

**PRELIMINARY NOTIFICATION – REGION III**

**April 28, 2014**

**PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE – PNO-III-14-003A**

This preliminary notification constitutes an update to a previously issue notification which was of interest.

**Facility**

Davis-Besse Nuclear Power Station  
FirstEnergy Nuclear Operating Company  
Oak Harbor, OH  
Docket: 50-346  
License: NPF-3

**Licensee Emergency Classification**

Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

**SUBJECT: UPDATE TO DAVIS-BESSE SHIELD BUILDING RESTORATION**

On February 14, 2014, the licensee informed the NRC that it had discovered an unfilled area (void) in the concrete along the top of the 2011 construction opening on the inside wall of the Davis-Besse shield building. The void occurred as a result of the process used to pour concrete during restoration of the 2011 construction opening associated with the reactor pressure vessel head replacement. The void condition was discovered while the plant was shut down for the 2014 steam generator replacement outage. Subsequently, the licensee performed an operability evaluation of the shield building and determined that the shield building could have performed its intended safety functions despite the existence of the void. During the licensee's creation of a new construction opening to support the 2014 steam generator replacement outage, the process used to create the new construction opening damaged some of the shield building reinforcement bars (rebar). The rebar damage was not present while the plant was operating and when the shield building was required to be operable. The licensee repaired the void and damaged rebar prior to restoring the shield building construction opening for the 2014 outage.

The NRC reviewed the licensee's operability evaluation, which analyzed the impacts of the concrete void during the previous operating cycles and verified that the shield building could have fulfilled its intended safety functions, even with the existence of the concrete void. In particular, the NRC concluded that the shield building remained capable of maintaining structural integrity and protecting the containment vessel against impacts from external objects despite the presence of the concrete void.

The NRC also conducted a wide range of activities, during the 2014 outage, to ensure that the shield building was restored to its design bases in accordance with procedural requirements and the applicable codes and standards. The NRC inspectors directly observed, monitored, and evaluated the licensee's repair of damaged shield building rebar and the void, and the pouring and testing of concrete during the restoration of the 2014 shield building construction opening. The NRC inspectors verified that the shield building void and the damaged rebar were adequately repaired, and that the licensee implemented adequate corrective actions to preclude the formation of another void during the restoration of the 2014 construction opening.

Details of the NRC's review and conclusions will be documented in an NRC inspection report that will be available to the public after completion of the ongoing NRC steam generator replacement inspection. Subsequently, the public will be provided the opportunity to discuss the NRC's activities associated with this issue during the NRC's annual performance assessment end-of-cycle public outreach for Davis-Besse. The specific date and location of the public outreach will be publically announced in the near future.

This preliminary notification is issued for information only. State officials have been informed. The information presented herein has been discussed with the licensee and is current as of April 28, 2014, 10:10 a.m. (EDT).

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