

September 28, 2011 REL:11:042

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U.S. Nuclear Regulatory Commission Director, Office of Nuclear Material Safety and Safeguards Attn: Document Control Desk Washington, D.C. 20555

Gentlemen:

# Subject: Thirty-day Follow-up Report to August 28, 2011 Incident Reported Under 10 CFR 70 Appendix A Criterion (b)(4) (NRC Event No. 47219); AREVA NP Inc. Richland Facility; License No. SNM-1227; Docket No. 70-1257

On August 28, 2011, the AREVA NP Inc. Richland facility reported that gamma monitors on two sand filters associated with its wastewater treatment facility (WWT) had ceased to function correctly. As an immediate result of this failure to function, the associated flows to the sand filters shut down automatically (normal fail-safe shutdown). The system remained down until the gamma monitoring system was repaired.

The initial report (NRC Event No.47219) was made because the plant condition potentially met the reporting criterion in 10 CFR 70 Appendix A (b)(4) in that the gamma monitor failure (IROFS 2309) appears to have been caused by electrical power interruptions related to natural phenomena, i.e. an electrical storm.

This 30-day follow-up report is being submitted in accordance with 10 CFR 70 Appendix A (b).

## **Caller Identification**

This condition was reported to the NRC Operations Center by Calvin D. Manning, AREVA Nuclear Criticality Safety Manager, on August 30, 2011 at 0901 PDT (509-375-8237).

## Date, Time, and Exact Location of Incident

The reportable condition was determined to exist on August 30, 2011 at approximately 0815 hours local time. This condition involved the gamma monitors on two sand filters, which are located in the Wastewater Treatment Building.

#### Incident Description

At approximately 0920 local time, 8/28/2011 and closely associated in time with both a thunderstorm and a test of various internal backup power generators, an operator at the WWT facility noticed that the gamma monitors on two sand filters had ceased to function correctly. Apparently as an immediate result of this failure to function, the associated flows to the sand filters shut down automatically (normal fail-safe shutdown).

## Safety Significance of the Incident

The safety impact of this incident is low. The system response to the gamma detector failure was as designed and placed the facility into a safe-shut-down condition. Processing activities

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USNRC September 28, 2011

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remained shut down until the gamma monitors were repaired and demonstrated to be functioning correctly.

AREVA considers the potential loss of IROFS in the facility ISA. This consideration is evidenced by the normal fail-safe shutdown design of WWT sand filters and associated gamma detectors.

No emergency condition or radiological or chemical releases resulted from this incident. AREVA did not make any other notifications to government agencies and did not issue a press release.

### **Incident Response Actions**

A number of actions were taken in direct response to this incident, as follows:

- A careful review of the event timeline was conducted.
- Correct functioning of other safety-related equipment in the Uranium Conversion and Recovery area was confirmed.
- Appropriate internal and regulatory notifications were made.
- An apparent cause analysis (ACA) was initiated.

Interim and Near-Term Corrective Actions

The gamma monitors were replaced with functional devices and tested prior to restarting the system.

#### Incident Cause

AREVA attempted to determine if the cause of the gamma monitor failure was testing the backup electricity generators or the electrical storm. A definitive cause could not be determined. However, based on the fact that none of the previous routine back-up electrical generator testing has caused any problems with the gamma monitoring system in WWT, it is assumed that the electrical storm was the cause.

#### Actions to Prevent Recurrence

AREVA has determined that no corrective actions are needed to prevent the recurrence of this event. The system performed as designed and placed the equipment in a safe-shut-down condition.

If you have questions about this incident or AREVA NP's associated response, please contact me on 509-375-8409.

Very truly yours,

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R. E. Link, Manager Environmental, Health, Safety, & Licensing

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USNRC September 28, 2011

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cc: U.S. Nuclear Regulatory Commission, Region II Attn: M. D. Sykes, Chief Fuel Facility Branch 3 Marquis One Tower, 23 T85 245 Peachtree Center Avenue N.E., Suite 1200 Atlanta, GA 30303-8931