



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

March 3, 2008

Duke Power Company LLC  
d/b/a Duke Energy Carolinas, LLC  
ATTN: Mr. David Baxter  
Vice President  
Oconee Nuclear Station  
7800 Rochester Highway  
Seneca, SC 29672

SUBJECT: ANNUAL ASSESSMENT LETTER - OCONEE NUCLEAR STATION  
NRC INSPECTION REPORT 05000269/2008001, 05000270/2008001,  
AND 05000287/2008001

Dear Mr. Baxter:

On February 5, 2008, the NRC staff completed its performance review of Oconee Nuclear Station. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2007. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only – Security-Related Information" will include the security cornerstone review and resultant inspection plan.

Overall, Oconee Units 1, 2, and 3 operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter was within the Licensee Response Column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility.

While plant performance for the most recent quarter is within the Licensee Response column of the Action Matrix, plant performance for all three Oconee Units during the first two quarters of the assessment period was within the Degraded Cornerstone Column of the NRC's Action Matrix. This was the result of a fourth quarter 2006 Mitigating Systems cornerstone PI reflecting performance at a level that required additional NRC oversight (White), in conjunction with a third quarter 2006 Mitigating Systems cornerstone finding of low to moderate safety significance (White), affecting all three units. The White Mitigating Systems cornerstone PI (Emergency AC Power System) was the result of an extended forced outage on Keowee Hydroelectric Unit 2. The third quarter 2006 White finding involved the failure to effectively control maintenance

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activities, and therefore assess and manage the risk associated with breaching the standby shutdown facility (SSF) external flood protection barrier. In addition, the Degraded Cornerstone performance of Oconee Unit 3 was also reflective of the aforementioned White finding (or PI) in conjunction with a fourth quarter 2006 White Mitigating Systems finding involving the failure to implement adequate foreign material exclusion controls for the Unit 3 reactor building emergency sump (RBES).

During the third quarter of the assessment period, the aforementioned White findings and PI were inspected and the White findings were closed, as documented in 95002 Supplemental Inspection Report 05000269,270,287/2007009. Subsequent to the 95002 Supplemental Inspection in August 2007, the Emergency AC Power PI turned from White to Green (due to calculational changes) in the third quarter for all three Oconee Units. Consequently, third quarter performance of Oconee Units 1 and 2 went from the Degraded Cornerstone Column to the Regulatory Response Column of the NRC's Action Matrix, since the above mentioned third quarter 2006 White SSF finding remained in effect until the fourth quarter 2007. For the same reason, this White SSF finding and the previously mentioned fourth quarter 2006 White Unit 3 RBES finding resulted in the Oconee Unit 3 third quarter performance remaining in the Degraded Cornerstone Column of the NRC's Action Matrix.

For your information, the following issue is still under staff review as part of the Significance Determination Process and may warrant additional supplemental inspections if it is determined to be of greater than very low risk significance:

Unresolved Item (URI) 05000269,270,287/2006002-03, concerning excessive cycling of main steam safety valves (MSSVs) during standby shutdown facility-related events and the potential effects of a resulting stuck open MSSV.

Additionally, the staff is also continuing its review of licensing basis issues associated with tornado mitigation and high energy line break analysis.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 2009. In addition to ROP baseline inspection activities, the plan currently includes non-ROP inspection activities involving: operator licensing examinations; reactor coolant system dissimilar metal butt welds; and implementation of B.5.b mitigating strategies. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the mid-cycle review.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

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If circumstances arise which cause us to change the inspection plan, we will contact you to discuss the change(s) as soon as possible. Please contact Robert Carroll at (404) 562-4511 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

***/CAC RA for/***

Victor M. McCree  
Acting Regional Administrator

Docket Nos.: 50-269, 50-270, 50-287, 72-04, 72-40  
License Nos.: DPR-38, DPR-47, DPR-55

Enclosure: Oconee Inspection/Activity Plan

cc w/encl: (See page 4)

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**Oconee**  
**Inspection / Activity Plan**  
**03/01/2008 - 06/30/2009**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>EB1-CDBI</b>	<b>- COMPONENT DESIGN BASES INSPECTION</b>	<b>8</b>			
1, 2, 3	IP 7111121	Component Design Bases Inspection		03/10/2008	03/14/2008	Baseline Inspections
	<b>EB3TI172</b>	<b>- TI-172</b>	<b>1</b>			
1, 2, 3	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds		03/17/2008	03/21/2008	Generic Safety Inspectio
	<b>PSB1-EP</b>	<b>- EP EXERCISE</b>	<b>3</b>			
1, 2, 3	IP 7111401	Exercise Evaluation		03/31/2008	04/04/2008	EP Baseline Inspection
1, 2, 3	IP 7111404	Emergency Action Level and Emergency Plan Changes		03/31/2008	04/04/2008	EP Baseline Inspection
1, 2, 3	IP 71151-EP01	Drill/Exercise Performance		03/31/2008	04/04/2008	Baseline Inspections
1, 2, 3	IP 71151-EP02	ERO Drill Participation		03/31/2008	04/04/2008	Baseline Inspections
1, 2, 3	IP 71151-EP03	Alert & Notification System		03/31/2008	04/04/2008	Baseline Inspections
	<b>EB3-ISI</b>	<b>- U-1 INSERVICE INSPECTION</b>	<b>2</b>			
1	IP 7111108P	Inservice Inspection Activities - PWR		04/21/2008	04/25/2008	Baseline Inspections
	<b>EB3SGISI</b>	<b>- U1 SG ISI</b>	<b>2</b>			
1	IP 7111108P	Inservice Inspection Activities - PWR		04/21/2008	04/25/2008	Baseline Inspections
	<b>PSB1-RP</b>	<b>- RADIATION PROTECTION PREINSPECTION VISIT</b>	<b>1</b>			
1, 2, 3	IP 7112101	Access Control to Radiologically Significant Areas		06/16/2008	06/18/2008	Baseline Inspections
	<b>EB2-TFP</b>	<b>- TRIENNIAL FIRE PROTECTION</b>	<b>6</b>			
1, 2, 3	IP 7111105P	Fire Protection-NFPA 805 Transition Period [Triennial]		07/21/2008	07/25/2008	Baseline Inspections
1, 2, 3	IP 7111105P	Fire Protection-NFPA 805 Transition Period [Triennial]		08/04/2008	08/08/2008	Baseline Inspections
	<b>PSB1-RP</b>	<b>- RADIATION PROTECTION PUBLIC BASELINE</b>	<b>4</b>			
1, 2, 3	IP 7112101	Access Control to Radiologically Significant Areas		07/14/2008	07/18/2008	Baseline Inspections
1, 2, 3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		07/14/2008	07/18/2008	Baseline Inspections
1, 2, 3	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		07/14/2008	07/18/2008	Baseline Inspections
1, 2, 3	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program		07/14/2008	07/18/2008	Baseline Inspections
1, 2, 3	IP 71151-OR01	Occupational Exposure Control Effectiveness		07/14/2008	07/18/2008	Baseline Inspections
1, 2, 3	IP 71151-PR01	RETS/ODCM Radiological Effluent		07/14/2008	07/18/2008	Baseline Inspections
	<b>TI-171</b>	<b>- B.5.B PHASE 2&amp;3</b>	<b>3</b>			
1, 2, 3	IP 2515/171	Verification of Site Specific Implementation Of B.5.b Phase 2 & 3 Mitigating Strategies		09/15/2008	09/19/2008	Generic Safety Inspectio
	<b>EB3ISI</b>	<b>- U2 ISI</b>	<b>1</b>			
2	IP 7111108P	Inservice Inspection Activities - PWR		10/27/2008	10/31/2008	Baseline Inspections
	<b>EB3SGISI</b>	<b>- U2 SG ISI</b>	<b>1</b>			
2	IP 7111108P	Inservice Inspection Activities - PWR		11/03/2008	11/07/2008	Baseline Inspections
	<b>EB3-HS</b>	<b>- HEAT SINK</b>	<b>2</b>			
1, 2, 3	IP 7111107B	Heat Sink Performance		02/16/2009	02/20/2009	Baseline Inspections

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

**Oconee**  
**Inspection / Activity Plan**  
**03/01/2008 - 06/30/2009**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>OL EXAM - INITIAL EXAM PREP</b>		<b>3</b>			
1	V23301	OCONEE/MARCH 2009 EXAM AT POWER FACILITIES		02/17/2009	02/20/2009	Not Applicable
	<b>OL EXAM - INITIAL EXAM WEEK 1</b>		<b>3</b>			
1	V23301	OCONEE/MARCH 2009 EXAM AT POWER FACILITIES		03/02/2009	03/06/2009	Not Applicable
	<b>OL EXAM - INITIAL EXAM WEEK 2</b>		<b>3</b>			
1	V23301	OCONEE/MARCH 2009 EXAM AT POWER FACILITIES		03/09/2009	03/13/2009	Not Applicable
	<b>PSB1-RP - RADIATION PROTECTION PREINSPECTION VISIT</b>		<b>1</b>			
1, 2, 3	IP 7112101	Access Control to Radiologically Significant Areas		03/16/2009	03/18/2009	Baseline Inspections
	<b>OL RQ - REQUAL INSPECTION</b>		<b>3</b>			
1, 2, 3	IP 7111111B	Licensed Operator Requalification Program		03/16/2009	03/20/2009	Baseline Inspections
	<b>PSB1EP - EP INSPECTION</b>		<b>1</b>			
1, 2, 3	IP 7111402	Alert and Notification System Testing		04/13/2009	04/17/2009	EP Baseline Inspection
1, 2, 3	IP 7111403	Emergency Response Organization Augmentation Testing		04/13/2009	04/17/2009	EP Baseline Inspection
1, 2, 3	IP 7111404	Emergency Action Level and Emergency Plan Changes		04/13/2009	04/17/2009	EP Baseline Inspection
1, 2, 3	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		04/13/2009	04/17/2009	EP Baseline Inspection
1, 2, 3	IP 71151-EP01	Drill/Exercise Performance		04/13/2009	04/17/2009	Baseline Inspections
1, 2, 3	IP 71151-EP02	ERO Drill Participation		04/13/2009	04/17/2009	Baseline Inspections
1, 2, 3	IP 71151-EP03	Alert & Notification System		04/13/2009	04/17/2009	Baseline Inspections
	<b>EB1-MODS - MODIFICATIONS-10CFR50.59</b>		<b>4</b>			
1, 2, 3	IP 7111102	Evaluation of Changes, Tests, or Experiments		04/13/2009	04/24/2009	Baseline Inspections
1, 2, 3	IP 7111117B	Evaluations of Changes, Tests, or Experiments & Permanent Plant Modifications		04/13/2009	04/24/2009	Baseline Inspections
	<b>PSB1-RP - RADIATION PROTECTION OCCUPATIONAL WK1</b>		<b>2</b>			
1, 2, 3	IP 7112101	Access Control to Radiologically Significant Areas		04/20/2009	04/24/2009	Baseline Inspections
1, 2, 3	IP 7112102	ALARA Planning and Controls		04/20/2009	04/24/2009	Baseline Inspections
1, 2, 3	IP 7112202	Radioactive Material Processing and Transportation		04/20/2009	04/24/2009	Baseline Inspections
1, 2, 3	IP 71151-OR01	Occupational Exposure Control Effectiveness		04/20/2009	04/24/2009	Baseline Inspections
1, 2, 3	IP 71151-PR01	RETS/ODCM Radiological Effluent		04/20/2009	04/24/2009	Baseline Inspections
	<b>EB3ISI - UNIT 3 ISI</b>		<b>1</b>			
3	IP 7111108P	Inservice Inspection Activities - PWR		05/04/2009	05/08/2009	Baseline Inspections
	<b>PSB1-RP - RADIATION PROTECTION OCCUPATIONAL WK2</b>		<b>2</b>			
1, 2, 3	IP 7112101	Access Control to Radiologically Significant Areas		05/04/2009	05/08/2009	Baseline Inspections
1, 2, 3	IP 7112102	ALARA Planning and Controls		05/04/2009	05/08/2009	Baseline Inspections
1, 2, 3	IP 7112202	Radioactive Material Processing and Transportation		05/04/2009	05/08/2009	Baseline Inspections

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