

**PRELIMINARY NOTIFICATION – REGION III**

**January 30, 2014**

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE – PNO-III-14-002

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. Some of the information may not yet be fully verified or evaluated by the Region III staff.

**Facility**

Palisades Nuclear Plant  
Entergy Nuclear Operations, Inc.  
Covert, Michigan  
Docket: 05000255  
License: DPR-20

**Licensee Emergency Classification**

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

**SUBJECT: PALISADES CONTROL ROD DRIVE MECHANISM HOUSING FLAWS**

On January 29, 2014, Entergy Nuclear Operations, Inc., notified the NRC that the licensee found flaws during planned examinations of control rod drive mechanism (CRDM) housings that required further review and evaluation. The CRDMs are part of the reactor coolant system boundary designed to prevent reactor coolant from leaking into the containment. At present, there is no evidence of leakage. The examinations were conducted in accordance with the licensee's corrective actions following a leak from a CRDM housing in 2012.

The plant is currently shut down for a refueling outage. This issue has no adverse effect on plant or public safety.

Two resident inspectors are assigned to the site full-time to inspect and assess all licensee activities. To supplement the resident inspectors' efforts during the refueling outage, the NRC has two specialist inspectors on site to inspect and assess the plant's outage activities. One of these specialist inspectors was on site to specifically observe the CRDM housing examinations. This NRC specialist continues to independently inspect and evaluate the licensee's response.

There are 45 CRDMs, one associated with each control rod. The control rods, when inserted into the reactor, are designed to absorb neutrons to control the nuclear reaction. The CRDMs extend from the reactor head to about 14 feet upward, and are the mechanisms that withdraw and insert the control rods. The flaws are in the CRDM housings above the reactor head, and not in the reactor head itself.

After inspecting all 45 CRDM housings, the licensee concluded that there are flaws in 17 of the 45 housings.

NRC inspectors have been reviewing the plant's inspections and assessments and are reviewing the licensee's replacement and repair plans, which will be completed prior to plant startup. The NRC will continue to evaluate and validate the licensee's response to the issue to ensure plant safety. The NRC will document its conclusions in a publicly available inspection report.

The State of Michigan has been notified.

The information in this preliminary notification is current as of 10:00 a.m. EST on January 30, 2014.

This information has been reviewed with plant management.

This preliminary notification is issued for information only and no further action by the staff is anticipated.

ADAMS Accession Number: ML14030A190

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