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From: DiPaolo, Eugene /RA/
Sent: Friday, May 10, 2013 7:16 AM
To: 'bettyshank@comcast.net'
Cc: Gray, Mel; Screnci, Diane
Subject: Response to Question Regarding Limerick Generating Station

Betty and Charlie Shank,

I am responding to your April 12 email in which you asked questions about the August 2011 Virginia earthquake and its impact on Limerick Generating Station in Sanatoga, Pa.

Your email appears to refer to two separate declarations of Unusual Events made by operators at Limerick. On August 23, 2011, an Unusual Event was declared due to the effects felt at the site from the seismic event which occurred in Virginia. The event notification is posted on the NRC webpage at <http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2011/20110824en.html>. On September 29, 2011, operators declared an Unusual Event due to a chemical spill on site. The event notification is available at <http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2011/20110930en.html>.

These two events met the NRC's reportability requirements.. On site NRC inspectors responded to the two events and inspected the details of the events. These inspections were documented in Section 4OA3 of NRC Inspection Report 05000352,353/2011004, dated November 4, 2011. I've attached a copy of the inspection report to this email. The questions in your email appear to involve the specifics of the seismic event which occurred on August 23, 2011. Below you'll find the responses to the questions you raised.

What exactly did the unusual event at Limerick include?

Operators at Limerick declared an Unusual Event at 2:15 pm on August 23, 2011, due to meeting the criteria for the indications of seismic activity in the plant's radiological emergency plan.

An Unusual Event is the lowest level of emergency classification for nuclear power plants. The four levels of emergency classification from lowest to highest level are notice of unusual event, alert, site area emergency and general emergency. The declaration of a Notification of Unusual Event means events are in process or have occurred which indicate *potential degradation in the level of safety of the plant*. No release of radioactive material requiring offsite response or monitoring is expected unless further degradation occurs.

What systems or equipment were affected?

None. Following the seismic event, Exelon personnel performed a walk down of the facility in accordance with plant procedures to determine if the event had any effect on plant equipment. As documented in the ENS report (ENS 47185), no deficiencies were observed. NRC inspectors performed a walk down of portions of the site with a focus on safety significant equipment to independently assess whether any damage to plant equipment had occurred. No equipment damage was identified.

What responses or actions were required as a result?

Following the initial walk down of the facility immediately following the seismic event, Exelon engineering personnel performed detailed system walk downs. No deficiencies were identified. Also, because the seismic event activated the plant's seismic recorder, an analysis of recorded data was performed. The analysis showed that the operating basis response spectrum for the plant was not exceeded. Exelon submitted a voluntary special report due to the activation of the seismic recorder. An electronic copy of that report is attached to this email.

When did Exelon notify the NRC?

Exelon operators notified the NRC Operations Center of the declaration of a Notification of Unusual Event at 2:56 pm on August 23. This was within the time allowance of not later than one hour after the time the licensee makes an emergency declaration. However, the notification was actually 9 minutes late because Exelon operators did not declare the Unusual Event within the required fifteen minutes of the earthquake being felt onsite. Because the seismic monitoring system had previously been declared inoperable due to problems with its power supply, plant procedures directed operators to use compensatory measures to verify that seismic activity had occurred prior to making the emergency declaration. The call to the United States Geological Survey resulted in operators verifying the seismic event at 2:11 pm. Exelon declared the Unusual Event at 2:15 pm and made all appropriate state and local notifications within the required 15 minutes of declaring an event. Operators should have declared an Unusual Event by 2:06 pm (within 15 minutes of 1:51 pm, when the earthquake was felt on site.)

The late declaration was identified by Exelon personnel following the event and the issue was entered into the corrective action program. This issue was identified as a licensee-identified violation in NRC Inspection Report 05000352, 353/2011004, dated November 4, 2011.

Your email indicated that you needed information about the September 30, 2011 "Untimely Declaration of Notification of Unusual Event for Limerick Plant Following an Earthquake". No event occurred on that date at Limerick. However, on September 29, 2011, operators at Limerick declared an Unusual Event due to a chemical spill. For that event (ENS 47303), both the declaration and notification were proper and timely.

What can be done about Exelon's failure to notify the NRC immediately after such an event?

NRC inspectors follow up on all reportable events to assure that operators properly declared the event, notified local and state officials, and appropriately reported the event to the NRC Operations Center. Licensee's that fail to satisfy declaration and notification requirements are subject to enforcement actions in accordance with the NRC's Enforcement Policy.

As stated above, the NRC was notified within one hour after the Unusual Event was declared, however, the timeliness of the declaration of the Unusual Event did not meet regulatory requirements and was considered to be of very low safety significance. Since the risk significance of the finding was determined to be very low and because the Exelon staff entered the condition into the corrective action program, the issue met the criteria for a licensee-identified violation. All issues entered into the corrective action program are subject to potential inspection by the NRC. These inspections are performed by the onsite resident inspectors and region based inspectors. In addition, Exelon's corrective action program is inspected by a team of NRC inspectors every two years.

I hope that the information that I have provided helps answer your questions. If you have any follow-up questions, please feel free to contact me.

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