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Kevin Bronson
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JAFP-11-0032
March 10, 2011

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

SUBJECT: LER: 2011-002-00, Failure to Isolate the Reactor Building Results in a Condition Prohibited By Technical Specifications
James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
License No. DPR-59

Dear Sir or Madam:

This report is submitted in accordance with 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications...".

There is no commitment contained in this report.

Questions concerning this report may be addressed to Mr. Joseph Pechacek, Licensing Manager, at (315) 349-6766.

Sincerely,

Kevin Bronson
Site Vice President

KB/JP/jo

Enclosure: LER: 2011-002-00, Failure to Isolate the Reactor Building Results in a Condition Prohibited By Technical Specifications

cc:
USNRC, Region 1
USNRC, Resident Inspector
USNRC, Project Directorate
INPO

Document Components:
001 Transmittal Letter with Enclosure

NRC FORM 366 (10-2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
James A. FitzPatrick	05000333	1 OF 4

4. TITLE

Failure to Isolate the Reactor Building Results in a Condition Prohibited by Technical Specifications

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
									N/A	N/A
01	11	2011	2011	– 002 –	00	03	10	2011	FACILITY NAME N/A	DOCKET NUMBER N/A

9. OPERATING MODE

01

10. POWER LEVEL

100

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
☐ 20.2203(a)(2)(vi)	☒ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
Mr. Joseph Pechacek, Licensing Manager	315-349-6766

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

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On January 11, 2011, with the "A" Refueling Floor Exhaust Radiation Monitor inoperable, the required action for Technical Specification (TS) 3.3.6.2 Condition A was not met within the required completion time of 24 hours. In addition, the required actions for TS 3.3.6.2 Condition C were also not met within the completion time of 1 hour after the action for Condition A was not completed. The failure to perform the TS required actions within the required completion times resulted in a condition prohibited by the TS which is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

The apparent cause of this event is that control room personnel failed to verify that the actual plant configuration matched the configuration needed to remain compliant with the TS. Immediate corrective actions included isolating the reactor building ventilation system to restore compliance with the TS and briefing the operating crews on the error prior to assuming future watch standing duties. The briefings were conducted by operations management who also reinforced expectations regarding shirt turnover and TS compliance. Additionally, active LCOs are now visibly posted in the control room. Planned corrective actions include providing additional training and simulator scenarios on configuration control.

NARRATIVE

EVENT DESCRIPTION

At 0837, January 11, 2011, with the "A" Refueling Floor Exhaust Radiation Monitor (17RM-456A) [EIIS System Identifier: IL] inoperable, the required action for Technical Specification (TS) 3.3.6.2 Condition A was not met within the required completion time of 24 hours. In addition, the required actions for TS 3.3.6.2 Condition C were also not met within the completion time of 1 hour after Condition A was not met. The failure to perform the TS required actions within the required completion time resulted in a condition prohibited by the TS which is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

SEQUENCE OF EVENTS

On January 10, 2011, at 0837, TS Limiting Condition for Operation (LCO) 3.3.6.2 Condition A was entered because 17RM-456A was removed from service to support planned maintenance on the "A" Refuel Floor Exhaust Monitor Rack Sample Pump (17P-32A). TS LCO 3.3.6.2 Condition A requires placing the channel in trip within 24 hours whenever one channel of the Refuel Floor Exhaust Monitor is inoperable. If Condition A is not met, Condition C requires one of the following within one hour: (1) Isolate the associated secondary containment penetration flow path, i.e. isolate the Reactor Building Ventilation System (RBVS) [EIIS System Identifier: NG], or (2) declare the associated secondary containment isolation valves inoperable. Either option requires placing the associated Standby Gas Treatment (SGT) [EIIS System Identifier: BH] Subsystem in operation or declaring the associated SGT subsystem inoperable. Isolating the RBVS is the preferred action because it limits the impact associated with placing the channel in trip and precludes entry into a shutdown action statement.

Earlier that morning, I&C personnel were performing Reactor Protection System (RPS) [EIIS System Identifier: JC] testing and relay calibrations. Those activities required having the RPS powered from the alternate source. The procedure to transfer RPS power to an alternate source also requires the RBVS to be isolated. These activities were unrelated to the planned maintenance on 17P-32A, but resulted in the same RBVS configuration that was required for maintenance on 17P-32A.

Shortly thereafter at 0837, radiation monitor 17RM-456A was removed from service for maintenance on sample pump 17P-32A; this was tracked by active LCO 1-10-0239 in the Electronic Shift Operations Management System (ESOMS) LCO module. The Field Support Supervisor (FSS) took credit for the RBVS being isolated and at 0930, signed off the required action for TS 3.3.6.2 Condition A as being complete in the ESOMS LCO Module. At this time Condition C should have also been signed off as complete since the RBVS isolation was being credited for meeting the LCO requirements. At 1230, the RPS power supply bus transfer to the alternate source was complete and the RBVS was unisolated and restored to service. However, ESOMS still reflected the required actions for TS 3.3.6.2 as complete.

On the following day, January 11, 2011, the RPS work activities were complete and the alternate power source was no longer needed. At 1033, the RBVS was isolated so the RPS power could be transferred back to the normal source. At 1155, the "A" RPS was back on the normal power supply and the RBVS was un-isolated and restarted. Later that afternoon, a work control supervisor noticed that the RBVS was operating while 17RM-456A was still inoperable. The work control supervisor immediately notified the control room. The control room immediately took action to isolate the RBVS. Based on entering Condition A at 0837 the previous day, the required action for Condition A (place channel in trip) should have been complete by 0837 on January 11, 2011 or the actions for Condition C complete within an additional hour. However, the RBVS was not isolated until 1457.

NARRATIVE

EXTENT OF CONDITION

All active LCO's were reviewed in the ESOMS LCO module. All were verified to be in compliance with Technical Specifications and there were no other deficiencies identified.

CAUSE OF EVENT

The apparent cause of this event is that the control room and field support supervisors failed to verify that the RBVS needed to remain isolated in order to remain compliant with the Technical Specifications.

Since this condition existed throughout two shift turnovers, a contributing cause was that – during shift turnover – there was a lack of self checking to ensure that the actual plant configuration required for 17RM-456A being inoperable matched the actions signed for in the ESOMS Module. As part of the pre-shift brief and turnover, each licensed operator reviews the LCO log and performs a control room panel walkdown. One of the panels provides the status of the RBVS. The two shift turnovers were missed opportunities to identify the condition prior to violating TS requirements.

SAFETY CONSEQUENCES

Actual

There were no actual industrial, radiological, or nuclear safety consequences during or as a result of this event.

Potential

There are no potential industrial or radiological safety concerns as a result of this condition. This issue deals with a missed Technical Specification required action that does not have any industrial or radiological safety implications. The potential nuclear safety consequences are minimal and are explained in the following paragraphs.

The purpose of the "A" Refueling Floor Exhaust Radiation Monitor is to generate a trip signal upon detecting high exhaust radiation levels on the refueling floor. High secondary containment exhaust radiation is an indication of possible gross failure of the fuel cladding and may originate from the refuel floor due to a refueling accident. The trip signal would isolate the RBVS and start the SGT System thus limiting any fission produce releases during a design basis accident (DBA).

The failure to take the required actions for one channel being inoperable per TS 3.3.6.2 increases the potential nuclear safety risk because the ability to isolate the secondary containment and start the SGT System cannot be ensured. However this risk was minimal because:

(1) The "B" Refueling Floor Exhaust Radiation channel (17RM-456B) was operable during this event and would have provided the isolation function if required. In addition, if 17RM-456B were to lose power or fail downscale, a reactor building ventilation isolation would have occurred and the SGT system would have started. Also, the reactor building operator takes rounds on the Refuel Floor Exhaust Radiation Monitor every shift to ensure that it is reading properly – an equipment failure would be quickly detected.

NARRATIVE

(2) As noted earlier, the Refuel Floor Exhaust Radiation Monitors would primarily detect high secondary containment exhaust radiation from the refuel floor that would be as a result of a refueling accident. Since the plant was operating in MODE 1 with no refueling activities and no operations with a potential for draining the vessel, the nuclear safety risk associated with a fuel cladding failure originating from a refueling accident were non-existent.

PREVIOUS SIMILAR EVENTS

A review of LER's and condition reports for the previous 6 years found two similar events: LER-05-001-00 and CR-JAF-2010-6556. While LER-05-001-00 was reported as a condition prohibited by the technical specifications, it was not relevant to the cause described in this LER because the failure to take the required TS actions was as a result of misinterpreting the TS requirements.

CR-JAF-2010-6556 documents a valve found out of position which went unnoticed for some time. This issue is similar to this LER in that they both reflect improper equipment line-up or restoration that resulted in loss of equipment status control. A corrective action was created to provide a dynamic learning activity in the simulator to reinforce expected system line-ups to ensure proper status control.

CORRECTIVE ACTIONS

Completed Actions

- The RBVS was isolated and the SGT system started; restoring compliance with TS LCO 3.3.6.2.
- Operations management conducted stand-down briefings with the operating crews and licensed operator day staff.
- Operations management also discussed this event with the crews involved with the event order to reinforce expectations regarding turnover and TS compliance.
- Active LCOs were visibly posted in the control room.

Open Actions

- Develop and schedule training for operators such that the importance of verification of configuration control, expected conditions, and equipment line-ups is reinforced; and to increase Senior Reactor Operator knowledge of LCO tracking and equipment status control procedures.
- Develop an administrative procedure to control the configuration of TS related equipment.
- Develop an expectation of when an Update Brief should be used.

REFERENCES

- JAF Condition Report, CR-JAF-2011-00189
- Technical Specification (and Bases) 3.3.6.2, Secondary Containment Isolation Instrumentation