

Northern States Power Company

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September 4, 1981

Mr. C. E. Norelius, Director Division of Engineering & Technical Inspection Region III - Office of Inspection and Enforcement U. S. Nuclear Regulatory Commission 799 Roosevelt Road Glen Ellyn, IL 60137

Dear Mr. Norelius:

MONTICELLO NUCLEAR GENERATING PLANT Docket No. 50-263 License No. DPR-22

Reference: IE Inspection Report No. 50-263/81-14 Dated August 11, 1981

On July 6-7, 1981, a follow-up inspection relative to IE Bulletin No. 79-14 was conducted. During the inspection, one previous open item was reviewed. That item was as follows:

(Open)Inspection Report No. 50-263/79-16, Paragraph 1.c.(2): For the multiple loadings on pipe clamps, Bechtel will perform finite element analysis on one such clamp based on the worst case loading condition. The inspector concurred with Bechtel's approach.

Earthquake Engineering Systems, under contract to Bechtel, performed a finite element analysis on one pipe clamp using worst case loading conditions to evaluate the effects of multiple loads on pipe clamps. The result of this study indicated that the support is operable under the multiple loads; however, Bechtel has recommended that all pipe supports with multiple loading be replaced with single load clamps. In review of the documentation, the worst case loading conditions determined by Bechtel were considered to be questionable. The licensee was requested to re-evaluate the situation, and submit results of loading condition tabulations and evaluation to RIII by the end of August, 1981.

On August 31, 1981, Mr. R. A. Goranson (NSP) notified Mr. I T Yin (NRC) by telephone of the results of the re-evaluation. This letter documents that re-evaluation.

Bechtel Power Corporation has reviewed the multiple loaded pipe clamps and verified that restraint SR-74 is the worst case loading conditions. SR-74

Mr. C. E. Norelius Page 2 September 4, 1981

is the pipe clamp that was previously analyzed by Earthquake Engineering Systems, under contract to Bechtel. The evaluation by Bechtel took into account updated hanger loads developed by Nutech as a result of re-analysis performed under IE Bulletin No. 79-14. The analysis determined that in the worst case loading condition, clamp failure would not occur and therefore, loss of operability is not a concern. Those hangers that do not meet the FSAR design limits will be re-evaluated under NSP's Seismic Re-evaluation Program and replaced or modified as required. Refer to Table 1 attached for a listing of multiple loaded hangers that were evaluated.

With this response, we consider all open items relative to IE Bulletin No. 79-14 to be closed.

Yours truly,

D. E. Gilberts

Senior Vice President

Power Supply

cc: Mr. C. H. Brown

Mr. G. Charnoff

Mr. J. G. Keppler

Attachment

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MULTIPLE LOADED PIPE CLAMPS

TABLE 1

HGR No.	Restraining Direction	Upset Load (1bs)	Pipe Dia (in.)
SR-5	Fx Fz Fy	600 0 120	3
SR-7.	Fx Fz Fy	150 0 700	3
SR-8	Fz Fy	65 40	3
SR-9	Fz Fy	57 41	3
SR-10	Fz Fy	52 43	3
SR-11	Fz Fy	127 34	3
SR-12	Fz Fy	10 340	3
·SR-13	Fz Fy	114 24	3
SR-14	Fz Fy	155 170	3
SR-15	Fz Fy	141 156	3
SR-16	Fx Fz Fy	150 40 120	3
SR-18	Fx Fz Fy	25 142 22	3
SR-29	Fz Fy	70 46	3
SR-38	Fz Fy	106 26	3
SR-46	Fz Fy	460 340	3
SR-59	Fz Fy	2761 4320	10

MULTIPLE LOADED PIPE CLAMPS (continued)

HGR No.	Restraining Direction	Upset Load (1bs)	Pipe <u>Dia (in.)</u>
SR-65	Fz Fy	1615 1615	10
SR-68A SR-68B	Fx Fy	6300 1500	16
SR-74	Fz Fy	1816 7680	12
SR-84	Fx Fz Fy	1534 2689 1085	18
SR-85	Fz Fy	1280 780	8
SR-93	Fy	6180	18
SR-100	Fz Fy	1750 230	18
SR-116	Fz Fy	80 40	2 ¹ 2
SR-1	Fy Fz Fy	123 342 393	3
SR-92	Fz Fy	4927 5227	18
SS-32A SS-32B	Fz Fy	2616 1915	14
SS-38A SS-38B	Fz Fy	1240 892	8
SS-40	Fy	505	8

NOTE: Restraining Direction Fx, Fy, and Fz are in terms of a local coordinate system as shown below.

