

File

# REACTOR TRIP

## ROOT CAUSE DETERMINATION

Referenced: BEP ESO.1  
BGP 100-A6

NOTE  
Complete only the applicable steps  
of this procedure

**CAUTION**  
DO NOT INITIATE THIS PROCEDURE UNTIL THE  
AFFECTED UNIT IS BEING MAINTAINED IN A STABLE CONDITION

Initiated by SCRE: W. Kamba  
Time: 1358  
Date: 4-10-85

NOTE  
USE Section F as an information  
section for reporting  
ROOT CAUSE

## A. NOTIFICATION OF THE REACTOR TRIP

**A**

☐ STATION SUPERINTENDENT  
☒ or HIS DESIGNEE L. SUES

Time and Date

1345 4-10-85

☒ NUCLEAR STATION DIVISION DUTY OFFICER  
(name) ED EENINGENBURG

By SR10

☒ BYRON STATION DUTY OFFICER  
(name) T. TULON

1345 4-10-85

☒ SYSTEM LOAD DISPATCHER  
(name) FREDRICHSON

1433 4-10-85

☒ DVR # 06-01-85 <sup>Later</sup> (See BAP1250-2)

1500 4-10-85

☒ NRC location Bethesda, BYRON  
person GOULD, CONNAUGHTON

1425, 1400 4-10-85

☐ OTHERS (list) include support (IM, EM, MM)

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8506050792 850517  
PDR ADOCK 05000454  
S PDR

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B. CONDITIONS

**B**

1. On SHIFT at the time of the TRIP

a. SHIFT ENGINEER

J. Schrock, R. FRANKLIN

b. SCRE

W. Kuba

c. SHIFT FOREMEN

A. Bunnell, C. BONTJES

d. UNIT 1 NSO

B. Lloyd, M. SAUNDERS

e. EO

E. Topping, T. McDUGAL

2. UNIT 1 Time and Date of Trip 1335 4-10-85

3. Ensure all recorder charts stamped: REACTOR TRIP Time 1335

4. UNIT Status at TRIP

Date 4-10-85

a. MODE 2 (Startup)

NSO B. Lloyd

1 (Power)

b. ☐ Source Range

CPS

☐ Intermediate Range

amps

☒ Power Range

%

28

USE NR-45  
recorder

5. Present UNIT Status

a. MODE 3

b. explain

Empty box for explanation of present unit status.

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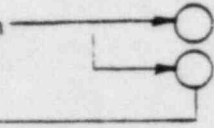
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C. FACTORS

C

1. Reactor TRIP was initiated

a. ☒ By the Reactor Protection System (AUTO)

b. ☐ Manually from  \_PM05J  
\_PM06J

c. explain (interview UNIT NSO)

- d. For manual TRIP due to failure of the automatic function, refer to TECH SPEC 6.7.1.10 for reporting requirements.
- e. Although manual TRIP is considered ROOT CAUSE, a thorough explanation is required as to why this action was taken.

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C

2. FIRST OUT ANNUNCIATOR

a. Did a FIRST OUT ANNUNCIATOR light?

☐ NO → proceed to step c.2.f

☒ YES

b. First Out Annunciator

Window number *11E02*

Window nomenclature

*PLUR RNG FLUX RATE HIGH Rx TRIP*

Trip Setpoint *2 of 4*

Coincidence *5% - 2 seconds*

c. Enter below the parameters which relate to the First Out Annunciator at the time of the trip (Use Pen Recorders).

Parameter	Recorder	Trips at
<i>N43</i>	<i>NR 45</i>	<i>*</i>

*\* Negative Rate Trip occurred*

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C

- d. Do the parameters listed in step 2.c. above indicate the Trip setpoint for the First Out Annunciator was reached?

☐ NO → proceed to step C.2.f

☒ YES ☐

*(Cannot verify from NR 45)*

↓  
This will indicate actuating cause of the trip, but further investigation is needed to determine root cause.

- e. Proceed to step C.3.
- f. Failure of a first out annunciator to illuminate indicates the possibility of
- 1). Reactor Protection Spurious Reactor Trip
  - 2). Failure of the associated First out Annunciator
  - 3). Reset before being confirmed. Interview the participants
  - 4). Rod Drive System malfunction (including breakers)
  - 5). Manual Trip
- g. Have Unit NSO reset first out Annunciator.
- h. Proceed to Step C.3.

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C

3. After a thorough review of the SEQUENCE OF EVENTS RECORDER and the PLANT PROCESS COMPUTER enter all pertinent pre and post trip information below:

Shutdown bank A Group 1, Rods D02 and B12 dropped initiating a Rx Trip on Negative Rate. (See computer print outs.)

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C

4. Were any Reactor Protection System trip Bistables tripped (lights on) prior to the Trip? Refer to Reactor Operator logs.

☒ NO → proceed to step C.5  
☐ YES

- a. Enter the tripped Bistables

- b. Do any of the entries above relate to the First Out Annunciator (step C.2.b.)?

☐ NO → proceed to step C.5  
☐ YES

- c. Explain

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C

5. Was the Unit in a plant transient at the time of or prior to the trip?

*Unit 4-12-86*  
☒ NO → proceed to step C 6 \*  
☒ YES →

a. Explain

*\* A real breakoff problem (indication was erratic) on 1B RCP had just been corrected  
AB EVAP. Spill*

*Note neither problem was related to trip*

6. Were any LCOAR procedures in progress at the time of the Trip?

☐ NO → proceed to step C.7  
☒ YES →

Enter procedure number BUS *See attached sheets*  
Do any of these LCOAR procedures relate to the trip?

☒ NO → proceed to step C.7.  
☐ YES → explain below

Explain

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C

7. Enter Below any surveillances that were in progress at the time of the TRIP and explain significance.

NONE

8. Do any of the surveillances listed above relate to the First Out Annunciator (step B.2)?

☒ NO —→ proceed to step C.9  
☐ YES

Explain

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C

9. Were Any Evolutions (Maintenance, Testing, Cleaning, etc ) in Progress at the time of the Trip in the following areas; Main Control Room, Remote Shutdown Panel, Aux Electric Room, Misc. Electric Equipment Room, High Pressure Turbine Enclosures, Fin Pumps?

☐ NO

☒ YES

NOTE  
CHECK Status of the  
SSPS cabinets at the  
time of the trip.

d. Explain all YES answers

*B17415 Replacing fuse in 1PA32J  
Reports of people in Room with Rod Drive Cabinets*

10. Was the Unit in a Normal At Power Electrical Lineup at the time of the Trip (including DC busses \_11 and \_12)?

☐ YES —→ proceed to step C.11

☒ NO

*Unit was in a Shut Down Electrical power  
lineup*

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C

11. Review the following logs and enter below any entries which relate to the First Out Annunciator
- a. SE/SF log
  - b. Center Desk log
  - c. Affected Unit log
  - d. Affected Unit RO logs
  - e. EO logs
  - f. EA logs
  - g. Entries which relate to the Trip (include controllers in manual).

NONE

12. STATUS OF THE ROD DRIVE (RD) SYSTEM PRIOR TO THE TRIP.

- a. MG SETS BOTH RUNNING  
(powered from \_33Y, \_34Y)
  - ☒ YES
  - ☐ NO
- b. RX TRIP BRKRS BOTH CLOSED
  - ☒ YES
  - ☐ NO
- c. RX TRIP BYPASS BRKRS BOTH RACKED OUT
  - ☒ YES
  - ☐ NO
- d. ALL CRDM's IN A NORMAL CONFIGURATION  
(POWER CABINETS AND LOGIC CABINET)
  - ☒ YES
  - ☐ NO

explain all NO answers

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B.O.S.R.

D. DETERMINATION

D

1. SPECIFIC REACTOR TRIP

- ☒ a. AUTO enter TRIP Negative RATE  
COINCIDENCE 2 of 4  
SETPOINT 5% in 2 seconds
- ☐ b. MANUAL → proceed to step D.4
- ☐ c. UNKNOWN → proceed to step D.5

2. WHY was the SETPOINT exceeded?

- ☐ PLANT TRANSIENT
- ☒ EQUIPMENT FAILURE
- ☐ OTHER

↓  
EXPLAIN (Be specific, include EPN, all circumstances, and the specific actuation mechanism)

Shutdown Rods (D02 and B12)  
dropped initiating a negative rate trip

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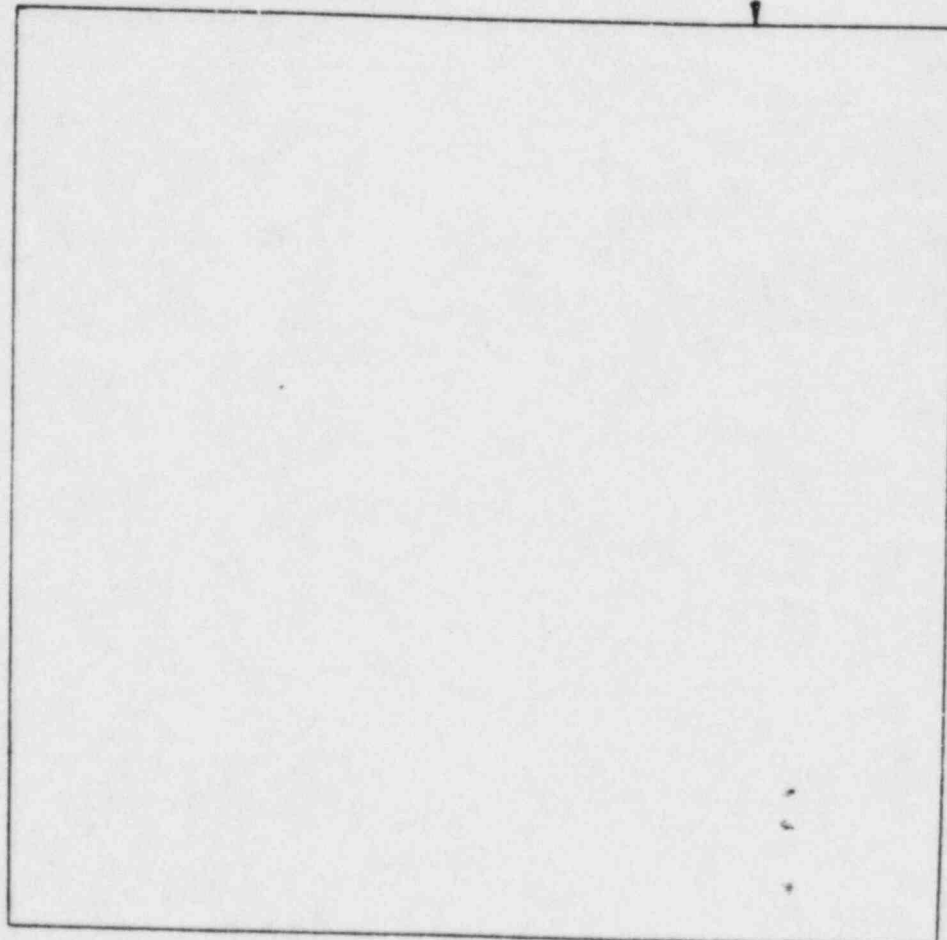
**D**

3. PROCEED to step D.6

4. MANUAL REACTOR TRIP

a. Investigate the following

- 1). If a FIRST OUT ANNUNCIATOR lit but the Reactor did NOT Trip, testing should be done on the Reactor Trip Breakers and the SSPS to locate possible malfunction.
- 2). If a FIRST OUT ANNUNCIATOR did not light after parameters exceeded the trip setpoint, the individual process channels should be tested in conjunction with the SSPS.
- 3). Why was the Reactor tripped MANUALLY?  
Explain (be specific, include EPN):



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**D**

5. UNKNOWN REACTOR TRIP

- a. Spurious Trips must be investigated to find ROOT CAUSE. Review all activities in progress at the time of the trip. Call in support help as required. Check for activities in areas relating to the SSPS and the Rod Drive, Rod Control System. Inspect areas looking for open cabinet doors, damaged equipment, testing in progress, surveillances, etc. Improper placement of test equipment during surveillances can lead to unknown inadvertent trips. Interview persons performing surveillances at the time of the Trip. After a thorough investigation enter the findings below.

\*\*\*\*\*

\* NOTE \*

\* IF ROOT CAUSE cannot be determined SECTION G \*

\* must be completed prior to Reactor Startup. \*

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**D**

6. Has CORRECTIVE action been taken as a result of this trip?

NO

Why

*Presently Investigating (1541 4-1085)*

YES

Explain (include WR numbers, surveillances, etc.)

*B17497 - This Nuc WR was written to investigate - correct the problem - the problem was determined to be in a auto rol drop relay which is used for rol drop timing and in a bad card in the time cube. See attached sheets from Jim Freeman & Long & R Peterson describing trouble shooting and repairs.*

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E. ROOT CAUSE

E

1. Complete this section after a thorough review of sections B, C, and D has determined and documented ROOT CAUSE. Be specific and include EPN, all circumstances and the specific actuating mechanism.

\*\*\*\*\*

\* NOTE \*

- \* If ROOT CAUSE cannot be determined SECTION G must \*
- \* be completed. \*

\*\*\*\*\*

2. ROOT CAUSE (include EPN numbers)

*I/O card A803 was bad and this resulted  
in problems with auto rod drop relay circuit used  
for rod drop testing see IM fireman descriptions  
on attached sheets*

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E

3. CORRECTIVE ACTION TAKEN

(WR numbers, Surveillances, etc)

*Pending 1541 4-10-85*

*NWR B 17497 - see attached description  
From B Long & R Peterson (IM foreman)*

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E

4. SIGNIFICANCE

(DVR numbers, LCOAR, Plant limitations, reporting to agencies, etc.)

*Pending 1541 4-10-85*

~~*Information notification to NRC 4-6*~~

*None - notifications were made as listed  
on the cover sheet.*

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<p>F. REPORT DATA</p>	<p>NOTE</p> <p>IF ROOT CAUSE is indeterminate Section G must be completed</p>	<p><b>F</b></p>
<p>Complete this section and use when reporting as required</p>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>UNIT 1 <input checked="" type="checkbox"/> →</p> <p>UNIT 2 <input type="checkbox"/> →</p> </div> <div style="width: 40%;"> <p>Reactor Trip at <span style="border: 1px solid black; padding: 2px 10px;">1335</span> time</p> <p>on <span style="border: 1px solid black; padding: 2px 10px;">4-10-85</span> date</p> </div> <div style="width: 20%; text-align: right;"> <p>time</p> <p>date</p> </div> </div>		
prior	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>MODE 1 <input checked="" type="checkbox"/> <span style="border: 1px solid black; padding: 2px 10px;">28</span> % power <input type="checkbox"/></p> <p>2 <input type="checkbox"/> _____ CPS <input type="checkbox"/></p> <p>_____ amps <input type="checkbox"/></p> <p>LOST <span style="border: 1px solid black; padding: 2px 10px;">191</span> MW generation</p> </div> <div style="width: 50%;"> <p>transient <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div> </div> </div>	
ROOT CAUSE	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1st Out Annunciator</p> <p><b>11 EO2</b></p> <p><b>PWR RANGE FLUX RATE</b></p> <p><b>HIGH LX TRIP</b></p> </div> <div style="width: 10%; text-align: center;"> <p>TRIP</p> <p><input checked="" type="radio"/> AUTO</p> <p><input type="radio"/> MANUAL</p> </div> <div style="width: 40%;"> <p>Reason</p> </div> </div> <div style="text-align: center; margin: 10px 0;"> <p>ROOT CAUSE</p> <p>↓</p> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p>Corrective Action (WR #, Surveillances)</p> <p><b>B17497</b></p> </div> <div style="width: 35%; text-align: center;"> <p><b>Rod Drop Relay</b></p> <p><b>Bad Card</b></p> </div> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p>Significance</p> <p>DVR # <span style="border: 1px solid black; padding: 2px 10px;">06-01-85-</span></p> <p>GSEP <input checked="" type="radio"/> NO <input type="radio"/> YES</p> <p>NRC notified <span style="border: 1px solid black; padding: 2px 10px;">1433</span> Time</p> <p><span style="border: 1px solid black; padding: 2px 10px;">4-10-85</span> Date</p> </div> </div>	
present	<p>UNIT 1 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/></p> <p>2 <input type="checkbox"/> 4 <input type="checkbox"/></p> <p>is presently in mode 5 <input type="checkbox"/></p> <p>6 <input type="checkbox"/></p> <p>conditions</p> <p><b>ASD using SpR Fu RP</b></p>	<p style="text-align: center; font-weight: bold;">future</p> <p>The Unit will be <b>returned</b> <b>to power ops for</b> <b>start up testing.</b></p>
<p><b>APPROVED</b></p>		

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G. ROOT CAUSE INDETERMINATE

G

\*\*\*\*\*

\* NOTE \*

\* This section is used for Reactor Startup when \*  
\* ROOT CAUSE can not be determined. Use this \*  
\* section in conjunction with the ROOT CAUSE \*  
\* portion of SECTION F for reporting as required. \*

\*\*\*\*\*

\*\*\*\*\*

\* NOTE \*

\* Use Section G in conjunction with G.8 - Root \*  
\* Cause indeterminate Flowchart. \*

\*\*\*\*\*

1. UNIT            1 ☐      Date \_\_\_\_\_  
                    2 ☐      Time      \_\_\_\_\_

2. An adequate investigation into ROOT CAUSE has been performed

BGP 100-A13 completed      Date \_\_\_\_\_  
(Sections A-F)              Time      \_\_\_\_\_

a. Concurrence:

1. Shift Engineer \_\_\_\_\_  
2.                SCRE      \_\_\_\_\_  
3. Station Superintendent \_\_\_\_\_

by phone ☐

in person ☐

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BOSP

**G**

3. Has willful misconduct been excluded as a potential cause.

☐ YES

proceed to step G.4

☐ NO

list precautions that have been taken

explain

proceed to step G.4

4. Additional Short-term measures are planned to monitor performance during startup and power operation.

☐ YES

NO - proceed to step G.5

list

Shift Engineer

Station Supt.

☐ by phone  
☐ in person

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**G**

5. The Unit Trip was initiated by

☐ Spurious protective instrumentation

explain

☐ Plant transient

Specify the process variables involved and explain how close they came to Limiting Conditions for Operation (LCOs) or Safety Limits.

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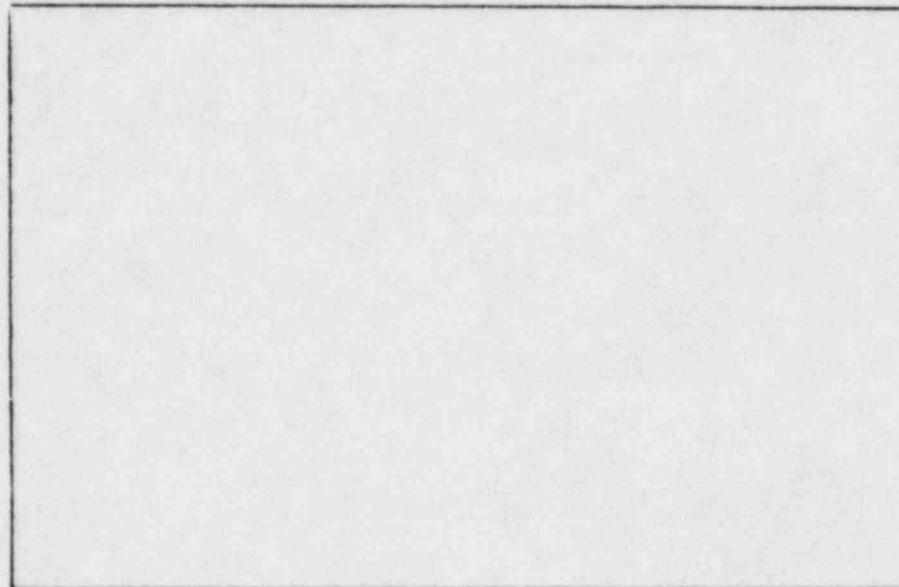
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**G**

6. Are additional investigations and/or restraints needed prior to and for startup?

a. ☐ NO — go to 6.C

b. ☐ YES —  
↓  
List



c. SHIFT ENGINEER \_\_\_\_\_

STATION SUPERINTENDENT \_\_\_\_\_

☐ by phone  
☐ in person

d. Date \_\_\_\_\_ Time \_\_\_\_\_

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**B. O. S. R.**

G

7.

\*\*\*\*\*  
\* NOTE \*  
\* Plant Startup may begin if required Checklists \*  
\* are complete, required equipment is OPERABLE \*  
\* and analysis concludes that if an event should \*  
\* recur that Plant response will be in the SAFE \*  
\* direction. \*  
\*\*\*\*\*

APPROVAL FOR STARTUP

a. STATION SUPERINTENDENT \_\_\_\_\_  
☐ by phone Date \_\_\_\_\_  
☐ in person Time \_\_\_\_\_

b. AND one of the following

☐ Operations Manager \_\_\_\_\_  
Nuclear Stations

or ☐ Div. Vice President \_\_\_\_\_  
and General Manager  
of Nuclear Stations

or ☐ Vice President of \_\_\_\_\_  
Nuclear Operations

Date \_\_\_\_\_ Call Taken By \_\_\_\_\_  
Time \_\_\_\_\_ (SE) \_\_\_\_\_

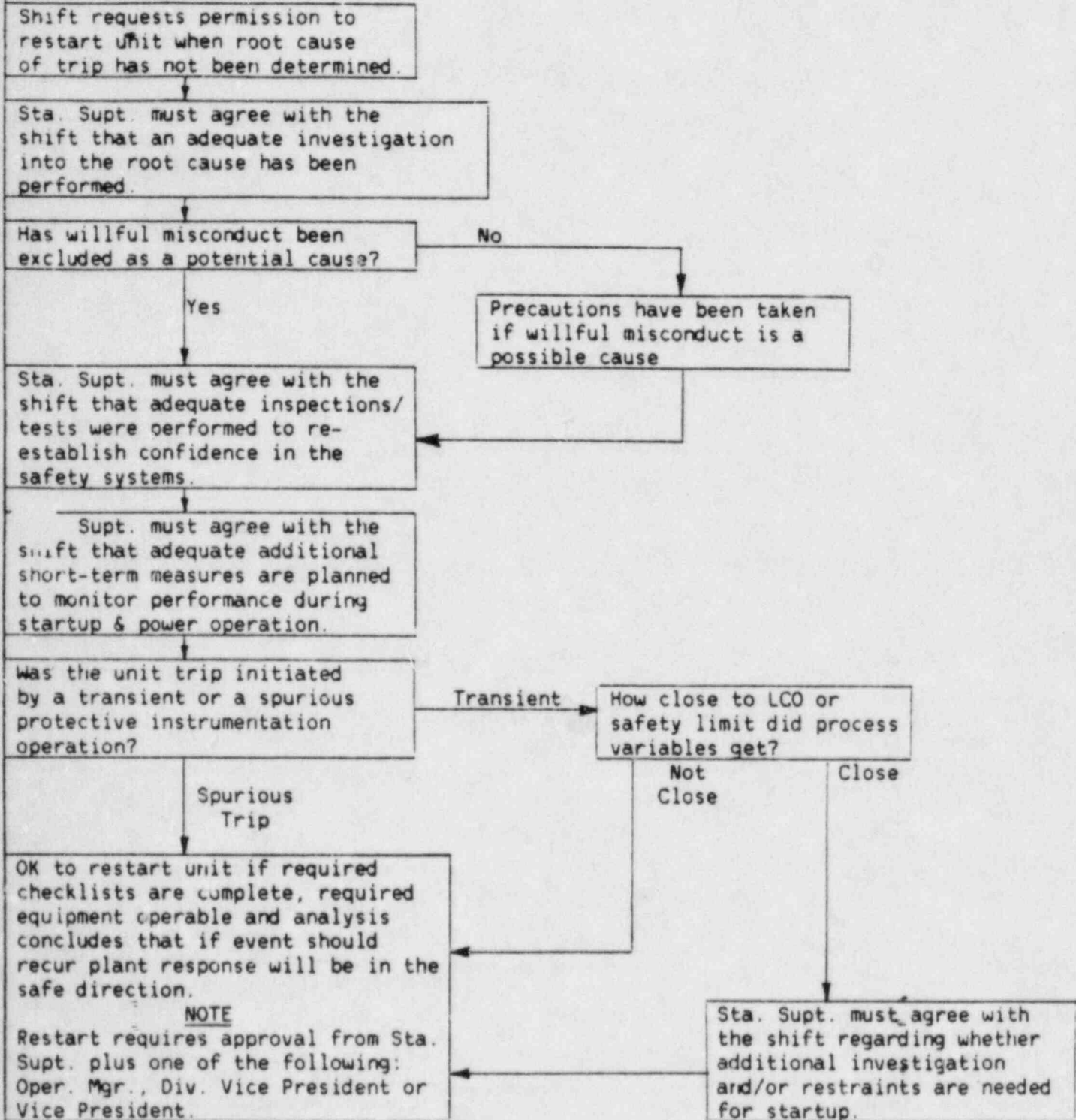
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# 3 flow chart

## FLOWCHART FOR STARTUP WHEN ROOT CAUSE OF TRIP HAS NOT BEEN DETERMINED

G



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B. O. S. R.

H. REVIEW

H

(L. Sues) 4/12/85  
1. Station Superintendent notified of ROOT CAUSE or SECTION G complete  
by SE: J. Schmitt  
Time: 1348  
Date: 4-12-85

2. Review by on Shift Personnel

a. Attach all documentation gathered during the investigation,  
attach the DVR for the Reactor Trip and forward this report  
to the Operating Engineer (Duty).

b. SCRE J. Schmitt 4-12-85 1400  
SE J. Schmitt 4-12-85 1348

3. Post review

Operating Eng. (Duty) J. Schmitt 4/12 4/12/85  
Asst. Supt. Ops. \_\_\_\_\_  
Tech Staff Supervisor \_\_\_\_\_

Time and Date

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Power Range Flux Rate High Rx Trip

4-10-85

While checking the SER <sup>sequence</sup> <sup>units</sup> <sup>records</sup> after a seal leakoff <sup>indication</sup> problem on ID RCP, the bypass-permissive alarm went off. I first saw the first out annunciator alarm 11 E02 "PWR RNG FLUX RATE HIGH RX TRIP" and also the control rods dropping. I then proceeded to help the Unit NSD with the 1BEP-0 immediate actions and manned the feedwater panel during 1BEP ES 0.1 Rx trip recovery. No problems were encountered during the recovery.

Merle A. Saunders  
Extra NSD

1335 4-10 55

An indicated transient had just been terminated minutes prior on the 10 RCP seal leakoff. Also minutes prior we received area radiation monitor alarms on 364 elevator. J Schreck (SE), B Karbo (SRE) and myself B Lloyd (NSO) were discussing the 10 RCP seal leakoff indicator problem when the Rx trip occurred on our range negative rate. All I recall seeing are DRPI indicators of approximately mid bright as the rods were inserted. This was just a glance. I did not notice or was in position to see the event for indicator. We then proceeded into 1B8-0 and ES 01 to remove from the trip.

Photo. Lloyd NSO

Troubleshooting began with the Urgent Alarm present. All logic levels were checked and various voltage checks were made. All indications reflected the conditions expected to hold rods from moving. These checks were also compared to a Power Cabinet that responded properly to an Urgent Alarm.

It was decided to move specific rod banks out approximately 6 steps and monitor specific current orders and select alarm signals throughout the tests in an effort to reproduce the symptoms that caused the rods to drop.

Various causes for an Urgent alarm were simulated to collect data and observe system response.

All Urgent alarm conditions held rods in place except for a zero current order being generated out of sequence specifically a ground applied on pin 30 of the stationary Reg card.

The only common points were power sources and the Rod Drop modification.

Fuses and power sources had been previously checked. Investigation of the Rod Drop modification showed a relay coil connected to the stationary Reg cards via pin 30. The intent of the relay is to interrupt reduced ~~to~~ current orders AI when the Rod Drop computer is connected and a zero current order is applied to intentionally drop rods for testing. Under normal operations this relay would not be energized but the possibility of

may not have been considered when the mod was designed.

As corrective action the wires associated with the stationary regulator cards and the Rod Drop test relay are going to be lifted and isolated, and the stationary reg card group C will be replaced.

R. Peterson J.M. Foreman  
4/12/85

RD Sys Problem  
W.R. # B17497 During Test closure II

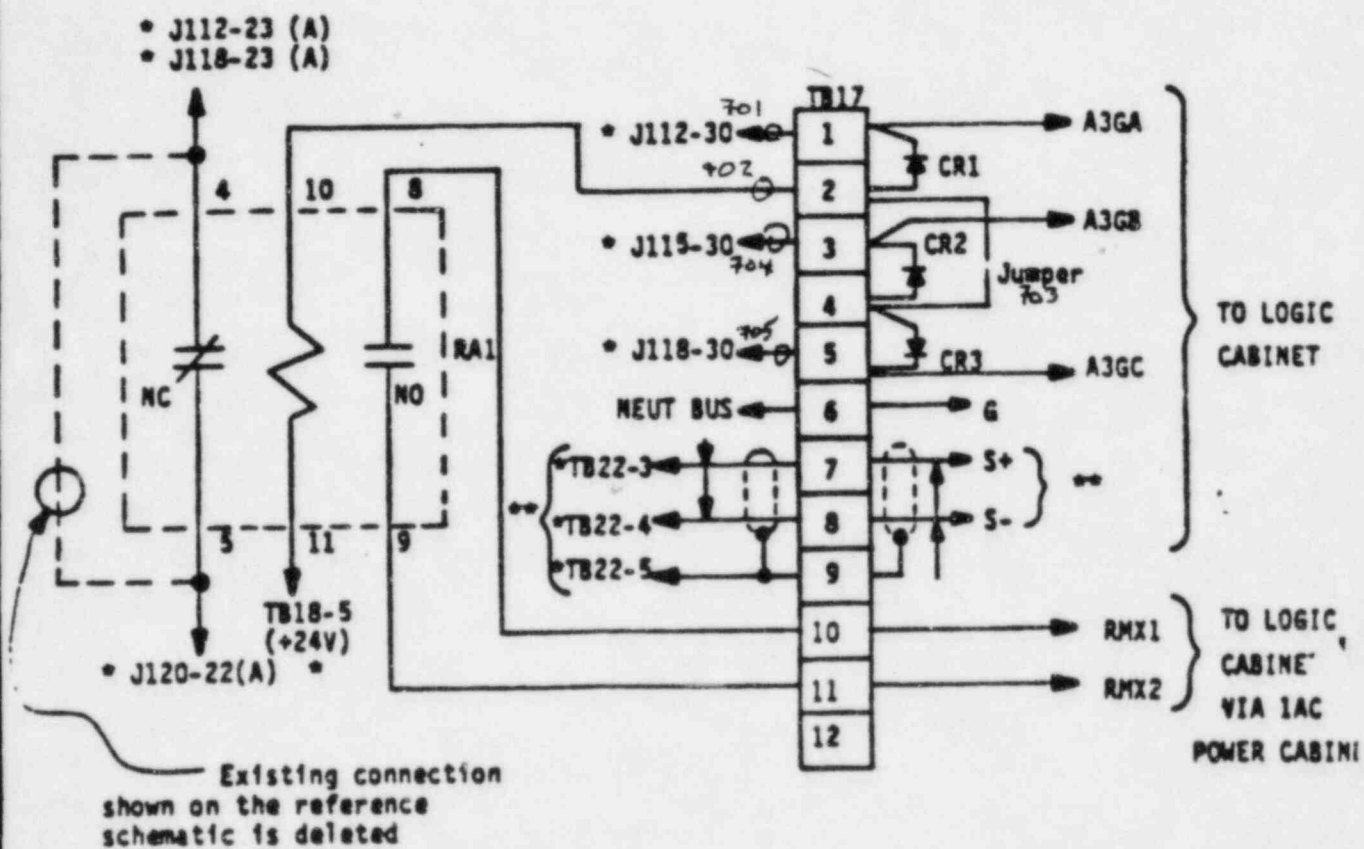
• AFTER SHIFT ENGINEER NOTIFIED INST MANT THAT AN URGENT ALARM EXISTED IN POWER CABINET 1 AC. INVESTIGATION REVEALED A LOGIC FAILURE LED LIT. THIS CONDITION IDENTIFIES A CURRENT ORDER PROBLEM (I.E. STATIONARY + MOVABLE GRIPPER COILS AT ZERO CURRENT AT THE SAME TIME. TROUBLESHOOTING REVEALED THAT THIS ERROR EXISTED IN GROUP C (SHUTDOWN BANK A GROUP) OF 1 AC. ADDITIONAL INVESTIGATION SHOWED THAT ZERO CURRENT ORDERS WERE BEING GENERATED BY THE LOGIC CABINET. WE ENTERED THE LOGIC CABINET AND CHECKED THE SLAVE CYCLER CARDS FOR 1 AC + 2 AC CABINET BY INTERCHANGING THEM. THIS DIDN'T REVEAL ANYTHING AND THE CARDS WERE RETURNED TO THEIR ORIGINAL SLOTS. NEXT A803 + A804 I/O CARDS WERE SWAPPED, RESET WAS PUSHED, THE URGENT ALARM APPEARED IN 2 AC CABINET. THE CARDS WERE RETURNED TO ORIGINAL SLOTS, RESET WAS PUSHED, URGENT ALARM APPEARED IN 1 AC. A803 CARD WAS REPLACED WITH A NEW ONE FROM STORES, URGENT ALARM RESET AND SHUTDOWN BANK A WAS MOVED 10 STEPS OUT + BACK IN

Buddy Long INST FOREMAN  
Bill Long



### III.B Power Cabinet Schematic Modifications

The following schematic information is in addition to that presently shown on the Reference Schematic Diagram.



• Corresponding connections at noted locations are not repeated.

• Noted connections are in the IAC and IBD cabinets only.

*Rod drive rm  
451*

VERIFIED REPRODUCIBLE

SIZE <b>A</b>	CODE IDENT NO. <b>04804</b>	DWG NO. <b>8461A94</b>
DATE /	REV. -	SHEET <b>7</b> OF <b>09</b>

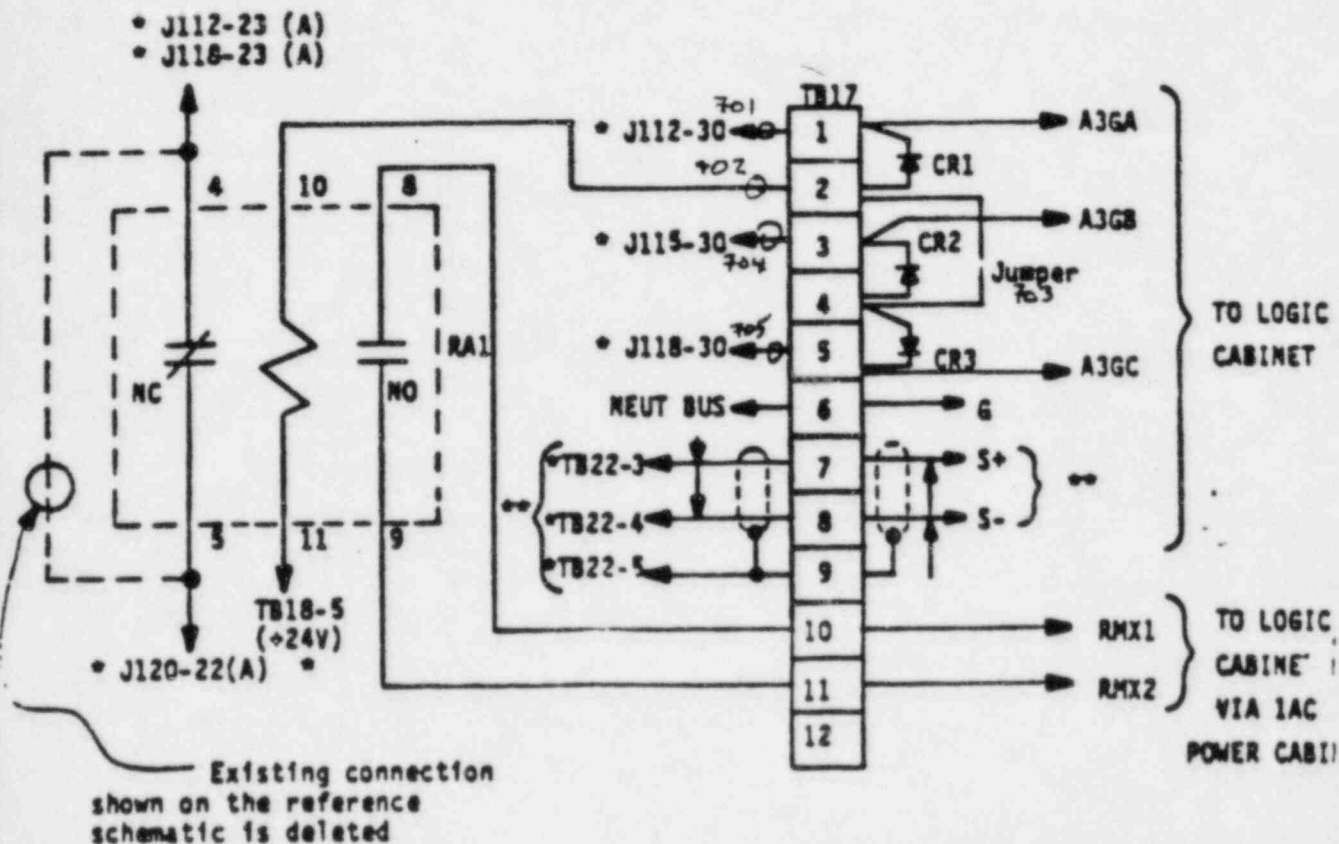
RD Sys Problem  
W.R. # B17497 During Test closure II

AFTER SHIFT ENGINEER NOTIFIED INST MANT THAT AN URGENT ALARM EXISTED IN POWER CABINET 1 AC. INVESTIGATION REVEALED A LOGIC FAILURE LED LIT. THIS CONDITION IDENTIFIES A CURRENT ORDER PROBLEM (I.E. STATIONARY + MOVABLE GRIPPER COILS AT ZERO CURRENT AT THE SAME TIME. TROUBLESHOOTING REVEALED THAT THIS ERROR EXISTED IN GROUP C (SHUTDOWN BANK A GROUP 1) OF 1 AC. ADDITIONAL INVESTIGATION SHOWED THAT ZERO CURRENT ORDERS WERE BEING GENERATED BY THE LOGIC CABINET. WE ENTERED THE LOGIC CABINET AND CHECKED THE SLAVE CYCLER CARDS FOR 1 AC + 2 AC CABINET BY INTERCHANGING THEM. THIS DIDN'T REVEAL ANYTHING AND THE CARDS WERE RETURNED TO THEIR ORIGINAL SLOTS. NEXT A803 + A804 I/O CARDS WERE SWAPPED, RESET WAS PUSHED, THE URGENT ALARM APPEARED IN 2 AC CABINET. THE CARDS WERE RETURNED TO ORIGINAL SLOTS, RESET WAS PUSHED, URGENT ALARM APPEARED IN 1 AC. A803 CARD WAS REPLACED WITH A NEW ONE FROM STORES, URGENT ALARM RESET AND SHUTDOWN BANK A WAS MOVED 10 STEPS OUT + BACK IN

Buddy Long INST FOREMAN  
Bill Long

### III.B Power Cabinet Schematic Modifications

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*Red drive rm  
451*

VERIFIED REPRODUCIBLE

SIZE <b>A</b>	CODE IDENT NO. <b>04804</b>	DWG NO. <b>8461A94</b>
SCALE /	REV. -	SHEET <b>7</b>

EVENT NOTIFICATION WORKSHEET  
(Ref. BAP 1250-6, Step 7)

BAP 1250-14  
Revision 3

A. GENERAL INFORMATION: TIME OF NOTIFICATION 1425 CST EVENT TIME AND ZONE: 1335 CST NRC REGION: III DATE: 4/10/85  
M D Y

ALL BACK NUMBER: Byron Station: (815) 234-5441 Ext 206; Other( )

FACILITY OR ORGANIZATION: Byron Station Unit 1 CALLER'S NAME: W. Kouza

B. EVENT CLASSIFICATION:

1. ☒ 50.72 (NON-EMERGENCY) 6. GOULD GENERAL EMERGENCY  
2. ☐ UNPLANNED RELEASE 7. ☐ TRANSPORTATION EVENT  
3. ☐ NOTIFICATION OF UNUSUAL EVENT 8. ☐ PHYSICAL SECURITY/SAFEGUARDS  
4. ☐ ALERT 9. ☐ OTHER  
☐ SITE AREA EMERGENCY

REQ'D BY: 10 CFR 50.72

OTHER: \_\_\_\_\_

C. POWER REACTOR EVENT:

POWER PRIOR TO EVENT? 28 % MODE AT TIME OF REPORT? 3 POWER AT TIME OF REPORT 0 % RESIDENT INFORMED: ☒ YES ☐ NO  
TRIP? ☒ YES ☐ NO INITIATING SIGNAL? Negative Rate  
SAFETY INJECTION OR ECCS? ☐ YES ☐ NO INITIATING SIGNAL? \_\_\_\_\_  
ESF ACTUATION? ☐ YES ☐ NO EXPLAIN: \_\_\_\_\_  
LCD ACTION STATEMENT? ☐ YES ☐ NO LCD#: \_\_\_\_\_

D. EVENT DESCRIPTION/CAUSE:

Multiple Rod Drop (Shut down bank A, Group 1)  
Rods D32, B12

RADIOACTIVE RELEASES? ☐ YES ☒ NO QUANTIFY: \_\_\_\_\_

OTHER MAJOR PROBLEMS? No

E. PLANNED ACTIONS/PRESS RELEASES?

NONE

F. OUTSIDE AGENCY OR PERSONNEL NOTIFIED BY LICENSEE:

STATE(S) \_\_\_\_\_ LOCAL \_\_\_\_\_  
OTHER \_\_\_\_\_

DUTY OFFICER: \_\_\_\_\_

CALL BACK WITH ANY CHANGES OR ADDITIONAL INFORMATION

APPROVED

JAN 16 1985

B. O. S. R.





Commonwealth Edison

## DEVIATION REPORT

DVR NO. 06 - A - 85 -  
S A UNIT YEAR NO.

PART 1	TITLE OF DEVIATION <u>Multiple Rod Drop</u>	OCCURRED <u>4-10-85 1335</u> DATE TIME
SYSTEM AFFECTED <u>NI</u>	PLANT STATUS AT TIME OF EVENT MODE <u>1</u> POWER (%) <u>28</u>	WORK REQUEST NO. <u>B17497</u> TESTING <input type="checkbox"/> YES <input type="checkbox"/> NO

## DESCRIPTION OF EVENT

Shutdown bank A Group 1, Rods D02 and B12 dropped initiating a Rx Trip on negative rate.

POTENTIALLY SIGNIFICANT EVENT PER NSD DIRECTIVE 4.07	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
10CFR50.72 NRC REG PHONE NOTIFICATION MADE <input type="checkbox"/> 1 HOUR <input checked="" type="checkbox"/> 4 HOUR <u>1425</u> ME	RESPONSIBLE SUPERVISOR <u>W. Kuba</u> DATE <u>4-10-85</u>

## PART 2 OPERATING ENGINEER'S COMMENTS

Root cause determination investigation is in progress

<input type="checkbox"/> NON REPORTABLE EVENT	NOTIFICATION	REGION	DATE	TIME
<input checked="" type="checkbox"/> 30 DAY REPORTABLE / 10CFR 50.73 <u>(4)(2)(X)(1)(5)</u>				
<input type="checkbox"/> 5 DAY REPORT PER 10CFR 21				
<input type="checkbox"/> ANNUAL/SPECIAL REPORT REQUIRED				
A.I.R. #	<input type="checkbox"/> CECO CORPORATE NOTIFICATION MADE IF ABOVE NOTIFICATION IS PER 10CFR 21			
L.E.R. #	TELECOPY	CECO CORPORATE OFFICER	DATE	TIME

PRELIMINARY REPORT COMPLETED AND REVIEWED

OPERATING ENGINEER

DATE

INVESTIGATION REPORT &amp; RESOLUTION ACCEPTED BY STATION REVIEW

RESOLUTION APPROVED AND AUTHORIZED FOR DISTRIBUTION

STATION SUPERINTENDENT

DATE



LCOAR	DATE INITIATED	REASON	ACTIONS REQUIRED	DATE TERMINATED
7.10.2-1a FP (H <sub>2</sub> O)	10-30-84	Failure BOS 7.10.2.2.a-1 & b-1	Fire watches (hourly & cont.)	
7.10.3-1a FP (CO <sub>2</sub> )	10-30-84	OOS 84-1-7192 LCSR	Fire Watches (cont.)	
7.10.4-1a FP (Halon)	10-30-84	Inc. Const. OOS 84-1-7230	Fire Watches (cont.)	
7.11.1-1a FP (assemblies)	10-30-84	Inc. Const.	Fire Watches (hourly)	
3.3.9-1a SX PRO02	10-31-84	Failure of Daily Surv.	12 hr. sample	
3.3.9-1a SX PRO03	11-8-84	Failure of Daily Surv.	12 hr. sample	
4.4-1a IRY 455A	1-31-85	Vlv. leaking by	block vlv. closed	
3.3.3-1a	2-06-85	Seismic Sys. <del>inop</del> -failed BVS	restore in 30 days (3-8-85) <del>or report</del>	3-6-85
3.3.10-1a	2-5-85	IYA019 - no flow ind. (WR# )	continue for 30 days (3-7-85) estimate flow every 4 hrs.	
3.3.9-1a	3-4-85	seal replacement OPR 10 J	12 hr. sample when releasing	3-7-85

AFFECTED EQUIPMENT	LCOAR	INITIATING DATE	REASON	ACTIONS REQUIRED	DATE TERMINATED
SEISMIC	3.3.3-1a	3-15-85		RESTORE 30 DAYS OR SPECIAL REPORT 3.0.4 NA	
FIRE DETECTION ZONE 76 #11.	3.3.7-1a	3-22-85	INOP DETECTOR	14 DAY FIX OR EST. FIRE WATCH IN INP. 3.0.4 NA	
FIRE DETECTION ZONE 77	3.3.7-1a	3-27-85	INOP DETECTOR	14 DAY FIX OR EST. FIRE WATCH IN INP. 3.0.4 NA	
2A DIG ROOM CO2	7.10.3-1a	3-30-85	85-2-2385	FIRE WATCH HOURLY 3.0.4 NA	
ORE-PROOZ GAS DECAY TANK	3.3.10-1a	3-30-85	SPARKING HIGH RAD	TO RELEASE 2 SAMPLES DUAL VER. ON CALCULATION AND VLV LIT. UP TO 14 DAYS	
ORE-PROOZ OA VC TRAIN	3.3.3-1a	4-5-85	IODINE MONITOR	M/U FAN ON WK 817317 WITH DAMPERS SWITCHED OVER	
ORE-PROOZ	3.3.7-1a	4-9-85	High rad interference	TO RELEASE: 2 ind. samples, 2 ind. verif. of concentration and holding. up to 14 days 3.0.4 NA	
ISO 11A	3.2-1a	4-10-85	Repair Breaker	Restore w/ 72 HOURS	
A Train VC	7.6-1a	4-10-85	Repair Damper	Restore w/ 7 days	
2A D/B	8.1.3-1a	4-10-85	DB Flank V-2	Restore w/ 7 days	
CO2	7.10.3-1a	4-10-85	Zone 47 D/G Callbox	4/10/85 H. J. J. J.	



Commonwealth Edison

## DEVIATION REPORT

DVR NO. 06 - 1 - 85 - 86  
STA UNIT YEAR NO.

PART 1	TITLE OF DEVIATION <u>3X TRIP</u>	OCURRED DATE <u>3-29-85</u>	TIME <u>2356</u>
SYSTEM AFFECTED <u>RP</u>	PLANT STATUS AT TIME OF EVENT MODE <u>1</u> , POWER (%) <u>18</u>	WORK REQUEST NO.	TESTING <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

## DESCRIPTION OF EVENT

RX TRIP occurred at 2356 on 3-29-85 due to Pull RUC  
FLU+ RATE HIGH, when SBA group 1 node dropped into the area.  
The 14 Dept + Tech Staff were replacing a redundant 2-VPC  
power supply in power cab 2AC. The affected node are in  
power cab 1AC

POTENTIALLY SIGNIFICANT EVENT PER NSD DIRECTIVE A-07	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
10CFR50.72 NRC REG PHONE NOTIFICATION MADE	<input type="checkbox"/> 1 HOUR <input checked="" type="checkbox"/> 4 HOUR <u>4:55</u> TIME <input type="checkbox"/> NO
RESPONSIBLE SUPERVISOR <u>PJ Rth</u>	DATE <u>3-30-85</u>

## PART 2 OPERATING ENGINEER'S COMMENTS

Investigations are continuing into cause. Appears to be  
caused by slamming of Doors on Power Cabinet 1AC while  
IM's were working in Power Cabinet 2AC. The slamming  
of the doors jolted a Fuse that appears to be degraded

<input type="checkbox"/> NON REPORTABLE EVENT	NOTIFICATION	REGION III	DATE	TIME
<input checked="" type="checkbox"/> 30 DAY REPORTABLE/10CFR 50.73 a. 2.1V				
<input type="checkbox"/> 5 DAY REPORT PER 10CFR21		NSD	DATE	TIME
<input type="checkbox"/> ANNUAL/SPECIAL REPORT REQUIRED	<input type="checkbox"/> CECO CORPORATE NOTIFICATION MADE IF ABOVE NOTIFICATION IS PER 10CFR21			
A.I.R. #	TELECOPY	CECO CORPORATE OFFICER	DATE	TIME
L.E.R. #				

PRELIMINARY REPORT COMPLETED AND REVIEWED	<u>T.P. Joyce</u> OPERATING ENGINEER	<u>3/31/85</u> DATE
--	---	------------------------

INVESTIGATION REPORT & RESOLUTION  
ACCEPTED BY STATION REVIEWRESOLUTION APPROVED AND  
AUTHORIZED FOR DISTRIBUTION

STATION SUPERINTENDENT

DATE

EVENT NOTIFICATION WORKSHEET  
(Ref. BAP 1250-6, Step 7)

BAP 1250-14  
Revision 3

A. GENERAL INFORMATION: TIME OF NOTIFICATION 1:55 EVENT TIME AND ZONE: 2356 655 NRC REGION: III DATE: 3/29/85  
M D Y

L BACK NUMBER: Byron Station: (815) 234-5441 Ext 206; Other( )

FACILITY OR ORGANIZATION: Byron Station Unit 1 CALLER'S NAME: Pat Allen

B. EVENT CLASSIFICATION:

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> 50.72 (NON-EMERGENCY) | 6. <input type="checkbox"/> GENERAL EMERGENCY            |
| 2. <input type="checkbox"/> UNPLANNED RELEASE                | 7. <input type="checkbox"/> TRANSPORTATION EVENT         |
| 3. <input type="checkbox"/> NOTIFICATION OF UNUSUAL EVENT    | 8. <input type="checkbox"/> PHYSICAL SECURITY/SAFEGUARDS |
| 4. <input type="checkbox"/> ALERT                            | 9. <input type="checkbox"/> OTHER                        |
| 5. <input type="checkbox"/> SITE AREA EMERGENCY              |  |

REQ'D BY: 10 CFR

OTHER:

C. POWER REACTOR EVENT:

POWER PRIOR TO EVENT? 18 % MODE AT TIME OF REPORT? 1 POWER AT TIME OF REPORT 0 % RESIDENT INFORMED: ☒ YES ☐ NO  
TRIP? ☒ YES ☐ NO INITIATING SIGNAL? NEG RATE TRIP

SAFETY INJECTION OR ECCS? ☐ YES ☒ NO INITIATING SIGNAL?

ESF ACTUATION? ☐ YES ☒ NO EXPLAIN:

LCO ACTION STATEMENT? ☐ YES ☒ NO LCOM:

D. EVENT DESCRIPTION/CAUSE:

The neg rate trip was caused by the SBA group 1  
dropping into the core. The shift staff + I.M. dist were  
replacing a redundant power supply in the 2AC power  
cabinet & the Ps tripped as the I.M. dist. lifted a head in the  
2AC power cabinet. The rods that dropped were in power code  
1AC

RICH PLUCIEWICZ 1:10

TOM JOYCE 1:15

JULIAN HINDS 1:22

RADIOACTIVE RELEASES? ☐ YES ☒ NO QUANTIFY:

OTHER MAJOR PROBLEMS? NONE

E. PLANNED ACTIONS/PRESS RELEASES?

determine why rods in 1AC power cab- dropped

F. OUTSIDE AGENCY OR PERSONNEL NOTIFIED BY LICENSEE:

STATE(S) LOCAL

OTHER Jim Dodge 6206 B. Warden

DUTY OFFICER: GOULD

CALL BACK WITH ANY CHANGES OR ADDITIONAL INFORMATION

APPROVED

JAN 16 1985

B. O. S. R.



Commonwealth Edison  
Byron Nuclear Station  
4450 North German Church Road  
Byron, Illinois 61010

April 25, 1985

LTR: BYRON 85-0625

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Dear Sir:

The enclosed Licensee Event Report from Byron Generating Station is being transmitted to you in accordance with the requirements of 10CFR50.73(a)(2)(iv) which requires a 30 day written report.

This report is number 85-042-00, Docket No. 50-454.

Very truly yours,

R. E. Querio  
Station Superintendent  
Byron Nuclear Power Station

REQ/gt

Enclosure: Licensee Event Report No. 85-042-00

cc: J. G. Keppler, NRC Region III Administrator  
J. Hinds, NRC Resident Inspector  
INPO Record Center  
CECO Distribution List

#3/017

~~8505464515~~



# LICENSEE EVENT REPORT (LER)

Facility Name (1) <div style="text-align: center;">Byron, - Unit 1</div>	Docket Number (2) 0   5   0   0   0   4   5   4	Page (3) 1   of   0
---	--	------------------------

Title (4) Reactor Trips Due to Dropped Rods

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)
0	3	2	8	5	0	4	2	0	0	0
										0   5   0   0   0

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

LICENSEE CONTACT FOR THIS LER (12)									
Don George, System Test Engineer								Ext. 607	
								TELEPHONE NUMBER	
								AREA CODE	
								8   1   5   2   3   4   -   5   4   4	

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	
X	A	A	E   C   B   D	W   1   2   0	N						

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)

While the Unit was operating at 18% power a reactor trip occurred due to Power Range Flux Rate High on the Excore Neutron Detectors. Investigation of the Sequence of Events Recorder showed that the four rods in Shutdown Bank A Group 1 all fell causing a high negative rate. It was believed that degradation of Control Rod power fuses and missing seismic clamps on these fuses, aggravated by the slamming of a power cabinet door was the root cause of the trip. The Unit was returned to power the following day with no further effects. However, an identical trip occurred 11 days later and more extensive troubleshooting was undertaken. A faulty circuit card in the Control Rod Drive Logic Cabinet was determined to be the cause of the two trips. The card was replaced, and the rod drive system is now operating properly.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						Page (3)		
		Year	///	Sequential Number	///	Revision Number				
Byron, Unit 1	0   5   0   0   0   4   5   4	8   5	-	0   4   2	-	0   0	0   2	OF	0	

TEXT

On March 29, 1985 at 23:56 a reactor trip occurred due to a Power Range Flux Rate High Trip. The trip occurred as result of four rods from Shutdown Bank A Group 1 losing gripper coil current and falling into the core. This resulted in a high negative flux rate which tripped the unit. Again on April 10, 1985 at 13:35 an identical trip occurred with the Unit at 28%. Neither trip produced any safety concerns, since the unit shut down per design and no difficulties were encountered. The Rod Drive system is a standard Westinghouse system.

After the trip on March 29, maintenance personnel inspected the fusing in power cabinet 1AC (the cabinet from which the rods were dropped). It was found that three of the fuses were open circuits, and there was an oxide coating on most of them which could prevent proper contact and introduce resistance. Also, the absence was noted of several seismic clip clamps designed to secure the fuses to their holders and provide proper contact. At the same time as the trip, maintenance personnel were replacing a redundant power supply in cabinet 2AC, the cabinet adjacent to the one which dropped the rods (1AC). It was believed that when an individual slammed the 1AC cabinet door, that this jogged the loose fuses and caused the rods to drop. This root cause was shown to be incorrect on 4-10 when the unit again tripped from the same rods dropping.

After the second trip, maintenance personnel again inspected the fusing in the power cabinets. This time nothing was found to be wrong with any fuses. Additional investigation yielded the possibility that a modification to the Rod Drive System, which allows for the dropping of a group of rods for rod drop timing, was actuating and allowing the rods to drop. As a precaution, the leads to this modification were lifted in all five power cabinets and preparations were made to return to power. During this preparation the reactor trip breakers were closed to check out the rod drive system and a failure alarm came up on the power cabinet which originally dropped the rods (1AC). The failure alarm was traced to a component failure on a control card in the Logic cabinet. This failure provided signal to a group of rods in the 1AC power cabinet (the same ones which dropped) which demands zero current through the gripper coils causing the rods to drop. The control card was failing intermittently prior to its final failure which is why the cause could not be found originally.

Hence, in addition to lifting the rod drop modification leads, the failed circuit card in the Logic cabinet was replaced. Also seismic clip clamps were properly installed on all the power fuses. The Unit was returned to power and the rod drive system is operating properly.

Previous occurrences: None



Commonwealth Edison

## DEVIATION REPORT

DVR NO. 06 - 01 - 85 - 105  
STA UNIT YEAR NO.

PART 1 TITLE OF DEVIATION

REACTOR TRIPS DUE TO DROPPED RODS

OCCURRED

4-10-85

1335

DATE

TIME

SYSTEM AFFECTED

NI

PLANT STATUS AT TIME OF EVENT

B17497

TESTING

MODE 1, POWER(%) 28

WORK REQUEST NO.

☐ YES ☐

DESCRIPTION OF EVENT

Shutdown bank A Group 1, rods D02 and B12 dropped initiating a RX trip on negative rate.

POTENTIALLY SIGNIFICANT EVENT PER NSD DIRECTIVE A-07

☐ YES☒ NO

10CFR50.72 NRC RED PHONE NOTIFICATION MADE

☐ 1 HOUR☒ 4 HOUR 1425☐ NO

TIME

W. Kouba

4-10-85

RESPONSIBLE SUPERVISOR

DATE

PART 2 OPERATING ENGINEER'S COMMENTS

Root cause determination investigation is in progress.

☐ NON-REPORTABLE EVENT☒ 30 DAY REPORTABLE 10CFR 50.73

(a)(2)(iv)

☐ 5 DAY REPORT PER 10CFR21☐ ANNUAL/SPECIAL REPORT REQUIRED

NOTIFICATION

REGION 111

DATE

TIME

NSD

DATE

TIME

☐ CECO CORPORATE NOTIFICATION MADE IF ABOVE NOTIFICATION IS PER 10CFR21

TELECOPY D.P. Galle

4-12-85

1630

CECO CORPORATE OFFICER

DATE

TIME

A.I.R. #

L.E.R. # 85-042-00

PRELIMINARY REPORT COMPLETED AND REVIEWED

T.J. Tulon

4-11-85

OPERATING ENGINEER

DATE

INVESTIGATION REPORT &amp; RESOLUTION ACCEPTED BY STATION REVIEW

D.B. Smith 4/25/85

J. J. Malone 4-25-85

J. J. Malone 4/25/85

RESOLUTION APPROVED AND AUTHORIZED FOR DISTRIBUTION

STATION SUPERINTENDENT

4-25-85

DATE



Commonwealth Edison

## DEVIATION REPORT

DVR NO. 06- 1 - 85 - 86  
STA UNIT YEAR NO.

PART 1 TITLE OF DEVIATION

REACTOR TRIPS DUE TO DROPPED RODS

OCCURRED

3-29-85

2356

SYSTEM AFFECTED

RP

PLANT STATUS AT TIME OF EVENT

MODE 1, POWER(%) 18

WORK REQUEST NO.

TESTING

☐ YES☒ NO

DESCRIPTION OF EVENT

RX trip occurred at 2356 on 3-29-85 due to PWR RNE FLUX RATE HIGH, when SBA group 1 rods dropped into the core. The IM Dept. and Tech Staff were replacing a redundant 24 VDC power supply in power cab 2AC. The affected rods are in power cab 1AC

POTENTIALLY SIGNIFICANT EVENT PER NSD DIRECTIVE A-07

☐ YES☒ NO10CFR50.72 NRC RED PHONE  
NOTIFICATION MADE☐ 1 HOUR☒ 4 HOUR 01:55☐ NO

P.L. Allen

RESPONSIBLE SUPERVISOR

3-30-85

DATE

PART 2 OPERATING ENGINEER'S COMMENTS

Investigations are continuing into cause. Appears to be caused by slamming of doors on Power Cabinet 1AC while IM's were working in Power Cabinet 2AC. The slamming of the doors jolted a fuse that appears to be degraded.

☐ NON REPORTABLE EVENT☒ 30 DAY REPORTABLE/10CFR 50.73.

(a)(2)(iv)

☐ 5 DAY REPORT PER 10CFR21☐ ANNUAL/SPECIAL REPORT REQUIRED

NOTIFICATION

REGION III

DATE

TIME

NSD

DATE

TIME

☐ CECO CORPORATE NOTIFICATION MADE  
IF ABOVE NOTIFICATION IS PER 10CFR21

TELECOPY

CECO CORPORATE OFFICER

DATE

TIME

A.I.R. #

L.E.R. # 85-042-00

PRELIMINARY REPORT  
COMPLETED AND REVIEWED

T.P. Joyce

OPERATING ENGINEER

3-31-85

DATE

INVESTIGATION REPORT & RESOLUTION  
ACCEPTED BY STATION REVIEW

D. B. Smith 4/25/85

M. J. Smith 4-25-85

J. A. L. 4/25/85

RESOLUTION APPROVED AND  
AUTHORIZED FOR DISTRIBUTION

STATION SUPERINTENDENT

4-25-85

DATE



Commonwealth Edison

## DEVIATION REPORT

DVR NO. 06 - A - 85 - 105  
STA UNIT YEAR NO.

PART 1	TITLE OF DEVIATION <u>Multiple Rod Drop</u>	OCCURRED <u>4-10-85</u> <u>1335</u> DATE TIME
SYSTEM AFFECTED <u>NI</u>	PLANT STATUS AT TIME OF EVENT MODE <u>1</u> POWER (%) <u>28</u>	WORK REQUEST NO. <u>B17497</u>
DESCRIPTION OF EVENT		TESTING <input type="checkbox"/> YES <input type="checkbox"/> NO

Shutdown bank A Group 1, Rods D02 and B12 dropped initiating a Rx Trip on negative rate.

POTENTIALLY SIGNIFICANT EVENT PER NSD DIRECTIVE A-07 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	10CFR50.72 NRC REG PHONE NOTIFICATION MADE <input type="checkbox"/> 1 HOUR <u>4:25</u> <input type="checkbox"/> NO <input checked="" type="checkbox"/> 4 HOUR TIME	RESPONSIBLE SUPERVISOR <u>W. Houben</u> <u>4-10-85</u> DATE
---	--	---

## PART 2 OPERATING ENGINEER'S COMMENTS

Root cause determination investigation is in progress

<input type="checkbox"/> NON REPORTABLE EVENT	NOTIFICATION	REGION III	DATE	TIME
<input checked="" type="checkbox"/> 30 DAY REPORTABLE/10CFR <u>50.73</u> <u>(4)(2)(iv)</u>				
<input type="checkbox"/> 5 DAY REPORT PER 10CFR21		NSD	DATE	TIME
<input type="checkbox"/> ANNUAL/SPECIAL REPORT REQUIRED				
A.I.R. #	CECO CORPORATE NOTIFICATION MADE IF ABOVE NOTIFICATION IS PER 10CFR21			
L.E.R. #	TELECOPY <u>D.P. Calle</u> <u>4-10-85</u> <u>1630</u> CECO CORPORATE OFFICER DATE TIME			

PRELIMINARY REPORT COMPLETED AND REVIEWED	<u>W. Houben</u> <u>4-11-85</u> OPERATING ENGINEER DATE
---	--

INVESTIGATION REPORT & RESOLUTION ACCEPTED BY STATION REVIEW	
--	--

RESOLUTION APPROVED AND AUTHORIZED FOR DISTRIBUTION

STATION SUPERINTENDENT

DATE