



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

June 13, 2008

EA-08-122  
NRC Event No. 43957

Mr. Dominique Grandemange  
Site Manager  
AREVA NP, Inc.  
P. O. Box 11646  
Lynchburg, VA 24506-1646

**SUBJECT: NOTICE OF VIOLATION**

Dear Mr. Grandemange:

This letter refers to the special inspection conducted February 19-20, 2008, at your Mount Athos Road (MAR) facility. The purpose of the inspection was to assess the facts and circumstances surrounding a shipment of reactor fuel service equipment to the Watts Bar Nuclear Plant. The shipment contained a package with radiation levels on the external surface which exceeded applicable requirements. The finding was documented in NRC Reactive Inspection Report No. 70-1201/2008-001, dated March 21, 2008. The results of our review of this matter, including the identification of an apparent violation involving the failure to properly prepare a package containing fuel cleaning equipment for shipment such that the radiation levels on the external surfaces of the package would not exceed 200 millirem per hour (mR/hr), were transmitted to AREVA NP by NRC letter dated April 30, 2008.

On May 28, 2008, a predecisional enforcement conference was conducted at the NRC's Region II office with you and members of your staff to discuss the apparent violation, its significance, root causes, and your corrective actions. At the conference, you acknowledged that the violation occurred as stated, and provided additional details of your investigation into the incident and corrective actions taken to preclude recurrence.

Based on the information developed during the inspection and the information that you provided during the conference, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the NRC's letter of April 30, 2008, and in NRC Reactive Inspection Report No. 70-1201/2008-001. The violation involved a shipment of equipment from AREVA NP that arrived at Watts Bar Nuclear Plant with contact radiation levels in a localized area on the bottom exterior of the container in excess of 49 CFR 173.441(a) and 10 CFR 71.47 limits of 200 mR/hr.

When the shipment arrived at the Watts Bar Nuclear Plant, health physics technicians at that facility measured a localized contact radiation level on the bottom exterior of the container to be approximately 2,000 mR/hr. Representatives of Watts Bar contacted AREVA NP personnel regarding the survey measurements, and off-loaded the equipment to a safe storage location inside the protected area of the facility. Subsequent measurements by AREVA NP personnel, who arrived two days later, found the contact radiation levels to be 800 mR/hr, and 2 mR/hr at forty inches from the localized area. Based on subsequent analysis by AREVA NP, the source of the radiation was determined to be discrete radioactive particles (DRP). As presented by AREVA NP at the conference, the location of the DRP was in an area on the flatbed trailer that would not be easy to access by a member of the public during the transport of the material. AREVA NP concluded that the incident did not result in an undue risk to the public or the truck driver.

The NRC agrees that no measurable personnel exposure occurred as a result of the shipment. In addition, the likelihood of unnecessary exposure to members of the public or the truck driver was very low, based on the actual location of the DRP during transport. However, the NRC considers any shipment in excess of regulatory limits to be significant, and in this case the risk was more than minimal. In addition, the potential consequences could have been far greater under less favorable circumstances. Based on the above and in accordance with the NRC Enforcement Policy, the NRC has characterized the significance of this violation at Severity Level III.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$32,500 is considered for a Severity Level III violation. Because AREVA NP has not been the subject of escalated enforcement within the past two years, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section VI.C.2 of the Enforcement Policy.

As presented at the conference, AREVA NP's corrective actions included: (1) the establishment of pre-shipment radiation survey activity thresholds for all MAR facility equipment shipments, which will result in additional management reviews based on survey results; (2) clarification of roles and responsibilities for radiation protection and operations personnel to ensure proper packaging of all radioactive equipment; (3) incorporation of additional requirements to perform extensive surveys of highly contaminated equipment; and (4) a commitment to transport fuel cleaning equipment in a closed conveyance. AREVA NP discussed additional corrective actions at the conference as well. Based on the above, credit is warranted for the factor of *Corrective Action*.

Therefore, to encourage prompt and comprehensive correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, to propose that a civil penalty not be assessed in this case. However, significant violations in the future could result in a civil penalty. In addition, issuance of this Severity Level III violation constitutes escalated enforcement action that may subject you to increased inspection effort.

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in this letter and in the information presented by AREVA NP at the conference. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure and your response (should you choose to provide one) will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Sincerely,

**/RA/**

Luis A. Reyes  
Regional Administrator

Docket No. 70-1201  
License No. SNM-1168

Enclosure: Notice of Violation

cc w/encl:  
Geoffrey Wertz, Manager  
Environmental, Health, Safety and Licensing  
AREVA NP, Inc.  
Lynchburg Manufacturing Facility  
P.O. Box 11646  
Lynchburg, VA 24506

Leslie P. Foldesi, CHP, Director  
Bureau of Radiological Health  
Division of Health Hazards Control  
Department of Health  
Main Street Station  
1500 East Main, Room 240  
Richmond, VA 23219

Distribution w/encl: (See page 4)

Distribution w/encl:

W. Borchardt, OEDO  
 M. Weber, NMSS  
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 E. Julian, SECY  
 B. Keeling, OCA  
 Enforcement Coordinators  
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 E. Hayden, OPA  
 G. Caputo, OI  
 H. Bell, OIG  
 J. Wray, OE  
 P. Habighorst, NMSS  
 M. Bartlett, NMSS  
 N. Rivera-Feliciano, NMSS  
 L.R. Wharton, NMSS  
 V. McCree, RII  
 J. Shea, RII  
 M. Layton, RII  
 C. Evans, RII  
 S. Sparks, RII  
 C. Payne, RII  
 A. Gooden, RII  
 K. Clark, RII  
 R. Hannah, RII  
 R. Trojanowski, RII  
 OEMAIL  
 PUBLIC

X PUBLICLY AVAILABLE                       NON-PUBLICLY AVAILABLE                       SENSITIVE                      X NON-SENSITIVE

ADAMS: X Yes      ACCESSION NUMBER: \_\_\_\_\_

OFFICE	RIILDFFI	RII:EICS	RIIORA				
SIGNATURE	JS 6/13/08	CFE 6/13/08	LAR for 6/13/08				
NAME	JShea	CEvans	VMcCree				
DATE	6/ /2008	6/ /2008	6/ /2008	6/ /2008	6/ /2008	6/ /2008	6/ /2008
E-MAIL COPY?	YES      NO	YES      NO	YES      NO	YES      NO	YES      NO	YES      NO	YES      NO

## NOTICE OF VIOLATION

AREVA NP  
Lynchburg, VA

Docket No. 70-1201  
License No. SNM-1168  
EA-08-122

During an inspection conducted by the NRC on February 19-20, 2008, a violation of NRC requirements occurred. In accordance with the NRC Enforcement Policy, the violation is set forth below:

10 CFR Part 71.5 (a) requires that NRC licensees ship radioactive materials in accordance with the applicable requirements of the Department of Transportation regulations found in 49 CFR Parts 100-180 .

49 CFR Part 173.441 (a) requires, in part, that each package of radioactive material offered for transportation must be designed and prepared for shipment so that under conditions normally incident to transportation, the radiation level does not exceed 2 mSv/hour (200 mrem/hour) at any point on the external surface of the package.

10 CFR 71.47 (b) requires that a package which exceeds 2 mSv/hour (200 mrem/hour) on the external surface must meet the following criteria: (1) the shipment is made in a closed transport vehicle, (2) the package is secured within the vehicle so that its position remains fixed during transportation, and (3) there are no loading or unloading operations between the beginning and end of the transportation.

Contrary to the above, on February 3, 2008, the licensee failed to properly design and prepare for shipment, a package containing fuel field services equipment. Specifically, the licensee shipped surface contaminated equipment as open conveyance on a flatbed trailer to the Watts Bar Nuclear Plant in Tennessee. On February 4, the shipment arrived at Watts Bar Nuclear Plant with measured contact radiation levels between 800-2000 mrem/hour in a localized area on the bottom of the container. The localized area was not easily accessible.

This is a Severity Level III violation (Supplement V).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance will be achieved is already adequately addressed on the docket in the cover letter to this Notice, and in the material presented by AREVA NP at the conference. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, EA-08-122" and send it to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S., Nuclear Regulatory Commission, Region II, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

Enclosure

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 13<sup>th</sup> day of June 2008