

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE AREA 704
373-4083

February 17, 1978

Mr. Edson G. Case, Acting Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

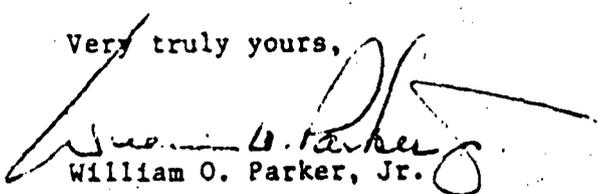
Attention: Mr. R. Reid, Chief
Operating Reactors Branch #4

Reference: Oconee Nuclear Station
Docket No. 50-269, -270, -287

Dear Mr. Case:

Please find attached a response to your requests for additional information on fire protection received informally on February 1, 1978, and as discussed with your staff in our telephone conversation of February 3, 1978.

Very truly yours,


William O. Parker, Jr.

LJB:vmb

Attachment



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Oconee Nuclear Station
Response to NRC Request for Additional Information on
Fire Protection Received February 1, 1978

Question 3

Describe whether the separation is adequate to assure that a cable tray fire will not affect the minimum number of instrumentation inside containment, including pressurizer heater cables. Where redundant cables are in proximity, was potential for exposure by a cable tray fire considered?

Response

The safe Shutdown Facility (SSF) will provide a separate means to bring units to a safe shutdown condition. The SSF will be separate from the existing structures at Oconee utilizing additional cables to provide the necessary power, control and instrumentation for the facility.

A three hour fire wall will be constructed in the west penetration room to provide separation between the SSF cables and the normal unit equipment and cables in the east penetration room. This wall will assure that the unit can be shut down using either the SSF or normal unit equipment and cable.

Maximum possible separation of existing and additional cables will be a design consideration for the SSF.

Question 5

Provide additional information on radwaste fires.

Response

This information was provided in a telephone conversation on February 3, 1978.

Question 13

Justify the sealing of pipe penetrations of critical barriers with "Armaflex" only, such as the barrier between the Turbine and Auxiliary Buildings.

Response

The HP and LP injection pumps are located on the 758+0 elevation of the Auxiliary Building and are required for safe shutdown of the unit. The pump locations are below the lowest Turbine Building elevation. No penetrations connect this level with the Turbine Building.

The power cable required for operation of these pumps runs vertically up through elevations 771+0 (no Turbine Building elevation), and 783+9, to the equipment room on elevation 796+0. Pipe penetrations sealed only with Armaflex in the Turbine/Auxiliary Building wall are at least fifty feet from these safe shutdown cables. Therefore, the penetrations will have no affect on the safe shutdown of the unit.

In addition the proposed SSF will provide a safe shutdown system independent of these areas.

Question 14

- a. What is the affect of loss of control air on the auxiliary boiler?
- b. What is the reason for the sequence as described?

Response

The auxiliary boiler is equipped with photoelectric cells to shut fuel off if air flow is shutoff. An automatic timed purge fan assures complete purge prior to restart.

Question 19

Provide drawings which are referenced but were omitted.

Response

These drawings were provided on February 6, 1978.

Position 1

The capability to reach all areas of significant combustible and safety related equipment at Keowee with a maximum of 100 feet of fire hose should be provided.

Response

Hose stations will be provided at Keowee with capability to reach all areas of significant combustibles and safety related equipment with a maximum of 100 feet of fire hose.

Position 9

Detectors should be located in all safety related areas containing combustibles.

Response

Smoke detectors will be located in all areas containing equipment required for safe shutdown which contain combustibles.

Position 11

Doors separating the Turbine and Auxiliary Buildings with the exception of the rolling fire doors should be locked or alarmed in the control room.

Response

Access to all areas in the Auxiliary Building containing safe shutdown equipment is controlled by either rolling fire doors or doors that are locked and alarmed to the guard facility.

Position 12

How many purge fans will be provided? Flexible ductwork should also be provided.

Response

Two 5,200 cfm smoke purge fans and flexible ductwork will be provided.

Position 14

Fixed repeaters should be provided in the Reactor Building.

Response

Fixed repeaters will be provided for communication inside the Reactor Building unless it is determined that the use of repeaters will affect the operation of nuclear instrumentation.

Additional Items

1. The loss of instrument air will not affect the capability of the units to safely shutdown.
2. Non-labeled fire doors will be replaced with rated frames and door assemblies equivalent to the barrier penetrations.
3. Fire brigade members will receive a pre-employment physical examination and periodic physical examinations as required by other programs established at Oconee Nuclear Station.
4. The fire protection program either meets or will be revised to meet the provisions of Attachment #3 of the NRC's "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Control and Quality Assurance," entitled "Control of Combustibles."
5. A program for fighting fires will be established which addresses the items outlined in Attachment #5 of the NRC's "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls and Quality Assurance," entitled "Fire Fighting Procedures." This program will utilize drawings of all levels within the station and yard area to the extent practicable to assure this information is readily available.
6. The instrument storage room located off the Turbine Building does not have a three hour rated fire door. This area is used only for instrument storage. Walls, ceiling and floor are rated.
7. The schedule for implementation of fire protection modifications is as follows:

(1) smoke detectors

Second refueling outage
from SER issuance for
each unit

(2) fire header piping and
hose stations inside
containment

Second refueling outage
from SER issuance for
each unit

(3) fire header piping and
hose stations outside
containment

July 1, 1979

(4) portable hand lights

*First refueling outage
occurring after six months
from SER issuance

(5) water flow alarms

Same as (4)

(6) propane tanks

Same as (4)

Additional Items (cont)

- | | | |
|------|---|---|
| (7) | fire barrier penetrations | July 1, 1979 |
| (8) | portable extinguishers | Same as (4) |
| (9) | portable smoke exhauster | Same as (4) |
| (10) | emergency breathing air supply | Same as (4) |
| (11) | oil collection system | Second refueling outage from SER issuance or each unit |
| (12) | cable penetration fire stop tests | April 30, 1978 |
| (13) | safe shutdown facility | 30 months from NRC approval |
| (14) | fixed repeaters | First refueling outage for each unit occurring after six months from SER issuance |
| (15) | administrative controls | |
| | a) all controls except those in (b) | Same as (4) |
| | b) controls to address NRC fire fighting guidelines | September 1, 1979 |

*At the end of the first refueling outage for any unit which occurs after an initial six month period, all three units will be completed.