Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920

December 22, 1992

CWS LTR #92-765

U.S. Nuclear Regulatory Commission
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Licensee Event Report 92-39, Docket 050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50-73(a)(2)(iv).

L. F. Gerner for 12/24/92

Charles W. Schroeder
Station Manager
Dresden Nuclear Power Station

CWS/cfq

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III
NRC Resident Inspector's Office
File/NRC
File/Numerical



ZDVR/803

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

| Facility Name (1) | Docket Number (2) | Page (3) |
|---|---|---|
| Dresden Nuclear Power Station, Unit 2/3 | 0 5 0 0 0 2 3 7 | 1 of 0 4 |

Title (4)
Standby Gas Treatment (SBGT) "A" Train Unplanned Initiation Due to Miscommunication

| Event Date (5) | | | LER Number (6) | | | Report Date (7) | | | Other Facilities Involved (8) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Month | Day | Year | Year | Sequential Number | Revision Number | Month | Day | Year | Facility Names | Docket Number(s) |
| 1 1 | 2 7 | 9 2 | 9 2 | 0 3 9 | 0 0 | 1 2 | 2 2 | 9 2 | Dresden Unit 3 | 0 5 0 0 0 2 4 9 |

| OPERATING MODE (9) | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11) | | | |
|---|---|---|---|---|
| N | ___ 20.402(b) | ___ 20.405(c) | X 50.73(a)(2)(iv) | ___ 73.71(b) |
| POWER LEVEL (10) 0 8 1 | ___ 20.405(a)(1)(i) | ___ 50.36(c)(1) | ___ 50.73(a)(2)(v) | ___ 73.71(c) |
| | ___ 20.405(a)(1)(ii) | ___ 50.36(c)(2) | ___ 50.73(a)(2)(vii) | ___ Other (Specify in Abstract below and in Text) |
| | ___ 20.405(a)(1)(iii) | ___ 50.73(a)(2)(i) | ___ 50.73(a)(2)(viii)(A) | |
| | ___ 20.405(a)(1)(iv) | ___ 50.73(a)(2)(ii) | ___ 50.73(a)(2)(viii)(B) | |
| | ___ 20.405(a)(1)(v) | ___ 50.73(a)(2)(iii) | ___ 50.73(a)(2)(x) | |

LICENSEE CONTACT FOR THIS LER (12)

| Name | TELEPHONE NUMBER |
|---|---|
| | AREA CODE |
| Thomas J. Johnson, Operations Staff Ext. 3527 | 8 1 5 9 4 2 - 2 9 2 0 |

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

| CAUSE | SYSTEM | COMPONENT | MANUFAC-TURER | REPORTABLE TO NPRDS | CAUSE | SYSTEM | COMPONENT | MANUFAC-TURER | REPORTABLE TO NPRDS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |

SUPPLEMENTAL REPORT EXPECTED (14)

| | | Expected Submission Date (15) | Month | Day | Year |
|---|---|---|---|---|---|
| ___ Yes (If yes, complete EXPECTED SUBMISSION DATE) | X NO | | | | |

ABSTRACT (Limit to 1400 spaces, i.e, approximately fifteen single-space typewritten lines) (16)

On Friday November 27, 1992 at 1315 with Unit 2 at 81% power and Unit 3 at 96% power, Standby Gas Treatment (SBGT) "A" Train experienced an unplanned auto-initiation. Instrument Maintenance personnel were performing a functional check of the Fuel Pool Channel A and Channel B Area Radiation Monitor as required by Technical Specification Table 4.2.1. The surveillance requires the technicians to adjust the TRIP CHECK ADJUST potentiometer until the High (Upscale) light comes on. This action is supposed to initiate the sequence to isolate the reactor building ventilation system and start the SBGT system. The Nuclear Station Operator (NSO) was standing next to the SBGT control panel when the SBGT start signal was received. Upon seeing the SBGT start, he immediately placed the "B" train, which was in PRIMARY, to START, and the "A" train to PRIMARY. With a valid initiation signal present, the system logic auto-started the "A" train. The heaters for both trains failed to energize due to the resulting low flow condition in each train. The situation was immediately recognized and the switches were reconfigured to put the "A" train in service and the "B" train to STANDBY.

The root cause of the event is attributed to procedural deficiency and a lack of understanding on the part of the NSO. This event is the first SBGT auto-initiation due to operator inappropriate action. The safety significance is considered minimal because reactor building ventilation and Secondary Containment were not compromised.

PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor -2527 MWt rated core thermal power.

Nuclear Tracking System (NTS) tracking code numbers are identified in the text as (XXX-XXX-XX-XXXXX).

EVENT IDENTIFICATION:

A. Conditions Prior to Event

November 27, 1992 1315

Unit 2

Reactor Mode: RUN Power Level: 81%

RCS Pressure: 1001 psi

Unit 3

Reactor Mode: Run Power Level: 96%

RCS Pressure: 1001 psi

B. Description of Event

Instrument Maintenance Department personnel were performing Dresden Instrument Surveillance (DIS) 1700-15 "Refuel Fuel Pool Channel A and Channel B Area Radiation Monitor Calibration and Functional Check" monthly surveillance as required by Technical Specification Table 4.2.1. The evolution proceeded as expected until Step I.40 of the procedure. The technician notified the Nuclear Station Operator (NSO) that Reactor Building Ventilation would be tripped and Standby Gas Treatment (SBGT) started. The technician then proceeded to adjust the TRIP CHECK ADJUST potentiometer on the Area Radiation Monitor (ARM) power supply until the High (Upscale) Light came on. This action initiated the SBGT system. Step I.41.e.(3) of DIS 1700-15 alerts the technician to wait approximately 30 seconds before verifying that SBGT has started and Reactor Building Ventilation has tripped. The NOTE at the bottom of page 30A states: "Reactor Building Ventilation should be left tripped and SBGT running while the remaining logic is verified". The instrument maintenance technician assumed the NSO understood this, and would leave Reactor Building Ventilation tripped and SBGT running. The NSO stated that he was aware that the surveillance was being performed, but was not aware of what his expected response was supposed to be.

The center desk NSO happened to be at the SBGT control panel when the initiation signal was received. The NRC inspector present in the control room was standing in the immediate vicinity of the NSO. The NSO stated that because of the presence of the NRC inspector in the control room, he felt he could not appear to be hesitant or indecisive in his actions. When the NSO saw the SBGT system start up, he immediately moved the "B" SBGT control switch to START and the "A" SBGT control switch to PRIMARY. This NSO believed that this action was the correct switch manipulation based upon his experience with normal surveillance activities. With the ARM High signal still inserted the system logic proceeded to start the "A" SBGT train because it was now selected as PRIMARY. With both trains running, the SBGT heaters did not energize because both trains were running and trying to push their rated flow out of the same orifice. The system design flow out of the chimney is 3900-4700 cfm. The heaters will not energize until they see a flow of 2390 cfm. With both trains in operation, neither train should experience enough flow to allow the heater to energize. When the mistake was realized, the Station Control Room Engineer (SCRE) ordered the NSO to secure the "A" SBGT. The "B" SBGT also was secured because its heater never energized due to the low flow condition. "A" SBGT was placed in STANDBY, it started as desired, and the switch was placed to PRIMARY. "B" SBGT was placed to OFF and then to STANDBY.

C. Apparent Cause of the Event

This report is being submitted in accordance with 10CFR50.73(a)(2)(iv).

The root cause of this event is a failure of the NSO and Instrument Maintenance technician to fully communicate the expected actions and responses that were going to occur during the surveillance test. This was caused by a deficiency in DIS 1700-15, and a lack of clear expectations on the part of the NSO.

The DIS directs the technician to inform the NSO that Reactor Building Ventilation will be tripped and SBGT started. It does not remind the technician to tell the NSO of the data recording the technician has to do. The step makes the assumption that the NSO and the technician will both understand that SBGT should be allowed to start and run for an undefined period of time.

Dresden NSOs have been trained that the proper action is to place the running train of SBGT to START and the non-running train to PRIMARY when conducting a surveillance of SBGT. This has been the practice since 1974. Investigation by the Technical Staff System Engineer could find no legitimate reason why this is done. No value is gained by placing the non-running train to PRIMARY from STANDBY when an auto-start signal is present.

D. Safety Analysis of the Event

The surveillance in use at the time of the event planned for the auto-start of the "B" SBGT. Both trains of SBGT and the Reactor Building Ventilation system were OPERABLE at the time of the event. Because Reactor Building Ventilation, SBGT, and Secondary Containment operability were never compromised, the safety significance is considered minimal.

E. Corrective Actions

The SCRE and NSO returned the system to a correct line-up immediately after the event occurred.

The Technical Staff System Engineer issued Temporary Procedure Changes to Dresden Operating Procedure (DOP) 7500-01 and Dresden Surveillance Procedure (DOS) 7500-02, both of which address manual operation and functional check of the SBGT system. These changes direct the operator to place the running system to START and to leave the non-running system in STANDBY.

DIS 1700-15 will be revised to instruct the maintenance technician to fully and properly brief the NSO on the surveillance and the expected actions and responses. This will be completed by March 30, 1993 (NTS 237-180-92-39301).

DOP 7500-01 and DOS 7500-02 will be permanently changed to reflect the proper operator actions with appropriate notes, warnings, and cautions. This will be completed by March 30, 1993 (NTS 237-180-92-39302).

F. Previous Occurrences

No previous occurrences due to operator induced error by inappropriate switch manipulation.

G. Component Failure Data

No component failure occurred, so this part is not applicable.