

DUKE POWER COMPANY

POWER BUILDING

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



WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

March 26, 1982

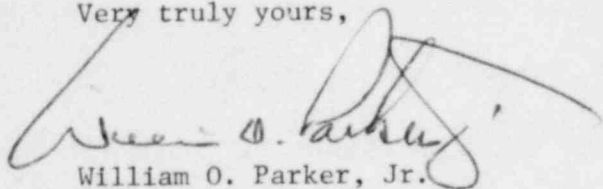
Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: Oconee Nuclear Station
Docket No. 50-270

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-270/82-05. This report is submitted pursuant to Oconee Nuclear Station Technical Specification 6.6.2.1.a(9), which concerns the discovery of conditions not specifically considered in the safety analysis report or Technical Specifications that require corrective measures to prevent the existence or development of an unsafe condition, and describes an incident which is considered to be of no significance with respect to its effect on the health and safety of the public.

Very truly yours,



William O. Parker, Jr.

JFN/php
Attachment

cc: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. W. T. Orders
NRC Resident Inspector
Oconee Nuclear Station

Records Center
Institute of Nuclear Power Operations
1820 Water Place
Atlanta, Georgia 30339

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DUKE POWER COMPANY
OCONEE NUCLEAR STATION UNIT 2

Report Number: RO-270/82-05

Report Date: March 26, 1982

Occurrence Date: March 12, 1982

Facility: Oconee Unit 2, Seneca, South Carolina

Identification of Occurrence: Experimental Zircaloy Spacer Grids moved

Conditions Prior to Occurrence: Refueling Shutdown

Description of Occurrence: As a result of post-irradiation examinations it was discovered that the intermediate spacer grids 1 through 5 on NJ01QF, a demonstration Mark BZ fuel assembly with zircaloy spacer grids, had moved approximately two inches upward during Unit 2 Cycle 5 operation. This caused loss of grid to grid contact with adjacent Mark B4 fuel assemblies.

Apparent Cause of Occurrence: The 1QF grid springs holding the grids in place were not strong enough to prevent the grids from sliding upwards due to friction from the reactor coolant flow during Unit 2 Cycle 5, as described in letter of W. O. Parker, Jr. to James P. O'Reilly dated March 24, 1982.

Analysis of Occurrence: Due to the thicker zircaloy spacer grid configuration, there is a larger pressure drop across the zircaloy grid than the standard Inconel grid. The 1QF grid springs allowed the spacer grids to move upwards until they were stopped by the spacer sleeves on the instrument tube of the fuel assembly. The 1QF spacer sleeves are shorter than sleeves on four Mark BZ assemblies in Unit 1 Cycle 7, and allowed the grids to move enough (more than 1.895 inches) to lose grid to grid contact with adjacent Mark B4 fuel assembly grids. No damage to fuel occurred. It is considered that the health and safety of the public were not affected by this event.

Corrective Action: Fuel assembly 1QF was removed (along with 15V) and replaced with 15W and 15A. Fuel assemblies 1KD, 15W, and 15A were positioned in core locations H-7 through H-9 so as to minimize the impact on Cycle 6 reload design. 15W (the only fuel assembly adjacent to 1QF remaining) will be examined prior to Cycle 6 operation.