APR 15 1985

DMB 016

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

Mr. H. B. Tucker
Vice President - Nuclear Production
Duke Power Company
P. O. Box 33189
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Tucker:

SUBJECT: STAFF POSITION ON NUREG-0737, III.D.3.4, "CONTROL ROOM HABITABILITY"

RE: Oconee Nuclear Station, Units 1, 2 and 3.

On February 12 and 13, 1985, the Commission staff met with members of your staff at the Oconee Nuclear Station (Oconee) to discuss "Control Room Habitability." The Commission staff requested this meeting with Duke Power Company (Duke) to resolve open items and obtain additional information for its review. By letter dated December 26, 1984, we sent you a list of questions or areas of concern that served as the agenda for the meeting. As a result of the information presented at this meeting, both the Commission and the Duke staff had to pursue further action.

The Duke staff, in addition to the items noted in the enclosure to this letter, intends to complete certain modifications to the control room habitability system within approximately three months from the date of the meeting. After Duke has completed the necessary modifications and tests, your staff should submit the test results for our evaluation within two weeks from test completion. The attached staff position should be incorporated when making your modifications.

As a result of this meeting, the Commission staff gained a clearer understanding of Oconee's control room habitability systems, its configuration, and unique problems. The staff committed to send Duke the staff position which we have enclosed with this letter.

Any questions regarding the enclosed position should be addressed to your NRC Project Manager, Ms. H. Nicolaras. We request that you respond to this position along with your test results within two weeks after completion of

the tests to the control room to maintain positive pressure, but no later than May 1, 1985. This request for additional information affects fewer than ten respondents; therefore, OMB clearance is not required under P. L. 96-511.

Sincerely,

"ORIGINAL SIGNED BY
JOHN F. STOLZ"

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Enclosure:
As Stated

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Duke Power Company

cc w/enclosure(s):

Mr. William L. Porter
Duke Power Company
P. O. Box 33189
422 South Church Street
Charlotte, North Carolina 28242

Office of Intergovernmental Relations
116 West Jones Street
Raleigh, North Carolina 27603

Honorable James M. Phinney
County Supervisor of Oconee County
Walhalla, South Carolina 29621

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission, Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Heyward G. Shealy, Chief
Bureau of Radiological Health
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Regional Radiation Representative
EPA Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30308

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

Mr. Robert B. Borsum
Babcock & Wilcox
Nuclear Power Generation Division
Suite 220, 7910 Woodmont Avenue
Bethesda, Maryland 20814

Manager, LIS
NUS Corporation
2536 Countryside Boulevard
Clearwater, Florida 33515

J. Michael McGarry, III, Esq.
Bishop, Liberman, Cook, Purcell & Reynolds
1200 17th Street, N.W.
Washington, D. C. 20036

POSITION OF THE NRC STAFF WITH RESPECT TO OPERATOR PROTECTION

CONCERNING NUREG-0737 ITEM III.D.3.4, "CONTROL ROOM HABITABILITY"

OCONEE NUCLEAR STATION UNITS 1, 2 AND 3

DUKE POWER COMPANY

DOCKETS NOS. 50-269, 50-270 AND 50-287

A meeting on control room habitability was held at the Oconee site on February 12 and 13, 1985, in response to an NRC letter dated December 26, 1984. At this meeting, material was presented by Duke Power Company (the licensee) personnel regarding control room operator protection of the Units 1, 2 and 3 control rooms. As a result of the information supplied by the Duke Power Company representatives concerning the design of the control room systems, the staff has determined that there are a number of deficiencies in the control room habitability system for Oconee Units 1, 2 and 3, (Oconee). These deficiencies are as follows:

1) Licensee representatives have stated that they are unable to maintain a positive pressure in the Unit 1 and 2 control room and that only a slightly positive pressure (much less than 1/8 inch water gauge) can be maintained in the Unit 3 control room. Therefore, Oconee currently lacks the ability to mitigate unfiltered contaminants from entering the control room following accidents, as assumed in dose calculations;

2) Single failures in the habitability systems at Oconee may well significantly degrade the protection afforded the operators; and

3) There are no Technical Specification requirements concerning surveillance on the control room habitability systems, including the booster filters and control room periodic pressure tests.

Because the staff finds that the existing systems and the proposed modifications fall far short of the level of protection that should be afforded the operators, the staff takes the following position. The licensee should:

1) a) Continue to increase the "leak tightness" of the control room by performing appropriate testing to determine the sources of leakage and sealing them following the planned installation of the proposed "leak tight" dampers. Tightening of the control room should progress with the objective of achieving a pressurization capability of 1/8 inch W.G. with the currently installed "booster system;"

b) Perform a single failure modes and effects analysis demonstrating the effects of single failures on the ability to maintain the positive pressure that would be achieved with no such failures and both booster fans in operation;

c) Perform dose calculations using the leakage characteristics corresponding to a worst case single failure determined in item a) above. The calculation should follow the guidelines established by Standard Review Plan (SRP) Section 6.4 and additional unfiltered infiltration should be assumed in the calculation if the control room cannot be maintained at a pressure greater than or equal to 1.8 inch W.G. with single failure. With respect to damper failure, repair could be credited by using the criteria for valve or damper repair alternative in Section 6.4, Appendix A; and

d) Propose appropriate surveillance requirements in accordance with standard technical specifications, as requested in Generic Letter 83-36.