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

Mr. William O. Parker, Jr.
Vice President - Steam Production
Duke Power Company
P. O. Box 33189
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Parker:

We have reviewed your July 24, 1981 letter regarding low temperature overpressure protection and information previously submitted on this subject and find that insufficient information is available for us to complete our review. Accordingly, we have enclosed a detailed list of the remaining NRC concerns which more fully describe what information is required. We are continuing our review of the pertinent information provided in your January 12, 1982 submittal concerning Appendix G information and will advise you in the near future if additional information is also required in this area.

In order for us to complete our review in our scheduled time frame, we request that you respond to the enclosed questions within 30 days of your receipt of this letter.

Since this request for information is related solely to the Oconee Nuclear Station, fewer than ten respondents are affected; 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:
Request for Additional
Information

cc w/enclosure:
See next page

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OFFICE	ORB#4:DL	C-ORB#4:DL					
SURNAME	PWagner;cb	JStolz					
DATE	3/10/82	3/10/82					

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

Oconee County Library
501 West Southbroad Street
Walhalla, South Carolina 29691

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, Suite 3100
Atlanta, Georgia 30303

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

William T. Orders
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.
DeBevoise & Liberman
1200 17th Street, N.W.
Washington, D. C. 20036

Enclosure

REQUEST FOR ADDITIONAL INFORMATION

1. The Branch Technical Position (SRP 5.2.2/RSB 5-2) requires the Oconee Units 1, 2 and 3 overpressure protection systems (OPS) to prevent exceeding the applicable Technical Specifications and 10 CFR 40 Appendix G limits. In your analysis and system description, you use 550 psig as the low temperature PORV setpoint and as the value that RCS pressure is allowed to reach prior to any credited operator action. Does the 550 psig setpoint provide adequate assurance that the Appendix G curve limits will not be exceeded for all temperatures below 408°F (the minimum pressurization temperature)?

2. The OPS is required to function assuming any single active component failure. The Oconee overpressure protection system does not meet this criterion for the case of inadvertent actuation of the high pressure injection (HPI) system with the PORV failing closed. You mentioned in your submittals a proposed system to trip the HPI pumps during a pressure transient and several administrative controls that are used to prevent an inadvertent HPI injection. In it's February 2, 1978 letter, the staff stated that this concept is acceptable provided the system meets the design criteria, and adequate controls to prevent the event are included in the plant Technical Specifications.

   a. Provide a copy of all Technical Specifications (TSs) that deal with this subject or propose appropriate revisions.
   b. List all procedural and administrative controls used during HPI system tests and RCS hydrostatic tests to prevent violating Appendix G limits.
   c. Could the HPI isolation valves HP-26 and HP-27 be manually opened locally? Would the control room operators have any indication of this?
   d. What is the status of the installation of the proposed system mentioned above?

3. Relative to the OPS testing, please respond to the following:

   a. How is the PORV and its control circuitry functionally tested?
   b. At what frequency are these tests performed?
   c. How do you ensure that these valves actually open during testing?
   d. Provide a copy of all TSs that deal with this subject or propose appropriate revisions.

4. The Reactor Systems Branch position RSB 5-2 requires an alarm to alert the operator to properly enable the overpressure protection system at the correct plant condition during cooldown. If the system is not properly enabled, with the PORV isolation valve open and the PORV low setpoint selected by the correct position of the key-lock switch, it will not function to mitigate an overpressure event. How does Duke Power Company meet this requirement at Oconee Units 1, 2, and 3?

5. RSB 5-2 requires that an alarm must be provided to alert the operator that a pressure transient is occurring. You take credit for operator action to mitigate a pressure transient for all analyzed events when a failed-closed PORV is considered. No credit can be taken for operator action until 10 minutes after the operator is aware that a pressure transient is in progress. For the most severe event that you analyzed, what audible alarm will alert the operators that a pressure transient is occurring (alarms associated with the PORV cannot be used because it is assumed failed closed)? We require that acceptable technical specification changes or system modifications be proposed to increase your calculated operator time from 4.4 minutes to at least 10 minutes.

6. What training has been conducted at Oconee to make the operating personnel aware of overpressure incidents at other facilities and possible over-pressure situations at Oconee? How do you ensure that an emphasis is placed on this problem during your licensing and retraining programs?

7. Provide current P&IDs of the overpressure protection system.

8. The administrative controls you use to ensure against the inadvertent opening of an HPI valve are not put into use until RCS temperature drops to 250°F during cooldown and they are removed once temperatures reach 250°F during system heatup. This leaves the time spent between 250°F and 408°F (the minimum pressurization temperature) where an inadvertent valve opening or a valve malfunction could result in a pressure transient that could exceed Appendix G curve limit. Address this issue.