



**Duquesne Light**

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March 22, 1988

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Reference: Beaver Valley Power Station, Unit No. 2  
Docket No. 50-412, License No. NPF-73  
Generic Letter 83-28

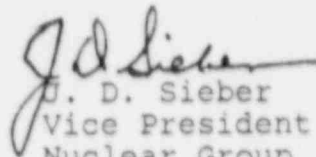
Gentlemen:

By letter dated July 22, 1986,, the NRC provided a Draft Technical Evaluation Report (TER) on Generic Letter 83-28, Item 1.2 for Beaver Valley Unit No. 2 which was based on our March 30, 1984 submittal.

By request of your letter, a telephone conference was held with the NRC, and we provided the additional information requested in the Draft TER. As a followup to that conference call, attached is a summary of this additional information. This information is similar to the information provided for Beaver Valley Unit No. 1 on this same subject.

If you have any questions regarding this information, please contact my office.

Very truly yours,

  
J. D. Sieber  
Vice President  
Nuclear Group

Attachment

cc: Mr. J. Beall, Sr. Resident Inspector  
Mr. W. T. Russell, NRC Region I Administrator  
Mr. P. Tam, Project Manager  
Director, Safety Evaluation & Control (VEPCO)

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Response to Draft Technical Evaluation  
Report on Generic Letter 83-28, Item 1.2

NRC Request: 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. Parameters Recorded:

Based upon the information contained in the submittal, all of the parameters specified in Part 2 of the draft TER that should be recorded for use in a post-trip review are not recorded. Attached is Table 1 that identifies the desired parameters and discrepancies.

Response

Each of the identified parameter discrepancies listed in Table 1 are recorded in the following manner:

Time History Recorders in Main Control Room

a. Containment Pressure

2LMS-PR950	-5 to +55 psig	on Vertical Board A
2LMS-PR106	0 to 180 psia	on Vertical Board A

b. Containment Sump Level

2DAS-LR220	0 to 12 inches	on Vertical Board A
2RSS-LR151	0 to 225 inches	on Vertical Board A

c. Primary System Flow

Primary System Flow is not recorded, however, other recorded instruments are available to determine if sufficient flow exists to assure core cooling (i.e., hot leg - cold leg  $\Delta T$ ).

d. Containment Radiation

2RMR*RQR206	$10^0$ to $10^7$ R/hr	High Range Area Monitor
2RMR*RQR207	$10^0$ to $10^7$ R/hr	High Range Area Monitor
2RMR*RQR303	$10^{-6}$ to $10^{-1}$ uCi/cc (gas) Cnmt.	Airborne Monitor
	$10^{-10}$ to $10^{-5}$ uCi/cc (particulate)	Cnmt. Airborne Monitor

Sequence of Events (SOE) Recorder Points

a. Containment Isolation

Y6010D Containment Isolation Phase A Signal  
Y6070D Containment Isolation Phase B Signal

b. Control Rod Position

Not recorded on SOE Recorder. Emergency Operating Procedures require operator to verify all rods are fully inserted following any reactor trip.

c. Containment Radiation

None required: See note 2 on Table 1.2-1 of TER

d. Primary System Flow

F0400D	RCL A	1	Low Flow	F0440D	RCL C	1	Low Flow
F0401D	RCL A	2	Low Flow	F0441D	RCL C	2	Low Flow
F0402D	RCL A	3	Low Flow	F0442D	RCL C	3	Low Flow
F0420D	RCL B	1	Low Flow				
F0421D	RCL B	2	Low Flow				
F0422D	RCL B	3	Low Flow				

e. Safety Injection; Flow, Pump/Valve Status

Y3915D Safety Injection Signal  
Y922D Low Head SI PP A Start/Stop  
Y0923D Low Head SI PP B Start/Stop  
Y3417D Chg. PP 21A Mot Brk Closed/Open  
Y3418D Chg. PP 21B Mot Brk Closed/Open  
Y3419D Chg. PP 21C Mot Brk A Closed/Open  
Y3420D Chg. PP 21C Mot Brk B Closed/Open  
Y3401D Low HD SI PP 21A Mot Brk Closed/Open  
Y3402D Low HD SI PP 21B Mot Brk Closed/Open

f. MSIV Position

MSIV position is not recorded on the SOE Recorder. MSIV position indicators are located in the main control room benchboard - Section C.

g. Steam Generator Pressure

P0404D	SGA	Lo	Stm	P 2	Part	Rx
P0405D	SGA	Lo	Stm	P 3	Part	Rx
P0406D	SGA	Lo	Stm	P 4	Part	Rx
P0424D	SGB	Lo	Stm	P 2	Part	Rx
P0425D	SGB	Lo	Stm	P 3	Part	Rx
P0426D	SGB	Lo	Stm	P 4	Part	Rx
P0444D	SGC	Lo	Stm	P 2	Part	Rx
P0445D	SGC	Lo	Stm	P 3	Part	Rx
P0446D	SGC	Lo	Stm	P 4	Part	Rx

2. Time History Recorders:

Time History Recorders, as described in the submittal, do not meet the minimum performance characteristics (i.e., 10 second sample interval with information 5 minutes prior to trip to 10 minutes after trip).

Response

Beaver Valley Unit No. 2 utilizes strip chart recorders to obtain a time history of the following parameters:

Neutron Flux, power	0 to 120% 10 <sup>-6</sup> to 200%	2NME-NR45 2NME-NR55
Containment Pressure	0 to 180 psia -5 to +55 psig	2LMS-PR106 2LMS-PR950
Containment Sump Level	0 to 12 inches 0 to 225 inches	2DAS-LR220 2RSS-LR151
RCS Pressure	0 to 3000 psig 1700 to 2500 psig	2RCS-PR441 2RCS-PR444
RCS Temperature	0 to 700F	2RCS-TR 410, 413
Main Steam Pressure	0 to 1200 psig	2MSS-PP475
Steam Generator Level	0 to 100% (narrow range)	2FWS-FR-478, 488, and 498
	0 to 100% (wide range)	2FWS-LR477
Main Steam Flow	0 to 5MPPH	2FWS-FR-478, 488, and 498
Feedwater Flow	0 to 5 MPPH	2FWS-FR-478, 488, and 498

Primary System FLOW is not recorded (see Response to Item 1).

3. Data Output Format

As described in the submittal, the recorded data may not be output in a readable and meaningful format.

Response

At the time of Beaver Valley Unit No. 2 initial response in 1984, many of the formats had not been finalized. These formats are now finalized and in use. All necessary information (time, value, description, etc) is displayed for analog and digital information.

#### 4. Data Retention Capability

The data retention procedures, as described in the submittal, may not ensure that the information recorded for the post-trip review is maintained in an accessible manner for the life of the plant.

##### Response

Beaver Valley Unit No. 2 Technical Specification 6.10.1 requires retention for at least five (5) years for:

- Records and logs of facility operation covering the time interval at each power level.
- All reportable events.

This is the current requirement for maintaining quality records and is considered adequate.

TABLE 1

Desirable PWR Parameters for Post-Trip Review  
(circled parameters are not recorded)

<u>SOE Recorder</u>	<u>Time History Recorder</u>	<u>Parameter / Signal</u>
x		Reactor Trip
(1) x		Safety Injection
(x)		Containment Isolation
(1) x		Turbine Trip
(x)		Control Rod Position
(1) x	x	Neutron Flux, Power
x	(x)	Containment Pressure
(2)		Containment Radiation
	(x)	Containment Sump Level
(1) x	x	Primary System Pressure
(1) x	x	Primary System Temperature
(1) x		Pressurizer Level
(1) x		Reactor Coolant Pump Status
(1) (x)	(x)	Primary System Flow
(3)		Safety Inj.; Flow, Pump/Valve Status
(x)		MSIV Position
(x)	x	Steam Generator Pressure
(1) x	x	Steam Generator Level
(1) x	x	Feedwater Flow
(1) x	x	Steam Flow
(3)		Auxiliary Feedwater System; Flow, Pump/Valve Status
x		AC and DC System Status (Bus Voltage)
x		Diesel Generator Status (Start/Stop, On/Off)
x		PORV Position

(1): Trip parameters

(2): Parameter may be monitored by either an SOE or time history recorder.

(3): Acceptable recorder options are: (a) system flow recorded on an SOE recorder, (b) system flow recorded on a time history recorder, or (c) equipment status recorded on an SOE recorder.