Public Service Company of Colorado
P. O. Box 361, Platteville, Colorado 80651

February 17, 1975

Mr. E. Morris Howard, Director
Region IV, Office of Inspection
and Enforcement
611 Ryan Plaza Drive - Suite 1000
Arlington, Texas 76012

Ref: Facility Operating License
No. DPR-34

Docket No. 50-267

Dear Mr. Howard:

Enclosed please find a copy of Abnormal Occurrence report No. 50-267/75/5, submitted per the requirements of the Technical Specifications.

Very truly yours,

Frederic E. Swart

Frederic E. Swart
Superintendent Nuclear Production
Public Service Company
of Colorado

FES:il

cc: Mr. Angelo Giambusso

50-267
incident

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REPORT DATE: February 4, 1975 ABNORMAL OCCURRENCE

OCCURRENCE DATE: January 27, 1975

FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO
P. O. BOX 361
PLATTEVILLE, COLORADO 80651

REPORT NO. 50-267/75/5

Final

IDENTIFICATION OF OCCURRENCE:

A gas waste vacuum tank rupture disc ruptured releasing a small quantity of gas.

This is identified as an Abnormal Occurrence, per Technical Specification definition 2.1.c.

CONDITIONS PRIOR TO OCCURRENCE:

	Steady State Power		Routine Shutdown
	Hot Shutdown		Routine Load Change
X	Cold Shutdown		Other (specify)
	Refueling Shutdown		
	Routine Startup		

The major plant parameters at the time of the event were as follows:

Power	RTR		MWth
	Elect.	0	MWe
Secondary Coolant	Pressure	1000	psig
	Temperature	210	°F (Feedwater on pre-(boiler recirculation)
	Flow	180,000	#/hr.
Primary Coolant	Pressure	97	psia
	Temperature	255	°F Core Inlet
		210	°F Core Outlet
	Flow	10% on "C" Circ.	#/hr.

DESCRIPTION OF OCCURRENCE:

Upon completion of regeneration of train "A" Low Temperature Adsorber, the regeneration system was to be purged with clean helium, the purge gas is purged to the Gas Waste Vacuum tank.

After purging, the regeneration system is brought up to 88 psig to perform the next step in the regeneration procedure.

When the regeneration compressor C-2302 was started, PDV-2359 went wide open, PV-2352 went wide open due to high pressure (≈150 psig) that was in the low temperature absorber section of purification train "A", from the helium storage system.

The rupture discs on the Gas Waste Vacuum tank are set for 5 psig. When the high pressure was introduced into the gas waste vacuum tank the rupture disc was ruptured.

Upon notification by the Reactor Operator that the rupture disc had ruptured it was isolated and the standby rupture disc was placed in service.

APPARENT CAUSE OF OCCURRENCE:

_____	Design	_____	Unusual Service Cond. Including Environ.
_____	Manufacture	_____	Component Failure
_____	Installation/Const.	_____	Other (specify)
X	Operator	_____	
X	Procedure	_____	

The low temperature adsorber was purged according to the SOP. The procedure did not specifically state that PDV-2359 should have been in manual and in the wide open position and PV-2352 should have been in manual fully closed before the regeneration compressor C-2302 was started. This proper valve lineup would have equalized pressures throughout the regeneration system and would not have allowed high pressure to be introduced in the Gas Waste Vacuum tank T-6301.

ANALYSIS OF OCCURRENCE:

Release from the ruptured disc was about 3 minutes at ~ 100 ACFM. No increase in activity was detectable on the stack radiation monitors (RT-7324-1, RT-7324-2, and RT-7325-1). Subsequent analysis of gas in the gas waste system for release No. 77 showed no measurable gamma activity. Allowable release rate for tritium on release No. 77 on February 3, 1975, was 3.9 (10^{-7}) ACFM.

CORRECTIVE
ACTION:

The SOP was rewritten giving specific valve positions when purging the components in the regeneration section. This situation was reviewed with the operators. The need to be aware of potential problems, even though not directly spelled out in the SOP, was stressed.

FAILURE DATA/
SIMILIAR REPORTED OCCURRENCES:

Abnormal Occurrences 50-267/74/21 and 50-267/74/22 both involved rupture of the rupture disc but the causes are unrelated. No. 74/21 was due to a release of gas from the gas waste compressor relief valves and No. 74/22 was due to a pressure setting error in the operating procedure.

PROGRAMMATIC IMPACT:

None

CODE IMPACT:

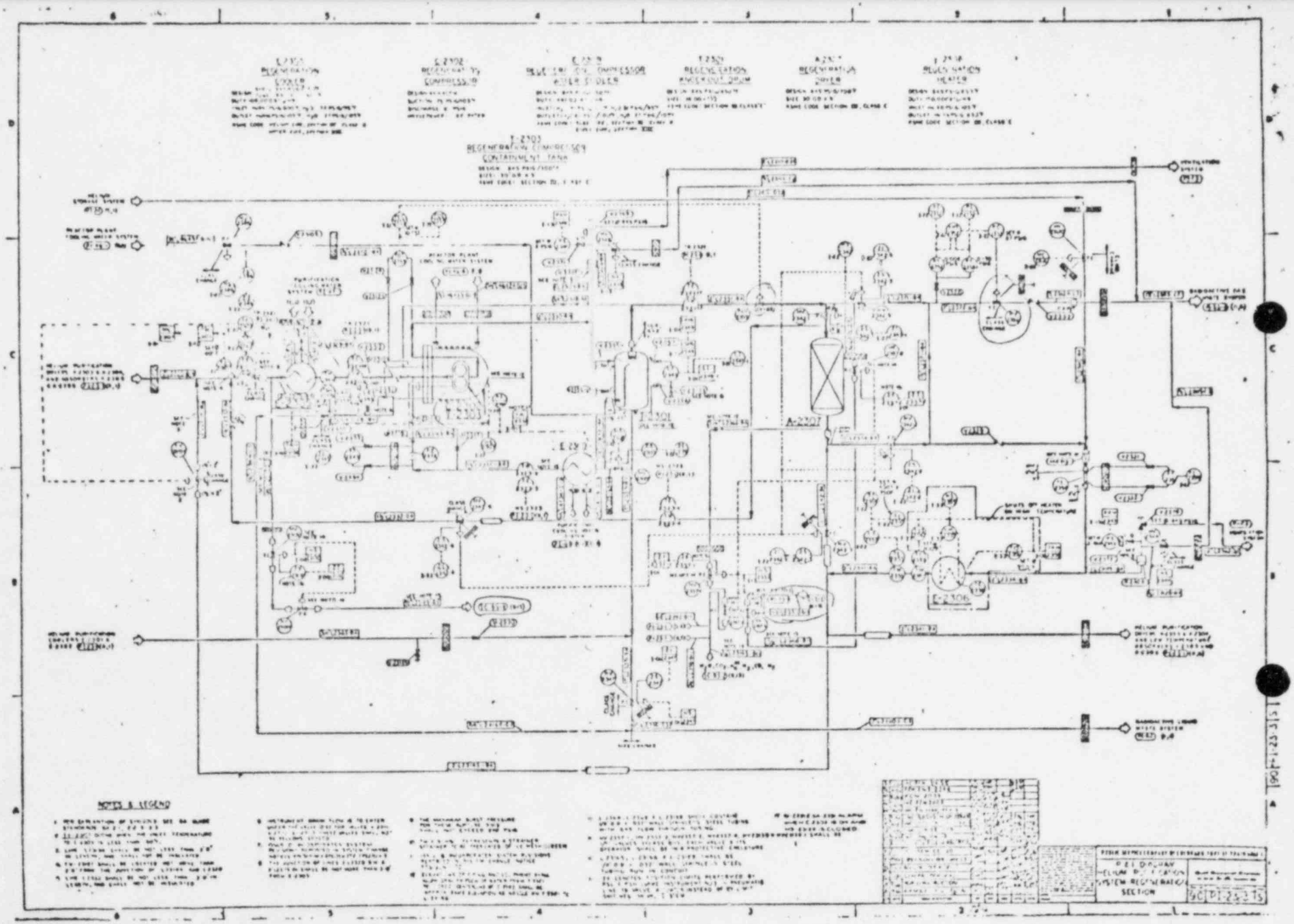
None

RECOMMENDED:

H. Larry Brey
Superintendent-Operations
Fort St. Vrain Nuclear
Generating Station

APPROVED:

Frederic E. Swart
Superintendent Nuclear Production
Public Service Company
of Colorado


E-2701
REGENERATION
COOLER
E-2702
REGENERATION
COMPRESSOR
E-2703
REGENERATION COMPRESSOR
AFTER COOLER
E-2704
REGENERATION
KNOCKOUT DRUM
A-2707
REGENERATION
DRYER
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HEATER
T-2703
REGENERATION COMPRESSOR
CONTAINMENT TANK
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NOTES & LEGEND
P&ID DIAGRAM
HELIUM PURIFICATION
SYSTEM REGENERATION
SECTION

REPORT DATE: February 4, 1975 ABNORMAL OCCURRENCE

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COPY SENT REGION IV

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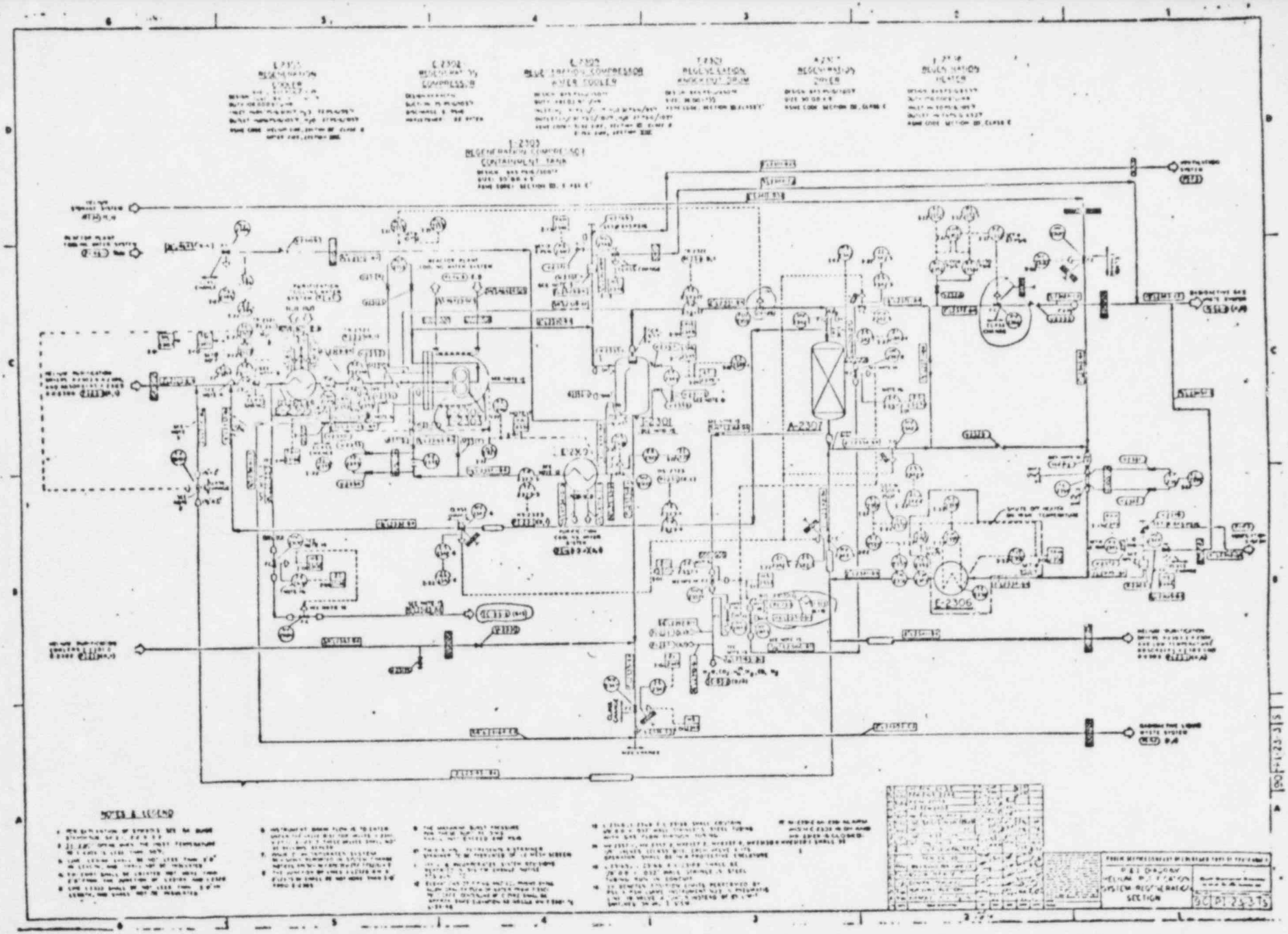
E-2303
E-2301
A-2307
E-2306