

June 5, 2000

Mr. M.S. Tuckman
Executive Vice President
Nuclear Generation
Duke Energy Corporation
526 South Church Street
Charlotte, NC 28201-1006

SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3 RE: COMPLETION OF LICENSING ACTION FOR GENERIC LETTER 98-02, "LOSS OF REACTOR COOLANT INVENTORY AND ASSOCIATED POTENTIAL FOR LOSS OF EMERGENCY MITIGATION WHILE IN A SHUTDOWN CONDITION" (TAC NOS. MA4794, MA4795, AND MA4796)

Dear Mr. Tuckman:

On May 18, 1998, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 98-02 to all holders of operating licenses for Pressurized Water Reactors (PWRs), except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel. The NRC issued GL 98-02 to request that PWR licensees evaluate a September 17, 1994, event, which occurred at Wolf Creek, which had the potential to draindown the reactor coolant system (RCS) to the refueling water storage tank (RWST) and, at the same time, render the emergency core cooling system (ECCS) and residual heat removal (RHR) system inoperable by introducing a steam/water mixture to the suction side of the ECCS and RHR pumps. Addressees of GL 98-02 were requested to provide the following information within 180 days: (1) an assessment of whether the addressee's facility is vulnerable to the September 17, 1994, Wolf Creek event, and (2) if the facility is found to be vulnerable, an assessment of the plant-specific 10 CFR Part 50, Appendix B, quality assurance program attributes that will prevent the subject event. If the addressee's facility was determined to be vulnerable, a response to information item (1) was to be provided pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.54(f) and 10 CFR 50.4, and the responses to information items (1) and (2) were to be kept in a licensee's retrievable system for use by the NRC staff on an as-needed basis.

You responded to GL 98-02 by letter dated November 24, 1998. Based on your assessment, you concluded that Oconee Nuclear Station, Units 1, 2, and 3 were not susceptible to the type of events described in the GL. You explained that this is due mainly to the differences in design features between Oconee and Wolf Creek. That is, the return (recirculation) paths to the Borated Water Storage Tank (BWST, which serves a similar purpose as the RWST described in the GL) from the Low Pressure Injection (LPI) and the Reactor Building Spray systems are not connected to the BWST common suction header for the ECCS pumps. In addition, administrative controls are in place at Oconee that would preclude the system alignments and maintenance activities that led to the Wolf Creek events.

By letter dated December 3, 1999, NRC Region II issued Inspection Report No. 50-269/99-07, 50-270/99-07, and 50-287/99-07. This inspection report contained details of the NRC staff's on-site verification of activities that you undertook in response to GL 98-02 for Oconee, using Temporary Instruction (TI) 2515/142. Based on a review of the submittal, discussions with engineering personnel, and a walkdown of portions of the LPI system, the inspectors noted that the return path from the LPI system to the BWST used a different pipe than that used for the ECCS suction and that the minimum BWST inventory provides enough water to quench any steam that could enter through the return path. Also, the Technical Specifications (TS) prohibit operation of the LPI system for decay heat removal in Modes 1, 2, or 3 and defines Mode 4 as less than 250°F. Therefore, the LPI system would be prohibited from operating for decay heat removal at temperatures exceeding 250°F. In addition, the TS require at least 46 feet of water in the BWST while in Mode 4. These two conditions would prevent any water at the suction of the ECCS pumps from flashing to steam. Therefore, the resident inspectors concluded that, due to piping arrangements and TS restrictions, Oconee was not susceptible to events similar to those addressed in GL 98-02.

In summary, the NRC staff has reviewed your response to GL 98-02 and has concluded that (1) all the information requested by GL 98-02 has been provided, and (2) your on-site activities adequately addressed the concerns of GL 98-02 for Oconee Nuclear Station, Units 1, 2, and 3. Therefore, GL 98-02 is closed for Oconee Nuclear Station, Units 1, 2, and 3.

Sincerely,

/RA/

David E. LaBarge, Senior Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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

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