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March 29, 2010

L-10-088

ATTN: Document Control Desk
United States Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT:

Davis-Besse Nuclear Power Station, Unit 1
Docket Number 50-346, License Number NPF-3
Reply to a Notice of Violation; EA-09-283

This letter provides the FirstEnergy Nuclear Operating Company's (FENOC) response to the notice of violation contained in Nuclear Regulatory Commission (NRC) Inspection Report 2010-502, dated February 25, 2010, for the Davis-Besse Nuclear Power Station (DBNPS).

A special inspection, conducted on-site August 4 through 6, 2009, reviewed activities surrounding a June 25, 2009, Coupling Capacitor Potential Device (CCPD) failure in the switchyard at the DBNPS. Specifically, this inspection was performed to review the event and FENOC's actions in response to the CCPD failure and subsequent transitory Alert declaration in accordance with the DBNPS Emergency Plan. NRC Inspection Report 2010-502 identified a violation categorized as having low to moderate safety significance. FENOC's reply to this violation is attached.

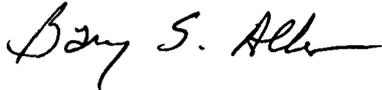
This event was entered into the DBNPS Corrective Action Program. The investigation has been completed and corrective actions have been developed. The DBNPS hereby notifies the NRC that the event evaluation and corrective actions are ready for NRC follow-up inspection.

IEDI
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There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Dale R. Wuokko, Site Regulatory Compliance Manager, at (419) 321-7120.

Sincerely,



Barry S. Allen

JCS

Attachment: Reply to Notice of Violation; EA-09-283

cc: Regional Administrator, NRC Region III
DB-1 NRC Senior Resident Inspector
DB-1 NRC/NRR Project Manager
Utility Radiological Safety Board

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Restatement of Violation

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted on August 4 through 6, 2009, with additional review through November 23, 2009, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 CFR 50.54(q) requires, in part, that a holder of a nuclear power reactor operating license under this part shall follow emergency plans which meet the standards in 10 CFR 50.47(b).

Title 10 CFR 50.47(b)(4) requires, in part, that the nuclear facility licensee have a standard emergency classification and action level scheme in use, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Davis-Besse Nuclear Power Station Emergency Plan, Section 2.6.1, states, in part, "Detailed actions to be taken by individuals in response to onsite emergency conditions are described in the Emergency Plan Implementing Procedures."

Davis-Besse Nuclear Power Station Emergency Plan Implementing Procedure, RA-EP-01500, "Emergency Classification," Revision 10, Section 6.1.1 requires, in part, that when indications of abnormal occurrences are received by the Control Room staff, the Shift Manager shall verify the indications of the off normal event or reported sighting, assess the information available from valid indications or reports, and classify the situation.

Davis-Besse Emergency Plan Table of Emergency Action Level Conditions for 'Explosion' under the 'Hazards to Station Operations' category requires, in part the declaration of an Alert for an onsite explosion affecting plant operations in all modes with the: (1) control room being informed by station personnel who have made a visual sighting; and (2) instrumentation readings on plant systems indicating equipment problems.

Contrary to the above, on June 25, 2009, from 00:50 to 01:47 hours, the Shift Manager failed to verify the indications of the off-normal event or reported sighting, assess the information available from valid indications or reports of an explosion, and classify the situation as an Alert in accordance with the Davis-Besse Emergency Plan Table of Emergency Action Level Conditions during an actual event. Specifically, the valid indications and reports included: (1) the control room being informed by security personnel of a visual sighting of an explosion in the switchyard; (2) instrumentation readings and annunciators in the control room that indicated the loss of the 'J' bus; and (3) onsite field reports from the equipment

operator and from the Fire Brigade Captain of catastrophic failure of a transformer and debris.

This violation is associated with a White Significance Determination Process finding.

Reason for the Violation

The Davis-Besse Nuclear Power Station (DBNPS) root cause evaluation determined the direct cause of this event was due to site personnel not considering the event resulting from the electrical fault in the switchyard as an Explosion, as defined in site procedure RA-EP-02840, "Explosion," Revision 3 (in effect at the time). Interviews conducted with those involved determined that they were not familiar with the recently revised procedure, in which the new definition of Explosion included the "catastrophic failure of pressurized/energized equipment." The prior definition in RA-EP-2840, "Explosion," Revision 2 describes, "Explosion" as "an uncontrolled violent expansion or bursting that is accompanied by loud noise and equipment damage. An explosion is typically caused by a sudden release of energy from a very rapid chemical reaction, or from an escape of gases or vapors under pressure."

The DBNPS root cause evaluation determined the root cause(s) of this event to be:

- Inadequate change management and inadequate self-checking by Site Emergency Response when revising the "Explosion" definition in procedure RA-EP-02840. The procedure change was not provided for training to be completed since the individuals involved with the procedure change were under the impression that the new and old definitions of "Explosion" were essentially the same.
- Inadequate communications in that assumptions were made and a questioning attitude was not displayed by Site Security and Operations personnel. FENOC has been unable to confirm through voice recordings that Site Security personnel who witnessed the switchyard explosion did communicate to the Control Room that an explosion had occurred. Had it been specifically stated that an explosion had occurred, Operations would have reviewed procedure RA-EP-02840, and the Initiating Conditions would have applied. It is reasonable to believe that the Explosion definition would have been reviewed as applicable to this event and an Alert would have been declared.

FENOC does not disagree with the NRC's conclusion, as stated in the Final Significance Determination for the White Finding, dated February 25, 2010, that equivalent descriptive information was provided to the control room that should have led the operators to the conclusion that an explosion had occurred. However, FENOC believes this conclusion is based on the recently revised Explosion definition in procedure RA-EP-02840, that the operators were not familiar with. Therefore, when the

information was provided to the control room staff regarding the Coupling Capacitor Potential Device (CCPD) failure and the switchyard conditions, they considered the event an electrical fault and did not relate the event to the new Explosion definition. As discussed in the DBNPS root cause evaluation and above, the operators were not familiar with recently revised procedure RA-EP-02840 "Explosion" definition.

Corrective Steps Taken and Results Achieved

A lessons learned case study was provided to Operations personnel, Site Security personnel, and Emergency Response Organization (ERO) members to stress the importance of clear, concise and complete reporting of emergency information to allow decision makers to assess Emergency Action Level (EAL) entry conditions timely and accurately.

A communication card was developed and instituted to be used by Operations and Site Security when communicating important information during emergencies.

Required reading was developed and completed for the Operators concerning what constitutes an explosion, which requires entry into EALs.

Lessons learned information was developed and presented to Site Emergency Response Section personnel on the issues that contributed towards the missed classification of this event, including a discussion of how maintaining a questioning attitude and applying rigor when completing procedure changes could have resulted in an understanding of the changes in the definition of Explosion and how this change impacted the procedure end-user during an event. The lessons learned also emphasized the need to be aware that when processing technical changes to procedures, or changes which involve new or revised actions by the user, the changes should be submitted for cross-comment review or training/required reading provided, as applicable.

Site Security training was conducted to address the following areas:

- Security/station Emergency Action Levels and Site Security and Operations interface, and the impact these action levels have on Site Security, Operations and the station as a whole.
- The importance of giving precise communications when Site Security and Operations interface during an incident/event, which will serve to improve understanding to those individuals required to make significant decisions.

Corrective Steps That Will Be Taken

An Effectiveness Review will be completed by June 30, 2011, following implementation of the corrective actions and to provide sufficient time following implementation of the corrective actions to determine if they have appropriately addressed the issues.

Date When Full Compliance Will be Achieved

Full compliance was achieved on March 10, 2010, with the completion of training of the operators on what constitutes an explosion for entry into the EALs, training of Site Security on the importance of precise communications with Operations during events, and implementation of the communication card tool for Operations and Site Security.