July 25, 2003

LICENSEE: DUKE ENERGY CORPORATION

FACILITY: OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

SUBJECT: SUMMARY OF JULY 1, 2003, MEETING TO DISCUSS THE DEFENSE-IN-DEPTH AND DIVERSITY ANALYSIS ASSOCIATED WITH THE DIGITAL UPGRADE OF THE REACTOR PROTECTIVE SYSTEM AND ENGINEERED SAFEGUARDS PROTECTIVE SYSTEM

On July 1, 2003, the Nuclear Regulatory Commission (NRC) met with Duke Energy (the licensee) to discuss the licensee's March 20, 2003, submittal that presented a defense-in-depth and diversity analysis associated with the digital upgrade of the reactor protective system (RPS) and the engineered safeguards protective system (ESPS). Enclosure 1 is a list of attendees. The March 20, 2003, submittal and the handouts provided by the licensee are accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the internet at the NRC Web site, http://www.nrc.gov/reading-rm/adams/html. The accession number for the March 20, 2003, submittal is ML030920676, and the accession number for the licensee's handouts is ML031840460.

The licensee stated that it analyzed a spectrum of transients and accidents using realistic assumptions and achievable operator actions, assuming a common mode failure of RPS/ESPS. The acceptance criteria were met for all the transients and accidents except the large break loss-of-coolant (LBLOCA) accident. To acceptably mitigate the LBLOCA, the licensee stated that low pressure injection (LPI) would have to be initiated in about 2 minutes, which is less time than the licensee believed is achievable by the operators. Rather than add a diverse LPI actuation, the licensee is proposing to eliminate consideration of the LBLOCA based on leak detection capability and the low probability of a common mode failure of RPS/ESPS concurrent with a LBLOCA.

During the meeting, the NRC staff asked for, and the licensee agreed to provide, the following information:

(1) The ratio of the critical crack size to the leakage crack size,

(2) A clarification of the capability of the leakage detection systems and a docketed statement that 2 of the 3 systems meet Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems."

(3) A docketed statement that the times assumed for operator actions are calculated from the initiation of the event, and

(4) A discussion of the relevant differences between the Babcock and Wilcox Emergency Procedure Guidelines and the Oconee Emergency Operating Procedures.

The NRC stated that it intends to complete its review of the licensee's March 20, 2003, submittal by September 30, 2003.

Sincerely

/RA/

Leonard N. Olshan, Project Manager, Section 1
Project Directorate,
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270 and 50-287

Enclosure: As stated

cc w/encl: See next page

The NRC stated that it intends to complete its review of the licensee's March 20, 2003, submittal by September 30, 2003.

Sincerely

/RA/

Leonard N. Olshan, Project Manager, Section 1
Project Directorate,
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270 and 50-287

Enclosure: As stated

cc w/encl: See next page

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LIST OF ATTENDEES

MEETING TO DISCUSS DEFENSE-IN-DEPTH AND DIVERSITY ANALYSIS ASSOCIATED WITH DIGITAL UPGRADE OF RPS/ESPS

JULY 1, 2003

NRC

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C. Li
P. Loeser
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L. Olshan
F. Rinaldi
J. Rivera
R. Shaffer
C. Sheng
M. Waterman

DUKE ENERGY

T. Brown
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D. Garland
L. Nicholson
B. Shingleton
G. Swindlehurst

OTHER

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G. Lang, Westinghouse
D. Popp, Westinghouse
A. Sterdis, Westinghouse
J. Stone, Calvert Cliffs
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