

September 29, 2009
REL:09:043



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: Revised response to Notice of Violation (70-1257/2009-201-01)

- Ref.: 1. Reply to Response to Disputed Notice of Violation (70-1257/2009-201-01);
D.H. Dorman to C.J. Perkins Dated September 1, 2009
- Ref.: 2. Reply to a Notice of Violation from NRC Inspection Report 70-1257/2009-201;
AREVA NP Inc. License No. SNM-1227, Dated June 12, 2009.
- Ref.: 3. Letter, Patricia A. Silva to Charles Perkins, "NRC Inspection Report No. 70-
1257/2009-201 and Notice of Violation", dated May 13, 2009.

As required by the Reference 1, AREVA is providing additional corrective actions to prevent recurrence of the violation originally responded to via reference 2 and originally conveyed by the NRC via reference 3.

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, appearing to read 'Robert Link'.

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

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JE07

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/mah

Reply to Notice of Violation
NRC Inspection Report 70-1257 / 2009-201; AREVA NP Inc.

Violation

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

Safety Condition S-1 of Special Nuclear Materials License No. SNM-1227 authorizes the use of licensed materials in accordance with the statements, representations, and conditions of Part I of the licensee's application dated October 28, 1996, and supplements thereto.

Section 4.2.7.2 of the license application states: "Critical parameters derived from nuclear criticality safety analyses shall be based upon optimum moderation, unless controls on the amount of moderator are applied, or other controls on moderation are established to ensure that the k_{eff} [calculated neutron multiplication factor] meets the limits in Section 4.2.1" ..

Section 4.2.1 of the license application requires that k_{eff} not exceed 0.97 for credible abnormal conditions.

Contrary to the above, on and before April 16, 2009, the licensee failed to establish controls on moderation to ensure that k_{eff} will not exceed 0.97 for the following credible abnormal conditions where optimum moderation was not used as the basis for deriving critical parameters:

- Accident sequence 4.3 in E04-NCSA-325, "BLEU Powder Preparation," Version 8.0
- Accident sequence 2.2.7 in E04-NCSA-830, "Dry Conversion Powder Preparation," Version 9.0
- Accident sequence 830-50 in the Integrated Safety Assessment Summary."

This is a Severity Level IV violation (Supplement VI).

Note that accident sequence 830-50 in the Integrated Safety Assessment Summary is accident sequence 3.3.4 in NCSA 830.

Position Statement

AREVA does not dispute the violation. However, we need to clarify certain aspects of the referenced inspection report and the NRC's reply to AREVA's response to the NOV.

First, reference 1 indicates the NRC is currently taking the position that any parameter, feature of design, or materials of construction that contributes to keeping k_{eff} below the subcritical margins authorized in licenses issued by the NRC must be controlled by an IROFS. AREVA is aware of the differing opinions between the NRC and industry licensees on this overriding issue of passive design features that many licensees have not designated as IROFS.

AREVA and other licensees are committed to working with the NRC through the proposed NEI/NRC working groups to resolve this and related issues. In the interim, AREVA is taking steps as described in the "Actions To Avoid Future Violations" listed below.

Second, regarding statements made in Reference 3, AREVA did not establish IROFS 1114 and 4712 to "prevent the spill of less than 20 liters from occurring". These IROFS were established to prevent more than 17 liters of water from entering the subject equipment or spills of uranium oxide powder, even if maintenance ports on the blenders were left open and the allowed amount of water in the process area was accidentally spilled.

Third, AREVA takes exception to the characterization made in Reference 1 that IROFS 1143, i.e. the requirement that prior to opening the blender it must be emptied **and** that it must be attended while open, does not provide control on moderation. AREVA's ISA characterizes this administrative IROFS as a control on moderation. We acknowledge mass is also controlled by requiring the equipment to be emptied prior to opening. However moderators are also controlled by equipment integrity, even if a maintenance hatch is open, by requiring the equipment to have an operator present to prevent both accidental and even deliberate additions of moderators into the open equipment. The operator is also available to intervene before a significant quantity of water could enter the blender, for example if a spill of liquid occurs on the floor above and drips onto the blender. Operator intervention is credited in several IROFS used throughout the facility.

Corrective Actions Taken

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

- A formal Justification for Continued Operation (JCO) was prepared which included the following compensatory actions;
 - Appropriate areas of the facility were posted with a Nuclear Criticality Safety Posting that prohibits more than three gallons of spillable liquid in the applicable areas of the plant.
 - A briefing was held with the appropriate personnel to ensure that they understood this restriction.
- The condition was entered into AREVA's corrective action program.
- AREVA commissioned an Apparent Cause Analysis (ACA) to evaluate the cause of this plant condition.

Actions to Avoid Future Violations

In addition to the actions provided in AREVA's previous NOV response, which are now complete, the following additional action is expected to prevent a repeat of this condition:

Review all accident sequences involving controls on the amounts of moderators, and verify that the limits are based on the hypothetical conditions evaluated in the keff sensitivity studies included in the NCSAs.

This corrective action will be completed by April 30, 2010.

Date of Full Compliance

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