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DEC 14 1990

Director of Nuclear Reactor Regulation
Attention: Dr. W.R. Butler, Project Director
Project Directorate I-2
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
REQUEST FOR EXEMPTION FROM
NRC BRANCH TECHNICAL POSITION ETSB 11-1,
SECTION IV, HYDROSTATIC TESTING OF
D-AUGMENTED PIPING SYSTEMS

Docket Nos. 50-387
and 50-388

PLA-3474 **FILES R41-2**

Dear Dr. Butler:

During a review of the liquid radioactive waste piping documents in 1987, it was discovered that certain piping was being operated at pressures higher than the design pressures. A nonconformance report (NCR) was written to address this problem. The disposition of the NCR was to increase the design pressure to a value consistent with the normal operating system pressure. In order to increase the design pressure for this piping, hydrostatic testing per the requirements for D-Augmented piping systems of NRC Branch Technical Position ETSB 11-1 was performed. However, certain welds and couplings could not be visually inspected during the hydrostatic tests. Therefore, this letter requests an exemption from the hydrostatic testing requirements for those welds and couplings. The justification for the exemption follows:

- Line HCD-64-1 (3 inch line), Field Welds (FW's) 8, 11, 13, 19, 20, 21, 22, 25, 26, 27 - These welds are on the RWCU Phase Separator piping and are located inside the Phase Separator Tank Rooms in a high radiation area. Hydrotest TP-068-003 was performed on this piping. However, due to the high dose rates inside the tank rooms, the welds could not be visually inspected for leakage. Dose rates inside these tank rooms approach 150 R/hr to 200 R/hr. Exposure of personnel to a radiation field of such a high magnitude has an extremely high potential for overexposure. Also, with such high dose rates,

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there would be no guarantee that a visual inspection of the field welds could even be completed within the maximum allowable stay time for the rooms. Results of the hydrotest did not indicate any weld leakage in HCD-64-1, as evidenced by the small volume hydro-pump used in the test requiring only one stroke every five minutes to maintain pressure. This stroke rate is consistent with the results of other hydrotests performed at SSES where the field welds were inspected and no leakage was found. Based on the high radiation exposures required to inspect these welds and the capability of the piping to maintain pressure as demonstrated by the hydrotest, we request exemptions for these welds.

- Line SP-HCD-48-5, 2" coupling - This coupling is located on the spent resin transfer pump discharge line to the Liquid Radwaste Filters. Hydrotest TP-068-007 was performed on this piping. However, due to this coupling being located in a pipe chase which is inaccessible, it could not be visually inspected for leakage. The section of piping with the coupling is located in a pipe chase enclosed on all sides and on top with stacked concrete shield blocks mortared in place. In addition, a concrete slab has been poured over the top of the blocks for use as a walkway. No entrance to this pipe chase exists. Results of the hydrotest of SP-HDC-48-5 did not indicate any weld leakage, as evidenced by the small volume hydro-pump used in the test requiring only one stroke every two minutes to maintain pressure. The stroke rate is consistent with the results of other hydrotests performed at SSES where visual inspections were performed and no leakage was found. Based on the inaccessibility of the coupling and the ability of the pipeline to maintain pressure as demonstrated by the hydrotest, we request an exemption for this coupling.

- Line HBD-37-2 (4 inch line), FW's 3, 7, 8 - These welds are on liquid radwaste system process piping and are located in the same pipe chase as Line SP-HCD-48-5 and are also inaccessible. Hydrotest TP-069-033 was performed on HBD-37-2, but FW's 3, 7, 8 were inaccessible for weld inspection. Results of the hydrotest did not indicate any weld leakage as evidenced by the small volume hydro-pump used in the test requiring only one stroke every two minutes to maintain pressure. Based on the inaccessibility of the field weld and the ability of the piping to maintain pressure as demonstrated by the hydrotest, we request exemptions for these field welds.

We request that these exemptions be approved by April 1, 1991. If you have any questions, please contact Mr. C.T. Coddington at (215) 770-7915.

Very truly yours,

H. W. Keiser

cc: NRC Document Control Desk (original)
NRC Region I
Mr. M.C. Thadani, NRC Project Manager
Mr. G. S. Barber, NRC Sr. Resident Inspector