March 17, 2000

Mr. William R. McCollum, Jr.
Vice President, Oconee Site
Duke Energy Corporation
7800 Rochester Highway
Seneca, SC 29679

SUBJECT: COMMENTS ON DRAFT UPDATED FINAL SAFETY ANALYSIS REPORT (UFSAR) SUPPLEMENT RELATED TO LICENSE RENEWAL OF OCONEE NUCLEAR STATION (ONS) UNITS 1, 2, AND 3

Dear Mr. McCollum:

As you are aware, Duke Energy Corporation (Duke) provided a draft UFSAR supplement related to license renewal of ONS Units 1, 2 and 3 in February 2000. The staff docketed this supplement in a memorandum dated March 1, 2000 (Accession Number ML003687486). The purpose of the draft was to provide a revision to the UFSAR supplement that was provided in your license renewal application (LRA) dated July 6, 1998. The revision was necessary due to changes that had occurred to the LRA as a result of current licensing basis changes to the plant or as a result of the staff's review of the LRA.

The staff has reviewed the draft UFSAR supplement and has developed the comments contained in the Enclosure to this letter. The schedule for the ONS license renewal review currently shows that the staff's comments will be resolved and a final UFSAR supplement will be issued by April 1, 2000. I look forward to working with your staff to meet this schedule.

Sincerely,

/***RA***/

Joseph M. Sebrosky, Project Manager
License Renewal and Standardization Branch
Division of Reactor Program 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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DOCUMENT NAME:C:\Oconee FSAR comments.wpd

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Oconee UFSAR Comments

Topic/reviewer	UFSAR/ITS location	Comment
Alloy 600 Aging Management Program	18.3.1	"Sample Size" should include the five most susceptible locations that are identified on page 3-110 of the SER and in Duke's response to RAI 4.3.1-1 dated February 17, 1999. "Scope" should indicate that steam generators (tubes, sleeves and plugs) are not included in this program.
Chemistry Control Program	18.3.2	The UFSAR section should reference ASTM D975-94. "Standard Specification for Diesel Fuel Oils," as well as technical specification surveillance requirements 3.10.1.8 and 5.5.14.
Containment Post-Tensioning System	3.8.1.5.2, 16.6.2, 18.3.3	In each of these Sections, Duke should augment the description of the aging management program in the UFSAR supplement related to the containment prestressing force TLAA to be consistent with Duke's response to SER Open Item 4.2.2.3-1 dated December 17, 1999; for example, to explain how trending will be added to the procedures.
Crane Inspection Program	18.3.5	Section 18.3.5 Crane Inspection Program should be augmented by (a) listing of specific inspection frequencies for each of the cranes listed in the table on page 18-30 under "Scope," and (b) the discussion of Oconee experience briefly mentioned on page 18-31 under "Frequency" should be further elaborated.
Duke Quality Assurance Program		For those aging management programs listed in Chapter 18 of the UFSAR Supplement, Duke has included a statement to the fact that either the PIP process or the *Duke Quality Assurance Program* will govern any specific corrective actions associated with the programs listed therein. However, in Sections 18.2.4, "Once Through Steam Generator Upper Lateral Support Inspection," 18.3.2, "Chemistry Control Program," and 18.3.3, "Containment Inservice Inspection Plan," 18.3.12, "Inservice Inspection Plan," 18.3.13, "Inspection Program for Civil Engineering Structures and Components," 18.3.19.2, "Cavity Dosimetry Program," 18.3.19.4, "Pressure Temperature Limit Curves," Duke does not state that either PIP or the QAP apply. Duke should specify the applicable corrective action process for each of the above sections.

Oconee UFSAR Comments

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Fluid Leak Management Program	18.3.10	The acceptance criteria or Standard for this program is not consistent with what is referenced in the safety evaluation report or what is referenced in the license renewal application (LRA). The acceptance criteria should be changed to be consistent with what is stated in Section 4.5.1 of the LRA.
Heat Exchanger Performance Testing Activities	18.3.11	The standby shutdown facility HVAC cooler should be included in this activity because they are within the scope of this program. The frequency of the periodic testing, and the flow rates for SSF coolers should be added to the summary description. The staff recommends that the regulatory basis section also reference generic letter 89-13.
Insulated Cables Aging Management Program	18.3.14	18.3.14 needs to have the "Insulated Cable Aging management Program" title changed to: "Insulated Cables and Connections Aging Management Program." This change is necessary to make the UFSAR consistent with the Duke application and the staff SER (3.9.3.2.1). UFSAR affected pages are: 18-1, 18-4, 18-43, and 18-45.
Keowee Air and Gas Systems Inspection	18.2.3	The acceptance criteria should be clarified by stating, for example: Any indication of loss of material due to various kinds of corrosion will be evaluated and no unacceptable loss of material condition will be permitted, as determined by engineering analysis. Also see comments 18.2.7, “Reactor Coolant Pump Motor Oil Collection System,” and 18.2.6, “Reactor Building Spray System Inspection.”
Once Through Steam Generator Upper Lateral Support Inspection	18.2.4	The item “Sample Size” of Section 18.2.4 should be modified to read: “The sample size will be five lubrite pads (randomly selected from a population of 10 pads) on one OTSG upper lateral support.”

Oconee UFSAR Comments

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Preventive Maintenance Activity	18.3.17	General comment for 18.3.17.1, 18.3.17.5, 18.3.17.10, 18.3.17.13, 18.3.17.4, and 18.3.17.5: The acceptance criteria should be included in the summary description for each of the respective PM activities. 18.3.17.7 comment: The inspection scope should be included in the summary description. 18.3.17.9 comment: The parameters that are monitored for the jacket water heat exchanger preventive maintenance activity should be explicitly stated in this section of the FSAR in addition to referencing technical specification surveillance requirement 3.10.1.9. 18.3.17.12 comment: Duke should provide the scope of the inspection and acceptance criteria in the summary description. The staff recommends that a regulatory basis section be added at the end of the summary for PM activities. The regulatory basis section should reference the SER and LRA .
Pressurizer Examinations	18.2.5.2	“Sample Size” should include: “The examination will include the heater-sleeve-to heater-bundle diaphragm plate and the heater-sheath-to-sleeve penetration welds”, or simply state that all welds will be examined, as indicated under “Method”. The initial application had proposed to inspect the heater-sheath-to-sleeve penetration welds, but not the heater-sleeve-to heater-bundle diaphragm plate. This was addressed by Duke’s response to Open Item 3.4.3.3-2. This needs to be clarified in the UFSAR.

Oconee UFSAR Comments

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Program to Inspect HPI Connections to the RCS	18.3.18	The "Scope" and "Frequency" sections should reference Duke's letter dated January 7, 1998. "Method" should indicate that the ultrasonic inspection will meet the requirements of Appendix VIII of ASME Code Section XI, 1992 Edition with 1993 Addenda, or will develop procedures through the use of mockups containing thermal-fatigue cracks. This requirement was included in an NRC letter dated October 23, 1997, that approved Duke's program for the third interval.
Reactor Building Spray System Inspection	18.2.6	The acceptance criteria should be clarified by stating, for example: Any indication of loss of material due to various kinds of corrosion will be evaluated and no unacceptable loss of material condition will be permitted, as determined by engineering analysis. Also see comments for 18.2.7, "Reactor Coolant Pump Motor Oil Collection System," and 18.2.3, "Keowee Oil and Gas Systems Inspection"
Reactor Coolant Pump Motor Oil Collection System	18.2.7	The acceptance criteria should be clarified by stating, for example: Any indication of loss of material due to various kinds of corrosion will be evaluated and no unacceptable loss of material condition will be permitted, as determined by engineering analysis. Also see comments on 18.2.6, "Reactor Building Spray System Inspection," and 18.2.3, "Keowee Oil and Gas Systems Inspection"
Reactor Coolant System and Class 1 Components (Oconee Thermal FMP)	5.2.1.4	Duke has not addressed the commitment for the impact of the environment on fatigue life in section 5.2.1.4. The proposed BGE FSAR update to address the impact of the environment of fatigue life is contained in the last paragraph of Item No. 50 in Appendix E to NUREG-1705. The Duke FSAR update should also address this aspect.

Oconee UFSAR Comments

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Reactor Coolant System Operational Leakage Monitoring	ITS 3.4.13	The technical specification alone does not contain all the information that the staff relied on to make a reasonable assurance finding. A new summary description of the program should be added to the UFSAR that provides the information that is discussed in the SER. For example, there should be a description of the containment air monitoring, containment sump level monitoring, the frequencies with which these activities are performed, and effluent monitoring. ITS 3.4.15 should also be referenced. The above is discussed in Section 3.2.7 of the SER.
Reactor Vessel	5.2.3.3.6	Discussion on pages 13 (second paragraph), 14 (first, second and third full paragraphs), and 16 (second paragraph) should use a descriptor such as “credible” to differentiate cases in which Position 1 (“no credible surveillance data available”) and Position 2 (“credible surveillance available”) apply. In Table 5-1, the surveillance data evaluation for SA-1585 (heat 72445) indicates a chemistry factor of 145.2, whereas BAW-2345 (Rev. 1) indicates a chemistry factor of 146.0. In addition, evaluation of the surveillance data for SA-1135 (heat 61782) indicates a chemistry factor of 142.6. In Tables 5-4 to 5-6, some of the copper composition values do not agree with those in Tables 5-1 to 5-3 for the same materials. In some cases the values in Tables 5-4 to 5-6 are non-conservative (Table 5-4: heat 72445; Table 5-5: heat 123T382; and Table 5-6: heat 72442).

Oconee UFSAR Comments

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Reactor Vessel Integrity Program	18.3.19	The following comment applies to Section 18.3.19.1: "Acceptance Criteria or Standard" should indicate that the fracture toughness specimens removed from the surveillance capsules will also be evaluated to determine the adjusted reference temperature for the P-T limits (Section IV.A of Appendix G, 10 CFR Part 50) and RT_{PTS} value have been appropriately determined (10 CFR 50.61(c)(2)). The following comment applies to Section 18.3.19.4: "Method" and "Industry Codes or Standard" should also indicate that P-T limit curves will be generated in accordance with the requirements of Appendix G of 10 CFR Part 50.
Reactor Vessel Internals	4.5.1.2	The last part of this section, beginning with "(3) reduction in fracture toughness...period of extended operation," is not consistent with the Reactor Vessel Internals Inspection (incorrectly cited as Section 18.3.18, should be 18.3.20), which does not address this item either directly or indirectly. As indicated on page 8 of Attachment 1 to a letter from Duke dated December 17, 1999, and page 4-24 of the SER, Duke committed to develop data and perform a plant-specific analysis to demonstrate that the reactor vessel internals have adequate ductility to meet the deformation limits at the expiration of the license renewal period. This commitment to develop data and perform an analysis is not explicitly a part of the Reactor Vessel Internals Inspection, and this section should be revised to describe the planned licensee actions or Section 18.3.20 should be revised to describe the planned actions.
Steam Generator Tube Surveillance Program	ITS 5.5.10	The technical specification alone does not contain all the information that the staff relied on to make a reasonable assurance finding. A new summary program description should be added to the UFSAR supplement to include the commitment to NEI 97-06 for inspection scope, personnel qualification, technique qualification and state that Duke performs condition monitoring and operational assessments per NEI 97-06 guidelines. This information is referenced in the staff's SER.

Oconee UFSAR Comments

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Tendon-Secondary Shield Wall - Surveillance Program	18.3.23	As per our understanding related to the monitoring of prestressing forces of the SSW tendons as documented in the December 10, 1999, summary of the Nov. 10, 1999, phone call (Open Item 3.8.3.2.5-1), Duke should incorporate prestressing force monitoring of three randomly selected tendons, and provide corresponding acceptance criteria in this surveillance program

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