Exelon Generation Company, LLC
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10 CFR 50.73

September 30, 2013
BW130088

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Braidwood Station, Unit 1
Facility Operating License No. NPF-72
NRC Docket No. STN 50-456

Subject: Licensee Event Report 2013-001-00 – Inadequate Operability Determination Procedure Guidance Results in Inadvertent Missed Technical Specification Action for Diesel Generator

The enclosed Licensee Event Report (LER) is being submitted in accordance with 10 CFR 50.73, "Licensee Event Report System."

There are no regulatory commitments contained in this letter. Should you have any questions concerning this submittal, please contact Mr. Chris VanDenburgh, Regulatory Assurance Manager, at (815) 417-2800.

Respectfully,

Mark E. Kanavos
Site Vice President
Braidwood Station

Enclosure: LER 2013-001-00

cc: NRR Project Manager – Braidwood Station
Illinois Emergency Management Agency – Division of Nuclear Safety
NRC Regional Administrator, Region III
NRC Senior Resident Inspector (Braidwood Station)
Illinois Emergency Management Agency – Braidwood Representative

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

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

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

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4. TITLE

Inadequate Operability Determination Procedure Guidance Results in Inadvertent Missed Technical Specification Action for Diesel Generator

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
08	01	2013	2013	- 001 -	00	09	30	2013	FACILITY NAME: N/A	DOCKET NUMBER: N/A

9. OPERATING MODE

1

10. POWER LEVEL

100

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

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☒ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
Chris VanDenburgh, Regulatory Assurance Manager	(815) 417-2800

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
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED

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

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR
N/A	N/A	N/A

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

On August 1, 2013 at 1345, a through wall leak was observed on the Essential Service Water return line from the 1A Diesel Generator at a 90 degree horizontal elbow. Initial operability was determined to be supported based on the condition of the pipe and the assessment that the flaw was a localized pinhole.

It was later determined that based on the location of the flaw (on an elbow fitting), ASME Code Case 513-3 did not apply and Diesel Generator operability could not be supported. Due to the initial assessment of operability, Operations did not perform the Technical Specification (TS) 3.8.1 required 1 hour and 8 hour Diesel Generator availability TS Surveillance Requirements (SR) at the time of discovering the leak. The performance of the TS SRs is to verify the correct breaker alignment and indicated power availability for each required qualified circuit.

The cause of this event was determined to be the complexity of applying the procedure OP-AA-108-115, "Operability Determinations" section on ASME flaw evaluation/Class 1, 2 and 3 leakage.

Corrective actions to prevent recurrence include revising the Operability Determination procedure, OP-AA-108-115, to provide clearer guidance when applying the requirements of ASME Code Case 513-3.

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A. Plant Operating Conditions Before the Event:

Event Date: August 1, 2013

Unit: 1 MODE: 1 Reactor Power: 100 percent

Unit 1 Reactor Coolant System [AB]: Normal operating temperature and pressure

No structures, systems or components were inoperable at the start of this event that contributed to the event.

B. Description of Event:

On August 1, 2013 at approximately 1345 an Equipment Operator identified a pinhole leak on pipe 1SX27DA-10", the 1A Diesel Generator (DG) [EK] heat exchanger Essential Service Water (SX) [BI] return isolation line. The station assessment of immediate operability concluded that the 1SX27DA-10" line was operable but degraded. Operations requested that a formal operability determination be performed by Site Engineering. This initial operability conclusion was based on the interpretation of ASME Code Case 513-3.

On August 2, 2013 at 1040, the station was notified by Site Engineering that based on the location of the flaw (on an elbow fitting), ASME Code Case 513-3 did not apply and DG and SX operability could not be supported. Operations immediately entered Technical Specification (TS) Limiting Condition for Operations (LCO) 3.7.8 - Essential Service Water (SX) System (Condition A), 3.8.1 - AC Sources-Operating (Condition B), and Technical Requirements Manual (TRM) 3.0.c.

On August 2, 2013 at 1049, Operations started the performance of 1BwOSR 3.8.1.1, "Unit One Offsite AC Power Availability Surveillance" due to the LCO entry for TS 3.8.1, Condition B. The surveillance was completed satisfactorily at 1057 the same day.

On August 3, 2013 at 1328, Operations exited TRM 3.0.c, and LCO 3.7.8 - Condition A.

On August 3, 2013 at 2137, after the pinhole leak was repaired, the 1SX169A valve (1A Diesel Generator, Essential Service Water supply line) was opened per applicable step of 1BwOSR 3.8.12.2-1 and the required SX flow was verified through the 1A Diesel Generator. At this time, the 1A DG was declared operable and Operations exited LCO for TS 3.8.1, Condition B.

The Technical Specification LCO 3.8.1, for the 1A DG should have been entered on August 1, 2013 at 1345 which was the point of discovery. When the 1A DG was initially declared inoperable on August 2, 2013 at 1040, required TS 3.8.1 Condition B Required Actions were not completed on August 1, 2013. TS 3.8.1 Condition B requires SR 3.8.1.1 be completed for each required operable qualified circuit within one hour of entering the condition and then once per eight hours thereafter. Subsequent Completion Times per this technical specification (once per 8 hours thereafter) were also not completed until August 2, 2013 at 1057.

This event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B), any operation or condition which is prohibited by the plant's Technical Specifications due to TS 3.8.1 Condition B Required Action not being completed within the Completion Time.

C. Cause of Event

The delay in determining of inoperability was due to the complexity of applying the procedure OP-AA-108-115, "Operability Determinations" section on ASME flaw evaluation/Class 1, 2 and 3 leakage. Application of OP-AA-108-115, Attachment 3 would conclude that the system is operable based on reasonable expectation of operability. The basis for acceptability of ASME Code Case N-513-3 was founded in failure testing of straight pipe, not specialty fittings. A wrought elbow is considered a fitting, and not a straight pipe. Upon re-evaluation of the limitations of use for N-513-3, and subsequently Generic Letter 90-05 (also limited to straight pipe based on site's interpretation of the ASME Code), a decision was made to reverse the immediate operability conclusion and consider the SX pipe system associated with the 1A DG inoperable. This event, where the leakage was located in a fitting was not clearly excluded by the existing Exelon Operability decision flowchart in Attachment 3 of OP-AA-108-115. Additionally, the verbiage of OP-AA-108-115 indicates other analytical methods may be used to demonstrate structural integrity and consider the system operable but degraded until relief is obtained from the regulator.

D. Safety Consequences:

This condition had no actual safety consequences impacting plant or public safety.

The worst case scenario, (i.e., a complete flooding of the turbine building with a loss of both Unit 1 DGs combined with a Loss of Offsite Power resulting from the trip of the units), represents the equivalent of a station blackout. Braidwood Generating Station is able to withstand and recover from a station blackout of four hours in accordance with the requirements of Regulatory Guide 1.155, "Station Blackout." In the event of a station blackout, either one of the two Unit 2 DGs can serve as an alternate a-c power source for Unit 1. The alternate a-c power source is available within 10 minutes of the onset of the station blackout event and has sufficient capacity and capability to operate equipment necessary to safely shutdown both Unit 1 and Unit 2 and maintain the units in a safe shutdown condition. During the subject event, both Unit 2 DGs were operational and available to provide an alternate a-c power source to Unit 1.

The DG Technical Specifications verify the other diesel generators are available for use in a Loss of Offsite Power event. There were no Loss of Offsite Power events between August 1, 2013 and August 2, 2013, nor were the diesel generators required for use. Therefore, there were no safety consequences that resulted from this event.

The 1B DG was available if required.

E. Corrective Actions:

Corrective actions to prevent recurrence:

- Revise the Operability Determination procedure, OP-AA-108-115, to provide improved clarity when assessing ASME Code Case 513-3 issues.
- The pipe was repaired and verified not to leak

F. Previous Occurrences:

No previous, similar Licensee Event Reports were identified at the Braidwood Station.

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G. Component Failure Data:

Manufacturer	Nomenclature	Model	Mfg. Part Number
N/A	N/A	N/A	N/A