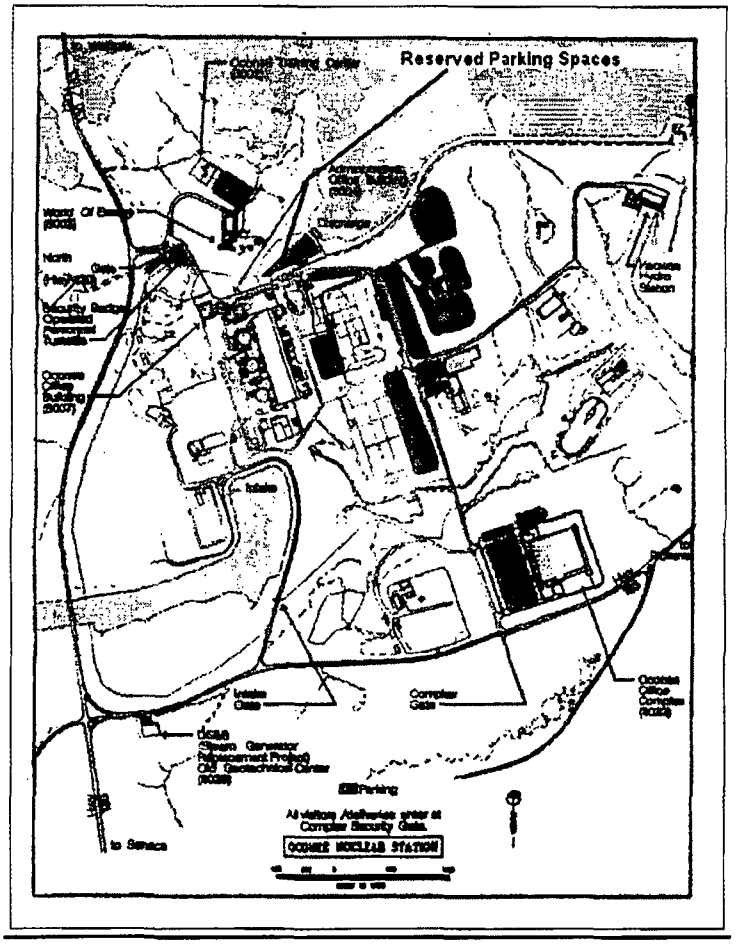


1.	Head east on N Terminal Pkwy	0.5 mi
2.	Keep right at the fork, follow signs for I-85 N/I-20/I-75 N/Atlanta and merge onto I-85 N	4.7 mi
3.	Merge onto I-75/I-85 N	7.4 mi
4.	Slight left at I-85	95.0 mi
5.	Take exit 1 for S Carolina 11	0.4 mi
6	Turn left at S Carolina 11 N/Cherokee Foothills Scenic Hwy	13.3 mi
7.	Take the US-123 N/US-76 E ramp	0.2 mi
8.	Turn left at US-123 N/US-76 E/Sandifer Blvd Continue to follow US-123 N/US-76 E	6.4 mi

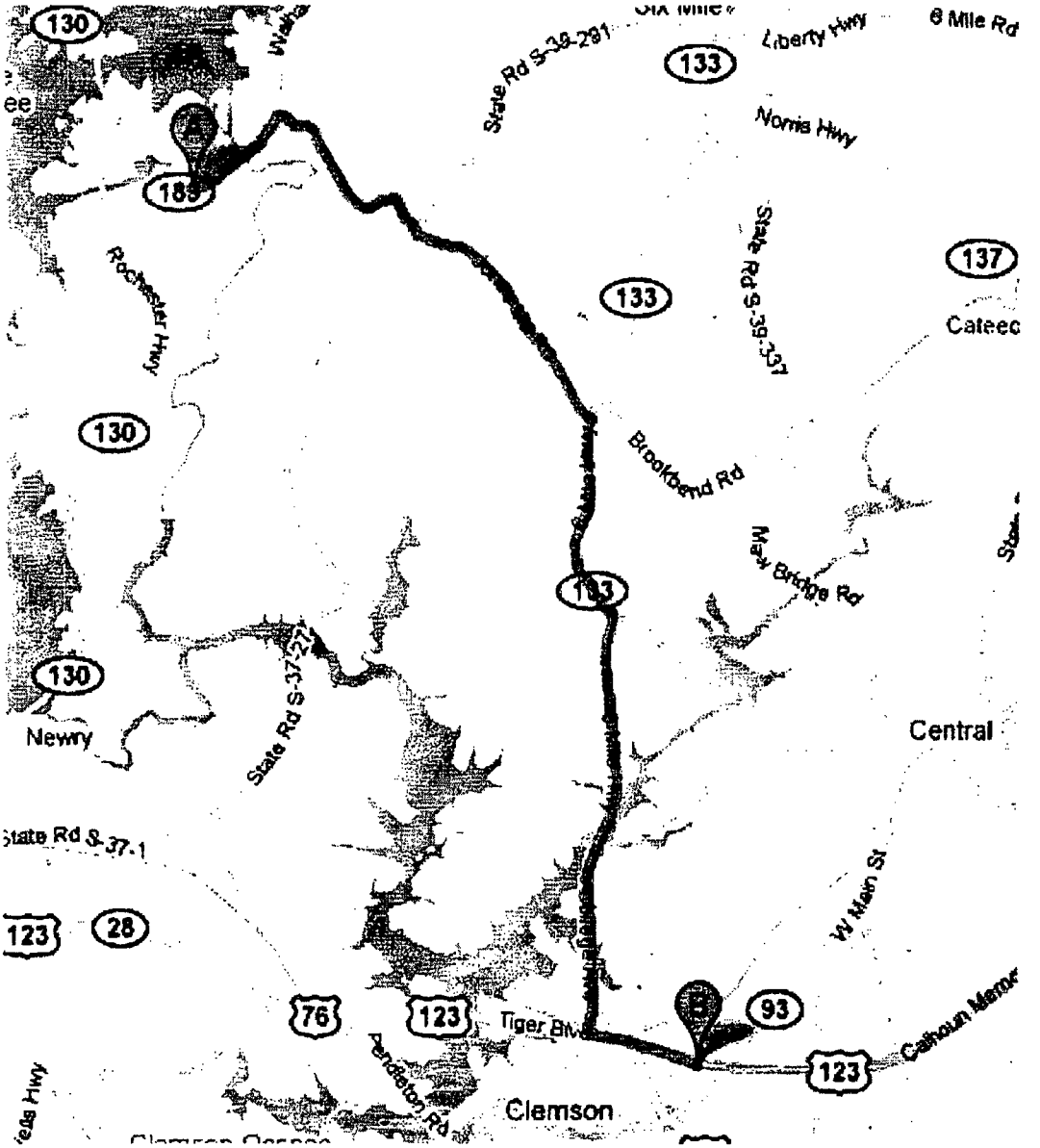
9.	Turn left at S Carolina 130 N/Rochester Hwy	7.0 mi
10.	Turn right at S Carolina 183/E Pickens Hwy. Plant entrance is on the left.	0.8 mi
11.	At the security checkpoint, show the officer your NRC badge. Call 864-882-6927 when you get to the gate. You will be going to what is called the "Discharge Lot" where there will be reserved parking spaces. (Follow green line on the map on next page.) After parking, come down the stairs at the west end to the administration building entrance and the Senior Resident will process you into the protected area.	

Oconee Site Map

[Follow the green line from Route 183 to assigned parking area]



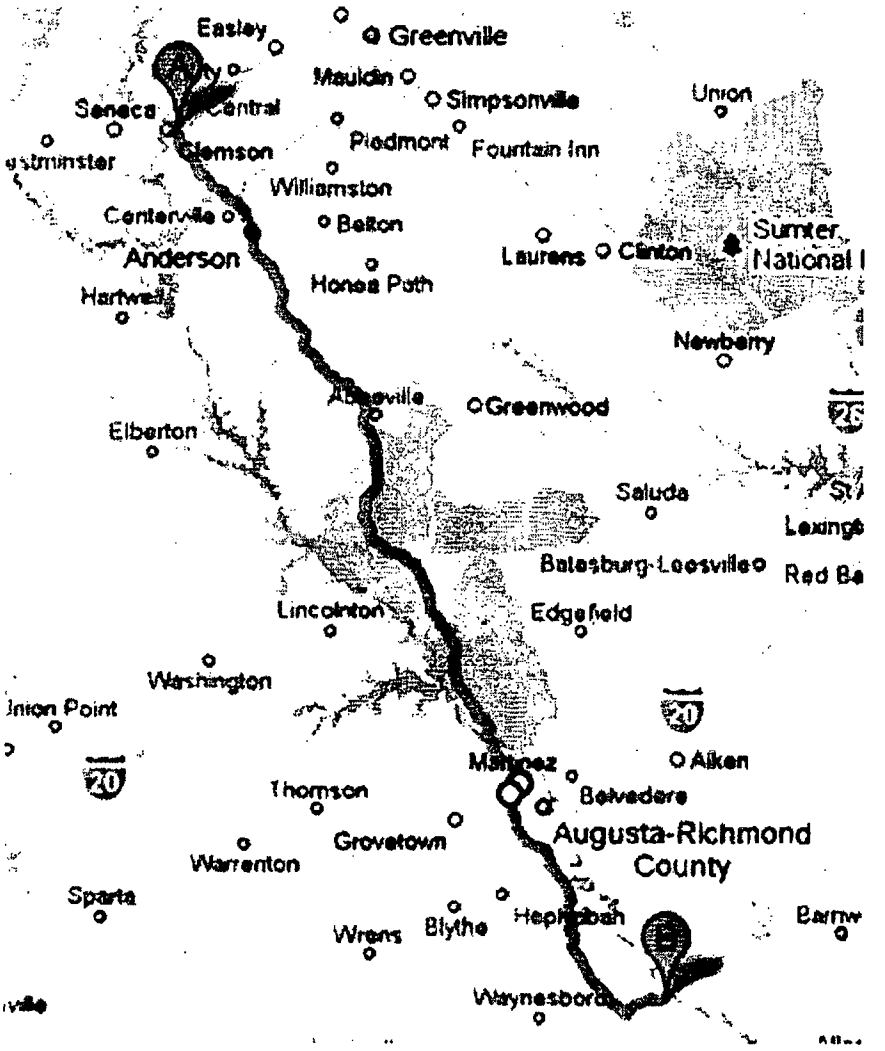
Map and Directions from Oconee Nuclear Station to Clemson, SC



1.	Head east on S Carolina 183/E Pickens Hwy toward Keowee River Rd/State Rd S-37-6 Continue to follow S Carolina 183	0.9 mi
2.	Turn right at Jones Mill Rd/State Rd S-39-160 Continue to follow Jones Mill Rd	3.8 mi
3.	Turn right at S Carolina 133/6 Mile Hwy	1.7 mi
4.	Turn right to stay on S Carolina 133/6 Mile Hwy Continue to follow S Carolina 133	3.4 mi

5.	Turn left at US-123 N/US-76 E Continue to follow US-123 N	1.0 mi
6.	Make a U-turn at Pressley Dr Destination will be on the right Holiday Inn Express Hotel & Suites Clemson 1381 Tiger Boulevard Clemson, SC 29631 (864) 654-9410	105 ft

Map and Directions from Clemson, SC to Vogtle Electric Generating Plant



1.	Head west on US-123 S toward Forest Ln	0.6 mi
2.	Turn left at S Carolina 28 E/US-76 E	14.8 mi
3.	Slight right at E North Ave	1.2 mi
4.	Continue onto Club Dr	0.4 mi
5.	Continue onto N Murray Ave	1.3 mi
6.	Turn left at W River St	0.1 mi
7.	Take the 1st right onto S Carolina 28 E/S Main St Continue to follow S Carolina 28 E	28.2 mi
8.	Turn right at N Carolina 28 Bypass S	3.4 mi
9.	Continue straight onto S Carolina 28 E	46.9 mi
10.	Continue onto GA-28 S/Furys Ferry Rd	6.7 mi
11.	Turn right at GA-104 W/Riverwatch Pkwy	0.6 mi

12.	Turn left at Pleasant Home Rd	< 0.1 mi
13.	Turn right to stay on Pleasant Home Rd	1.4 mi
14.	Continue onto Scott Nixon Memorial Dr	0.3 mi
15.	Turn right to merge onto Bobby Jones Expy	0.5 mi
16.	Continue onto I-520 E	8.6 mi
17.	Take exit 9 for GA-56/Mike Padgett Hwy	0.3 mi
18.	Turn right at GA-56 S/Mike Padgett Hwy	13.5 mi
19.	Turn left at GA-23 S	11.4 mi
20.	Turn left at Jack Delaigle Rd	3.8 mi
21.	Turn left at Ebenezer Church Rd	0.2 mi
22.	Continue onto C C Rd	0.3 mi
23.	Turn right at River Rd	1.5 mi

TAB 3

Facility Data

Utility: Duke Energy Carolinas, LLC
Location: 8 miles northeast of Seneca, SC
County: Oconee County, SC

	UNIT 1	UNIT 2	UNIT 3
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
Power Level	2568 MWt (900 MWe)
NSSS Vendor	B & W

TAB 4

Facility Unique Features

Emergency Supply to 4160 Volt-AC Safety-Related Buses

Power to the safety-related buses is provided from the two Keowee Hydro Station generating units. A single Keowee Hydro Unit (KHU) will supply all emergency power. This power is supplied to Oconee by two connections; an overhead transmission line and an underground line. Gas turbines at the Lee Steam Station can also be made available manually via a separate overhead line to provide power if neither KHU is available.

Standby Shutdown Facility (SSF)

The SSF provides an alternate and independent means to achieve and maintain a hot standby condition for all three units following postulated turbine building flood, fire, and sabotage events. It consists mainly of one diesel generator, an auxiliary service water pump, and supporting equipment (in a seismically qualified building) and three standby makeup pumps (one in each unit's reactor building). Powered by the SSF diesel generator, the standby makeup pumps deliver water at approximately 26 gpm from the associated spent fuel pool to the reactor coolant pump seals. In support of primary decay heat removal, the SSF auxiliary service water pump supplies water from the condenser circulating water (CCW) system to the once-through steam generators. The SSF is able to maintain all three units in Mode 3 (525 degrees) for 72 hours. The proposed Tornado/HELB mitigation strategies also take credit for the SSF.

Low Pressure Service Water (LPSW)

As originally designed, long-term decay heat removal has relied on the non-safety, non-seismically qualified CCW piping system and its pumps to provide water to the safety-related LPSW pumps located in the turbine building basement. During loss of offsite power events, the CCW pumps lose power; therefore, decay heat removal and cooling water for safety-related pumps rely on the use of a siphon effect (between the lake and the CCW system) to provide water to the safety-related LPSW system.

Emergency Feedwater (EFW)

The safety-related EFW pumps (two per unit) are located in the turbine building basement. Each unit's EFW system must rely on the limited source of water in its seismically qualified upper surge tank and on the water contained in the condenser hotwell. However, cross-connect valves are provided between all three units' EFW systems. Identified EFW single failure vulnerabilities have been addressed through plant modifications and licensing basis changes/clarifications.

Containment Isolation

Several piping systems penetrating containment were designed without isolation valves (Main Steam), or redundant, reliable (QA-1) isolation devices (Main Feedwater). In 2002, a new automatic feedwater isolation system (AFIS) modification was installed that secures/isolates both main and emergency feedwater to the affected steam generator. Supplemental diesel air compressors are used to compensate for the expected bleed off of valve operating air pressure should a coincident loss of offsite power occur.

TAB 5

Reactor Oversight Process Info

The following URLs are for the Oconee Nuclear Station (Units 1, 2 and 3) ROP Performance Summary web pages.

http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/OCO1/oco1_chart.html

http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/OCO2/oco2_chart.html

http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/OCO3/oco3_chart.html

http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/pi_summary.html

ROP Performance Status (1st Quarter 2010 – 4th Quarter 2010)

Plant performance for the period from the 1st quarter of 2010 to the 4th quarter of 2010 for Oconee Units 1, 2, and 3 was within the Degraded Cornerstone Column of the NRC's Action Matrix. This was a result of a Yellow Mitigating Systems Cornerstone finding for Units 1, 2, and 3, and a White Mitigating Systems Cornerstone finding for Units 2 and 3, both originating in the 1st quarter of 2010. The 95002 supplemental inspection was successfully completed on December 17, 2010, and both findings were closed at the end of the fourth quarter of 2010. Therefore, all three units will transition to the Licensee Response column of the Action Matrix in the 1st quarter of 2011.

TAB 6

Current Issues

A. EXPECTED DISCUSSION TOPICS

External Flood

An issue related to the potential impact that external flooding would have on the Oconee Nuclear Station has been raised and is currently being addressed by both the licensee and NRC. The licensee has developed Interim Compensatory Measures to address the dam concerns and is working on permanent actions to ensure the station is not adversely affected by potential external flooding. Regional inspection of the Interim Compensatory Measures was completed in June 2010. On June 22, 2010, the NRC issued a CAL which documented that the licensee would submit a final inundation study by August 2, 2010 (completed), submit a list of modifications by November 30, 2010 (licensee extended until April 2011), and complete those modifications by November 30, 2011.

NFPA 805 Transition

Oconee is one of two pilot plants that are in the process of transitioning to NFPA 805 for fire protection. LAR No. 2008-01, to adopt NFPA 805, was submitted for all three Units on May 30, 2008. On October 31, 2008, the licensee submitted, as a supplement to the LAR, the fire probabilistic risk assessment model and associated change evaluations. Proposed modifications are being finalized. By letter dated April 14, 2010, the licensee resubmitted the LAR superseding both the May 30, 2008, and October 31, 2008, submittals. The NRC staff completed its review of the LAR and issued the final licensee amendment on December 29, 2010.

Tornado & HELB Mitigation

As a result of a 95002 supplemental inspection of two White Mitigating System tornado-related findings in 2001, it was determined that Oconee has a number of tornado-related vulnerabilities that collectively represented a deficient tornado mitigation strategy. Duke notified the NRC in January 1999 that it was initiating a project to reconstitute the design and licensing basis for HELBs outside the reactor building. The licensee is implementing a number of major modifications designed to minimize the risk exposure resulting from events such as tornado and a high-energy line break, as well as add equipment that had not been part of Oconee's initial design; i.e., main steam isolation valves. The schedule for completion of these activities has been adversely impacted by factors including changes to the design as work is proceeding, quality issues tied to the vendors performing the work, and fabrication issues. The licensee submitted LAR's to update the UFSAR in June 2009. The staff has issued numerous RAI's and the licensee is in the process of responding to them. By letter dated December 6, 2010, the licensee updated the Tornado and HELB license amendments.

Digital Computer Based Reactor Protective System (RPS)/Engineered Safeguards Protective System (ESPS)

The licensee is implementing a major modification to all three units' Reactor Protection System and Engineered Safeguards Features Actuation System (RPS/ESFAS). Currently the licensee is performing site acceptance testing on the digital upgrade to the RPS/ESFAS for Unit 1. This modification is scheduled to be installed during the Unit 1 Spring 2011 refueling outage. Following installation of the digital upgrade on Unit 1, the system will be installed on Units 3 and

2 during subsequent scheduled refueling outages in 2012. The Division of Reactor Safety is currently leading the NRC inspection effort supported by the resident inspectors.

William States Lee III Nuclear Station Combined Operating License (COL) Application

By letter dated December 12, 2007, Duke Energy Carolinas, LLC (Duke) tendered a COL application for two Westinghouse AP1000 advanced passive pressurized water reactors designated as Units 1 and 2 of the William States Lee III Nuclear Station. The proposed site is located in the eastern portion of Cherokee County in north central South Carolina, approximately 35 miles southwest of Charlotte, North Carolina, and approximately 7.5 miles southeast of Gaffney, South Carolina.

Tritium

Elevated levels of tritium have been detected in ground water monitoring wells within the Owner Controlled Area. In February 2010, one of the wells exceeded the 20,000 pCi/l threshold which initiated the NEI Groundwater Communication plan. The local media outlets carried the story for several days and additional interest was indicated during the annual public meeting. The licensee has installed additional monitoring wells and is conducting sampling & analysis to determine if the source is an active leak or a legacy issue. The latest sample values indicate that the tritium levels in the well of interest remains above the 20,000 pCi/l threshold.

Approval for Additional Resident Inspector

A temporary third resident has been authorized for the Oconee site due to the large number of permanent plant modifications associated with Tornado/HELB issues, NFPA 805 implementation, conversion to a digital Reactor Protection System/Engineered Safeguards Protective System, and the addition of Main Steam Isolation Valves. These modifications are both complex and important to safety. The third resident will provide additional oversight of the modification work and will coordinate inspection efforts of specialist inspectors from Region II.

B. OTHER TOPICS OF INTEREST

Labor/Management Issues

None

License Renewal Activities

The Oconee Site-Specific Independent Spent Fuel Storage Installation (ISFSI) license was renewed on May 29, 2009, for 40 additional years. This included a 20 year renewal plus an exemption which allows for an additional 20 years. The license will now expire on January 31, 2050.

Escalated Enforcement, Non-Green Findings and Non-Green Performance Indicators

- A self-revealing Yellow violation of Technical Specification 3.10.1 was identified when the Standby Shutdown Facility (SSF) Reactor Coolant Makeup (RCM) subsystem letdown line failed to pass the required flow. As a result, the SSF RCM subsystem was rendered inoperable for greater than the seven days allowed by technical specifications. No cross-cutting aspect was identified because the most significant contributor to this finding was not indicative of current licensee performance.

- A NRC-identified White violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, was identified for the licensee's failure to promptly identify and correct a condition adverse to quality associated with a degraded condition on Unit 2 and Unit 3 Standby Shutdown Facility (SSF) Reactor Coolant Makeup (RCM) subsystem letdown lines. This finding directly involved the cross-cutting area of Human Performance under the Conservative Assumptions and Safe Actions aspect of the "Decision Making" component (H.1(b)).

- A licensee-identified SL-III violation of 10 CFR 50.9(a) was identified when the licensee determined that information contained in the "Oconee Nuclear Station SSF RC Letdown Action Plan" was inaccurate. This information was material to NRC because it was used, in part, as the basis for determining whether the licensee's response to the degraded condition was adequate and whether additional compensatory actions or NRC review would be necessary.

Open Investigations

Three issues are under Office of Investigations (OI) review. The investigations are in the areas of discrimination, wrongdoing, and health physics.

Open Allegations

Seventeen allegations were received in 2010. Four allegations are open involving a total of five concerns. The concerns involve the areas of civil/structural, discrimination, falsification, health physics, and quality assurance.

Congressional Interest

None

Harassment and Intimidation Issues

None

2.206 Petitions

None

Recent News Articles

The Anderson (SC) Independent-Mail (2/1) reports, "The Nuclear Regulatory Commission staff has approved a license amendment request from Duke Energy Carolinas to install an up-to-date computer upgrade of major safety-related systems at the Oconee Nuclear Station, located eight miles north of Seneca on Lake Keowee." The amended license will allow Duke to upgrade "1970s-era analog, solid-state controls for the plant's Reactor Protection System (RPS) and Engineered Safeguard Protection System (ESPS)" with "Teleperm XS (TXS) digital computer-based equipment," according to an NRC news release. The "NRC staff approved the Oconee amendment after confirming the new system's ability to meet both safety requirements and NRC cyber-security regulations that isolate the systems and prevent cyber attacks."

According to the Anderson (SC) Independent-Mail (2/10), "Samples from two monitoring wells at Oconee Nuclear Station indicate that tritium in groundwater has exceeded the nuclear industry's voluntary reporting level." The "two monitoring wells are on the station's property near the main

plant buildings. There are 54 wells on the site and only the two wells had tritium levels above the reporting level of 20,000 picocuries per liter." The sample results showed levels of 24,400 and 35,400 picocuries per liter, according to Sandra Magee, a spokeswoman for Duke Energy's Oconee Nuclear Station" and Tom Clements, Southeastern Nuclear Campaign Coordinator Friends of the Earth in Columbia, said the levels of tritium found in monitoring wells near the Oconee nuclear plant are of concern."

The Greenville (SC) News (3/30, Simon) reports, "The source of radioactive tritium in monitoring wells at Oconee Nuclear Station remains a mystery, and area residents are waiting for answers while workers are digging new test wells to narrow down the possibilities." Small amounts "of tritium within allowable federal limits are released from every nuclear power plant as part of the normal process, said Roger Hannah, a Nuclear Regulatory Commission spokesman." Up to "this point, the leaks have been below regulatory limits and are deemed to be of 'low safety significance,' Hannah said. 'All available information shows no threat to the public,' according to a statement posted on the NRC Web site." The News notes that "two Oconee samples [were] 'just above the reporting threshold,'" said Duke spokeswoman Sandra Magee. The two Oconee samples came from monitoring wells between the turbine building and the switch yard at Oconee and showed tritium levels at 24,400 picocuries and 35,400 picocuries, Magee said."

The Greenville (SC) News (6/29, Simon) reports, "Oconee Nuclear Station has been called on the carpet by the Nuclear Regulatory Commission over blocked waterlines for emergency use, a four-month delay in checking two reactors for the problem and an inaccurate technical report -- a situation a Duke Energy spokeswoman said never compromised public safety and has been corrected." The News adds the "matter will be hashed out on July 13 at" NRC's "regional office in Atlanta," and "could lead to added federal oversight at Oconee. The situation involves a standby shutdown facility procedure that would be used to drain water from the reactors only in certain highly unlikely emergency situations such as sabotage or turbine building flooding, said Addie Bradshaw, a Duke spokeswoman." The facility "could still have been used if needed, she said." NRC said it was "highly unlikely" that the facility, "would have been used," said Jonathan Bartley, chief for Reactor Projects Branch.

The AP (7/15) reports, "Nuclear power plant officials in South Carolina admit they missed opportunities to discover issues that led to blockages in the plant's emergency water lines." Even so, according to the Greenville News, "Oconee Nuclear Station officials told the Nuclear Regulatory Commission in Atlanta on Tuesday the missed observations shouldn't lead to more oversight," for the incident in April of 2008 during which an Oconee reactor "lost power and cooling for two seconds during a scheduled maintenance" outage. NRC regulators "cited Oconee for failing to check other units for blockages."

WSPA-TV Greenville, SC (8/16, 11:07 p.m. EDT) broadcast that the NRC "says an upstate plant committed a 'substantial' safety violation last winter. Duke Energy operates the Oconee nuclear station near Seneca. After an inspection in February and a hearing in July, the Nuclear Regulatory Commission came out with its final ruling today, finding two safety violations... one classified as 'white,' or 'low to moderate,' and one 'yellow,' the second-most serious on the NRC scale. The issue: an obstruction in a pipe that drains water from the reactor. The pipe is used only in rare emergencies that call for a plant shutdown. The NRC tells us there was 'very little' risk to public safety." Duke says there is "no risk, because it has other methods of draining the water."

TAB 7

Facility Organization

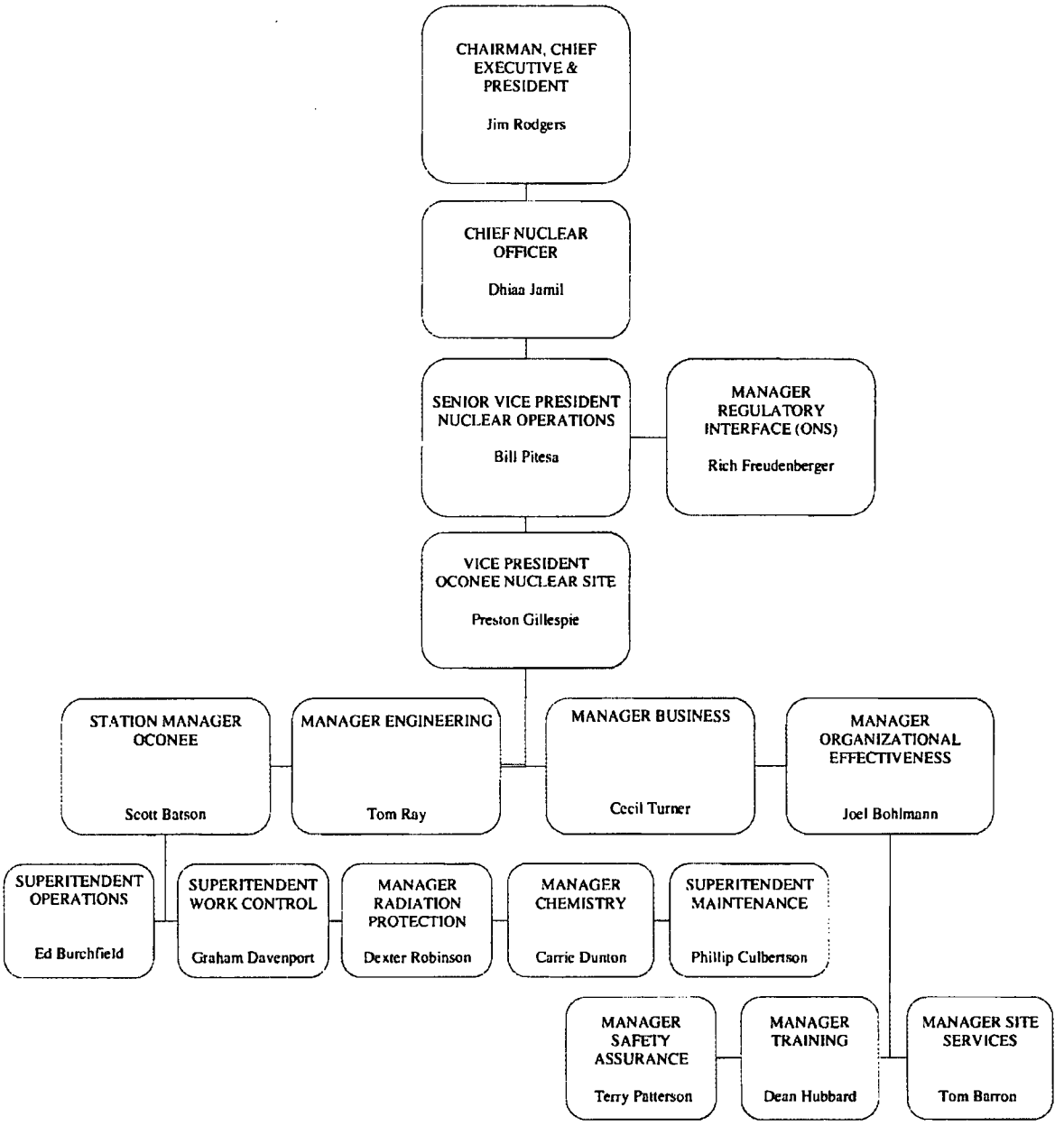
OVERVIEW OF DUKE ENERGY

Duke Energy Carolinas

Duke Energy Carolinas operations include nuclear, coal-fired, natural gas, and hydroelectric generation. This diverse fuel mix provides nearly 21,000 megawatts (MW) of electricity to more than 2.3 million electric customers in a 24,000 square-mile service area of North Carolina and South Carolina. Duke Energy Carolinas generates energy primarily from three nuclear generating stations with a combined net capacity of 6,996 MW, eight coal-fired stations with a combined capacity of 7,699 MW, 31 hydroelectric stations with a combined capacity of 2,693 MW, and six combustion turbine stations with a combined capacity of 2,861 MW. Duke Energy Carolinas owns and operates the two-unit McGuire and the three-unit Oconee nuclear stations. In addition, Duke Energy Carolinas operates and has a partial ownership interest in the two-unit Catawba Nuclear Station.

Duke Energy submitted a 10 CFR 52 application for a combined operating licensee to the NRC on December 13, 2007, which was docketed on February 25, 2008. A public scoping meeting was also held on May 1, 2008, near the proposed site location. The license application references the Westinghouse AP1000 as the reactor type and two reactors are planned for the site. The location is just south of the North Carolina/South Carolina border near Gaffney, S.C.

DUKE ENERGY
OCONEE NUCLEAR STATION
ORGANIZATIONAL CHART



Biographical Data of Principal Managers

TAB 8

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

Bill provides oversight for the safe and reliable operation of all three Duke operating nuclear stations. He is also responsible for the major projects groups and the fleet centers of excellence group. Pitesa was named to his current position in December 2010. Bill has over 29 years of experience in the nuclear field.

Bill joined the company in 1980 as an engineer at McGuire Nuclear Station. He was named senior reactor operator in 1986 and later served as a nuclear fuel handling supervisor and operations staff lead. In 1992, he served two years as a loaned employee for the Institute of Nuclear Power Operations.

Bill 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, Pitesa was named as the station's operations manager in 2004 and station manager of Catawba Nuclear Station in 2005. In 2009, Bill 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.

Bill 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), Bill has served on nuclear plant review teams in the United States, Korea, France, South Africa, and Ukraine.

Benjamin C. (Ben) Waldrep
Vice President – Nuclear Corporate

Ben is responsible for improving fleet performance in operations, maintenance, work management, training, human performance/personal safety, and radiation protection/chemistry. He has more than 25 years of experience in the nuclear field. He joined Duke Energy in January 2010 from Progress Energy, where he served as vice president of Brunswick Nuclear Station. Prior to joining Progress Energy, he was employed by Florida Power and Light Co. in the engineering and maintenance department at Turkey Point Nuclear Station.

Ben graduated from Georgia Tech with a Bachelor of Science degree in nuclear engineering and holds an MBA from the University of Phoenix. He is a member of the American Nuclear Society and has served on the Institute of Nuclear Power Operations (INPO) Academy Council.

T. Preston Gillespie Jr.
Site Vice President – Oconee Nuclear Station

Preston is responsible for the safe and reliable operation of Oconee Nuclear Station, a three-unit, pressurized water-reactor nuclear generating facility. He directs station and facilities management, operations, maintenance, chemistry and radiation protection, engineering, nuclear and industrial safety, and business operations. He joined Duke Power in 1986 as an assistant engineer at Oconee Nuclear Station. He served in a variety of positions while at the station, including nuclear operations shift manager, shift operations manager, and nuclear engineering manager. He moved to Catawba Nuclear Station in 2007 to serve as the station's operations superintendent. He was named Oconee Station Manager in October 2008 and moved to his current position in December 2010.

Preston graduated from Clemson University with a Bachelor of Science degree in mechanical engineering. He is a registered professional engineer in South Carolina. He held a senior reactor operator license at Oconee Nuclear Station. He is also a past recipient of the company's Robinson Award, which recognized employees for their outstanding contributions to the company's operations.

Joel E. Bohlmann
Organizational Effectiveness Manager

Joel is responsible for managing station support functions including training, site services, security, emergency preparedness, performance improvement, environmental and safety, and regulatory compliance. He is on loan from INPO where he has worked as an evaluation team leader for over 4 years. Joel graduated from the Naval Academy and served in a variety of positions. He was assigned to four different attack submarines, one ballistic missile submarine, and to one nuclear powered aircraft carrier. He commanded the nuclear submarine USS Hartford from 1995 to 1998 and the Naval Nuclear Power Training Command from 2000 to 2003. His final position in the Navy was director of tactical systems and tactical training for the submarine force.

Joel earned a Bachelor of Science degree in marine engineering from the United States Naval Academy. He also earned a master of engineering management degree from Old Dominion University.

Scott L. Batson
Station Manager

Scott is responsible for all aspects of operation, maintenance, work control, radiation protection, and chemistry activities at the station to provide safe, reliable, and efficient electrical service. He has over 22 years of experience in plant operation and engineering. He joined the company in January 1985 as a junior engineer at Oconee Nuclear Station in and has held various positions including most recently as Operations Superintendent responsible for managing all aspects of operations activities at Oconee and at Keowee Hydro Station. He was named Engineering Manager in January 2008 and moved to his current position in December 2010.

Scott earned a Bachelor of Science degree in Mechanical Engineering from Clemson University and is a registered professional engineer in South Carolina. He received a senior reactor operator license from the U.S. Nuclear Regulatory Commission and a senior nuclear plant management certification from the Institute of Nuclear Power Operations. He has also completed the Duke Energy Advanced Leadership Program.

Thomas (Tom) D. Ray
Engineering Manager

Tom is responsible for managing and directing activities at the station related to system, component, and design engineering. He joined the company in 1989 as an associate engineer in the nuclear generation department in Charlotte. He was named senior engineer of reactor engineering at McGuire Nuclear Station in 1994; engineering supervisor in 1999; maintenance manager in 2002; and outage manager in 2003. He was named safety assurance manager at Catawba Nuclear Station in 2004, maintenance superintendent in 2005, and most recently engineering manager. Ray was named engineering manager of Oconee Nuclear Station in September 2010. Before joining the company, Ray was an engineer for Bechtel Power Corporation, from 1987 to 1989.

Ray earned a Bachelor of Science degree in nuclear engineering from North Carolina State University. He is a registered professional engineer in North Carolina and has a technical nuclear certification and serves as a Duke Energy management committee representative for the Pressurized Water Reactor Owners Group.

Terry L. Patterson
Safety Assurance Manager

Terry is responsible for the management of site programs and processes related to environmental health and safety, regulatory compliance, performance improvement, emergency planning and security. He filled this position in October 2010 coming from Constellation Energy Nuclear Group (CENG). Terry has over 30 years of commercial nuclear power experience. Prior to joining Duke Power, Terry spent five years in the nuclear submarine service where he served as the Main Propulsion Assistant on a nuclear ballistic missile submarine. He also spent three years with Combustion Engineering, Inc., fifteen years at Omaha Public Power District's (OPPD) Fort Calhoun Station and thirteen years at Florida Power and Light's (FPL) St. Lucie Nuclear Station.

Terry earned a Bachelor of Science degree in Physics from the U. S. Naval Academy, Annapolis, Maryland and a Masters in Business Administration from the University of Nebraska.

TAB 9

Resumes of Oconee Resident Inspectors

Andrew T. Sabisch
Senior Resident Inspector

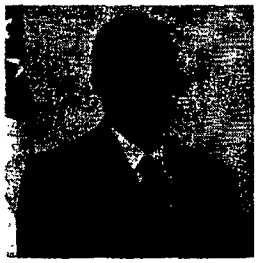
Mr. Sabisch joined the NRC in 2003. He is a (b)(6) Mr. Sabisch attended SUNY Maritime College and received his Bachelor degree in Nuclear Science with a minor in Computer Science.

Mr. Sabisch joined MetEd at the Three Mile Island Generating Station in Middletown, PA and worked in both the Operations department and the Unit 1 Recovery Group. He served as Shift Test Director in 1982 during hot functional testing conducted to support the restart of Unit 1 following the 1979 Unit 2 accident. Mr. Sabisch worked for Louisiana Power & Light from 1982 to 1984 as a Plant Engineering section manager supporting the construction and turnover of plant systems during startup of the Waterford 3 Steam Electric Station. In this role, he also was responsible for the development of the plant technical specifications and worked with the NSSS vendor, architect engineering firm and the NRC to obtain final approval to support license issuance. Mr. Sabisch worked for Public Service Electric & Gas at the Salem and Hope Creek Generating stations from 1984 to 1988 in the Operations, Start-up & Test and Licensing departments supporting restart of Salem following the ATWS event and initial startup of the Hope Creek 1 reactor. Mr. Sabisch worked for the Institute of Nuclear Power Operations (INPO) from 1988 to 2000 conducting plant inspections, technical assistance visits and event follow-up reviews at 42 U.S. reactor sites and 12 international sites. During this period, Mr. Sabisch served as the Refueling Coordinator at the Peach Bottom Atomic Power Station and team leader for the international Nuclear Plant Reliability Data System (NPRDS) project with WANO as a loaned employee while at INPO. Mr. Sabisch worked for Pennsylvania Power & Light Corporation at the Susquehanna Steam Electric Station from 2000 to 2002 as a Unit Supervisor in the Operations Department.

Mr. Sabisch's career with the NRC began in 2003 with his assignment to the Catawba Nuclear Station as the Resident Inspector following a 5-month period in Region II as a Project Engineer for Branch I. He was promoted to the Catawba Senior Resident Inspector in 2006 and was transferred to the Oconee Nuclear Station as Senior Resident Inspector in September 2009. In addition to baseline inspection program activities associated with Catawba, Mr. Sabisch has participated in or led PI&R inspections, 95-001 and 95-003 inspections, Augmented and Special Inspections, a Component Design Basis Inspection and a B.5.b inspection. Mr. Sabisch has received ten awards in his 6 years with the NRC including a Regional Administrator's Employee Excellence Award.

Mr. Sabisch received honorable discharges from the U.S. Navy and the Pennsylvania Army National Guard.

Kevin M. Ellis
Resident Inspector



Kevin joined the NRC in 2007. He is a (b)(6) He has been a resident inspector at the Oconee Nuclear Station since July 2009. Kevin began his career in 2002 as a nuclear engineer for Norfolk Naval Shipyard where he qualified as a shift refueling engineer. Kevin was initially hired as a project engineer in Region II, Division of Reactor Projects. He acted as the resident inspector at the V. C. Summer Nuclear Plant and then worked as the project engineer for Branch 4, Division of Reactor Projects.

Kevin graduated Cum Laude from Florida Institute of Technology with a Bachelor of Science degree in Mechanical Engineering in (b)(6)

Geoffrey K. Ottenberg
Resident Inspector

Geoff joined the NRC in 2004. He is a (b)(6) He has been a resident inspector at the Oconee Nuclear Station since September 2008. Previously, he worked as a researcher at Argonne National Laboratory on a fellowship assignment. In the NRC, Geoff was initially hired as a reactor engineer in Region I, Division of Reactor Projects. After qualifying as an inspector, Geoff worked in Region I, Division of Reactor Safety, as a reactor inspector doing primarily Component Design Basis Inspections, and also completed a 6-month rotation as resident inspector at the Susquehanna Steam Electric Station.

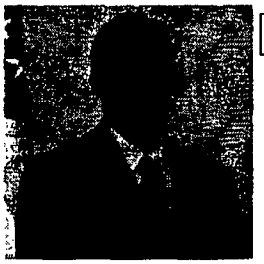
Geoff received his bachelor's degree in Mechanical Engineering from the Florida State University in (b)(6) and is a registered engineer intern in the State of Florida.

Joyce B. Hamman
Resident Inspector

Joyce joined the NRC in April 2006. She is a (b)(6) She joined the resident inspector staff at the Oconee Nuclear Station in early May 2010. Joyce worked at the V. C. Summer Nuclear Station as a Quality Engineer. While with V. C. Summer, she was an American Nuclear Standards Institute and Nuclear Utilities Procurement Issues Committee approved auditor. In this position, she was a member of and led teams of utility inspectors in 10 CFR 50 Appendix B vendor audits. Joyce took a (b)(6) Joyce joined the NRC in April 2006 as a Project Engineer at the NRC headquarters office. Shortly thereafter, she accepted the position of Reactor Inspector at the Region II office as a reactor inspector where she participated in or led engineering inspections. Ms. Hamman began her assignment as Oconee Resident Inspector and Oconee Nuclear Station Major Modifications Project Manager in May 2010.

Joyce received a Bachelor of Science degree in Electrical Engineering from the University of South Carolina in (b)(6)

Kevin M. Ellis
Resident Inspector



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