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1881 - 1981

SHIELDS L. DALTROFF
VICE PRESIDENT
ELECTRIC PRODUCTION

December 29, 1981

Mr. Darrell G. Eisenhut, Director
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Eisenhut:

Your letter of August 31, 1981 (Generic Letter 81-34) forwarded NUREG 0803 "Generic Safety Evaluation Report Regarding Integrity of the BWR Scram System Piping" dated August 1981, with the requirement that we verify certain concerns on a plant specific basis.

The following review addresses the items contained in Section 5 Generic Conclusions Table 5.1 of NUREG 0803 with each item being followed by our response.

Item 1- Periodic Inservice Inspection and Surveillance for the SDV system(with Respect to Pipe Integrity)

Response- The NUREG recommends that the SDV piping should, as a minimum, be subjected to the ASME Section IX Inservice Inspection (ISI) requirements for Class 2 piping. We shall inspect the piping on Unit 3 equivalent to Class 2 piping for ISI purposes. Upon completion of the scheduled modifications on the Unit 2 Scram Discharge System, that piping shall also be treated as equivalent to Class 2.

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Item 2- Threaded Joint Integrity (with Respect to Piping Integrity)

Response- A review of plant specifications indicates that no threaded connections exist in the SDV process piping on either Peach Bottom unit. Threaded joints were specified for the non-safety related air supply piping (compression fittings) and limited test connections. Due to these factors, threaded joint integrity is acceptable. A walkdown of the Unit 2 piping will be made during the upcoming refueling outage to confirm our Engineering review. If, as anticipated, no threaded joints are identified, a walkdown of Unit 3 will not be performed.

Item 3- Seismic Design Verification (with Respect to Piping Integrity)

Response- The NUREG requested that a review of the SDV piping be made to verify that the piping has been designed for seismic loading. This was done as a part of the IE Bulletin 79-14 response. In addition, as part of the modification program resulting from IE Bulletin 80-17, the Unit 3 SDV piping was re-analyzed including seismic loading. A similar re-analysis of the Unit 2 is underway for similar modifications taking place during the upcoming refueling outage (February 1982).

Item 4- HCU-SDV Equipment Procedures Review (with Respect to Piping Integrity)

Response- The NUREG request that a review of all procedures having the potential for defeating SDV integrity be reviewed and that the review verify that such procedures contain sufficient guidance to ensure that the loss of SDV system integrity will not occur at times when such integrity should be available. Our review has been initiated, but due

to the number of procedures involved, it is anticipated that completion will not be possible prior to February 15, 1981. The procedures reviewed to date do not specifically address the maintaining of scram system boundary integrity as discussed in the NUREG. However, it is thought that sufficient steps are taken to assure the postulated problem is avoided.

Item 5- Environmental Qualification of Prompt Depressurization Function

Response- This item will be addressed in the ongoing Bulletin 79-01B Environmental Qualification Program. Bechtel has been commissioned to develop the necessary environmental profiles, which are scheduled for delivery late in February, 1982. We will at that time address the equipment necessary to mitigate the type of accident postulated in the NUREG.

Item 6- As Built Inspection of the Scram Discharge Volume Piping Supports (with Respect to Piping Integrity)

Response- A review of the as-built system with regards to comparison with design conditions was conducted as part of the IE Bulletin 79-14 compliance program with the results being acceptable.

Item 7- Improvement of Procedures (with Respect to Accident Mitigation)

Response- The NUREG suggests that emergency procedures in development by the BWR Owners' Group be modified to address scram system pipe breaks.

It is our understanding the BWR Owners' Group has reviewed the guidance of NUREG-0803 regarding modification of the Emergency Procedure Guidelines and acknowledges the benefits of treating the subject generically. The BWR Owners' Group is in the process of completing an extension of the Guidelines to include steps for reactivity control, and certain other modifications to the Guidelines which have been discussed with your staff.

After current activities on the Guidelines are substantially complete, Philadelphia Electric Company will support a preliminary study by the BWR Owners' Group to determine the best approach to fulfilling the intent of the guidance provided in NUREG-0803. When that study is complete, currently expected to be near the end of the first quarter of 1982, the Owners' Group will determine whether to initiate specific actions to modify the Emergency Procedure Guidelines.

Item 8- Verification of Equipment Designed for Water Impingment (with Respect to Environmental Qualification)

Response- As discussed in Item 5 above, this item will be addressed as part of the environmental qualification program.

Item 9- Verification of Equipment Qualified for Wetdown by 212°F Water (with Respect to Environmental Qualification)

Response- As discussed in Item 5 above, this item will be addressed as part of the environmental qualification program.

Item 10- Verification of Feedwater or Condensate System Operations Independent of the Reactor Building Environment (with Respect to Environmental Qualification)

Response- As discussed in Item 5 above, this item will be addressed as part of the environmental qualification program.

Item 11- Evaluation of Availability of HPCI-LPCI Turbines due to High Ambient Temperature Trips (with Respect to Environmental Qualifications)

Response- As discussed in Item 5 above, this item will be addressed as part of the environmental qualification program.

Item 12- Verification of Essential Components Qualified for Service at 212°F and 100% Humidity

Response- As discussed in Item 5 above, this item will be addressed as part of the environmental qualification program.

Item 13- Limitation of Coolant Iodine Concentration to Standard Technical Specification Values (with Respect to Accident Mitigation)

Response- The attached tabulation of 4 years of monthly iodine data demonstrates that the likelihood of Peach Bottom operating with coolant iodine levels in excess of those delineated in the Standard Technical Specifications (STS) is extremely remote.

During this four year period, the average reactor coolant iodine concentration was at least two orders of magnitude less than the STS values and in many cases, three orders of magnitude.

Should there be any further questions, please do not hesitate to contact us.

Very truly yours,

Attachment I
Summary
Reactor Coolant Iodine Concentration
(µci/ml)

	UNIT 2				UNIT 3			
	1978	1979	1980	1981	1978	1979 (1)	1980	1981
JAN.		8.3N4	1.0N3	5.53N4		1.25N1	2.0N4	8.27N4
FEB.		2.48N3	4.4N4	1.65N4		8.63N4	3.1N4	1.13N3
MAR.	3.26N4	1.36N3	1.9N4	2.36N4	1.25N3	1.03N3	3.4N4	2.25N3
APR.		8.94N4	3.0N5	1.14N4		1.11N3	2.3N4	(3)
MAY	3.26N4	7.32N4	(2)	6.07N4	5.8N3	9.41N4	1.6N4	(3)
JUNE	3.97N4	6.74N4	(2)	(3)	3.84N4	1.57N3	1.5N4	(3)
JULY	4.67N4	1.86N3	(2)	1.034N4	7.30N3	1.56N3	2.8N4	(3)
AUG.	3.85N4	1.11N3	1.6N4	6.66N4	4.32N4	1.31N3	2.2N4	(3)
SEPT.	2.86N4	8.85N4	1.47N4	3.46N4	4.29N4	1.29N3	2.17N4	(3)
OCT.	1.51N4	4.35N4	1.89N4	1.15N3	5.57N4	(2)	2.74N4	3.51N5
NOV.	2.84N4	7.30N4	2.28N4	7.16N4	2.97N3	1.36N4	2.61N4	8.69N5
DEC.	4.26N4	3.36N4	1.39N4		5.23N4	1.79N4	2.34N4	

1. U/3 Shutdown 1/6-1/12
2. Refueling Outage
3. Unit Shutdown - no analysis

COMMONWEALTH OF PENNSYLVANIA :

: ss.

COUNTY OF PHILADELPHIA :

S. L. Daltroff, being first duly sworn, deposes and says:

That he is Vice President of Philadelphia Electric Company, the Applicant herein; that he has read the foregoing letter concerning Scram System Pipe Breaks, and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.

S. L. Daltroff

Subscribed and sworn to
before me this 29TH day
of DECEMBER, 1981

Diedrich Y. Franklin

Notary Public

Notary Public, Philadelphia, Philadelphia Co.
My Commission Expires July 29, 1983.