

50-269/240/287



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

December 14, 1999

Mr. William R. McCollum, Jr.
Vice President, Oconee Nuclear Site
Duke Energy Corporation (Duke)
P. O. Box 1439
Seneca, SC 29679

SUBJECT: REQUEST FOR INFORMATION RELATED TO THE DESIGN OF THE
OCONEE BORATED WATER SYSTEMS

Dear Mr. McCollum:

In response to request for additional information 2.5.5-2, dated February 17, 1999, Duke stated that the Borated Water Storage Tanks (BWST) store borated water for suction to emergency systems for accident conditions. These tanks are located in the yard and are heated and insulated to preclude boron precipitation. We understand that the heaters, heat tracing, and insulation are designed to maintain the BWST inventory above technical specification (TS) temperature limits during normal operation. The heaters run only occasionally to serve this purpose. Duke has concluded that the insulation material on the BWST and piping is not required to support any system function that is required during or following any design basis event, or to otherwise satisfy any of the scoping criteria associated with 10 CFR 54.4(a). On this basis, Duke concluded that the insulation is not within the scope of license renewal.

It is not clear how Duke concluded that the BWST and the associated piping is capable of maintaining the required temperature of the borated water in the piping, without insulation, to maintain sufficient boron concentration to ensure the capability of the emergency systems to shut down the reactor and maintain it in a safe shutdown condition and to mitigate the consequences of the design basis events. The staff also understands that insulation is a non-safety-related item. If the insulation fails, boron precipitation will occur inside the tanks and pipes, the required boron concentration in the water will not be maintained and the piping may foul internally because of the deposition of crystalized boric acid.

While heat tracing may be considered an active component for license renewal, the insulation could be considered a passive component. Accordingly, the staff requests that Duke clarify the basis on which you concluded that the insulation is not relied on to ensure that the emergency systems will maintain a safe shutdown condition or mitigate the consequences of design basis events. In addition, the staff would like to know if Duke has calculations that demonstrate that the temperature of the borated water in the BWST and the associated piping can be maintained above the TS limits without insulation.

DFOI

PORADOCK

NRC FILE CENTER COPY

If you would like for us to arrange a meeting to discuss this matter, or if you have any questions regarding this information request, please contact the Project Manager for the Oconee renewal application, Joe Sebrosky, at 301-415-1132.

Sincerely,

Original Signed By

Christopher I. Grimes, Chief
License Renewal and Standardization Branch
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket Nos. 502-269, 50-270, and 50-287

cc: See next page

DISTRIBUTION:

See next page

DOCUMENT NAME: G:\RLSB\Grimes\DukeBWS.wpd

OFFICE	LA	PM:RLSB:DRIP	PD:RLSB:DRIP
NAME	EHyton	JMSebrosky:sg	CIGrimes
DATE	12/14/99	12/14/99	12/14/99

OFFICIAL RECORD COPY

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

DISTRIBUTION:

HARD COPY

File Center

PUBLIC

RLSB RF

EHylton

S. Duraiswamy, ACRS - T2E26

E-mail:

R. Zimmerman

D. Matthews

S. Newberry

C. Grimes

C. Carpenter

B. Zalcman

J. Strosnider

R. Wessman

M. Tschiltz

G. Holahan

T. Collins

C. Gratton

J. Wermiel

R. Caruso

M. Razzaque

B. Boger

R. Latta

J. Moore

R. Weisman

M. Mayfield

S. Bahadur

N. Chokshi

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. Wilson

C. Sochor

J. Vora