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October 19, 1984

ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

Dr. Thomas J. Murley
Region I Administrator
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Subject: Calvert Cliffs Nuclear Power Plant
Units Nos. 1 & 2, Dockets Nos. 50-317 and 50-318
I&E Bulletins 79-02, 79-04, 79-07 and 79-14

Gentlemen:

A Region I inspection team recently conducted an audit of our efforts in response to Inspection and Enforcement Bulletins 79-02, 79-04, 79-07 and 79-14. At the conclusion of the audit your inspectors were complimentary on our control of documentation for the subject design reviews and indicated that the field effort associated with Bulletin 79-02 was particularly well organized. During the exit interview conducted on October 5, 1984, an overall satisfaction was expressed (notwithstanding proposed findings) with the handling of these I&E Bulletins. To support the inspection team's proposed findings, your Mr. Varela suggested that we submit a letter clarifying our approach for inspection of the reactor coolant system and inaccessible pipe supports. The following information is provided in response to this suggestion.

Bulletin 79-14

The reactor coolant system piping is nuclear Class I and was subject to very exacting inspection during the shop fabrication and field installation stages. The controls on this piping were similar to those applied to all other portions of the nuclear steam supply system, and can be considered much more of an "engineered component" than "piping." Thus, we do not feel it necessary to inspect these piping configurations. However, we will verify the surge line support configurations during the next outage involving either a cold shutdown or a hot shutdown which is expected to extend three days or more.

Attached (as Enclosure 1) are three pages which address the inaccessible sections of pipe and supports on a system-by-system basis. The total inaccessible length of piping is approximately 250 ft, which represents much less than one percent of the total safety-related large piping in the plant, which is approximately 40, 000 ft.

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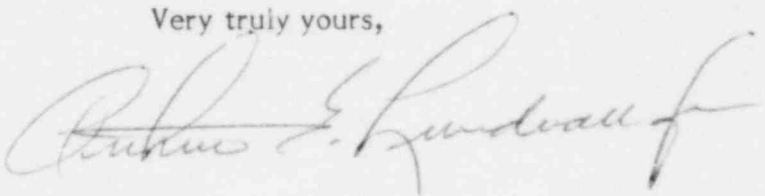
Bulletin 79-02

In earlier correspondence on I&E Bulletin 79-02 we informed the NRC that all safety-related large pipe supports had been inspected and tested. We should have stated that all accessible supports had been inspected and tested. As you know, there are a few supports (less than twenty) which are embedded in concrete, in high radiation areas, or otherwise impractical to inspect. Each of those was evaluated by stress analysts and it was concluded that they could be omitted from the program. Similar evaluations were made where part of the expansion anchors could not be inspected.

Mr. Varela borrowed a copy of a Bechtel letter dated June 4, 1980, which provides justification for deleting from the 79-02 test program some supports that were questioned in one of our internal Quality Assurance audits.

If you should have any questions concerning these matters, please do not hesitate to contact us.

Very truly yours,



AEL/DTW/vf

Enclosures

cc: D. A. Brune, Esq.
G. F. Trowbridge, Esq.
Mr. D. H. Jaffe, NRC
Mr. T. Foley, NRC
Mr. J. C. Ventura, Bechtel

IE Bulletin 79-14:

In the normally accessible and inaccessible portions of the facility approximately 40,000 feet of piping and 3500 pipe supports were inspected. In areas of high radiation and physical restrictions portion of piping systems were not inspected. From review of our records, this piping totalled 250 feet or approximately 0.63% of the inspected piping. The piping not inspected also contained 24 supports including those previously identified in the 79-02 Bulletin.

The enclosed list identifies systems or portions thereof which were not inspected. The following is a justification/evaluation of each system.

1. Spent Fuel Pool Cooling - Stress Problem 161: Portion of the piping and support were found inaccessible due to high radiation level in the area. All other piping was found to be in conformance with design documents with only minor deviations. Justification for the supports is documented in our letter CC-A1694 dated June 4, 1980 to Mr. R. F. Ash (attached). Also the maximum faulted stress levels in the system is 10240 psi compared with code allowable of 28900 psi. Considering all the above facts no further investigation is required for this stress problem.

2. Spent Fuel Pool Cooling - Stress Problem 49, 50, 92 and 93: This piping is under water in the Spent Fuel Pool. The piping configuration is simple and run, alongside the liner plate of the pool. The supports are attached to the liner plate and guide the piping in two lateral directions. The maximum faulted stress level is 6264 psi which is well within the code allowable of 28680 psi. Therefore in our judgement no further review is necessary.

3. Service Water - Stress Problem 144B: Piping in the degasifier room was found inaccessible. However, all supports were verified to conform their design document. Also the maximum faulted stress in the system is 16811 psi compared to the code allowable of 31100 psi. Therefore no further review is necessary.

4. Service Water - Stress Problem 2-126: Out of a total of 18 supports only one support was found inaccessible. All piping and inspected supports were found in agreement with design sketch. Also the maximum faulted stress level is 19784 psi compared to allowable of 31783 psi and is not in the vicinity of the inaccessible support. Therefore no further review of this system is required.

5. Refueling Storage Tank #21 - Heater Recirculation Internal Standpipe - Stress Problem 339A, 339B, 2-339A & 2-339B: The piping is inside the Refueling Water Storage Tank. The maximum faulted stress is 1900 psi which is well within the code allowable of 25000 psi. The piping length is only 11'-6" and it is anchored at the nozzle. In our judgement the piping stresses will be within code allowable even without the support. Therefore no further review is necessary for this system.

Conclusion:

Due to high confidence level achieved from the total inspection program and the very low percentage of items not inspected it is in our judgement, safe to assume that the inaccessible supports and piping will not have any adverse affects on system operability during a Design Basic Earthquake (DBE).

Enclosure 1-3

IE BULLETIN 79-14 - INACCESSIBLE PIPING SYSTEMS

SYSTEM	SK-M	STRESS PROB.NO.	PIPE LENGTH INACCESSIBLE	TOTAL PIPE LENGTH (In Stress Prob.)	TOTAL INACCESSIBLE SUPPORTS	TOTAL SUPPORTS	MAXIMUM FAULTED STRESS (psi)	CODE ALLOWABLE STRESS (psi)	REMARKS
Spent Fuel Pool Cooling Unit 1	637 SH.1	161	93'-6"	182'-8"	5	13	10240	28900	SK-19500, 19501, 19502 & 19509 were also found inaccessible in 79-02 Program
Spent Fuel Pool Cooling Unit 2	634 SH.7	49	21'-7"	21'-7"	3	3	4303	28680	Piping Under Water in Spent Fuel Pool
Spent Fuel Pool Cooling Unit 2	634 SH.7	50	34'-7"	34'-7"	4	4	6264	28680	Piping Under Water in Spent Fuel Pool
Spent Fuel Pool Cooling Unit 1	634 SH.8	92	21'-7"	21'-7"	3	3	4303	28680	Piping Under Water in Spent Fuel Pool
Spent Fuel Pool Cooling Unit 1	634 SH.8	93	34'-7"	34'-7"	4	4	6264	28548	Piping Under Water in Spent Fuel Pool
Service Water Unit 1	761	144B	24'-10"	115'-3"	0	10	16811	31100	
Service Water Unit 2	900	2-126	None	N/A	1	18	19784	31783	
R.W.S.T. #21 Heater Recirc. Internal Standpipe Unit 2	996	2-339A	11'-6"	11'-6"	1	1	1900	25000	Piping Inside of Refueling Water Storage Tank
R.W.S.T. #21 Heater Recirc. Internal Standpipe Unit 2	996	2-339B	11'-6"	11'-6"	1	1	1900	25000	Piping Inside of Refueling Water Storage Tank
R.W.S.T. #11 Heater Recirc. Internal Standpipe Unit 1	995	339A	11'-6"	11'-6"	1	1	1900	25000	Piping Inside of Refueling Water Storage Tank
R.W.S.T. #11 Heater Recirc. Internal Standpipe Unit 1	995	339B	11'-6"	11'-6"	1	1	1900	25000	Piping Inside of Refueling Water Storage Tank