

EA-16-016  
Mr. Herb Winegard  
Principal Counsel  
**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001  
April 21, 2016  
Engineering and Projects - North America  
AREVA Inc.  
7207 IBM Drive  
Charlotte, NC 28262

SUBJECT: AREVA ~~RICHLAND FACILITY INC.~~ - EXPORT OF NUCLEAR REACTOR COMPONENTS TO FRANCE AND TAIWAN

Dear Mr. Winegard:

This letter refers to a review of information relating to the export of nuclear equipment and components by AREVA, Inc., from its ~~Richland, Washington and Lynchburg, Virginia, facilities~~ between June 2009 and March 2015. The exports involved nuclear equipment and components under the U.S. Nuclear Regulatory Commission's (NRC's) licensing authority that are also subject to the Protocol Additional to the Agreement Between the United States of America and the International Atomic Energy Agency for the Application of Safeguards in the United States of America (hereinafter referred to as the Additional Protocol). A summary of the issues concerning the exports is enclosed. The NRC discussed its preliminary findings with you, Mr. Michael Wilbricht, and Mr. Tim Tate on January 27, 2016, and on March 3, 2016.

Based on its review of information provided about the exports, the NRC has identified two apparent violations that are being considered for escalated enforcement action in accordance with the NRC Enforcement Policy (Policy). The current Policy is found on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The first apparent violation involves AREVA's failure to report the export of nuclear reactor components subject to the Additional Protocol and as required by NRC's regulations. The apparent violation impacted the U.S. Government's ability to comply with international obligations for reporting certain exports under the Additional Protocol. The second apparent violation involves AREVA's export of a reactor coolant pump (RCP) (without motor) to France without a specific license authorizing the export. The failure to obtain a specific license before exporting the RCP raises significant regulatory concerns because an RCP is considered a "major reactor component" and requires the highest level of review under the Atomic Energy Act of 1954, as amended, and Title 10 of the *Code of Federal Regulations* (CFR) Part 110. Specifically, the export of an RCP would require a NRC Commission-level review and U.S. Executive Branch (EB) views including government to government assurances from EURATOM in accordance with the Agreement for Cooperation in the Peaceful Uses of Nuclear Energy between the European Atomic Energy Community and the United States of America (commonly referred to as the Section 123 Agreement). AREVA's failure to apply for and receive an export license significantly impacted NRC's regulatory process.

The circumstances surrounding these apparent violations, the significance of the issues, and the need for lasting and effective corrective action were discussed with you on March 31, 2016.

Because the apparent violations are being considered for escalated enforcement, the NRC may ultimately propose the imposition of a civil monetary penalty in accordance with Section 2.3.4, "Civil Penalty," of the Policy. However, before the NRC makes its enforcement decision, we are

**Commented [WH(1):** Note: Items 2 through 6 in the "Summary of Issues" were exported from an AREVA Inc. location. Item 1 was dropped shipped to Veridium in San Diego, California and Veridium exported the fuel channels to Taiwan.

providing you an opportunity to respond to the apparent violations described in the enclosed summary of issues by (1) requesting a Pre-decisional Enforcement Conference (PEC), or (2) requesting Alternative Dispute Resolution (ADR). If a PEC is held, it will be open for public observation and the NRC will issue a press release to announce the time and date of the conference.

If you choose to request a PEC, the conference will afford you the opportunity to provide your perspective on these matters and any other information that you believe the NRC should take into consideration before making an enforcement decision. The decision to hold a PEC does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference would be conducted to obtain information to assist the NRC in making an enforcement decision. The topics discussed during the conference may include information to determine whether a violation occurred, information to determine the significance of a violation, information related to the identification of a violation, and information related to any corrective actions taken or planned.

In lieu of a PEC, you may request ADR with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a third party neutral. The technique that the NRC has decided to employ is mediation. Mediation is a voluntary, informal process in which a trained neutral (the "mediator") works with parties to help them reach resolution. If the parties agree to use ADR, they select a mutually agreeable neutral mediator who has no stake in the outcome and no power to make decisions. Mediation gives parties an opportunity to discuss issues, clear up misunderstandings, be creative, find areas of agreement, and reach a final resolution of the issues. Information concerning the NRC's program can be obtained at <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr.html>. The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as a neutral third party. Please contact ICR at 877-733-9415 within 10 days of the date of this letter if you are interested in pursuing resolution of this issue through ADR.

Please contact Ms. Brooke G. Smith at (301) 415-2347, within 10 days of the date of this letter. A PEC should be held within 30 days and an ADR session within 45 days of the date of this letter. If you choose not to request a PEC or ADR, or in the event you do not reply to this letter, the NRC will proceed with its enforcement decision.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosures and your response will be made available electronically for public inspection in the Public Document Room or from the NRC's document system Agencywide Documents Access and Management System accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such information, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

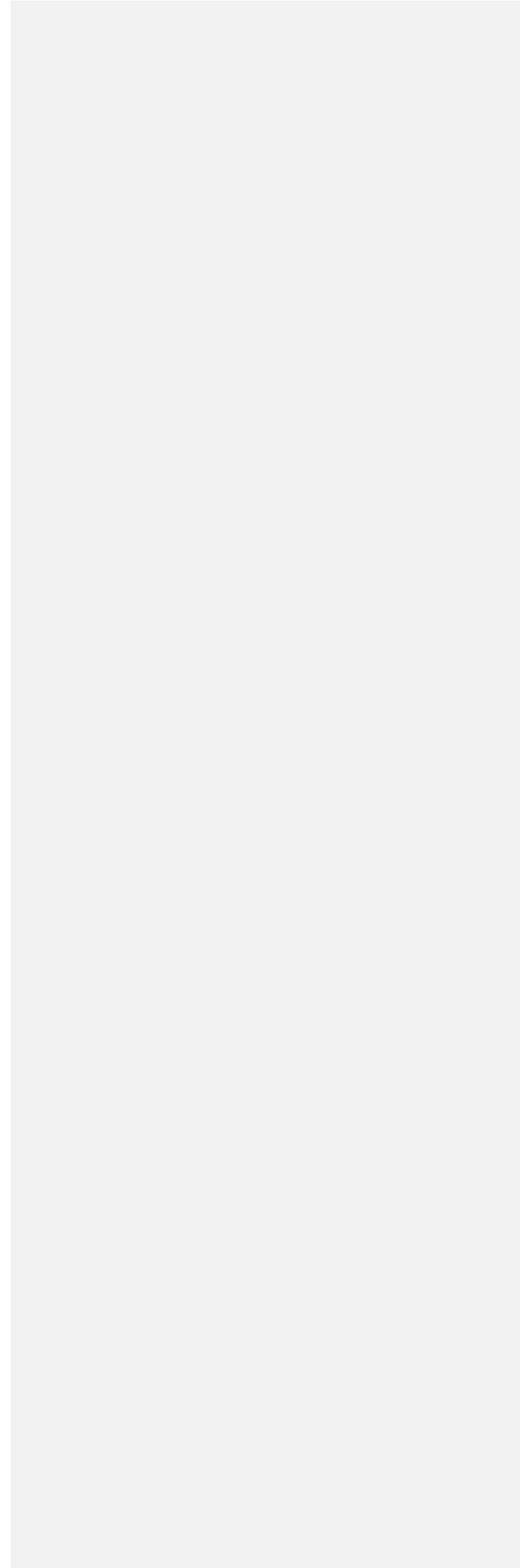
Please contact Brooke G. Smith at (301) 415-2347 if you have any questions regarding this matter.

Sincerely,

*/RA/*

Patricia K. Holahan, Director  
Office of Enforcement

Enclosure:  
Summary of Issues



## SUMMARY OF ISSUES

On September 9, 2015, AREVA met with representatives from the NRC's Office of Nuclear Material Safety and Safeguards (NMSS) wherein licensee responsibilities under the Protocol Additional to the Agreement Between the United States of America and the International Atomic Energy Agency for the Application of Safeguards in the United States of America (hereinafter referred to as the Additional Protocol) were discussed. During the meeting, AREVA officials informed the NMSS representatives that it may have exported reactor components to other countries without making the notifications required by the Additional Protocol and NRC regulations in 10 CFR 110.54(a)(1). AREVA conducted a review of export activities, and later notified the NRC that it had exported zirconium tubes between June 1, 2009 and March 18, 2015, ~~some of which went to nuclear power plants located in France and Taiwan~~, and that it had exported a reactor coolant pump (RCP) to France on July 25, 2014. The RCP export did not include a motor. On October 29, 2015, AREVA provided the required export notifications to the U.S. Department of Commerce (DOC), and on November 3, 2015, this information was provided to the NRC (Agencywide Documents Access and Management System (ADAMS) Accession No. ML 16056A349).

10 CFR 110.54(a)(1) states, in part, that reports of exports of nuclear facilities and equipment shipped during the previous quarter must be made by licensees making exports under the general license or specific license in Title 10 of the *Code of Federal Regulations* (CFR) Part 110 by January 15, April 15, July 15, and October 15 of each year on DOC/NRC Forms AP-M or AP-13, and associated forms. In accordance with 10 CFR 110.54(a)(2), these required reports must be submitted to the DOC, Bureau of Industry and Security. The reports must contain information on all nuclear facilities, equipment, and non-nuclear materials listed in Annex II of the Additional Protocol.

Between June 2009 and March 2015, AREVA failed to report exports under the general license and specific license in 10 CFR Part 110 of nuclear facilities and equipment shipped during the previous quarter. Specifically, AREVA exported nuclear reactor equipment and components from the United States including components described in paragraphs (4), (5), (6) and (7) of Appendix A to 10 CFR Part 110 and failed to submit quarterly reports to the NRC and DOC as noted by ~~the following examples:~~

1. On June 1, 2009, AREVA exported ~~Zircalloy reactor pressure tubes for BWR fuel channels~~ to a nuclear power plant located in Taiwan.
2. On April 26, 2012, AREVA exported zirconium tubes designed and prepared for use as fuel cladding to ~~a nuclear power plant located CEZUS~~ in France.
3. On December 3, 2013, AREVA exported ~~inert zircalloy fuel rods zirconium tubes~~ designed and prepared for use as fuel cladding to a nuclear power plant located in Taiwan.
4. On February 20, 2014, AREVA exported zirconium fuel assembly guide tubes to ~~a nuclear power plant located CEZUS~~ in France.
5. On March 18, 2015, AREVA exported zirconium tubes designed and prepared for use as fuel cladding to ~~a nuclear power plant located GDE-SA (a fuel recycler)~~ in France.
6. On July 25, 2014, AREVA exported a RCP (without motor), especially designed and prepared for circulation ~~of the primary coolant in a nuclear reactor, to Jeumont in France.~~

**Commented [WH(2):** Not all exports were to reactors. Two exports were returning fuel rod cladding to Cezus. One export was sending fuel rod cladding to GDE-SA (a recycler). Two exports (4 inert fuel rods and BWR channels) were to Taiwan Power reactors. The RCP was shipped to Jeumont for refurbishing.

Please see list below.

**Commented [WH(3):** The list is the complete list

**Commented [WH(4):** They were not pressure tubes for BWR fuel channels; they were finished BWR fuel channels. They were sent directly from Veridiam in San Diego to Kuosheng Unit 1

Reactor coolant pumps, reactor pressure tubes, fuel channels, zirconium tubes designed and prepared for use as fuel cladding, and zirconium fuel assembly guide tubes, are nuclear reactor equipment and components equipment described in paragraphs (4) (5), (6) and (7) of Appendix A to 10 CFR Part 110, and are listed in Annex II of the Additional Protocol. France and Taiwan are also listed in 10 CFR 110.26(b) as approved destinations for the export of nuclear reactor components under a general license. As such, AREVA was required by 10 CFR 110.54(a)(1) to submit quarterly reports to the DOC, Bureau of Industry and Security.

NRC staff reviewed the export notifications submitted on November 3, 2015, and during this review, identified a second apparent violation regarding the export of an RCP (without motor) to France without a specific license authorizing the export (as listed in example 6 above). 10 CFR 110.5 states, in part, that no person may export any nuclear equipment listed in 10 CFR 110.8 unless authorized by a general or specific license issued under 10 CFR Part 110. 10 CFR 110.20(a) states that a person may use an NRC general license as authority to export or import nuclear equipment or material, if the nuclear equipment or material to be exported or imported is covered by the NRC general licenses described in Sections 110.21 through 110.27. If an export or import is not covered by an NRC general license, a person must file an application for a specific license in accordance with 10 CFR 110.31 through 110.32.

On July 25, 2014, AREVA exported nuclear equipment listed in 10 CFR 110.8 to France that was not authorized by a general license and without filing an application for a specific license in accordance with 10 CFR 110.31 through 110.32. In its annual report of exports required by 10 CFR 110.54(c) dated January 16, 2015 (ADAMS Accession No. ML 15033A045), AREVA stated that it had exported an "RCP" under the 10 CFR 110.26 general license. AREVA inappropriately keyed the component to paragraph (9) of Appendix A to Part 110, "Illustrative List of Nuclear Reactor Equipment under NRC Export Licensing Authority." However, reactor primary coolant pumps are described in Paragraph (4) of Appendix A to Part 110 and are, thus, not permitted to be exported under the NRC general license in 10 CFR 110.26.