

June 11, 2012  
REL:12:024



U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Director, Office of Nuclear Material Safety  
and Safeguards  
11555 Rockville Pike  
One White Flint North  
Rockville, MD 20852

Gentlemen:

**Subject: Amended Response to Notice of Violation (70-1257/2011-005)**

Reference:

1. Letter, Marvin D. Sykes to D. Grandemange; "Notice of Violation and NRC Integrated Inspection Report No. 070-01257/2011-005"; January 25, 2012
2. Letter, REL:12:012, Robert E. Link to Document Control Desk, "Response to Notice of Violation (70-1257/2011-005), dated February 27, 2012.

Attached is an amended response AREVA NP's (AREVA's) to the violation described in the referenced letter. During preparations to modify Criticality Drain, C186DR014 craft and operating personnel expressed a concern that clear PVC drains become cloudy and difficult to see in a relatively short period of time. The corrective action listed to prevent recurrence of this event is modified as indicated in the attachment to this letter.

If you have questions or require further information, please contact me at 509-375-8409 or C. D. Manning of my staff at 509-375-8237.

Very truly yours,

A handwritten signature in black ink that reads "R. E. Link for REL".

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

**AREVA NP INC.**

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**Amended Reply to Notice of Violation**  
**NRC Inspection Report 70-1257 / 2011-005; AREVA NP Inc.**

**Violation** VIO 70-1257/2011-005-01

The violation as stated in the referenced Notice of Violation (NOV) is as follows:

Safety Condition S-1 of Special Nuclear Material License No.1227 requires that material be used in accordance with the statements, representations, and conditions in the license application dated October 24, 2006, and supplements thereto.

Section 5.3.1, Management Measures, of the license application states, in part, that the configuration management program includes a requirement that prior to use in a process, nuclear criticality safety controls selected and installed are verified to fulfill the requirements identified in the criticality safety analyses.

Nuclear Criticality Safety Analysis, E04-NCSA-186, Supercritical Carbon Dioxide (CO<sub>2</sub>) Extraction System, Version 4, designated High Efficiency Particulate Air (HEPA) Filter Cabinet Criticality Drain (C186DR14) as a nuclear criticality safety control.

Contrary to the above, on May 6, 2010, the licensee failed to verify prior to use in the process that HEPA Filter Cabinet Criticality Drain (C186DR14) was able to fulfill the requirements identified in the criticality safety analyses. Specifically, the licensee failed to verify that drain C186DR14, IROFS 6914, prevented retention of uranyl nitrate solution inside the HEPA filter cabinet beyond a favorable geometry (depth), by directing liquid overflow to the room floor.

This is a Severity Level IV violation (Section 6.2.d).

**Reason for the Violation**

The review of the Operational Readiness Review package for system 186 regarding the Criticality Drain, C186DR014 was verified to be installed and the required PM/Functional check was verified to have been completed. However, the method used to verify the drain was unobstructed and free flowing did not account for potential blockage by a pre-filter installed in the housing.

The HEPA housing including the drain outlet was fabricated by an offsite provider and installed by AREVA crafts, including the attachment of the drain to the drain outlet. The pre-startup verification that the drain was properly installed and would meet the required safety function was limited to a visual verification that the drain was physically installed and that the preventative maintenance (PM) as a startup functional test was successfully completed. The verification did not include opening up the filter housing and verifying that the drain inlet was unobstructed. A poor assumption was made in that the inspection of the interior of the housing was believed to not be needed to assure that the drain was unobstructed. The personnel involved in the test didn't believe the design would place a filter directly above a drain intended to keep the interior of the housing from flooding.

An extent of condition Investigation and evaluation show that this occurrence was an isolated incident.

### **Corrective Actions Taken**

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

1. The condition was entered into AREVA's corrective action program (CR 2011-8134).
2. Nuclear Criticality Safety (NCS) completed a plant-wide walk-down of all HEPA filter boxes and verified that none of those that have a criticality drain have a similar design deficiency where the pre-filter or HEPA filter could plug the drain. This walk-down included a comparison with facility P&ID's to assure that the walk-down was complete. No other HEPA filter boxes with criticality drains were identified with the design deficiency described above. (Completed 10.21.2011)
3. NCS completed a plant-wide walk-down of all other criticality drains to determine if potential for plugging due to debris or a similar design deficiency exists as described in CR 2011-7773. This walk-down included a comparison with facility P&ID's to assure that the walk-down was complete. No criticality drains were identified as having a similar design deficiency. (Completed 10.28.2011)
4. A meeting was held with all members of the NCS component to discuss the known aspects of this incident and the need for completeness and attention to detail when verifying / validating data, assumptions, and facility designs associated with requirement implementation. (Completed 11.15.2011)

### **Actions to Avoid Future Violations**

In addition to the actions listed above that have already been taken, the following action is also expected to help prevent a repeat of this type of condition:

1. AREVA Richland's Site-Plant Engineering-Tech Support and Maintenance manager has scheduled the modification of the subject criticality drain to include the addition of inspection ports such that a visual inspection using a boroscope camera can provide assurance that it remains unobstructed and free flowing. ECD: 6/30/2012
2. Other criticality drains will be likewise modified. ECD: 12/31/2012

The corrective and preventive actions as well listed above are expected to prevent a repeat of this condition.

### **Date of Full Compliance**

AREVA believes that it is in full compliance with the subject license condition.