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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 5, 1998

ORGANIZATION: DUKE ENERGY CORPORATION

SUBJECT: TRIP REPORT: SUMMARY OF SITE VISIT TO THE OCONEE NUCLEAR STATION TO DISCUSS ISSUES RELATING TO REVIEW OF THE DUKE ENERGY CORPORATION LICENSE RENEWAL REACTOR BUILDING TECHNICAL REPORT

On April 27-29, 1998, members of the Nuclear Regulatory Commission (NRC), Office of Nuclear Reactor Regulation, Division of Reactor Program Management, License Renewal Project Directorate staff (Messrs. Christopher Regan, Sam Lee, and Wan C. Liu) and technical assistance contractors from Brookhaven National Laboratory (BNL) (Messrs. Richard Morante and Joseph Braverman) met with representatives of the Duke Energy Corporation (Duke) at the Oconee Nuclear Station (ONS) near Seneca, SC. The purpose of this trip was to discuss issues relating to review of the Duke license renewal technical report (OLRP-1001) sections pertaining to the reactor building, tour the reactor building, and review documentation supporting the submittal.

During the discussions, the NRC staff and Duke representatives defined the scope and purpose of activities to be performed during the site visit and agreed to utilize the preestablished agenda, the framework of which was documented in a letter dated April 15, 1998, from C.I. Grimes to W.R. McCollum (attachment 1). The major agenda items included a tour of the Unit 1 containment dome and tendon gallery, a tour inside the Unit 2 containment, and an external tour of all three unit containment structures. In addition, the NRC staff reviewed documentation which included Integrated Leak Rate Test (ILRT) procedures and results, ASME Code Section XI, subsection IWE/IWL implementation, Licensee Event Reports (LERs), inspection program for civil engineering structures and components, and the containment coatings program. Furthermore, several discussions with cognizant site personnel were held to obtain information pertaining to each of these major areas. Specific observations for each of the reviewed items are detailed below.

A. Physical Plant Tour

I. Containment Exteriors

A tour of the containment exteriors was conducted including the Unit 1 containment dome and lower tendon access gallery and the exterior of all three units visible from ground level. Areas of specific interest to the staff included the tendon anchors in the tendon gallery and on the dome, locations of known grease leakage, the exterior perimeter at ground level, exterior perimeter at the intersection with the basemat, hoop tendon buttresses, penetrations, and upper elevations including the ring girder and dome. Observations were:

1. From atop the Unit 1 dome, a large grease stain on the Unit 2 dome was observed; Duke had not conducted an assessment of this condition.

2. There were no apparent signs of concrete delamination of the Unit 1 dome (the Units 2 and 3 domes have radial shear reinforcement).

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3. The vertical tendon bearing plates and grease cans on the containment dome exhibited some signs of corrosion; however, the corrosion appears to be minor at this time.

4. A 3' long crack in the concrete dome was observed near tendon 23V21, oriented in the dome meridional direction; it appeared to be shallow in depth and narrow in width; some leaching was observed from the upper end of the crack.

5. At tendon 12V26, the concrete beneath the 2" thick anchor bearing plate had spalled along the outer edge; a cavity exists below the anchor plate, reducing the total concrete bearing area under the anchor plate; Duke indicated that the potential loss of tendon prestress had been addressed and is acceptable; it was observed that water could potentially enter through the cavity to the outside surface of the tendon sheath.

6. Concrete spalling, as discussed in item I.5 above, could potentially occur at other tendons; cracks in the concrete beneath the outer edge of the bearing plates were observed in nearby tendons.

7. Grease leakage from the tendon anchors was observed at a number of locations; Duke indicated that new seal materials were being tried to minimize this leakage.

8. The Unit 1 tendon access gallery showed signs of water infiltration, including standing water at several locations; Duke indicated that periodic purging of water in all three tendon access galleries is conducted; based on Duke comments, Unit 2 apparently has the greatest amount of water infiltration (about 20 inches of standing water).

9. Metal corrosion was observed on several tendon anchor bearing plates in the tendon gallery due to the moist environment in the tendon access galleries.

10. Radially oriented cracks on the bottom surface of the concrete basemat were observed from the tendon access gallery; at tendon 56V11, a rust colored deposit was visible along the crack; at this location and at several other locations leaching was observed at the cracks.

11. A number of tendon grease stains were observed at construction joints and at the main steam line penetrations; based on observations from a distance, the grease leakage appears to be inactive or progressing very slowly; Duke indicated that no specific monitoring has been conducted.

12. One area of concrete honeycombing was observed on the Unit 2 containment at the buttress near the equipment hatch just below the

shield door upper support girder attachment; there was no sign of continued degradation in this area.

13. Leaching was observed on the concrete exterior at the ring girder (Units 1 and 2), the containment wall (Unit 1), and the buttress (Unit 3); this condition appears to be minor at this time.

II. Containment Interior

Following technical discussions, a tour inside the Unit 2 Containment was conducted. Areas of specific interest to the staff included the basemat, the liner plate, structural attachments to the liner plate, the equipment hatch and personnel airlock, and specific areas of documented degradation. The observations were:

1. No irregularities or bulges on the steel liner plate were observed.

2. Several areas of the containment liner were observed with visible rust-like streaking; the origin appeared to be from inaccessible areas at attachments to the liner plate.

3. The surface of one liner plate weld appeared to be rusting.

4. Several instances of rusting on attachment welds were observed.

5. The outermost coating is flaking off the containment dome and the brackets supporting the crane girder; the zinc oxide coating protecting the metal appeared to be intact; Duke is aware of this and is developing a plan to address the flaking.

6. The most significant instance of coating degradation was observed around the perimeter of the equipment hatch; this is most likely due to coating damage when the equipment hatch cover is removed and re-installed; Duke is aware of this and plans to correct the coating degradation; some discoloration was also observed, which may indicate initiation of corrosion.

7. No unusual conditions were observed for the hinges and locking mechanism of the personnel hatch.

8. An unusual structural condition not relating to the license renewal aging management review was observed at several locations: the potential for liner plate damage during design basis events, caused by internal structural steel members either directly attached to or in close proximity to the liner plate.

III. Containment Exterior

Accessible exterior concrete surfaces below grade were visually observed from the basement of the Auxiliary Building. A visual tour of accessible exterior concrete surfaces from the roof of the Auxiliary Building was also conducted. The significant observations were:

1. Tendon grease is actively leaking from several hoop tendon anchors at El 809' of the Units 1 or 2 containment (observed from inside Auxiliary Building); Duke had previously identified this condition for corrective action.

2. Tendon grease has leaked from a significant number of hoop tendon anchors on all three containments (observed from roof of Auxiliary Building and also from ground level on previous day); Duke has not monitored this condition.

3. Some degradation of the filler material in the seismic gap between the containments and the Auxiliary Building was observed.

B. Documentation Review

During the course of the site visit the following documentation was reviewed and the following observations were made:

1. Containment dome design drawings (O-61C and O-61G) and Duke's written disposition (3/2/72) of the potential for dome delamination were reviewed. The Units 2 and 3 design was modified on 02/17/71 to include radial shear reinforcement, following the occurrence at Turkey Point. This design modification is noted on the drawings as applicable to Units 2 and 3 only. For the Unit 1 dome, which had already been constructed, Duke conducted a sounding survey in an attempt to identify the possibility of delamination. No evidence of delamination was detected after tendon prestress. Duke concluded that the Unit 1 dome is intact, based on the survey and the expectation that any problem would develop during the tendon tensioning operation.

2. A letter provided to Duke by the original tendon grease vendor was reviewed. This letter documented the results of limited testing performed to assess the potential for chemical interaction between the grease and concrete. No interaction was detected.

3. Ground water chemistry analyses were reviewed. Tests of the ground water at well numbers A13 and A14 were performed in 1995. The results for water pH, chlorides, and sulfate did not exceed the threshold limits for aggressive ground water attack of the exterior concrete surface below grade.

4. The Oconee Tendon Surveillance Program was reviewed. Duke recently (12/97) revised this program to incorporate random sampling, as prescribed in Regulatory Guide (RG) 1.35, Revision 3. Previously, the same tendons were tested at each interval. The revised Tendon Surveillance Program appears to be consistent with RG 1.35, Rev.3. However, a final determination is beyond the scope of the review conducted during the site visit. In Duke's submittal of 3/2/98, "Containment Post-Tensioning System Loss of Prestress Time-Limited Aging Analysis," Duke's conclusion is that, based on current trending, the required minimum prestress will be maintained through the twenty year renewal period.

5. Three (3) Licensee Events Report (LER's) relating to containment were reviewed. Two (2) are potentially important for license renewal.

- LER dated 8/1/80 documented the detection of radioactive contamination in ground water which infiltrated the Unit 2 tendon access gallery. Prior to this incident, automatic purging of the water from the tendon access galleries had been performed. Following this incident, testing of water prior to manually actuated purging was instituted. According to Duke personnel, no further incidents of contaminated water have occurred, although the cause of the contamination was not definitely identified. This indicated that water infiltration and purging of the tendon access galleries has been a continuing condition at Oconee.

- LER 287/93-02 (5/15/93) documented an incident in Unit 3 in which the emergency hatch inner and outer doors simultaneously failed to provide isolation of containment during operation. The inner door had a gasket failure, while the outer door operating mechanism malfunctioned. The inner door problem was attributed to hinge mechanism misalignment due to inadequate maintenance on the hinge. The outer door operating mechanism was identified as a recurring problem. Improved preventive maintenance procedures and overhaul of the outer door operating mechanism were proposed as corrective actions.

6. Fifteen (15) Problem Investigation Programs (PIP's) relating to containment were reviewed, dating from 1991 to the present. Of these, eight (8) are considered to be significant regarding potential aging effects and/or aging management.

- PIP 2-092-0143: documented an extremely large volume of water infiltration into the Unit 2 tendon access gallery (described as "a river"). Unit 2 apparently is worse than Units 1 and 3.

- Two PIP's addressed loss of tendon grease; the most significant occurrence was documented in 1-097-3449. Two Unit 1 dome tendons were discovered to have no grease in the tendon sheaths. This was attributed to loss of grease during previous tendon inspections. Seventy (70) gallons of grease were pumped into each tendon sheath after testing.

- PIP 0-096-2413: documented coating degradation in all three units. Corrective action was scheduled as part of the ongoing Coatings Maintenance Program.

- PIP's 0-096-2414 and 3-096-2415: documented the occurrence of joint sealant degradation in Units 1 and 3 and the related liner plate corrosion. This has been described in Duke's response to RAI 3.3-10.

- PIP 1-097-3593: documented the initial discovery of a substantial volume of water in Unit 1 vertical tendon sheaths 23V12 and 23V16. This subject was discussed as a group with Duke personnel during the site visit.

- PIP 1-098-0779: documented the spalling of concrete under the 12V28 tendon anchor bearing plate on Unit 1. This subject was discussed as a group with Duke personnel during the site visit.

7. The Maintenance Rule implementation document and related document EDM-410, Edition 11, "Inspection Program for Civil Engineering Structures and Components" were reviewed and discussed with the Duke personnel. The purpose of the EDM-410 document is to provide a program for monitoring and assessing civil engineering structures and components, in order to provide assurance that they are capable of performing their intended function. The document states that it "is applicable in meeting the requirements of 10 CFR 50.65 (Maintenance Rule) and 10 CFR 54 (License Renewal)." The EDM-410 format includes the purpose; scope; program for monitoring the structures and components; documentation required; trending; related civil inspection programs; and records. The program for monitoring structures and components covers responsibilities, examination guidelines, acceptance criteria, problem identification and resolution, inspection frequency, and other requirements. For containment, other related civil inspection programs were identified. Those programs were the tendon surveillance program and the inspections performed as part of the integrated leak rate test (ILRT).

8. ILRT results and procedures (procedure # MP/1/A/3005/010) were reviewed. Several items of degradation were noted as documented in the ILRT test results.

- Unit 1 ILRT completed January 18, 1993 stated:

  - "Liner plate: liner plate coating in basement of Reactor Building across from "B" cavity between columns C-25 and C-2 was peeling off. It is not significant. Monitoring Required."

  - "Tendon Gallery: Significant water infiltration over exterior wall at tendon 12V9. This may due to heavy rain. Monitoring required."

- Unit 2 ILRT completed June 8, 1993 stated:

- "Dome between Tendons 34V27 and 34V25 has concrete cracking. Monitor for worsening."

- "Dome at tendon 34V23 concrete is cracking and chipping out on corner. Monitor for worsening."

- "Grease leakage on dome across from 61V29 (NW quadrant of Bldg.). Monitor."

- Unit 3 ILRT Completed December 12, 1996 stated from the summary section:

  - "Significant delamination of coating between primer and base coat on reactor building dome liner plate was observed. Notable corrosion of containment pressure boundary exists at penetration #20 and along basemat slab edge/liner plate interface. Significant degradation of expansion joint at basemat slab edge/liner plate interface and between edge of basemat and slab columns, walls, and foundations was observed."

  - "Deficiency #10: Penetration #20 (reactor building purge outlet line) lack of coating on dished head and exposure to corrosive environment have resulted in significant corrosion of weld at 10 to 11 o'clock position. - W/O#95049533."

  - "Deficiency #11: Significant corrosion of electrical penetrations WA9, WA11, WA10, WB10, WB11."

C. Discussion with Duke Personnel

In addition to and in some cases as a result of the physical plant tours and documentation review, discussions were held with cognizant Duke Site and Home Office staff to: 1) gain a better understanding of Duke's programs applicable to aging-management, and 2) review containment operating experience of potential importance for License Renewal. In general, Duke indicated that plans for the first containment inservice inspection under the ASME Code Section XI rules as mandated by 10 CFR 50.55a, (the final rule dated August 8, 1996) are currently under development. The tentative schedule for implementing the requirements of ASME Code, Section XI, including 10 CFR 50.55a, limitations and modifications, is May 1999 for Unit 1, October 1999 for Unit 2, and September 1998 for Unit 3.

1. Containment Evaluation Boundary: Welds for structural attachments to the steel liner plate are excluded by Duke from the containment scope based on their interpretation of the ASME Code, Section XI rules (see Duke's response to RAI 2.3-4). The NRC staff questioned Duke's interpretation of the ASME Code, Section XI rules and suggested that these welds are within the code scope.

Although Duke indicated they would seek clarification from the ASME committee responsible for those rules, the NRC staff pointed out these wells are subject to an aging management review for license renewal.

2. Inaccessible Areas: Duke indicates that inaccessible areas of containment will be addressed in accordance with the requirements of 10 CFR 50.55(a)(g). The NRC staff pointed out that additional recommendations in NUREG-1611 for addressing aging in inaccessible areas of containment are to be addressed for license renewal.

3. Expansion Joint Sealant Degradation in Units 1 and 3: Duke explained the November 1996 discovery of joint sealant degradation and liner plate corrosion. This explanation is also documented in PIP's 0-096-2414 and 3-096-2415, which were reviewed during the site visit. The source of the water which seeped through the joint was identified to be from a spray down of the containment. This action is routinely performed prior to conducting work inside containment during outages. The Unit 3 problem was discovered in November 1996; a follow-up inspection of Units 1 and 2 revealed a similar condition in Unit 1. Duke removed concrete to inspect the liner, and in the process, Duke found that water had accumulated in the insulation placed at the liner plate bend (below the concrete floor). However, the water was not completely removed before the concrete was repaired. Duke's justification is that no corrosion was found at this location and complete removal of the water was difficult to achieve. The potential of degradation of the liner under concrete was discussed, since water still remains in the insulation material. Duke did indicate an intention to excavate an observation hole in the concrete floor of all three units, to permit monitoring of the liner plate at the bottom of the concrete floor. Duke expects that these areas would be inspected about 4 times in a 10 year period. Duke provided a series of photographs taken after the excavation of the concrete floor to expose the liner plate. The liner plate corrosion was limited to an area at the joint elevation, which likely had been exposed to alternating wet/dry cycles. Ultrasonic thickness measurements were taken to quantify the material loss due to corrosion. The lowest measurements were slightly below the nominal 0.25" thickness of the liner plate; most exceeded the nominal thickness. The ASME Code, Section XI allows 10% wall thickness loss (.025"), which was not exceeded by any of the measurements.

4. Discovery of Water in Vertical Tendons (3 Units): This condition was initially discovered in Unit 1 during random tendon surveillance, in late 1997. Previous surveillance used the same tendons at each interval. Consequently, the tendons in the recent surveillance had not been examined before. The water source and the chronology of water infiltration are unknown. An expanded inspection found 27 vertical tendons with substantial amounts of water in Unit 1. Currently, Duke is replacing the grease in all Unit 1 vertical tendons. Follow-up inspections of Units 2 and 3 uncovered approximately 100 vertical tendons in each unit which contained substantial water. These tendons are being refilled with grease after water removal. Complete grease removal and replacement, as in Unit 1, is not

currently planned for Units 2 and 3 . Unit 1 will be checked about one year after re-greasing to determine if the corrective action is effective. As appropriate, the Units 2 and 3 corrective actions will be re-evaluated. In spite of the substantial amount of water found in the vertical tendons, only one instance of minor metal corrosion of a stranded wire was documented for Unit 1 tendons.

5. Maintenance Rule: A discussion was held with Duke on the implementation of 10CFR50.65 - Maintenance Rule. Two representatives from the Duke Maintenance Rule group described the program. They indicated that the program has changed from assuming that structures are inherently reliable to the realization that structures need to be reviewed. The objective is to ensure that conditions which could lead to structural failure are identified before failure occurs. An example was given where a water leak from a roof would not be a failure of a structure but indirectly may cause other degradation and ultimately lead to failure. Thus, it is important to identify roof leaks. Duke personnel indicated that the maintenance rule goals for containment and structures for Oconee is to allow "no significant degradation." Structures are inspected every 5 years based on the Oconee Civil Inspection Program EDM-410 which is similar to NEI 96-03, "Industry Guideline for Monitoring the Condition of Structures at Nuclear Power Plants." One major stipulation at Oconee compared with NEI 96-03 guidance is that Duke requires licensed professional engineers to perform the inspection. In addition, the inspection for the containment includes the implementation of ILRT and guidance of Regulatory Guide 1.35.

   The EDM-410 program is an inspection program developed by Duke for civil engineering structures and components. A more detailed description of this program is presented in Item 7, Section B - Documentation Review. Duke acknowledged that they were aware of the NRC comments regarding NEI 96-03. In short, structures are acceptable if they are capable of performing their intended function. Structures are to be free of deficiencies which could lead to possible failure prior to the next inspection. Minor deficiencies are those that would not lead to possible failure if not corrected prior to the next inspection. Deficiencies found from the inspection are reported using the site "Problem Investigation Program" for engineering evaluation. Implementation of corrective actions is tracked by the site "Work Management System." Duke indicated that the NRC had performed a Maintenance Rule Inspection on Duke's Program approximately a year ago. Some open items were identified primarily because the civil/structure portion was not fully developed at that time.

6. Coatings Program: Duke provided a brief presentation of the Oconee Coatings Program. This program is responsible for repair of coating degradation and selection of coating materials. The program is not responsible for identification of containment coatings problems. In the past, identification of problems was accomplished by informal walk through during outages and the inspections performed as part of the Appendix J program. As such, the Coatings Program is not credited by Duke for License Renewal. However, Duke did state that the Coatings Program is for protection of the liner plate from degradation and for

restoring the coating after coating degradation is reported. The Coatings Program was described as a "process." Duke considers aging management to consist of the inspections for degradation, while the Coatings Program would be responsible for corrective action if degradation is identified. The Oconee containment steel liner plates do not have a design corrosion allowance. Duke indicated that the liner is not credited as a structural member and that ASME Code, Section XI permits up to 10% wall loss prior to a detailed re-assessment and possible corrective action. Duke stated that a new schedule for monitoring of coatings is now in place: every re-fueling outage. This would be in addition to inspection required by Appendix J and ASME Code, Section XI. Duke plans to include in its code program the identification of coatings degradation; this is not specifically required by this code. All conditions of liner coating degradation observed during the tour inside the Unit 2 containment were previously known to Duke and have been referred to the Coatings Program for resolution.

7. Tendon Surveillance: Duke discussed the random sampling of tendons to evaluate the required minimum tendon forces for the 60 years of operation. Until recently, Duke used the same 9 pre-designated tendons for their tendon surveillance program. In letters dated October 30, 1996, and April 22, 1997, Duke requested as a Technical Specification Amendment to convert the surveillance method to an industry-wide random selection process as described in Regulatory Guide 1.35, Rev. 3 "Inservice Inspection of Ungrouted Tendons in Prestressed Concrete Containments." The adequacy of prestressing forces in tendons will be demonstrated by selecting as a random sample of at lest eleven tendons (five hoop, three vertical, and three dome). The observed lift-off force shall be within the predicted limits established for each tendon group. For each subsequent inspection, one tendon from each group shall be kept unchanged to develop as a history and to correlate the observed data.

In the Oconee Selected Licensee Commitment (SLC), Section 16.6.2 of the Oconee FSAR, Duke states that the post-tensioning system shall be tested to Technical Specification 4.4.2 and shall meet the Minimum Required Values (MRV's) and Prescribed Lower Limits (PLL's) as provided within the SLC. Three curves (dome, hoop, and vertical tendons) are presented with the MRV's and PLL's extended to 40 years. Technical Specification 4.4.2 specifies the acceptance criteria in terms of these PLL's and MRV's. For trending the data, Technical Specification 4.4.2 provides a description of the methodology. Seating forces for all tendons were documented at the time of installation, thereby providing one data point. A second point will be obtained from the lift-off force measured during the initial tendon surveillance for each unit. The data from the initial tendon surveillance is considered acceptable by Duke because no error arising from tensioning and retensioning has been introduced. The data

will be averaged for each unit and used in the trending analysis along with new data obtained from the proposed surveillance program in accordance with Regulatory Guide 1.35. The staff reviewed the Duke curves for the Oconee tendon prestressing forces. Although Subsection IWL of Section XI of the ASME Code and Regulatory Guide 1.35, permit a measured prestressing force to be within 95% of the predicted force, the staff noted that the 95% predicted force would fall below the apparent minimum design prestressing force for Oconee about 20 years for a certain set of tendons. Thus, there could be a potential issue whether meeting subsection IWL and Regulatory Guide 1.35 would be sufficient to maintain the design requirements. Duke personnel indicated that they use the 95% predicted value or the minimum design value, whichever is higher, to address the issue. In a letter to the NRC dated March 2, 1998, Duke provided an evaluation of the loss of prestress in the post-tensioning system for 60 years of plant operation. The evaluation which is a Time-Limited Aging Analysis (TLAA), will be included in Chapter 5 of the OLRP-1001 in the next revision. The lines of the PLL's have been linearly extended to 60 years of plant operation and they still remain above the minimum required values for all three tendon groups. On this basis, Duke concluded that the required prestress in the post-tensioning system will be maintained for the period of extended operation.

The staff also held a public meeting on April 29, 1998, at Seneca, SC with Duke to discuss Duke's RAI response regarding the license renewal reactor building technical report. A separate meeting summary, documents the items discussed during this meeting.

At the conclusion of the site visit the site Vice President and Duke personnel were informed of the observations and results of activities from the site visit including the observed structural condition not related to license renewal (Item 8, Section A.II). An NRC Oconee resident inspector was also present at the exit meeting. Site personnel were cooperative, candid, and knowledgeable in answering NRC questions. The site visit was well coordinated and the NRC was able to accomplish the requested tasks during the site visit. It was impressed that the purpose of the trip was for information gathering and discussion purposes only and it should not be considered an NRC Inspection. The observations made and items reviewed will be considered as additional information to be used for the development of the NRC license renewal SER for the Duke Reactor Building.

Christopher M. Regan, Project Manager
License Renewal Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

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Attachment 1: Letter dated April 15, 1998, from C.I.Grimes (NRC) to W.R. McCollum (Duke)

cc. Service List

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/S/

Christopher M. Regan, Project Manager
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Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270, and 50-287
Attachment 1: Letter dated April 15, 1998, from C.I.Grimes (NRC) to W.R. McCollum (Duke)
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101

Mr. William R. McCollum, Jr.
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SUBJECT: SITE VISIT TO SUPPORT THE NRC'S REVIEW OF THE OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3, REACTOR BUILDING LICENSE RENEWAL EVALUATION (TAC NOS. M99121, M99122, M99123, AND M99141)

Dear Mr. McCollum:

The Nuclear Regulatory Commission (NRC) staff is scheduled to visit the Oconee site April 27-30, 1998, to support its review of Duke Energy Corporation's (Duke's) reactor building evaluation contained in OLRP-1001, "License Renewal Technical Information Topical Report," Revision 1. The intent of the visit is to review documentation supporting the submittal, talk with knowledgeable Duke personnel, tour the reactor building to the extent possible, and discuss Duke's January 14, 1998, response to the staff's request for additional information. Topics of interest to the staff are identified in the attachment. This visit and the attachment were coordinated with Mr. Robert Gill of your staff.

The staff is aware that Oconee Unit 2 is currently in a refueling outage. The staff's intent is not to adversely impact outage activities but to complete as many of the activities identified in the attachment as Duke can support. No special provisions such as erection of scaffolding or opening of equipment is expected.

We appreciate Duke's support of this site visit. The information gained will help the staff prepare the safety evaluation for the reactor building and develop the processes and inspection programs needed to complete the staff's review of an Oconee license renewal application.

Sincerely,
/S/
Christopher I. Grimes, Director
License Renewal Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270
and 50-287
Enclosure: As stated
cc: See next page

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