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Safety Evaluation Report for the
Termination of Special Nuclear Materials License SNM-1168
AREVA NP, Inc
Lynchburg, Virginia

Docket No. 70-1201

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Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
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I. INTRODUCTION

By letter dated September 23, 2011 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML11277A272), the AREVA NP, Inc.'s (AREVA), Lynchburg Facility submitted an amendment request to the U.S. Nuclear Regulatory Commission (NRC) to reduce the possession limits under and to terminate their Special Nuclear Material (SNM) License SNM-1168. This Safety Evaluation Report (SER) addresses the final resolution of outstanding issues in SNM-1168 and supports the final termination of this license. The request was made pursuant to the requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 70, "Domestic Licensing of Special Nuclear Material." The NRC accepted AREVA's request on November 9, 2011 (ADAMS Accession No. ML113120353).

The reduction in possession limits, Amendment 18 (ADAMS Accession No. ML121160429), was approved on May 17, 2012. Amendment 18 reduced the possession limits in SNM-1168 to a maximum of 350 grams of enriched ^{235}U as residual material remaining after completing decontamination activities at the facility. This amendment allowed AREVA to stand down from the requirements to maintain a criticality alarm system, the requirement to maintain a Physical Security Plan, the requirement to maintain an Emergency Plan, and the requirement to maintain a Materials Control and Accounting Plan. The reduction in possession limits followed several inspections during 2011 by the NRC's Region I Materials and Licensing Branch, and inspections by the Nuclear Materials Safety and Safeguards Office Materials Control and Accounting inspectors, and the Nuclear Criticality Safety inspectors. AREVA demonstrated that all residual contamination that remained at the MAR Facility was significantly less than 350 grams enriched ^{235}U . These were the final inspections to be performed by NRC of the Mt. Athos Road Facility (MAR Facility) in the respective areas prior to termination of the license.

The NRC staff conducted its safety and safeguards review in accordance with 10 CFR Part 20, "Standards for Protection against Radiation;" 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material;" 10 CFR Part 73, "Physical Protection of Plants and Materials;" 10 CFR Part 74, "Material Control and Accounting of Special Nuclear Material;" and other applicable regulations.

II. DISCUSSION

AREVA submitted a Notice on August 25, 2010 (ADAMS Accession No. ML102430209), of their intent to cease licensed activities at their MAR Facility in Lynchburg, VA, as required by 10 CFR 70.38. On January 11, 2011, AREVA submitted their decommissioning proposal (ADAMS Accession No. ML110190310) to the NRC for the MAR Facility. By letter to AREVA dated July 28, 2011 (ADAMS Accession No. ML111590114), the NRC responded to AREVA regarding their decommissioning proposal. AREVA planned to continue to use the MAR Facility under their Virginia Radioactive Materials License No. 680-515-1 to conduct additional by-product work and that it did not plan to fully decommission the MAR Facility for unrestricted use prior to termination SNM-1168. AREVA stated that their Virginia license would be amended to allow for the possession of a maximum of 350 grams of enriched ^{235}U in accordance with 10 CFR 150.11, which limits the amount of SNM in a state agreement license for the purpose of nuclear criticality safety. Ultimately, AREVA will decommission the MAR Facility under their Virginia license.

On March 31, 2011, the licensee submitted an amendment request (ADAMS Accession No. ML11103A079) for an amendment to SNM-1168 to downgrade the authorized use of the MAR Facility from a fuel manufacturing facility to the possession only of SNM. Their letter stated that

they had concluded all fuel manufacturing activities, shipped all fabricated fuel assemblies offsite to the customer's facilities, and shipped offsite all excess fuel pellets and scrap to their Richland, WA, facility. AREVA removed residual SNM from the facility's structure, equipment and fixtures that remained after completing operations.

Amendment 17 to SNM-1168 dated July 12, 2011 (ADAMS Accession No. ML111590156), removed AREVA's authorization to use SNM in the fabrication of nuclear fuel. This put the MAR Facility in a possession-only status with respect to SNM and removed the authorization for AREVA's to perform any further activities involving SNM, including the receipt of additional SNM. Other license requirements remained in place, including the Criticality Accident Alarm System, Materials Control and Accounting Plan for SNM, Physical Security, and Emergency Plan.

1.0 GENERAL INFORMATION

The NRC's Region I and Region II personnel conducted several inspections at the MAR Facility during 2011. The inspections were intended to monitor the progress of the transition from an operating fuel cycle facility to a facility undergoing decontamination with the intent to transfer regulatory oversight to its Virginia license. The final inspection was performed by Region I, Decommissioning Branch, Division of Nuclear Materials Safety on October 25, 2011. The NRC Inspection Report No. 07001201/2011006 dated February 16, 2012, documented this inspection (ADAMS Accession No. ML120480175). The purposes of this inspection was to determine that AREVA had less than 350 grams enriched ^{235}U at the MAR Facility. AREVA demonstrated that all residual contamination that remained at the MAR Facility was significantly less than 350 grams enriched ^{235}U . The inspection report, prepared by Region I, concurred with these results.

The staff reviewed AREVA's Commonwealth of Virginia Radioactive Materials License 680-515-1 dated June 13, 2012, to determine that the license had been amended to include a condition to limit the licensee to less than 350 g ^{235}U . This condition must remain until AREVA decommissions the facility.

2.0 Actions Required Prior to License Termination

AREVA's amendment request to terminate SNM-1168 was contingent upon completing two further actions. Section 3.0 – International Safeguards of SNM-1168 included License Condition SG-3.1 which required, "The licensee shall follow Codes 1 through 6 of the Transitional Facility Attachment No. 6.A., dated December 4, 1995, to the US/International Atomic Energy Agency (IAEA) Safeguards Agreement." Although it could have been possible to pass this safeguards condition on to the AREVA's Virginia license, it was decided to work with the IAEA to remove the requirement from the license by de-selecting the AREVA MAR Facility from the IAEA's transitional subsidiary arrangements listing pursuant to Article 2 of the protocol to the U.S. – IAEA Safeguards Agreement. AREVA Lynchburg was removed from the listing due to the termination and decommissioning of the low-enriched uranium fuel fabrication activities. The IAEA's letter included Enclosure 1: UYNJ Deselection Letter dated August 10, 2012 (ADAMS Accession No. ML12223A125). Note: "UYNJ" was the IAEA's facility code for AREVA's MAR Facility. AREVA was notified by the NRC by letter dated August 16, 2012 (ADAMS Accession No. ML12223A124), of the IAEA's de-selection of the MAR Facility.

The second action required to be completed prior to terminating SNM-1168 was for the Commonwealth of Virginia to accept financial assurance for decommissioning from AREVA. By letter to the NRC dated August 13, 2012 (ADAMS Accession No. ML12240A250), the

Commonwealth of Virginia provided notice to the NRC that AREVA had provided a letter of credit for financial assurance which satisfied Virginia's financial assurance requirements.

III. CONCLUSION

The NRC staff concludes that the actions taken by AREVA, as discussed herein, prior to and after the submittal of their request to terminate SNM-1168 have provided the necessary assurance to conclude that the license can be terminated. Additionally, having satisfied the two remaining actions required prior to termination, removal of the IAEA's safeguards condition and satisfying the financial assurance requirements with the Commonwealth of Virginia, the license can be terminated without any further actions. The NRC staff has further determined that the actions taken by AREVA in the dismantlement and decommissioning are adequate to provide assurance of the protection of the health and safety of the public and workers; to protect the environment; and to comply with the regulatory requirements imposed by the Commission in 10 CFR Part 70.

IV. PRINCIPAL CONTRIBUTORS

Linda Allen
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Ken Kline
Richard Thompson

V. REFERENCES

Title 10 of the *Code of Federal Regulations* Part 70, "Domestic Licensing of Special Nuclear Material," U.S. Government Printing Office, Washington, DC.