

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

January 15, 1979

TELEPHONE: AREA 704
373-4093

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

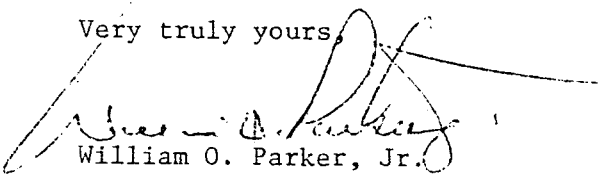
Re: Oconee Unit 1
Docket No. 50-269

Dear Mr. O'Reilly:

My letter of December 29, 1978 addressed the delays involved in preparing this report.

Pursuant to Sections 6.2 and 6.6.2 of the Oconee Nuclear Station Technical Specifications, please find attached Reportable Occurrence Report RO-269/78-27.

Very truly yours,



William O. Parker, Jr.

KRW:scs
Attachment

cc: Director, Office of Management Information
and Program Control

REGULATORY DOCKET FILE COPY

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DUKE POWER COMPANY
OCONEE UNIT 1

Report Number: RO-269/7827

Report Date: January 15, 1979

Occurrence Date: December 14, 1978

Facility: Oconee Unit 1, Seneca, South Carolina

Identification of Occurrence: ES Actuation Following Reactor Trip

Conditions Prior to Occurrence: 98% Full Power

Description of Occurrence:

At approximately 1100 hours on December 13, 1978, the Reactor Coolant System average temperature (Tave) statalarm became erratic and a work request to investigate was issued. On December 14, 1978 during investigation of the erratic statalarm behavior a short occurred on the power cord feeding the ICS Tave recorder. The short caused an erroneous low Tave indication of approximately 13°F. The ICS began withdrawing control rod group 7 to maintain Tave. The reactor tripped on high pressure/temperature at 1636 hours. Both normal feedwater pumps tripped on high discharge pressure. The emergency feedwater pump started, then stopped when the normal feedwater pumps reset and restarted. By approximately 1638 hours the level in the OTSG's had dropped to 6 and 0 inches respectively (normal level is more than 110 inches). The emergency feedwater pump started to feed the B generator. Levels in the A generator returned to normal by 1641 hours but the B generator increased to 35 inches and then returned to 0. This possibly resulted from malfunctioning of valves required for this particular flow path. The B generator was refilled through the emergency feedwater header at 1649 hours. ES Channels 1 and 2 (High Pressure Injection) tripped on low RCS pressure (1500 psig) as required by Technical Specifications.

Apparent Cause of Occurrence:

The ES actuated on low RCS pressure due to inability to maintain feedwater flow to the OTSG's sufficient to maintain adequate startup level. The feedwater problems evidently resulted from improper operation of one or more feedwater valves (FDW-46, -47) involved in switching from normal to emergency flow paths. The initiating event, the short in the Tave recorders power cord, was apparently an isolated failure.

Analysis of Occurrence:

The health and safety of the general public were not adversely affected as a result of this occurrence. Both the RPS and ES systems functioned as required.

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Corrective Actions:

The power cords that supply the Tave recorders on Units 2 and 3 have been inspected and found to be in acceptable condition.

The potentially malfunctioning valves, FDW-47, -48 will be thoroughly checked during a later outage. Further review of the impact of the transient on the OTSG's is also being performed.

LICENSEE EVENT REPORT

EXHIBIT A

CONTROL BLOCK: _____ (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 | S | C | N | E | E | 1 | 2 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 1 | 4 | 5 | 8

01 | L | 6 | 0 | 5 | 1 | 0 | 0 | 0 | 2 | 6 | 9 | 7 | 1 | 2 | 1 | 4 | 7 | 8 | 8 | 0 | 1 | 1 | 1 | 5 | 7 | 9 | 9

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 | On December 13, 1978, the Tave statalarm began to act erratically and an
03 | investigation was initiated. During the investigation, on December 14, 1978
04 | the power cord supplying the Tave recorder shorted causing an apparent (not
05 | real) drop in Tave of 13°F. As the ICS attempted to correct Tave the
06 | unit tripped on high pressure/temperature. Feedwater transients during cool-
07 | down allowed the B OTSG to go dry. When it was refilled it caused RCS pressure
08 | to drop below 1500 psi which actuated the HPI system (see attached).

09 | I | E | 11 | E | 12 | A | 13 | I | N | S | T | R | U | 14 | R | 15 | _____ | 16

17 | 7 | 8 | 21 | 22 | 0 | 2 | 7 | 24 | 25 | 0 | 3 | 28 | 29 | L | 30 | _____ | 31 | 0 | 32

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 | The cause of the Tave cord short has not been identified. The feedwater
11 | transients were probably caused by improper valve operation. The power supply
12 | cord was replaced. The power cords on the other units have been verified to
13 | be in good condition and the feedwater valves involved will be inspected
14 | during the next available outage.

15 | E | 28 | 0 | 9 | 8 | 29 | NA | 30 | A | 31 | Operator Observation | 32

16 | Z | 33 | Z | 34 | NA | 35 | NA | 36

17 | 0 | 0 | 0 | 37 | Z | 38 | NA | 39

18 | 0 | 0 | 0 | 40 | _____ | 41 | NA | 42

19 | Z | 42 | _____ | 43 | NA | 44

20 | N | 44 | _____ | 45 | _____ | 46

NAME OF PREPARER K. R. Wilson PHONE: (704) 373-8197

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