

P. O. Box 361, Platteville, Colorado 80651



September 5, 1975

Mr. E. Morris Howard, Director
Nuclear Regulatory Commission
Region IV
Office of Inspection and Enforcement
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. 50-267/75/19,
Final, submitted per the requirements of the Technical Specifications.

Very truly yours,

Frederic E. Swart
Superintendent, Nuclear Production
Fort St. Vrain Nuclear
Generating Station

FES/alk

cc: Mr. Angelo Giambusso

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REPORT DATE: September 5, 1975

ABNORMAL OCCURRENCE 75/19

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OCCURRENCE DATE: August 25, 1975

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

REPORT NO. 50-267/75/19

Final

IDENTIFICATION OF
OCCURRENCE:

"A" engine of "A" standby generator automatically shutdown and declutched during the cooldown portion of a weekly surveillance test.

This is defined as an abnormal occurrence per 2.1(f) of the Technical Specifications.

CONDITIONS PRIOR
TO OCCURRENCE:

_____	Steady State Power	_____	Routine Shutdown
_____	Hot Shutdown	_____	Routine Load Change
<u>X</u>	Cold Shutdown	_____	Other (specify)
_____	Refueling Shutdown	_____	
_____	Routine Startup	_____	

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

Power	RTR	<u>0</u>	MWth
	ELECT	<u>0</u>	MWe
Secondary Coolant	Pressure	<u>275</u>	psig
	Temperature	<u>180</u>	°F
	Flow	<u>9,000</u>	#/hr.
Primary Coolant	Pressure	<u>1.0</u>	psig
	Temperature	<u>123</u>	°F Core Inlet
		<u>170</u>	°F Core Outlet
	Flow	<u>1 circulator at 4,000 RPM#/hr.</u>	

DESCRIPTION OF
OCCURRENCE:

Assistant Reactor Operator had completed the two hour, 50% load test run required by SR 5.6.1a-W and decreased standby generator 1A to no load and opened the generator breaker, which allows the engines to cool down. After about 10 minutes running idle, the standby diesel "fail-to-start" alarm alerted the operator and upon investigation the "A" engine had shut off and declutched.

APPARENT CAUSE
OF OCCURRENCE:

<input type="checkbox"/> Design	<input type="checkbox"/> Unusual Service Cond. Including Environ.
<input type="checkbox"/> Manufacture	<input type="checkbox"/> Component Failure
<input type="checkbox"/> Installation/Const.	<input checked="" type="checkbox"/> Other (specify)
<input type="checkbox"/> Operator	<input type="checkbox"/> Adjustment
<input type="checkbox"/> Procedure	

The apparent cause of the occurrence was a difference in fuel rack setting between A and B engines of standby generator 1A.

ANALYSIS OF
OCCURRENCE:

The standby diesel generator had just satisfactorily performed the two hour, 50% load surveillance test. The engines were idling (at rated power) with the breaker open to cool the engines when, after about 10 minutes, trip and declutching occurred.

Investigation showed that a difference in fuel rack setting between A and B engines existed. Low load conditions allowed the fuel rack on A engine to close which required the B engine to maintain the rated speed of both engines. The exhaust manifold temperature cooled to the point at which the temperature switch is tripped. This switch causes the engine "fail-to-start" alarm if more than 30 seconds have elapsed since the engine start signal occurred.

Loaded conditions would not cause this alarm and trip because 1A engine would be above the switch setpoint of 180°F.

CORRECTIVE
ACTION:

The fuel rack setting was changed such that the pressures on each engine rack are equal, when operating at rated speed, no load conditions. In addition the surveillance will be changed to include a check of the exhaust pressure differential between the two engines at "speed, no load".

FAILURE DATA/SIMILAR REPORTED OCCURRENCES:

Abnormal Occurrence 50-267/75/8, 50-267/75/12, and 50-267/75/13 involved failures of the same equipment but are not related to this occurrence.

PROGRAMMATIC IMPACT:

None

CODE IMPACT:

None

Submitted By:

Harvey W. Hillyard, Jr.
Harvey W. Hillyard, Jr.
Technical Services Supervisor

Reviewed By:

Frank M. Mathie
Frank M. Mathie
Superintendent, Maintenance

Approved By:

Frederic E. Swart
Frederic E. Swart
Superintendent, Nuclear Production