



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

November 4, 1999

LICENSEE: Duke Energy Corporation (Duke)
FACILITY: Oconee Nuclear Station, Units 1, 2, and 3
SUBJECT: SUMMARY OF MEETING BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION (NRC) STAFF AND DUKE REPRESENTATIVES REGARDING SCOPING FOR THE OCONEE LICENSE RENEWAL APPLICATION (LRA)

On October 28, 1999, representatives of Duke met with the NRC staff at Rockville, Maryland, to discuss the 10 CFR 54.4 scoping process used for the license renewal application for Oconee Units 1, 2, and 3. A list of meeting attendees is provided in Enclosure 1. Enclosure 2 contains a copy of the handouts used by Duke during the meeting.

The meeting began with a discussion of an NRC letter dated October 8, 1999, that provided a plan for the resolution of the scoping issue for Oconee. The staff summarized its expectation from the letter. Duke stated that it was prepared to discuss how they intended to resolve the issues in the letter to allow the staff to achieve reasonable assurance that scoping was done properly for the Oconee LRA. Duke stated that it believed the purpose of the meeting was to discuss the information needs of the October 8, 1999, letter, to clarify management expectations for issue resolution, and to define management expectations on how to focus efforts to resolve the issue.

Duke then discussed the handouts contained in Enclosure 2. Duke stated that based on its initial review, several groups of findings appeared which are: some events are not described in the applicable current licensing basis (CLB) information; some events appear to credit solely plant hardware that is already within the scope of license renewal; some events appear to credit only operator action and mention of non-specific hardware; and some events appear to credit other hardware in addition to that already within the scope of license renewal. Duke provided examples to illustrate the above groups.

The staff stated that it would expect Duke to include the information contained in the presentation in the response to the October 8, 1999, letter. The staff also stated that it expected that for each event that Duke discusses in its response, it would also reference any relevant material in the LRA for that event. The staff discussed the example of the control of heavy loads. Duke stated that control of heavy loads was an event that was not described in the applicable CLB information. Duke stated that although the mechanical scoping process did not consider this to be a design basis event (DBE) for the purpose of license renewal, the structural scoping process did capture cranes in the LRA. The staff stated that Duke's response to the October 8, 1999, letter should include a discussion about the cranes being captured in the LRA. Further, the staff stated that it also expected Duke to include in its response that instrumentation (both electrical lines and tubing) that is relied on for loss of decay heat removal was captured in the LRA despite the fact that loss of decay heat removal was not considered a DBE for the purpose of license renewal.

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November 4, 1999

The staff and Duke discussed examples of events crediting other hardware in addition to that already within the scope of license renewal. Specifically, the staff and Duke discussed loss of decay heat removal and loss of control room. Duke stated that the non-safety-related bleed transfer pump and connecting piping were not identified by the Oconee license renewal scoping methodology but they are mentioned in the applicable CLB documentation for loss of decay heat removal. Similarly, the Auxiliary Shutdown Panel was not identified by the Oconee license renewal scoping methodology but it is mentioned in the applicable CLB documentation for the loss of the control room. The staff stated that in its response to the October 8, 1999, letter, Duke needs to decide what the licensing basis is for these two events and defend their decision on whether or not the bleed transfer pump and connecting piping, and the Auxiliary Shutdown Panel should be considered to be within the scope of license renewal.

The staff also stated that Duke's response to the October 8, 1999, letter should include a discussion about the systems, structures, and components that were added to the scope of license renewal because of the LRA update that was provided in a Duke letter dated September 30, 1999, or because of responses to safety evaluation report open items. The staff asked that Duke provide the response to the October 8, 1999, letter by the end of November in order to not impact the Oconee license renewal schedule.

Original Signed By

Joseph M. Sebrosky, Project Manager
 License Renewal and Standardization Branch
 Division of Regulatory Improvement Programs
 Office of Nuclear Reactor Regulation

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

Enclosures: As stated (2)

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*See previous concurrence

DOCUMENT NAME: G:\RLSB\SEBROSKY\10-28 scope_SUM.WPD

OFFICE	LA	RLSB/DRIP:PM	IQMB/DIPM	RLSB/DRIP:BC
NAME	EHylton	JSebrosky <i>JMS</i>	TQuay	CIGrimes
DATE	11/02/99*	11/4/99	11/02/99*	11/04/99*

The staff and Duke discussed example^s of events crediting other hardware in addition to that already within the scope of license renewal. Specifically, the staff and Duke discussed loss of decay heat removal and loss of control room. Duke stated that the non-safety-related bleed transfer pump and connecting piping were not identified by the Oconee license renewal scoping methodology but they are mentioned in the applicable CLB documentation for loss of decay heat removal. Similarly, the Auxiliary Shutdown Panel was not identified by the Oconee license renewal scoping methodology but it is mentioned in the applicable CLB documentation for the loss of the control room. The staff stated that in its response to the October 8, 1999, letter, Duke needs to be able to defend its licensing basis regarding these two events and whether or not the bleed transfer pump and connecting piping, and the Auxiliary Shutdown Panel should be considered to be within the scope of license renewal.

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decide what the is for defend their decision on

The staff also stated that Duke's response to the October 8, 1999, letter should include a discussion about the systems, structures, and components that were added to the scope of license renewal because of the LRA update that was provided in a Duke letter dated September 30, 1999, or because of responses to safety evaluation report open items. The staff asked that Duke provide the response to the October 8, 1999, letter by the end of November in order to not impact the Oconee license renewal schedule.

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OFFICE	LA	RLSB/DRIP:PM	IQMB/DIPM	RLSB/DRIP:BC
NAME	Elyton	JSebrosky	TQuay	CGrimes
DATE	11/2/99	11/2/99	11/2/99	11/4/99

with changes

Oconee Nuclear Station (License Renewal)

cc:

Ms. Lisa F. Vaughn
Duke Energy Corporation
422 South Church Street
Mail Stop PB-05E
Charlotte, North Carolina 28201-1006

Anne W. Cottingham, Esquire
Winston and Strawn
1400 L Street, NW.
Washington, DC 20005

Mr. Rick N. Edwards
Framatome Technologies
Suite 525
1700 Rockville Pike
Rockville, Maryland 20852-1631

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

Senior Resident Inspector
U. S. Nuclear Regulatory Commission
7812B Rochester Highway
Seneca, South Carolina 29672

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

Virgil R. Autry, Director
Division of Radioactive Waste Management
Bureau of Land and Waste Management
Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201-1708

W. R. McCollum, Jr., Vice President
Oconee Site
Duke Energy Corporation
P. O. Box 1439
Seneca, SC 29679

Mr. Larry E. Nicholson
Compliance Manager
Duke Energy Corporation
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

L. A. Keller
Manager - Nuclear Regulatory Licensing
Duke Energy Corporation
526 South Church Street
Charlotte, North Carolina 28201-1006

Mr. Richard M. Fry, Director
Division of Radiation Protection
North Carolina Department of
Environment, Health, and
Natural Resources
3825 Barrett Drive
Raleigh, North Carolina 27609-7721

Gregory D. Robison
Duke Energy Corporation
Mail Stop EC-12R
P. O. Box 1006
Charlotte, North Carolina 28201-1006

Robert L. Gill, Jr.
Duke Energy Corporation
Mail Stop EC-12R
P. O. Box 1006
Charlotte, North Carolina 28201-1006
RLGILL@DUKE-ENERGY.COM

Douglas J. Walters
Nuclear Energy Institute
1776 I Street, NW
Suite 400
Washington, DC 20006-3708
DJW@NEI.ORG

Chattooga River Watershed Coalition
P. O. Box 2006
Clayton, GA 30525

T5C3

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RLSB RF

S. Duraiswamy, ACRS - T2E26

E. Hylton

E-mail:

R. Zimmerman

D. Matthews

S. Newberry

C. Grimes

C. Carpenter

B. Zalcman

J. Strosnider

R. Wessman

E. Imbro

W. Bateman

J. Calvo

M. Tschiltz

G. Holahan

T. Collins

C. Gratton

B. Boger

R. Correia

R. Latta

J. Moore

J. Rutberg

R. Weisman

M. Mayfield

S. Bahadur

N. Chokshi

J. Vora

A. Murphy

D. Martin

W. McDowell

S. Droggitis

M. Modes

RLSB Staff

R. Emch

D. LaBarge

L. Plisco

C. Ogle

R. Trojanowski

D. Billings

M. Shannon

C. Julian

J. Peralta

J. Wilson

C. Sochor

NRC MEETING DUKE ENERGY CORPORATION TO DISCUSS THE SCOPING
PROCESS USED FOR THE OCONEE LICENSE RENEWAL APPLICATION
ATTENDANCE LIST
OCTOBER 28, 1999

<u>NAME</u>	<u>ORGANIZATION</u>
JOE SEBROSKY	NRC\NRR\DRIP\RLSB
TED QUAY	NRC\NRR\DIPM\QMB
DAN DORMAN	NRC\NRR\DIPM\QMB
DAVE MATTHEWS	NRC\NRR\DRIP
MIKE TUCKMAN	DUKE ENERGY
MARK WETTERHAHN	WINSTON & STRAWN
LARRY NICHOLSON	DUKE - OCONEE
ROBERT GILL	DUKE ENERGY
ROUNETTE NADER	DUKE ENERGY
GREG ROBISON	DUKE ENERGY
LYNN CONNOR	DSA
GREG GALLETTI	NRC\NRR\DRIP\OLB
BOB PRATO	NRC\NRR\DRIP\RLSB
VICTOR MCCREE	NRC\RII
BOB WEISMAN	NRC\OGC
JANICE MOORE	NRC\OGC
KATHRYN SUTTON	WINSTON & STRAWN
ALTHEIA WYCHE	SERCH LICENSING\BECHTEL
CHRIS GRATTON	NRC\NRR\DSSA\SPLB
DOUG WALTERS	NEI
STEVE HOFFMAN	NRC\NRR\DRIP\RLSB
P.T. KUO	NRC\NRR\DRIP\RLSB
MELVIN FRANK	SCIENTECH\NUIS
BRUCE BOGER	NRC\NRR\DIPM
BOB LATTA	NRC\NRR\DIPM\QMB
CHRIS GRIMES	NRC\NRR\DRIP\RLSB
LAWRENCE CHANDLER	NRC\OGC



Oconee License Renewal Project



Duke/NRC Management Meeting

Discussion of the Plan for Resolution of Scoping Methodology Issue

October 28, 1999



Purpose of Meeting

- Discuss information needs described in the enclosure to the 10/8/99 NRC letter concerning issues involving the Oconee License Renewal Scoping Methodology
- Clarify management expectations for issue resolution by discussing examples associated with the ten events identified by the NRC in the enclosure
- Define management expectations on how to focus efforts to resolve the issue

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Scoping Methodology Discussion

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Enclosure 2



Chronology of Issue

- 10/27/98 NRC staff technical visit to Duke to review scoping details (NRC trip report issued 2/8/99)
- 12/1/99 Request for Additional Information (RAI) 2.2-6 issued addressing scoping topic (NRC letter dated 12/1/99)
- 2/17/99 Duke submits initial response to RAI 2.2-6 (M.S. Tuckman letter dated 2/17/99)
- 3/11/99 Duke technical meeting with NRC staff (NRC meeting summary issued 4/2/99)
- 3/18/99 Duke submits revised response to RAI 2.2-6 (M.S. Tuckman letter dated 3/18/99)
- 5/11/99 Duke/NRC management meeting focused on scoping issue (NRC meeting summary issued 5/19/99)

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Scoping Methodology Discussion

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Chronology of Issue

- 6/16/99 NRC Safety Evaluation Report related to Oconee license renewal issued with open item 2.1.3.1-1
- 6/22/99 Duke submits initial response to SER open item 2.1.3.1-1 (M.S. Tuckman letter dated 6/22/99)
- 8/16-18/99 NRC staff meets with Oconee staff to review materials associated with the scoping process (NRC meeting summary issued 8/27/99)
- 8/27/99 Duke management presents further scoping issue information at monthly NRC/Duke license renewal management meeting (NRC meeting summary issued 9/7/99)
- 10/8/99 NRC issues Plan for the Resolution of the Scoping Issue (NRC letter dated 10/8/99)

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Scoping Methodology Discussion

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Seven Features of the License Renewal Scoping Methodology

1. Functional flow path identification

All mechanical systems and their functions that are listed in Oconee event mitigation calculations are included within the scope of license renewal. (The scope of these events is the subject of SER Open Item 2.1.3.1-1.)

2. Fluid pressure boundary determination

All passive pressure boundaries required for mechanical systems identified in Feature 1 above are included within the scope of license renewal.

3. Physical interference identification

Portions of selected mechanical systems whose failure to maintain their pressure boundary or to remain structurally intact would result in impacting the function of any essential system and component (seismic II/I) are included within the scope of license renewal.

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Scoping Methodology Discussion

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Seven Features of the License Renewal Scoping Methodology

4. Other designated item identification (safety-related, seismic)

Mechanical systems or portions of systems that contain safety-related and seismically designed piping that have not otherwise been included are included within the scope of license renewal.

5. All Oconee structures that are designated as either Class 1 or 2 as defined in UFSAR

6. All Oconee electrical components are initially assumed to be within scope

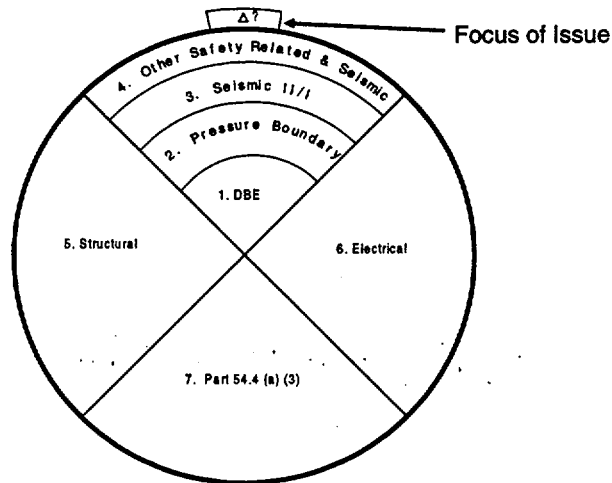
7. All structures and mechanical systems required for events identified in §54.4(a)(3)

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Scoping Methodology Discussion

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License Renewal Scoping Methodology



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Scoping Methodology Discussion

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Issue Description

- **Issue:** Is the set of events that is considered by the Oconee License Renewal Scoping Methodology sufficient for scoping?
- **NRC Perspective:** "The staff believes that more events should be reviewed to determine if they would identify any SSC functions that might be considered necessary to ensure the functions identified in 10 CFR 54.4(a)(1)." ...from the 10/8/99 NRC letter
- **Duke Response:** Review applicable CLB information for the ten events identified in the enclosure to the 10/8/99 letter to assess if there are specific plant capabilities relied on for these ten events in the licensing basis

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Scoping Methodology Discussion

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Ten Events

1. High Energy Line Break
2. Loss of Decay Heat Removal
3. Loss of Spent Fuel Pool Cooling – Heat Transfer function
4. Loss of Control Room
5. Steam Generator Overfill
6. Steam Generator Dryout
7. Loss of Instrument Air
8. Internal Flooding (Auxiliary Building)
9. Control of Heavy Loads
10. Loss of Condensate

Applicable CLB Information

- CLB documents being reviewed
 - UFSAR
 - License Conditions
 - Commission Orders
 - Commission Regulations
 - Exemptions

- From initial review, several groups of findings have appeared
 - Some events are not described in the applicable CLB information
 - Some events appear to credit solely plant hardware that is already within the scope of license renewal.
 - Some events appear to credit only operator action and mention of non-specific hardware
 - Some events appear to credit other hardware in addition to that already within the scope of license renewal
- The following examples illustrate several of these groups

- **Control of Heavy Loads**
 - From review to date, this event does not appear to be discussed in the applicable CLB documents



**Example of events crediting solely
plant hardware that is already within
the scope of license renewal.**

■ **Steam Generator Dryout**

- This event is discussed in the applicable CLB documents
- The credited hardware is an electrical system that senses low steam generator water level and sends a signal to initiate Emergency Feedwater, if not already initiated by other signals
- This instrumentation was included in the Electrical scoping portion of the Oconee License Renewal Scoping Methodology

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Scoping Methodology Discussion

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**Example of events crediting only
operator action and/or mention of non-
specific hardware**

■ **Loss of Spent Fuel Pool Cooling - Heat Transfer**

- Loss of Spent Fuel Pool Cooling is discussed in the applicable CLB documents
- During normal operation, pool heat removal is performed by the Spent Fuel Pool Cooling System which, in turn, is cooled by the non-safety-related Recirculating Cooling Water System
- In the event of the loss of spent fuel pool cooling, the applicable CLB documents credit only operator actions and non-specific sources of water to restore pool inventory, to keep the fuel covered and to preclude Part 100 releases
- Heat transfer from the pool is not a requirement

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Example of events crediting other hardware in addition to that already within the scope of license renewal

■ **Loss of Decay Heat Removal**

- This event is discussed in the applicable CLB documents
- In response to GL 88-17, Loss of Decay Heat Removal, a number of administrative and programmatic actions were implemented at Oconee
- One of these actions was to implement several commitments to further reduce the risk of loss of decay heat removal

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Scoping Methodology Discussion

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Example of events crediting other hardware in addition to that already within the scope of license renewal

■ **Loss of Decay Heat Removal (continued)**

- From Oconee UFSAR Chapter 16, SLC 16.5.3, Item g reads:
 - g. Two of the following means of adding inventory to the RCS are available and operable:
 1. A gravity flow path from the BWST
 2. One Bleed Transfer Pump (BTP) and connecting piping
 3. A High Pressure Injection (HPI) pump
- Operators have discretion as which two of the three means to add inventory to the RCS

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Scoping Methodology Discussion

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■ **Loss of Decay Heat Removal (continued)**

- The gravity flow path from the BWST and the HPI pump are safety-related and have been identified by the Oconee License Renewal Scoping Methodology
- The non-safety-related Bleed Transfer Pump (BTP) and connecting piping were not identified by the Oconee License Renewal Scoping Methodology

■ **Loss of Control Room**

- This event is discussed in the applicable CLB documents
- In the event of loss of Control Room, two means are installed to maintain the plant in safe shutdown from outside the Control Room - the Standby Shutdown Facility (SSF) and the Auxiliary Shutdown Panel
- No apparent requirement to have two means



Example of events crediting other hardware in addition to that already within the scope of license renewal

■ **Loss of Control Room (continued)**

- The safety-related SSF was installed in part to mitigate the consequences of fire in the Control Room and is in the scope of license renewal
- The original, non-safety related ASP is not electrically isolated from the Control Room and so was replaced by the SSF for most uses. The ASP can be used at the discretion of the operator depending on the nature of the event
- The Auxiliary Shutdown Panel was not identified by the Oconee License Renewal Scoping Methodology

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Scoping Methodology Discussion

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Proposed Expectations

- To complete a timely review and to capture the results, clear management expectations are needed to focus efforts to resolve the issue
- Proposal to set limits on the depth of the review.
 - If an event is not mentioned in the applicable CLB information, then state as such and conclude review.
 - If an event description includes only operator procedural and/or non-specific plant hardware references, then state as such and conclude review.
 - If an event description includes specific hardware references, then only identify the hardware not previously identified in the Oconee Application and conclude review.

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Scoping Methodology Discussion

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- *Discussion and Clarification of Management Expectations*
- *Document expectations and capture in meeting summary*