From: Diaz, Marilyn
Sent: Wednesday, March 30, 2011 4:13 PM
To: Diaz, Marilyn
Subject: FW: AREVA R Fire Alarm System Emergency Backup Batteries

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From: Diaz, Marilyn
Sent: Tuesday, February 15, 2011 4:16 PM
To: 'MAAS Loren (AREVA)'; LINK Bob (AREVA)
Cc: Rodriguez, Rafael
Subject: AREVA R Fire Alarm System Emergency Backup Batteries

Loren,

I received your email dated February 7th and consulted with our Fire Engineer. Our main concern is whether the Fire Alarm Systems backup batteries will be effective or ready for their intended use when needed. During the AREVA's License Renewal, the AREVA staff indicated that NFPA 801 is used as guidance for the fire protection program. In Section 6.8, "Fire Alarm Systems," it references NFPA 72 as the means to install, inspect and test these systems. Based on our technical review and discussion, and the fact that NFPA 72 is incorporated by reference in NFPA 801, describe how AREVA complies with NFPA 72, especially with respect to the sections mentioned below:

Section 10.5.6.3.1 (Capacity) states that "The secondary power supply shall have sufficient capacity to operate the system under quiescent load (system operating in a nonalarm condition) for a minimum of 24 hours and at the end of the period, shall be capable of operating all alarm notification appliances used for evacuation or to direct aid to the location of an emergency for 5 minutes, unless otherwise permitted or required by the following ……"

Section 10.5.7 (Continuity of Power Supplies) requires the secondary power supply to automatically provide power to the protected premises system within 10 seconds whenever the primary power supply fails to provide the minimum voltage required for proper operation (10.5.7.1). The secondary power supply to automatically provide power to the supervising station facility within 60 seconds whenever the primary power supply fails to provide the minimum voltage required for proper operation.

Section 14.3 (Inspection) in accordance with Table 14.3.1 requirements for batteries (by type)

Section 14.4.1.1 Initial acceptance testing and Section 14.4.1.2 Reacceptance Testing in accordance with appropriate subsections

Section 14.4.2 (Test methods) in accordance with Table 14.4.2.2 for (3) Secondary (standby) power supplies and (5) Batteries-general test

Section 14.4.5 (Testing Frequency) in accordance with Table 14.4.5 for (5) Batteries – central station facilities, (6) Batteries –fire alarm stations, and (7) Power supply –Public emergency alarm reporting stations , as appropriate to the AREVA system

Automated testing may be relied upon as provided for in Section 14.2.7

Alternatively, describe any deviations from NFPA 72 or other approach that AREVA-Richland uses to meet the intent of NFPA 72.

Feel free to contact me if you have any question or comments,

Thanks.

Marilyn Diaz, EIT
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U.S Nuclear Regulatory Commission
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(301)492-3172

From: MAAS Loren (AREVA) [mailto:Loren.Maas@areva.com]
Sent: Monday, February 07, 2011 5:53 PM
To: Diaz, Marilyn
Subject: Fire Alarm System Emergency Backup Batteries

Marilyn,
Via your e-mail of January 19th and your phone call the day before, you inquired about the adequacy of the backup batteries relied upon to power the fire alarm system during a loss of electrical power at locations not served with emergency power from our fixed- location emergency power generators. Specifically you sought to confirm that the batteries would power the alarm for a length of time consistent with the recommendation in NFPA 72.
I have discussed your question with our site EP coordinator as well as with our site engineer who oversees our fire alarm systems. AREVA is involved in a multi-year project to upgrade its fire alarm system site-wide. With a few exceptions, the major site SNM-processing buildings are on the new system; work has begun on upgrading the many onsite support facilities to the new system. Relative to the backup batteries in fire alarm systems in SNM-handling facilities not on emergency backup power, both the upgraded (new) fire alarm panels and the non-upgraded fire alarm panels are subject to annual visual inspections of the panels and associated batteries as well as a five year battery replacement schedule. The visual inspections and battery replacements are scheduled and documented under the formal plant PM system. Furthermore, any work on the local alarm panels with the potential to have impacted the

existing batteries (e.g. adding load) calls for a recommissioning of the panel, including verification that the batteries will power the alarm for at least 5 minutes.

Five minute alarm capacity tests are conducted as part of the initial installation/commissioning process for the upgraded local alarm panels. In addition, the alarm panels associated with the upgraded system are continuously electronically monitored, including programmed checks of the backup battery systems. System problems detected via the electronic monitoring result in a trouble warning and precipitate prompt attention by the Maintenance organization.

Please convey this information to the individual reviewing our license amendment application. If either of you has questions, please feel to contact me at 509-375-8537.

Loren Maas, Manager
Licensing and Compliance
AREVA Richland