

PRELIMINARY NOTIFICATION - REGION III

May 5, 2011

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE - PNO-III-11-006

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

Duane Arnold Energy Center
NextEra Energy Duane Arnold, LLC
Palo, IA
Docket: 50-331
License: DPR-49

Licensee Emergency Classification

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

SUBJECT: ALERT AT DUANE ARNOLD ENERGY CENTER

DESCRIPTION:

On May 3, 2011, a supply vendor (non-utility personnel) was making a routine hydrogen supply delivery to the plant per an established process. Hydrogen is used in the plant to cool the main generator. The hydrogen storage area is located outside the protected area away from the reactor and utilizes a trailer with multiple separate tanks of hydrogen. After swapping out the old/depleted trailer for the new trailer, the truck driver climbed to the back of his truck to clean a hazardous material placard. The driver fell from the back of the depleted trailer and caused the main supply flexible hose to the new trailer to become disconnected. The utility suspects that during the hose whip, a spark was generated which ignited the hydrogen.

At 1:44 p.m. (CDT), the utility declared a Notice of Unusual Event (NOUE) per Shift Manager discretion upon receiving a report of a fire and explosion at the hydrogen pad. Both the site fire brigade and off-site fire departments responded to the fire. At 2:03 p.m. (CDT), the utility upgraded the event to an Alert due to gases in concentration greater than the lower flammability limit contiguous to a safe shutdown/ vital area (pump house). The pump house contains safety-related equipment and is located inside the protected area. No plant safety equipment was impacted by the fire. The licensee had suspended access to the pump house for personnel safety concerns. At 6:55 p.m. (CDT), the licensee downgraded from an Alert to a NOUE based on no longer needing to restrict access to the pump house. The utility confirmed that no additional hydrogen was leaking, removed all existing hazards, and exited the NOUE at 1:35 a.m. (CDT) on May 4, 2011.

The NRC resident inspectors were on-site and responded to the event at the plant's main control room and TSC. The NRC entered Monitoring Mode at 2:07 p.m. (CDT) on May 3, 2011, and staffed the RIII Incident Response Center. At 1:47 a.m. (CDT) on May 4, 2011, the NRC exited Monitoring Mode based on the fire being extinguished, the hydrogen leak isolated, and no other systems, structures, or components being threatened or damaged.

This preliminary notification is issued for information only. State and local officials have been informed. The NRC issued two press releases on May 3, 2011, describing the event, and the site also issued press releases on May 3, 2011.

The information presented herein has been discussed with the licensee, and is current as of 2:30 p.m. (CDT) on May 4, 2011.

ADAMS Accession Number ML111250034.

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