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DATE: March 5, 1996

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

Subject: McGuire Nuclear Station Unit 1 and 2
Docket No. 50-369

Licensee Event Report 369/96-02, Revision 0
Problem Investigation Process No.: 1-M96-0326

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a) (1) and (d), attached is Licensee Event Report 369/96-02, Revision 0, concerning an Inadvertent Manual Feedwater Isolation on Unit 1. This report is being submitted in accordance with 10 CFR 50.73 (a) (2) (iv). This event is considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

T.C. McMeekin

JWP/bcb

Attachment

cc: Mr. S.D. Ebneter
Administrator, Region II
U.S. Nuclear Regulatory Commission
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Suite 1500
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Mr. Victor Nerses
U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
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Mr. George Maxwell
NRC Resident Inspector
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NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| McGuire Nuclear Station, Unit 1 | 05000369 | 1 Of 5 |

TITLE (4)
Inadvertent Manual Initiation of A Unit 1 Feedwater Isolation Due To An Inappropriate Action

| 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 NAME | DOCKET NUMBER(S) |
| | | | | | | | | | N/A | 05000 |
| 02 | 04 | 96 | 96 | - 002 | - 0 | 03 | 05 | 96 | | 05000 |

| OPERATING MODE (9) | 3 | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (Check one or more of the following) (11) | | | | | |
|---|---|---|---|---|---|---|---|
| POWER LEVEL (10) | 0 | 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 in |
| | | 20.405(a)(1)(iii) | 50.73(a)(2)(i) | | 50.73(a)(2)(viii)(A) | | Abstract below and |
| | | 20.405(a)(1)(iv) | 50.73(a)(2)(ii) | | 50.73(a)(2)(viii)(B) | | in Text, NRC Form |
| | | 20.405(a)(1)(v) | 50.73(a)(2)(iii) | | 50.73(a)(2)(x) | | 366A) |

LICENSEE CONTACT FOR THIS LER (12)

| NAME | TELEPHONE NUMBER | |
|---|---|---|
| | AREA CODE | |
| J. W. Pitesa | (704) | 875-4788 |

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

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPRDS | | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPRDS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NO | | | | | | | |
| | | | | | | | | | | | |

| 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)

**Unit Status:** Unit 1 - Mode 3 (Hot Standby) at 0 percent power.

**Event Description:** On February 4, 1996, at approximately 0957, Operations (OPS) personnel were preparing to return Unit 1 to service. During the process of closing the Reactor Trip Breakers (RTBs), a Reactor Operator (RO) was to assist the Unit 1 Reactor Operator At the Controls and the Balance Of Plant (BOP) Operator in the evolution by depressing and holding the Train A and Train B Main Feedwater (CF) Isolation "RESET" pushbuttons. An "INITIATE" pushbutton was inadvertently depressed, causing a CF system isolation. The event was not initially determined to be reportable as a manual Engineered Safety Features actuation. As a result the 4 hour NRC notification was not made within the specified time.

**Event Cause:** This event was caused by inadequate self-checking by the RO. The RO initially verified the correct controls. The RO turned to communicate with the BOP operator, then simultaneously depressed the pushbuttons without re-verifying the correct controls. As a result the Train B CF Isolation "INITIATE" pushbutton was inadvertently depressed.

**Corrective Action:** OPS Management will evaluate depressing and holding the Train A and Train B CF Isol. "RESETs" one at a time (such that both RESETs are held in the depressed position), then manipulating the RTBs, to allow self checking of each individual action.

EVALUATION:

Description of Event

**On February 4, 1996, at approximately 0957, Unit 1 was in Mode 3 (Hot Standby) at 0 percent power. Operations (OPS) personnel were preparing to return Unit 1 to service following a manual Reactor [EIIS:RCT] trip on February 3, 1995 (LER 369/96-01).**

- Unit 1 Control Room [EIIS: NA] (CR) personnel were preparing to pull shutdown banks per procedure OP/1/A/6100/03, Controlling Procedure For Unit Operation and procedure OP/1/A/6150/08, Rod Control.

- A Reactor Operator (RO) was preparing to assist the Unit 1 Reactor Operator At the Controls (ROATC) and Balance Of Plant (BOP) Operator in closing the Reactor Trip Breakers (RTBs), by depressing and holding the Main Feedwater [EIIS: SJ](CF) system Isolation (Isol.)"RESET" pushbuttons.

- The RO verified correct hand positioning to simultaneously depress the Train A and Train B CF Isol "RESET" pushbuttons.

- The RO then turned to the BOP operator to confirm readiness to close the RTBs.

- Upon receiving confirmation that the BOP Operator was ready, the RO correctly depressed the Train 1A CF Isol. "RESET" pushbutton and inadvertently depressed the Train 1B CF Isol. "INITIATE" pushbutton.

- Unit 1 CR personnel immediately noted that the Status Lights for CF Isol. were lit.

- The RO, with concurrence from the CR Senior Rector Operator (SRO), reset the CF Isol.

- The CF system was then restored to the pre-isolation alignment.

- The CR SRO, along with the Unit 1 ROATC, BOP Operator, and the RO determined the isolation did not meet the NRC 4 hour notification requirement.

- Later in the shift, at approximately 1830 hours, the Operations Shift Manager (OSM) reviewed procedure RP/0/A/5700/10, NRC Immediate Notification Requirements, and concluded the CF Isol. was reportable as a manual Engineered Safety Feature (ESF) actuation.

- A late 4 hour notification of the NRC was made at 1835 hours.

Conclusion

**This event did not result in any uncontrolled releases of radioactive material, personnel injuries, or radiation overexposures. The event is not Nuclear Plant Reliability Data System (NPRDS) reportable.**

The primary cause of this event is an Inappropriate Action, Error Detection Practices, because self-checking was not applied to ensure the intended action was correct.

- The RO initially verified proper hand positioning to confirm the correct controls were about to be manipulated.

- However, after communicating with the BOP Operator, the RO neglected to recheck the controls to be manipulated, prior to depressing the CF Isol. "RESET" pushbuttons.

- This resulted in the inadvertent depression of the Train 1B CF Isol. "INITIATE" pushbutton.

- The RO had performed this task numerous times in the past and was very comfortable with the action to be performed.

- As a result, the RO was overconfident and did not recognize the need to re-verify the actions to be taken.

A cause of System/Component Functional Design Deficiency is also assigned to this event.

- Manipulation of the RTBs can result in an unwanted CF Isol.

- To prevent an unwanted CF. Isol., an additional operator is used to depress and hold the CF Isol "RESET" pushbuttons.

- This action is taken in order to block an unwanted CF Isol. signal, since an actual control capability to block an unwanted CF Isol. signal is not available for use during manipulation of the RTBs.

A cause of Inadequate Work Practices, because required procedures were not used, is assigned to the failure to report this event as a manual ESF actuation in the required 4 hour time frame.

- At the time of the event the CR SRO did not refer to procedure RP/0/A/5700/10 and did not inform the OSM of the CF Isol.

- The CR SRO did not consider the inadvertent CF Isol. to be a valid ESF actuation.

- The CF Isol. resulted from an error and was not initiated to mitigate any actual plant transient/condition.

- Therefore, the event was initially judged not to be significant and not reportable.

A review of the Operating Experience Program (OEP) and Problem Investigation Process (PIP) data bases for the past 24 months revealed no similar reportable events associated with a manual Engineered Safety Features Actuation as a result of inadequate self checking. This event is not considered to be recurring.

CORRECTIVE ACTION:

Immediate:

1. Unit 1 Control Room personnel reset the CF Isol. and realigned the CF system per the procedure in effect at the time of the event.

Subsequent:

1. The Shift OSM has reinforced the expectation that the OSM be involved any time there is a reportability question.

Planned:

1. OPS Management will reinforce use of STAR to OPS personnel.

2. OPS Management will reinforce the expectation that the OSM be involved any time there is a reportability question to OPS personnel.

3. OPS personnel will evaluate the following items:

- The feasibility of depressing and holding the Train A and Train B CF Isol. "RESETs" one at a time to allow self checking of each individual action (such that both RESETs are held in the depressed position), then manipulating the RTBs.

- Removal of the switch guard (collar) while depressing the "RESET" to permit better access to the pushbuttons.

- The use of a clear collar (versus red) to make the RESET pushbutton clearly visible, if it is not desirable to remove the collar each time this control is used.

4. Engineering personnel (in conjunction with OPS personnel) will evaluate potential modifications to lessen operator burden associated with the manipulation of the CF Isolation "RESET" pushbuttons.

SAFETY ANALYSIS:

**Based on this analysis, this event is not considered to be significant. At no time were the health and safety of the public or plant personnel affected as a result of this event.**

- The Unit 1 Control Room Operators promptly recognized that an inadvertent CF Isol. had occurred and initiated action to reset the isolation and realign the CF system in accordance with the procedures in effect.

- The CF system responded as expected following initiation of the CF Isol, with the affected valves [EIIS: V] moving to their safety position during the isolation.

- No plant transients resulted from this event.