

## PUBLIC NOTICE

### NRC STAFF PROPOSES TO AMEND OPERATING LICENSES AT THE OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

The Nuclear Regulatory Commission staff (NRC) has received an application dated November 17, 1999, from the Duke Energy Corporation (Duke), for exigent amendments to the Technical Specifications (TS) for the Oconee Nuclear Station, Units 1, 2, and 3, located in Oconee County, South Carolina.

The proposed amendments would add a sentence to the definition of Repair Limit for the Steam Generator (SG) Tube Surveillance Program contained in the Oconee Nuclear Station, Units 1, 2, and 3, Technical Specification 5.5.10, Section e.6. The new sentence would read, "Axial tube imperfections of any depth observed between the primary side surface of the tube sheet clad and the end of the tube are excluded from the repair limit."

Pressurized Water Reactors (PWRs) use SGs that are designed with primary (reactor) water passing through the tubes. Heat from this water produces steam on the secondary side of the SGs that is used by the turbine/generator to produce electric power. The primary and secondary water are separated by the tubes and by tube sheets. The tube sheets contain holes for the tubes, and each tube is expanded into its hole and seal welded to the tube sheet during the fabrication process. At Oconee, the tubes are straight (not u-shaped, as are used at other PWRs), which results in an upper and lower tube sheet. During each refueling outage each tube is tested individually along its entire length for defects, in accordance with the TS, using very sophisticated techniques to detect minute defects. A short extension of the tube end extends above the weld in the upper tube sheet and defects found in this area are classified as tube end anomalies (TEAs).

A review of operating experience data based on events at another facility by Duke revealed that previous indications of defects found in tube extensions during SG tube tests at

the facility, which had been classified as TEAs, had exhibited primary-to-secondary leakage, thus indicating they were in the pressure boundary. Consequently, Duke redefined TEAs and developed an internal analysis methodology and guidelines capable of classifying anomalies having indications extending below the upper surface of the upper tube sheet. These crack-like indications, located between the primary face of the tube sheet and the tube sheet-to-carbon steel interface, had been referred to as tube end cracks. As a result of the new program, Duke concluded that the indications located above the outer surface of the upper tube sheet could be classified as TEAs and were not part of the pressure boundary. Therefore, they could be excluded from the TS requirements. On September 7, 1999, Duke submitted a letter to the NRC staff that discussed this interpretation.

A review of this letter by the NRC staff has determined that this position is contrary to the requirements of the TS. Based on the definitions of repair and tube inspection in TS 5.5.10, the TS require repair of defects in the tubing in the region of the tube end weld. Based on this position, Duke submitted a proposed revision to the Oconee Nuclear Station, Units 1, 2, and 3, TS on November 17, 1999, for NRC staff review that would incorporate a provision addressing Duke's position.

It is necessary to process these proposed amendments on an exigent basis because Oconee Unit 2 is presently in a refueling outage and will not be allowed to restart until this issue is resolved. Presently the outage is expected to end on December 9, 1999.

The licensee and the NRC staff have evaluated this proposed change with regard to the determination of whether or not a significant hazards consideration is involved. The licensee has provided its analysis, which is presented below:

Operation of Oconee Nuclear Station, Units 1, 2, and 3, in accordance with the proposed amendments will not involve a significant increase in the probability or consequences of an accident previously evaluated.

This evaluation addresses the potential effects of not applying the repair criteria to steam generator tubes. Tube End Anomalies (TEAs) are eddy current indications between the outer tubesheet cladding surface and the tube end. As described in the Technical Justification, operating with some steam generator tubes with Tube End Anomalies (TEAs) in Units 1, 2 and 3 does not increase the probability of any accident evaluated in the Safety Analysis Report (SAR) because this condition is not an accident initiator. Operation with TEAs will not adversely affect the ability to mitigate any FSAR described accident since it has been demonstrated that indications in areas defined as TEAs do not represent a risk of pressure boundary leakage. Therefore, the leakage requirements for steam generator integrity for the most limiting event, a Main Steam Line Break (MSLB), are satisfied with no compensatory actions required.

There is no physical change to the plant Structures, Systems or Components (SSCs) or operating procedures. Neither electrical power systems, nor important to safety mechanical SSCs will be adversely affected. The steam generators have been evaluated as operable for normal and accident conditions. There are no shutdown margin, reactivity management, or fuel integrity concerns. There is no increase in accident initiation likelihood, therefore analyzed accident scenarios are not impacted.

There is no adverse impact on containment integrity, radiological release pathways, fuel design, filtration systems, main steam relief valve setpoints, or radwaste systems. There is no increase in accident initiation likelihood or consequences, therefore analyzed accident scenarios are not impacted.

The proposed amendments will not create the possibility of a new or different kind of accident from any previously analyzed.

There is no increased risk of unit trip, or challenge to the reactor protection system or other safety systems. There is no physical effect on the plant, i.e., none on Reactor Coolant System (RCS) temperature, boron concentration, control rod manipulations, core configuration changes, and no impact on nuclear instrumentation. There is no increased risk of a reactivity excursion. No new failure modes or credible accident scenarios are postulated from this activity. The MSLB scenario has been evaluated and the potential for damage to the steam generator tubes is not increased.

The proposed amendment will not involve a significant reduction in a margin of safety

No function of any important-to-safety SSC will be adversely affected or degraded as a result of continued operation. No safety parameters, setpoints, or design limits are changed. There is no adverse impact to the nuclear fuel, cladding, RCS, or required containment systems. Therefore, the margins of safety as defined in the bases to any Technical Specifications are not reduced as a result of this change.

Following an initial review of this application, the requested amendments have been evaluated against the standards in 10 CFR 50.92 and the NRC staff has made a proposed (preliminary) determination that the requested amendments involve no significant hazards

considerations. The changes do not significantly increase the probability or consequences of any accident previously considered, nor create the possibility of an accident of a different kind, nor significantly decrease any margin of safety.

If the proposed determination that the requested license amendment involves no significant hazards consideration becomes final, the staff will issue the amendments without first offering an opportunity for a public hearing. An opportunity for a hearing will be published in the *Federal Register* at a later date and any hearing request will not delay the effective date of the amendment.

If the staff decides in its final determination that the amendment does involve a significant hazards consideration, a notice of opportunity for a prior hearing will be published in the *Federal Register* and, if a hearing is granted, it will be held before the amendment is issued.

Comments on the proposed determination of no significant hazards consideration may be (1) telephoned to Richard L. Emch, Jr., Section Chief, Project Directorate II, by collect call to 1-301-415-1068, or by facsimile to 1-301-415-2102, (2) e-mailed to [RLE@NRC.GOV](mailto:RLE@NRC.GOV), or (3) submitted in writing to the Rules and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555. All comments received by close of business on December 2, 1999, and all telephoned or e-mailed comments received by 4:15 p.m., close of business on December 2, 1999, will be considered in reaching a final determination. A copy of the application may be examined electronically through the ADAMS Public Electronic Reading Room link at the NRC Web site (<http://www.nrc.gov>) and at the Commission's Public Document Room, 2120 L Street, Gelman Building, NW, Washington, D.C. 20555.