

REPORT DATE: September 28, 1979

REPORTABLE OCCURRENCE 79-34

OCCURRENCE DATE: August 30, 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. 50-267/79-34/03-L-0

Preliminary

IDENTIFICATION OF
OCCURRENCE

On August 30, 1979, during normal surveillance testing, the emergency diesel generator day tank levels were found to be less than 500 gallons. This is a degraded mode per Fort St. Vrain Technical Specification LCO 4.6.1 and is reportable per AC 7.5.2(b)2.

EVENT
DESCRIPTION:

On August 30, 1979, while at 36% thermal power and 105 MW electrical power, normal scheduled surveillance testing found that the high level switches on both emergency diesel generator day tanks were inoperable. The contacts were in the open condition which simulated a high tank level.

See Figure 1. The level switch high (LSH), (1), opens on high tank level to de-energize the diesel transfer pump control relay (CR), (2). When tank level decreases enough for the high level alarm to clear, the level switch high contacts close, energizing the control relay, starting the fuel oil transfer pump and increasing tank level until the level switch high again opens on day tank high level. This action should normally maintain tank level at around 500 gallons per tank.

With the level switch high, (1), open, the day tank level fell to approximately 350 gallons where the level switch low (LSL), (3), contacts closed, energizing the level switch low auxiliary relay, (4), and the control relay, (2), through auxiliary relay contacts, (5). This started the fuel oil transfer pump and increased tank level until the day tank low level cleared. This opened the low switch level contacts and stopped the fuel oil transfer pump. With the high level switch open the day tank level cycled around the low switch level setpoint, approximately 350 gallons.

CAUSE
DESCRIPTION:

The level switch high setpoints were such that regardless of the tank levels the contacts were open, which simulated high tank levels.

These switches were not normally tested and since the high level alarms were up it appeared the day tank level control systems were operating properly.

7910030 508
1083 351

CAUSE

DESCRIPTION (continued):

These switches were rewired by Field Change Notice 2405 in an attempt to maintain 500 gallons in the day tanks. A starting function was added to the high level switches which start the pumps whenever the high level alarms clear. However, the dead band of the switches are too wide to maintain the tank level greater than 500 gallons and still shut the pumps off before the day tanks fill up and start to overflow.

CORRECTIVE

ACTION:

The level switch high setpoints were readjusted to the proper setpoint and the surveillance test revised to include testing these switches. The test was successfully completed.

However, the day tank level control system will not maintain 500 gallons or greater in the day tanks at present, as the dead band of the high level switches, ①, is too great to allow the pump to restart before the level falls below 500 gallons.

The possibility of replacing these switches with others having smaller dead bands is being investigated.

The Company has previously submitted a Technical Specification change request to change the required level in the day tanks to 325 gallons (reference P-79056 dated March 7, 1979).



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LICENSEE EVENT REPORT

CONTROL BLOCK: 1

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 C 0 F S V 1 2 0 0 - 0 0 0 0 0 0 0 0 3 4 1 2 0 4 5

LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

CON'T

0 1 R E P O R T S O U R C E L 6 0 5 0 0 0 2 6 7 7 0 8 3 0 7 9 8 0 9 2 8 7 9 9

REPORT SOURCE 60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On August 30, 1979, while operating at 36% thermal power and 105 MW electrical power

0 3 it was determined that the emergency diesel generator day tanks did not have 500 gal-

0 4 lons of fuel oil as required per Fort St. Vrain Technical Specification LCO 4.6.1.

0 5 This is reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)2. The tanks

0 6 had greater than 350 gallons a piece and more than 20,000 gallons were stored on site.

0 7 There was no effect on public health or safety. RO 78-29 is similar.

0 8

0 9 E D 11 E 12 E 13 I N S T R U 14 S 15 Z 16

SYSTEM CODE 9 10 CAUSE CODE 11 CAUSE SUBCODE 12 COMPONENT CODE 13 COMP. SUBCODE 19 VALVE SUBCODE 20

17 7 9 0 3 4 0 3 L 0

LER/RO REPORT NUMBER 21 22 SEQUENTIAL REPORT NO. 24 26 OCCURRENCE CODE 28 29 REPORT TYPE 30 REVISION NO. 32

E Z Z Z 0 0 0 0 Y N N H 1 1 6

ACTION TAKEN 33 FUTURE ACTION 34 EFFECT ON PLANT 35 SHUTDOWN METHOD 36 HOURS 40 ATTACHMENT SUBMITTED 41 NPD-4 FORM SUB. 42 PRIME COMP. SUPPLIER 43 COMPONENT MANUFACTURER 44

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The level switch high which normally controls pump operation and keeps approximately

1 1 500 gallons in the day tanks changed setpoint enough that they were inoperable and the

1 2 level switch lows took over control at approximately 350 gallons per tank. The high

1 3 level switches were adjusted to the proper setpoint and the surveillance completed. The

1 4 switch dead band is too wide to maintain 500 gallons at present and the problem is

1 5 being investigated.

1 5 E 28 0 3 6 29 N/A 30 3 31 Normal Scheduled Surveillance 32

FACILITY STATUS 8 9 % POWER 10 12 OTHER STATUS 13 METHOD OF DISCOVERY 45 DISCOVERY DESCRIPTION 46

1 6 Z 33 Z 34 N/A 35 N/A 36

ACTIVITY CONTENT 8 9 RELEASED OF RELEASE 10 11 AMOUNT OF ACTIVITY 12 LOCATION OF RELEASE 13

1 7 0 0 0 37 Z 38 N/A 39

PERSONNEL EXPOSURES 8 9 NUMBER 10 TYPE 11 DESCRIPTION 12

1 8 0 0 0 40 N/A 41

PERSONNEL INJURIES 8 9 NUMBER 10 DESCRIPTION 11

1 9 Z 42 N/A 43

LOSS OF OR DAMAGE TO FACILITY 8 9 TYPE 10 DESCRIPTION 11

2 0 N 44 N/A 45

PUBLICITY 8 9 ISSUED 10 DESCRIPTION 11

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