



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 26, 1998

LICENSEE: DUKE ENERGY CORPORATION

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

SUBJECT: SUMMARY OF MEETING WITH DUKE ENERGY CORPORATION ON
LICENSE RENEWAL ACTIVITIES FOR OCONEE NUCLEAR STATION,
UNITS 1, 2, AND 3

On April 29, 1998, the Nuclear Regulatory Commission (NRC) staff held a public meeting with representatives of Duke Energy Corporation (Duke) at Seneca, SC, to discuss Duke's responses to the November 14, 1997, NRC staff request for additional information on the Oconee reactor building license renewal evaluation. Attachment 1 contains the list of meeting attendees. An overview of the purpose of the NRC site visit was provided by the NRC. The purpose of the meeting was to discuss the staff's RAI's on the Duke reactor building technical report and the Duke responses to the staff's RAI's. The goal was to clarify and gain a better understanding of the NRC RAI's and Duke responses to RAI's. It was not the intent to reach resolution of issues or RAI questions and no RAI question would be considered closed as a result of the meeting. Each RAI was covered individually and classified as either:

- Category A: "having enough information at this time for the NRC to continue its review," or
- Category B: "needing more information from the NRC to clarify the RAI or more information needed from Duke to clarify their RAI response in order for the staff to continue the review of the RAI responses."

Summaries of the discussions pertaining to each RAI question and actions to be taken by the NRC or Duke follow:

- RAI #2.3-1) Category A
- RAI #2.3-2) Category A
- RAI #2.3-3) Category B. The NRC clarified the RAI question. More specifically, Duke should address what detrimental effects water infiltration in the tendon gallery has on the tendon anchorage system (e.g., tendon end caps, tendons, and basemat concrete). Duke agreed to consider this additional clarification.
- RAI #2.3-4) Category B. The NRC clarified the necessity for providing explicit discussion of the containment evaluation boundary. The staff felt that welds between miscellaneous attachments (e.g., pipe supports) and the steel liner should be included within the evaluation boundary. The boundary proposed by Duke was not consistent with the inspection requirements contained in ASME Section XI, Subsection IWE. Duke agreed to consider this additional clarification and possibly submit a revised response to the RAI question that clarified the scope of attachment welds inside containment.

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- RAI #2.3-5) Category A
- RAI #2.3-6) Category A
- RAI #2.3-7) Category A
- RAI #3.3-1) Category B. Duke had asserted in their technical report and response to the staff RAI that concrete aging effects do not apply to Oconee containments. However, Duke had committed to implement the examination requirements of ASME Section XI, Subsection IWL. The staff nonetheless disagreed that there are no aging effects and reiterated the position that concrete components are subject to aging effects and that aging management programs should be implemented. Duke agreed to consider this additional clarification and submit a revised response to the RAI question. Duke also urged the NRC to revise the draft Standard Review Plan for License Renewal (SRP-LR) to address inconsistencies when discussing aging effects and aging management programs for concrete containment structures and components. The NRC stated that industry comments on the draft SRP-LR should be submitted for NRC evaluation. Duke indicated their intention to submit comments on the draft SRP-LR through a formal submission from the Nuclear Energy Institute.
- RAI #3.3-2) Category B. The NRC noted that the Oconee coatings program should be identified as an aging management program and IWE should also be specifically identified for managing corrosion of steel components. Duke agreed to either revise the RAI response or address this RAI when responding to the Draft Safety Evaluation Report (DSER) open item to credit the coatings program as part of the aging management program for these components.
- RAI #3.3-3) Category B. The NRC clarified that the question pertained to why Duke was not crediting ASME Section XI examination category E-B (a VT-1 inspection - visual) and Examination Category E-F (a VT-3 inspection - surface) for license renewal. NUREG 1611 states that both examination categories should be performed for license renewal to demonstrate that no stress corrosion cracking has been initiated. Duke stated that Examination category E-A was being performed in lieu of E-B and E-F however they noted that their submittal from March predated the publication of NUREG 1611. Duke agreed to consider this additional clarification and the information contained in NUREG 1611 and possibly submit a revised response to the RAI question.
- RAI #3.3-4) Category A
- RAI #3.3-5) Category B. The NRC stated that the examination of inaccessible areas should be explicitly discussed consistent with the guidance in the draft SRP-LR. The NRC also stated that there is a need to address the issue of corrosion of inaccessible areas when conditions in accessible areas may not indicate the presence of degradation of inaccessible areas. The NRC noted that

NUREG 1611 addresses aging effects for inaccessible areas and the associated evaluations. Duke stated that additional discussion of this issue will be included in their revised response to RAI question 3.3-1.

- RAI #3.3-6) Category A.
- RAI #3.3-7) Category A.
- RAI #3.3-8) Category A.
- RAI #3.3-9) Category B. The staff stated that the Duke RAI response does not address the degradation of mechanical items such as hinge assemblies and door locking mechanisms and that some discussion should be provided to include proposed aging management programs. In addition to vibration, mechanical wear can be caused by repeated use. The NRC noted that Oconee LER 2879302, reviewed during the site visit, had documented degradation of the lock at the airlock sealing mechanism. NUREG-1611 indicates that there are ASME Section XI Examination categories that address these aging effects, ie. Examination Categories E-D, E-G, and E-P. Duke agreed to consider this additional clarification and possibly submit a revised response to the RAI question.
- RAI #3.3-10) Category B. The NRC stated that additional discussion pertaining to operating experience associated with joint sealants should be provided. This may include LER's, leak rate testing results, etc. The NRC noted an occurrence of liner plate corrosion in the vicinity of the liner plate - basemat interface where a seal had failed. Duke stated that this particular incidence had occurred after submittal of the technical report and RAI response and agreed to include a discussion of this issue in a revised RAI response or as a response to a DSER open item.
- RAI #3.3-11) Category A.
- RAI #3.3-12) Category A.
- RAI #3.3-13) Category A.
- RAI #3.3-14) Category B. The staff clarified a concern over the source and rate of grease leakage through the containment structure concrete and questions regarding the affect of the grease on the concrete integrity. This includes the affects of the grease leakage from the tendon sheaths and the significance of this leakage over time. The staff acknowledged that an NRC NUREG/CR report will provide additional research information in the near future, but Duke should submit additional justification for their basis why grease leakage is not significant. In addition, the staff requested Duke to submit a 1971 manufactures letter pertaining to grease leakage. Duke agreed to submit this letter.

Oconee Nuclear Station
Units 1, 2, and 3

cc:

Mr. Paul R. Newton
Duke Power Company, PB05E
422 South Church Street
Charlotte, North Carolina 28242-0001

J. Michael McGarry, III, Esquire
Winston and Strawn
1400 L Street, N.W.
Washington, DC 20005

Mr. Robert B. Borsum
Framatome Technologies
Suite 525
1700 Rockville Pike
Rockville, Maryland 20852

Manager, LIS
NUS Corporation
2650 McCormick Drive, 3rd Floor
Clearwater, Florida 34619-1035

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
Atlanta Federal Center
61 Forsyth Street, S.W., Suite 23T85
Atlanta, Georgia 30303

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Route 2, Box 610
Seneca, South Carolina 29678

Max Batavia, Chief
Bureau of Radiological Health
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

County Supervisor of Oconee County
Walhalla, South Carolina 29621

Mr. Ed Burchfield
Compliance
Duke Power Company
Oconee Nuclear Site
P.O. Box 1439
Seneca, South Carolina 29679

Ms. Karen E. Long
Assistant Attorney General
North Carolina Department of
Justice
P.O. Box 629
Raleigh, North Carolina 27602

Mr. L.A. Keller
Licensing - EC050
Duke Power Company
526 South Church Street
Charlotte, North Carolina 28242-0001

Richard Fry, Director
Division of Radiation Protection
North Carolina Department of Environment,
Health, and Natural Resources
P.O. Box 27687
Raleigh, North Carolina 27611-7687

Mr. Douglas J. Walters
Nuclear Energy Institute
1776 I Street N.W.
Suite 300
Washington, D.C. 20006

ATTENDANCE LIST
NRC MEETING WITH DUKE POWER COMPANY
April 29, 1998

<u>NAME</u>	<u>ORGANIZATION</u>
1. Christopher M. Regan	NRC/NRR/PDLR
2. Robert Gill	Duke Energy
3. William McCullum	Duke Power
4. Greg Robison	Duke Power
5. Sam Lee	NRC/DRPM/PDLR
6. Wan C. Liu	NRC/DRPM/PDLR
7. Richard J Morante	Brookhaven National Laboratory
8. Joseph Braverman	Brookhaven National Laboratory
9. Debbie Ramsey	Duke Power
10. Ed Burchfield	Duke Power
11. Bill Foster	Duke Power
12. Mike Thorne	Duke Power
13. Rounette Nader	Duke Power
14. Martha Poster	Duke Power
15. Harry Williams	Duke Power
16. Mohammad Salim	Duke Power
17. Robert V. Hester	Duke Power
18. Mark Ferlisi	Duke Power
19. Tommy Hartis	Duke Power
20. Tim Pettit	Duke Power
21. Paul Colaiani	Duke Power

- RAI #3.3-15) Category A.
- RAI #3.3-16) Category A.
- RAI #3.3-17) Category A.
- RAI #3.3-18) Category A.

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

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

Attachments: As Stated

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 R. L. Gill, Duke Energy

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E-MAIL:

S. Collins/F. Miraglia
 (SJC1/FJM)
 R. Zimmerman (RPZ)
 J. Roe (JWR)
 R. Correria (RPS)
 L. Shao (LCS1)

R. Wessman (RHW)
 J. Strosnider (JRS2)
 G. Lainas (GCL)
 B. Morris (BMM)
 J. Moore (JEM)
 G. Bagchi (GXB1)

G. Holahan (GMH)
 B. Sheron (BWS)
 M. Mayfield (MEM2)
 A. Murphy (AJM1)
 H. Brammer (HLB)

D. LaBarge (DEL)
 H. Berkow (HNB)
 J. Costello (JFC2)
 PDLR Staff

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Duke Power Company, PB05E
422 South Church Street
Charlotte, North Carolina 28242-0001

J. Michael McGarry, III, Esquire
Winston and Strawn
1400 L Street, N.W.
Washington, DC 20005

Mr. Robert B. Borsum
Framatome Technologies
Suite 525
1700 Rockville Pike
Rockville, Maryland 20852

Manager, LIS
NUS Corporation
2650 McCormick Drive, 3rd Floor
Clearwater, Florida 34619-1035

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
Atlanta Federal Center
61 Forsyth Street, S.W., Suite 23T85
Atlanta, Georgia 30303

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Route 2, Box 610
Seneca, South Carolina 29678

Max Batavia, Chief
Bureau of Radiological Health
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

County Supervisor of Oconee County
Walhalla, South Carolina 29621

Mr. Ed Burchfield
Compliance
Duke Power Company
Oconee Nuclear Site
P.O. Box 1439
Seneca, South Carolina 29679

Ms. Karen E. Long
Assistant Attorney General
North Carolina Department of
Justice
P.O. Box 629
Raleigh, North Carolina 27602

Mr. L.A. Keller
Licensing - EC050
Duke Power Company
526 South Church Street
Charlotte, North Carolina 28242-0001

Richard Fry, Director
Division of Radiation Protection
North Carolina Department of Environment,
Health, and Natural Resources
P.O. Box 27687
Raleigh, North Carolina 27611-7687

Mr. Douglas J. Walters
Nuclear Energy Institute
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Suite 300
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 R. L. Gill, Duke Energy

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R. Correria (RPS)	B. Morris (BMM)	A. Murphy (AJM1)	PDLR Staff
L. Shao (LCS1)	J. Moore (JEM)	H. Brammer (HLB)	
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