

REPORT DATE: September 13, 1979

REPORTABLE OCCURRENCE 79-35

OCCURRENCE DATE: August 31, 1979

ISSUE 0

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FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

P. O. BOX 361
PLATTEVILLE, COLORADO 80651

REPORT NO. 50-267/79-35/01-T-0

Preliminary

IDENTIFICATION OF
OCCURRENCE:

An engineering field audit and preliminary analysis of a random sample of safety related system piping and associated hangers has found inconsistencies that may jeopardize the operability of systems in the event of a design basis earthquake.

Due to these inconsistencies, Public Service Company has elected to suspend operation of the Fort St. Vrain Unit No. 1, as of 1800 hours on September 1, 1979.

An investigation of these inconsistencies is continuing.

This appears to be reportable per Fort St. Vrain Technical Specification AC 7.5.2(a)9.

EVENT
DESCRIPTION:

Public Service Company of Colorado has completed the field audit and a preliminary engineering analysis of a random sample of as-built safety related piping isometric and associated hanger drawings as committed to in Public Service Company letter P-79161.

The audit included a field verification of the as-built installation of the piping shown on 26 Class I piping isometric drawings and the 94 associated hanger drawings. The general validity of the seismic design inputs documentation on 18 of the isometric drawings and 64 of the hanger drawings was confirmed.

On the remaining eight isometric drawings and 30 hanger drawings, inconsistencies judged to be potentially significant were identified between the field installation and the reference documentation.

An analytical evaluation of the noted isometric drawing inconsistencies indicates that they would not result in invalidation of the seismic qualification of the piping depicted on the subject isometric drawing.

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* EVENT

DESCRIPTION (continued):

An analytical analysis of the inconsistencies identified in the hangers indicates that 18 of the hangers of concern fulfill Class I design requirements.

The remaining 12 hangers have inconsistencies that may jeopardize the operability of the associated systems in the event of a design basis earthquake. Because the sampling of isometric drawings and associated hangers was made on a random basis, no conclusions can be drawn as to the continued operability of those systems or portions of systems required to remain operable during and after a design basis earthquake.

On the basis of the results of the audit, Public Service Company of Colorado has determined that the piping system seismic hanger/support system for the Class I piping may not be installed per the design requirements defined in the Final Safety Analysis Report and may require corrective modifications to bring the "as-built" systems into agreement with the design intent.

Because of the inconsistencies noted, the Public Service Company of Colorado has temporarily suspended operation of the Fort St. Vrain unit as of approximately 1800 hours on September 1, 1979.

After further analysis, using more sophisticated analytical methods, it has been determined that none of the systems examined to date are impaired per the Final Safety Analysis Report since the individual hangers are acceptable or, the associated piping and its remaining hangers would remain operable during the design basis earthquake.

CAUSE

DESCRIPTION:

The inconsistencies between the design and installation of the various hangers required re-analysis of the piping/hanger systems. The time involved did not allow a final resolution of the problem before a report was submitted. Therefore the plant was shutdown pending outcome of the investigation.

CORRECTIVE

ACTION:

The remaining hangers are being analyzed and the outcome of these analyses along with the corrective actions necessary, will be submitted in a future supplemental report.

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LICENSEE EVENT REPORT

CONTROL BLOCK: (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

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REPORT SOURCE														DOCKET NUMBER										EVENT DATE										REPORT DATE									

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 | A field audit and preliminary engineering analysis of a random sample of as-built

03 | safety related piping drawings showed that several hangers have inconsistencies that

04 | may jeopardize the operability of the associated systems in the event of a design

05 | basis earthquake. Because of these inconsistencies the Fort St. Vrain unit was shut-

06 | down on September 1, 1979. This appears to be reportable per Fort St. Vrain Techni-

07 | cal Specification AC 7.5.2(a)9. There was no affect on public health or safety.

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SYSTEM CODE			CAUSE CODE			CAUSE SUBCODE			COMPONENT CODE						COMP. SUBCODE			VALVE SUBCODE		

17	7	9	21	22	0	3	5	24	25	0	1	28	29	T	30	31	0	32
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18	F	19	A	20	A	21	0	7	4	4	22	Y	23	N	24	X	25	X	9	9	9	26				
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29				
ACTION TAKEN			FUTURE ACTION			EFFECT ON PLANT			SHUTDOWN METHOD			HOURS			ATTACHMENT SUBMITTED			NPRD-4 FORM SUB.			PRIME COMP. SUPPLIER			COMPONENT MANUFACTURER		

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 | The cause of this problem is design/installation inconsistencies which could jeopardize

11 | the systems involved. The exact extent of the problem is not yet certain and an

12 | investigation is continuing. When the exact cause is determined the corrective action

13 | will be decided and a revised Licensee Event Report submitted.

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15	E	28	0	3	5	29	N/A	30	C	31	Hanger Audit	32		
7	8	9	10	11	12	13	14	15	16	17	18	19		
FACILITY STATUS			% POWER			OTHER STATUS			METHOD OF DISCOVERY				DISCOVERY DESCRIPTION	

16	Z	33	Z	34	N/A	35	N/A	36
7	8	9	10	11	12	13	14	15
ACTIVITY CONTENT RELEASED OF RELEASE			AMOUNT OF ACTIVITY			LOCATION OF RELEASE		

17	0	0	0	37	Z	38	N/A	39
7	8	9	10	11	12	13	14	15
PERSONNEL EXPOSURES NUMBER			TYPE			DESCRIPTION		

18	0	0	0	40	N/A	41
7	8	9	10	11	12	13
PERSONNEL INJURIES NUMBER			DESCRIPTION			

19	Z	42	N/A	43
7	8	9	10	11
LOSS OF OR DAMAGE TO FACILITY TYPE			DESCRIPTION	

20	N	44	N/A	45
7	8	9	10	11
PUBLICITY ISSUED			DESCRIPTION	

NAME OF PREPARER

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