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February 27, 1986

Mr. Harold R. Denton, Director  
Office of Nuclear Regulatory Commission  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Mr. John F. Stolz, Project Director  
PWR Project Directorate No. 6

Subject: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287

Dear Sir:

Your letter dated November 1, 1985 provided a Technical Evaluation Report (TER) concerning Duke's response to Generic Letter 83-28, Item 1.2, submitted on November 4, 1983. The TER compared the data and information capabilities described in Duke's submittal with the staff's recommended review criteria. The TER identified certain areas for which the NRC requested further discussions with Duke to determine if the existing data and information capabilities at Oconee meet the intent of the staff's review criteria.

Further discussions of Duke's response and additional information were provided during a conference call on November 21, 1985. Attachment 1 provides a summary and documentation of Duke's response during the referenced conference call.

Very truly yours,



Hal B. Tucker

MAH:slb

Attachment

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Mr. Harold R. Denton, Director  
February 27, 1986  
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cc: Dr. J. Nelson Grace, Regional Administrator  
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Region II  
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Ms. Helen Nicolaras  
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Mr. J. C. Bryant  
NRC Resident Inspector  
Oconee Nuclear Station

Duke Power Company  
Oconee Nuclear Station  
Generic Letter 83-28, Item 1.2  
Data and Information Capabilities  
Response to the NRC Letter Dated November 1, 1985

Item 1.2, Data and Information Capabilities

The information supplied in response to Generic Letter 83-28 does not indicate that the post-trip review data and information capabilities are adequate in the following areas.

- (1) Based upon the information contained in the submittal, all of the parameters specified in part 2 of this report that should be recorded for use in a post-trip review are not recorded.
- (2) Time history recorders, as described in the submittal, do not meet the minimum performance characteristics.
- (3) As described in the submittal, the recorded data may not be output in a readable and meaningful format.
- (4) The data retention procedures, as described in the submittal, do not indicate that the information recorded for the post-trip review is maintained in an accessible manner for the life of the plant.

It is possible that the current data and information capabilities at this nuclear power plant are adequate to meet the intent of these review criteria, but were not completely described. Under these circumstances, the licensee should provide an updated, more complete, description to show in more detail the data and information capabilities at this nuclear power plant. If the information provided accurately represents all current data and information capabilities, then the licensee should either show that the data and information capabilities meet the intent of the criteria in part 2 of this report, or detail future modifications that would enable the licensee to meet the intent of the evaluation criteria.

Response:

The response to this item was discussed during a conference call between Duke and the NRC staff on November 21, 1985.

- (1) A table of desirable parameters provided by the NRC was discussed. Attached is a revised version of this table to reflect the data and information capabilities at the Oconee Nuclear Station. The staff noted that, based on the information contained in the submittal and the clarifications during the conference call, the parameters monitored by the sequence of events and time history recorders meet the intent of the Generic Letter 83-28, Item 1.2.

In addition to the information in the attached table, the following clarifications are provided for documentation as requested by the NRC during the conference call on November 21, 1985:

Q(1): Verify that the Transient Monitors, Containment Sump Level recorder (CR-95), and Containment Pressure recorder (CR-32) (for all three units) are on a non-interruptible power source. Provide a brief description of each.

A(1): Power for the Transient Monitors is as follows:

- o Unit 1 - 2KRB Breaker #33
- o Unit 2 - 3KRB Breaker #33
- o Unit 3 - 1KRB Breaker #30

The sources listed above are powered by the 4160V switchgear; 2TE compartment 3, 3TE compartment 3, and 1TE compartment 2 respectively. These are non-load shed sources.

Containment Sump Level recorders are powered from 1, 2, and 3 KVIA Breaker #5, and are non-load shed.

Power for the Containment Pressure recorder comes from the Auxiliary Control System (ACS) which is powered from KI, and is non-load shed.

Q(2): Is PORV position maintained on a Sequence of Events (SOE) recorder?

A(2): The PORV position is not currently maintained on a SOE recorder. However, there is a pressurizer relief valve flow monitor available on each unit. These monitors provide an indication when there is flow through RC-66, RC-67, and RC-68, and have an associated Stat alarm "Pressurizer Relief Valve Flow". The alarms are as follows:

- o Unit 1 - SA-18/A-1
- o Unit 2 - SA-18/E-12
- o Unit 3 - SA-18/C-2

These monitors were installed following the TMI incident per NUREG-0578, under NSM 1391.

In addition, there are computer indications for the relief valve tailpipe temperatures.

- (2) As described in Duke's November 4, 1983 submittal the Event Recorder, Alarm Typer and Transient Monitor at Oconee have performance characteristics better than the 10 seconds intervals recommended by the staff's review criteria. The Event Recorder will print out input alarms from electrical devices on a paper tape. The time of each event is recorded, with discrimination down to 1 millisecond, along with parameter number. The event times and description of the alarm or device are printed out by the Alarm Typer to the nearest second. The Transient Monitor records data once a second from hardwired inputs to the transient monitor device. The time history is recorded over a 120 minutes window with equal pre-trip and post-trip 60 minutes intervals.

Duke considers that time history recorders, as described in the submittal meet the intent of the review criteria with respect to the minimum performance characteristics.

- (3) The format of the recorded data was discussed in our submittal of November 4, 1983 and clarified during the conference call on November 21, 1985. Duke considers that the output is readable and of a meaningful format.
- (4) Information recorded for the post-trip review is maintained in an accessible manner. However, a period of retention has not yet been established. Typically, reports of non-routine events are retained for 6 years in accordance with ANSI 45.2.9.

Duke feels that the data retention period needs to be addressed on an industry-wide bases for two reasons. First, data and information needs to be reviewed on a case by case bases to determine whether or not any useful purpose is served by retention for the life of the plant. Standard generic criteria should be developed. Second, utility by utility review of this aspect of record retention is not appropriate as there exists a

standard ANSI N45.2.9 (1974) that deals with record retention requirements. Accordingly, it may be necessary to clarify retention requirements for post-trip reviews in this standard. Duke will pursue a definitive resolution of this issue with the appropriate ANSI Committee and at the same time would request the NRC to follow a similar course of action relating to this issue.

Pending a definitive resolution of this issue by the appropriate ANSI Committee, Duke will, on an interim basis, retain data and information used in post-trip reviews.

PWR Parameters Available at  
the Oconee Nuclear Station for  
Post-Trip Review

<u>SOE Recorder</u>	<u>Time History Recorder</u>	<u>Parameter/Signal</u>
X	X	Reactor Trip
X	-	Safety Injection
X <sup>(1)</sup>	-	Containment Isolation
X	X	Turbine Trip
X	X	Control Rod Position
X	X	Neutron Flux, Power
X	_(2)	Containment Pressure
X	-	Containment Radiation
X	-	Containment Sump Level
X	X	Primary System Pressure
-	X	Primary System Temperatures
X	X	Pressurizer Level
X	-	Reactor Coolant Pump Status
X	X	Primary System Flow
X	-	Safety Injection: Flow, Pump/Valve Status
(3)	(3)	MSIV Position
X	X	Steam Generator Pressure
X	X	Feedwater Flow
(4)	(4)	Steam Flow
X	_(5)	Auxiliary Feedwater System/Flow, Pump/Valve Status
X	-	AC and DC System Status
X <sup>(6)</sup>	-	Keowee Hydro Station Status (Start/Stop, On/Off)
-	-	PORV Position



"X", available; "-", not available

- (1) All containment isolation valves are not available on the computer. Some valves are manually operated.
- (2) Strip chart recorder exists in the Control Room.
- (3) Oconee does not have MSIV.
- (4) Steam flow is not measured at Oconee.
- (5) EFW flow meters are available in the control room.
- (6) At Oconee emergency power is provided by the Keowee Hydro Station.