From:	Bower, Fred
Sent:	Thursday, May 14, 2015 4:01 PM
To:	aceactivists@comcast.net
Cc:	NRC - Neil Sheehan; Barber, Scott; Screnci, Diane; OPA1 RESOURCE; Nieh, Ho; Scott, Michael; McNamara, Nancy; Tifft, Doug; Ennis, Rick; Bower, Fred
Subject:	ACE - Questions about 4-5-15 Fire At Limerick [EDATS R1-2015-0130]

The Alliance for a Clean Environment (ACE)

ACE - Questions about 4-5-15 Fire At Limerick [EDATS R1-2015-0130]

Dear Dr. Cuthbert (ACE),

I am writing in response to your email (ML15098A011) dated April 7, 2015, concerning the fire at Limerick Nuclear Generating Station (LGS) which occurred on April 5, 2015. We appreciate your questions and hope you find our answers responsive.

As reported in event notification (EN) 50956, at 3:57 p.m. on April 5, 2015, a fire was observed in a safety related electrical panel located in the Unit 2 reactor building. As a result of the fire, an electrical cabinet and the power supply for the Unit 2 high pressure coolant injection (HPCI) condensate pump motor were damaged, a condition that rendered the Unit 2 HPCI system inoperable. Due to the normal depletion of the energy in its nuclear fuel, LGS Unit 2 was operating at 82 percent power and was gradually coasting down from its normal 100 percent power level in advance of a routine planned refueling outage. "Coast down" refers to the gradual decrease in reactor power level that naturally occurs as the fuel in the core is being depleted at the end of the operating cycle. Because of this coast down, 82 percent power was the highest or maximum power level that Unit 2 could achieve at that time, which may have contributed to the confusion in some newspaper reporting. Unit 2 remained at that power level throughout the event. This event had no effect on LGS Unit 1 and it remained at full power throughout the event. Additionally, no security building(s) or security equipment were affected by this event.

Because the fire potentially affected the operability of a required safety system (i.e. the HPCI system), the event was classified at the Alert level. An Alert is the second lowest of four event classification levels. This event was appropriately classified consistent with LGS's regulatory required emergency plan because of the location of the fire in the Unit 2 reactor building, its duration, and its potential effects on the operability of the HPCI system. The HPCI system is an important plant safety system that is maintained in a standby condition, such that it is ready to respond if the need were to arise. However, with the reactor operating at 82 percent power, the feedwater and main steam systems were safely removing heat from the reactor under normal conditions and the HPCI system was not needed. Additionally, other backup safety systems required by Limerick's license remained available to respond if the need were to arise. The Unit 2 HPCI system was returned to an operable condition consistent with the LGS licensing bases and within the time limits allowed by LGS's technical specifications.

In accordance of 10 CFR Part 50.72(a)(3), Exelon was required to notify the NRC immediately after notification of the appropriate State or local agencies and no later than one hour after the emergency declaration. This requirement was met when Exelon reported the event at 4:06 p.m. as documented in EN 50956. In response to the event a Resident Inspector (RI) responded to the site and verified that procedures were completed with respect to the fire and that the plant continued to operate safely. The fire was extinguished by onsite personnel before the inspector arrived at the site. On April 5, 2015, the RI inspected the panel in the Unit 2 reactor building and confirmed that damage was limited to the power supply for a condensate pump motor that supports the operation of the HPCI system. The RI also confirmed that Exelon established and met appropriate criteria before terminating the Alert. Subsequently, the RI confirmed that Exelon repaired the damaged panel prior to returning the affected support equipment to service and determined that these repairs were timely.

With regard to the firefighting capabilities at Limerick, Exelon is required to have a minimum of 5 personnel onsite at all times assigned to the fire brigade in accordance with the NRC's Branch Technical Position 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants." This document is part of LGS's licensing bases and is publicly available on the NRC's website. The RI verified that this requirement was met during this event. The fire was not extinguished using water. The fire was extinguished by securing the source of electrical power to the affected panel and using carbon dioxide fire extinguishers.

Consistent with the NRC's Reactor Oversight Program, the RIs will conduct any additional required follow-up inspection for EN 50956 and the results of this inspection will be documented in the publically available second quarter 2015 integrated report that will be issued 45 days from June 30, 2015. Following its issue, the report will be posted on our website (www.NRC.gov) or you may obtain a copy of the report from ADAMS.

I trust this is responsive to your questions.

Sincerely,

Fred Bower
USNRC Region I Branch Chief with Oversight Responsibility for Limerick, Peach Bottom and Susquehanna
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|☎: (610) 337-5200 |

From: aceactivists@comcast.net [mailto:aceactivists@comcast.net]
Sent: Tuesday, April 07, 2015 2:41 PM
To: Bower, Fred
Cc: NRC - Neil Sheehan
Subject: QUESTIONS ABOUT 4-5-15 FIRE AT LIMERICK NUCLEAR PLANT

4-7-15

To: Fred Bower, NRC

From: Dr. Lewis Cuthbert, ACE

RE: QUESTIONS ABOUT 4-5-15 FIRE AT LIMERICK NUCLEAR PLANT

Any fire at Limerick is concerning to us, even if it has been declared "small". We have worried about fires at Limerick since 2008, when we learned that Limerick has not been required to comply with NRC's original safer fire safety rules.

Reports on the latest 4-5-15 fire at Limerick have left us with questions.

PLEASE CLARIFY THE FOLLOWING DISCREPANCIES:

1. **EXACTLY WHERE DID THE FIRE OCCUR?** There were different reports on the location of the fire.

- Mercury: Reported a fire ignited at one of the security buildings.

If the fire actually occurred in a security building, what is the function of this building and where is it located in proximity to the reactors?

- Reading Eagle: Reported that the fire was identified in a panel in the reactor building.

To what extent was the panel in the reactor building damaged by the fire?
What systems does this panel control?

2. **WHICH IS CORRECT? FACILITY RUNNING AT 82% OR AT FULL POWER?** There were different reports on the effect the fire had on operations.

- Mercury: Neil Sheehan of NRC said it was running at 82%.
- Reading Eagle: According to officials, power operations were not affected and both units remain at full power.

3. **WHY THE ALERT WAS REQUIRED FOR LIMERICK'S 4-6-15 FIRE.**

"ALERT" means events are in progress which involve substantial degradation of nuclear plant safety. As required, local and state officials had to be notified.

- Mercury: NRC reported that an alert was declared after a fire ignited at one of the security buildings.
- Reading Eagle: the "ALERT" was required because the fire was in the reactor building.

Questions:

- Why would a security building be involved with a system used to inject cooling water in the event the reactor needed to be shut down?
- NRC reported to the Mercury that the safety system that handles high pressure coolant injection was impacted.
- Sheehan said that that safety system will need to be repaired as a result of the fire.

Is it possible the reactor is operating without the repairs having been made, despite this fire being serious enough to trigger an "ALERT"?

4. **WHY DID SHEEHAN STATE "THE REACTOR" IS AT 82%, AND AT THE SAME TIME SAY "THE FACILITY" IS IN "COAST DOWN" MODE?**

We need clarification.

- Sheehan said, "the reactor", suggesting impact to just that reactor, yet said "the facility" was in "coast down" mode. Why was the entire facility in "coast down" mode, if just one reactor was impacted?
- Was "coast down" mode in progress prior to the fire or initiated by fire?
- Was "the reactor" operating at 82% prior to the fire or was it in response to the fire?
- Which reactor was operating at 82%?

Associated Issues:

Sheehan said, "A third of that fuel will be replaced".

- Was he referring to the scheduled refueling for reactor Unit 2?
- Was this "coast down" due to refueling or the fire?
- Isn't the fuel in the core continuously being depleted as a matter of operations?
- What was the exact date set for Unit 2 scheduled refueling?
- Will high-burn fuel be used for this refueling? Has it ever been used at Limerick previously?

Does the safety system that handles high pressure coolant injection impact both reactors? If not, which reactor was impacted? Unit 1 or Unit 2?

- Impact of damage to this system could be critical to safe operations since the system is used to inject water in the event the reactor is ever needed to be shut down and its pressure was still too high.
- NRC confirmed that all repairs have been made?
- If not, is there deadline for completing repairs?
- Were the materials needed for repairs immediately available?
- Was this part of the system for which Exelon just received an amendment to Amendment No. 174?

Questions about Limerick's fire brigade.

- The Reading Eagle said Limerick has an on-site fire brigade.
- How many Limerick fire brigade members are required to be on-site 24/7?
- How many were on-site when the 4-6-15 Limerick fire occurred?
- Where did the water come from to put out the fire?

The Mercury report stated NRC inspectors were promptly notified and told the fire is out.

Questions:

- Was there an inspector on site to actually observe the fire, how it affected the high-pressure coolant injection system, and whether the fire was actually out when Exelon made that claim? If not, why not?
- Why does NRC consider it prompt notification if the agency was not notified until the fire was out? What time did the fire start? What time was NRC notified that it was out?

Sheehan said, "the NRC will follow up with the facility to verify the alert was declared over.Top of Form Before the alert can be declared over (NRC) officials will ...double check".

- We object to Exelon determining when such an alert is declared over. NRC should make such a determination.

Sheehan said the cause of the fire is still under investigation.

- Who is doing the investigation? Exelon? or NRC?
- We request to be notified about the cause of the fire when the investigation is completed.

Our concern is that Limerick's risky experiments may involve the system that was impacted by Limerick's 4-6-15 fire. The equipment which appears to be involved in the fire seems related to other recurring problems in this equipment since at least 2011. This suggests to us that Exelon's failure to provide safety improvements could have led to this fire.

- **Does NRC plan to issue a fine or violation associated with this fire?**