

DOCKET: 70-1257

LICENSEE: AREVA NP
Richland, WA

SUBJECT: SAFETY EVALUATION REPORT FOR: AMENDMENT 46 - APPLICATION FOR
INCREASED U-235 POSSESSION LIMIT (TAC 31920 AND L31937)

REFERENCES

- (1) Letter, Framatome ANP, Inc. (FANP) to the U.S. Nuclear Regulatory Commission (NRC), "Licensing Actions Requested to Support the Blended Low Enriched Uranium (BLEU) Project at FANP's Richland Washington Facility," dated August 27, 2003; ML032471514.
- (2) Letter, NRC to FANP, "Review of Licensing Actions Needed to Support Blended Low Enriched Uranium Project at FANP, Inc.-Richland (TAC No. L31777)," dated October 23, 2003; ML032970647.
- (3) Amendment No. 42, Storage of Blended Low Enriched Uranium Powder Including Safety Review, dated May 27, 2004; ML041530587.
- (4) Letter, FANP to NRC, "Application for Increased U-235 Possession Limit for the FANP, Inc. Richland Fuel Fabrication Facility"; Special Nuclear Material License (SNM)-1227; Docket No. 70-1257 (TAC 31888), dated April 25, 2005; ML051250219.
- (5) Letter, FANP to NRC, "Updated Decommissioning Funding Plan (DFP) for FANP Richland Fuel Fabrication Facility"; Docket No. 70-1257 (TAC No. 31920), dated December 19, 2005; ML060030474.
- (6) Letter, FANP to NRC, "Notification of Name Change - FANP Inc. To AREVA NP, Inc"; Docket No. 70-1257, dated March 8, 2006; ML060800450.
- (7) Letter, AREVA NP, Inc. to NRC, " Revised License Pages for U-235 Possession Limit Increase; AREVA NP, Inc. Richland Fuel Fabrication Facility"; License No. SNM-1227; Docket No. 70-1257, dated March 17, 2006; ML060890118 .
- (8) Letter, AREVA NP to NRC, " Application for Amendment to License No. SNM-1227; Name Change of Framatome ANP Inc. (FANP) to AREVA NP Inc"; Docket No. 70-1257, dated March 27, 2006; ML060890229.

BACKGROUND

In a letter dated August 27, 2003, FANP outlined its assessment of required licensing actions to support the Blended Low Enriched Uranium (BLEU) project activities at its Richland, Washington facility. In a letter dated October 23, 2003 (Reference 2), the NRC concurred with FANP's assessment, but recommended that the two required licensing actions, modified powder storage configuration controls and increased site U-235 possession limits, be submitted as separate amendments. The NRC issued Amendment 42 to FANP's license SNM-1227 on May 27, 2004, which authorized the receipt, possession and storage of BLEU powder from the BLEU powder production facility in Erwin, Tennessee, and addressed the first required licensing action. Amendment 42 is listed as Reference 3 above.

Reference 2 requested an updated DFP for the increased possession limit to include the latest plant configuration. This was submitted via letter dated December 19, 2005 (Reference 5). It was noted that the updated DFP reflects an increase of approximately 8,800 square feet for the BLEU addition to the UO₂ building. There was a corresponding increase in the amount of equipment, components, and wallboard associated with production areas for BLEU processes installed in existing facilities. In addition, deficiencies in the previous version were corrected.

This NRC review addresses the April 25, 2005, amendment request (Reference 4) to increase the licensee's possession limit of U-235 from 25,000 kg to 75,000 kg in Section 1.4.1 of the license application. In the amendment request, the applicant stated that an increased possession limit will be needed to accommodate storage of BLEU powder due to differences in production/shipping schedules between the BLEU powder production facility in Erwin, Tennessee and the Richland fuel fabrication facility. The April 25, 2005, amendment request only asked for the possession limit increase described above and would not change any currently authorized activities nor require changes in storage, transfer, or processing of the BLEU powder. On March 17, 2006, the applicant submitted revised pages for Chapter 1 of the license application, in accordance with 10 CFR 70.22, to update the possession limit quantity of U-235 (reference 7).

NAME CHANGE

On March 8, 2006, FANP notified the NRC that effective March 15, 2006, the name of the Richland facility would change to AREVA NP, Inc. (Reference 6). The letter clarified that the change was in name only, and that there was no change in ownership or control.

The NRC staff reviewed the name change request against the requirements of 10 CFR 70.36 and the guidance in Volume 15 of NUREG-1556, "Consolidated Guidance for Materials Licenses," and recommended proceeding with an amendment request to replace the former name, "Framatome ANP Inc.," with the new name, "AREVA NP, Inc.," in Condition 1 of the license. The amendment request was submitted by AREVA NP on March 27, 2006 (Reference 8).

The name change does not result in any changes to the licensee's operations or existing safety requirements. There were no changes to the facility; the Radiation Safety Officer, or other positions named in the license; no changes in procedures, equipment, or locations named in the license.

SAFETY REVIEW

The safety envelope for performing licensed activities at the Richland facility is established by safety and safeguards commitments in the license application and established license conditions. The licensee is required to meet 10 CFR Part 70 and applicable regulatory requirements. The NRC safety findings are as follows:

- **Chemical Safety:** The increased possession limit for anticipated storage of BLEU powder in closed containers did not introduce any new chemicals or additional inventories, and did not present any increased chemical safety hazards. Existing licensee commitments and programmatic requirements for chemical safety are adequate to ensure safety for workers, the public, and the protection of the environment.
- **Radiation Safety:** The increased possession limit for anticipated storage of BLEU powder in closed containers did not present any particular problems that required changes to the licensee's current radiation protection program which was adequate to ensure occupational radiation exposure is as low as reasonably achievable, consistent with the requirements of 10 CFR Part 20.
- **Fire Safety:** The increase in possession limit for anticipated storage of BLEU powder did not involve increased combustible loading and did not present an increased fire risk. The licensee's current commitments and programmatic requirements for fire safety assured the safety of authorized activities.
- **Environmental Safety:** The increase in the possession limit for anticipated storage of BLEU powder for fuel manufacturing represents an administrative change to authorized activities which were previously reviewed in the renewal of the license, and subsequent amendments. This amendment request authorizes no changes in process throughput or currently authorized activities, no new environmental effluents, nor increases the quantities or makeup of any existing effluents. An Environmental Assessment was prepared for the renewal of the license in 1995, with a conclusion of a Finding of No Significant Impact. It was determined that the proposed increase in the possession limit would not impact the conclusions of the Environmental Assessment.
- **Safeguards and Emergency Preparedness:** Safeguards and Emergency Plans were not affected by the proposed increase in the possession limit. No decrease in effectiveness would result from the proposed change.
- **Material Control and Accounting (MC&A):** The NRC staff determined that the request meets the criteria in 10 CFR 70.32(c)(1)(iii) and would not decrease the effectiveness of the MC&A program, implemented pursuant to 10 CFR 74. The staff recommends approval based upon commitments detailed in the request: the amendment is limited to increased storage capacity of drummed uranium powder, and there are no changes in

process throughput or currently authorized activities. The staff noted that the basic aspects of the MC&A program are not inventory dependent. The staff recommends approval based upon the commitment that there are no changes to the MC&A program.

- **Physical Security:** The NRC staff determined that the request meets the criteria in 10 CFR 70.32 (e) and would not decrease the effectiveness of the Physical Security program, implemented pursuant to 10 CFR 73. The staff recommends approval of the amendment based upon the commitment in the request that there are no changes to the Physical Security Plan.
- **Nuclear Criticality Safety:** The April 25, 2005 amendment request only asked for the possession limit increase described above and does not change the currently authorized activities or require changes in the storage, transfer, or processing of the BLEU powder. In addition, it does not change any procedures or require any changes in to NCS programs. Full utilization of the BLEU powder storage areas was evaluated in License Amendment No. 42, and all credible criticality accident scenarios were found to be subcritical. Therefore, the NRC determined with reasonable assurance that the increase in possession limits will not decrease the public health and safety, security, or protection of the environment.

DECOMMISSIONING FUNDING PLAN

Reference 2 requested an updated Decommissioning Funding Plan (DFP) to include the latest plant configuration. The licensee's 2005 submittal of financial instruments for decommissioning, required by 10 CFR 70.25, was shortly followed by the amendment request of April 25, 2005. The technical review was completed, and NRC notified the licensee that the updated DFP would be necessary to complete the action because the previous DFP did not include the BLEU project. The NRC staff reviewed the updated DFP which was submitted via letter dated December 19, 2005 (Reference 5).

The updated DFP accounts for the requested increase in possession limit and reflects an increase of approximately 8,800 square feet of floor area for the BLEU addition to the UO₂ building. There is a corresponding increase in the dimensions of equipment/components, walls and ceilings listed in Table 2 of the DFP associated with the production and support facilities for BLEU processes installed in the facilities. There is no impact in the decommissioning plan for support or ancillary facilities. There was no increased contamination directly attributed to the increased possession limit in this amendment request, because the drums of powder are sealed when in storage.

The DFP was evaluated using the review criteria in NUREG-1727, "NMSS Decommissioning Standard Review Plan." It was noted that the updated DFP included a revised cost estimate which included the BLEU project. Components of the financial assurance demonstration were reviewed and found to be satisfactory. Plant descriptions in the updated DFP were reviewed and reconciled with the current facility arrangement and activities. Previously identified deficiencies in the cost estimate were corrected in the updated version. Key assumptions regarding radwaste disposal remained consistent. The DFP was found to be acceptable.

ENVIRONMENTAL REVIEW

These changes are administrative only and do not affect the scope or nature of the licensed activity. A categorical exclusion is allowed under 10 CFR 51.22 (c)(11) if the following requirements have been satisfied:

- i There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.
- ii There is no significant increase in the individual or cumulative occupational radiation exposure.
- iii There is no significant construction impact.
- iv There is no significant increase in the potential for or no consequences from radiological accidents.

There are no new nuclear fuel manufacturing activities proposed by this request, nor increased throughputs at existing unit processes. The amendment is required for increased drummed powder storage. Since there will be no significant increase in the possibility of an offsite release, there will be no significant increase in individual or cumulative occupational radiation exposure. Consequently, there is no significant increase in the potential for, or no consequences from, radiological accidents. Increase of the possession limit includes no construction activity. Therefore, there will be no construction impact.

The staff has determined that the proposed changes do not adversely impact the public health and safety or the environment, and are categorically excluded from the requirement to prepare a site-specific environmental assessment. Therefore, in accordance with 10 CFR 51.22(c)(11), neither an environmental assessment nor an Environmental Impact Statement is warranted for this action.

CONCLUSION

Based on the information in the submittals, the NRC determined with reasonable assurance that the increase in the possession limit will not decrease public health and safety, security, or protection of the environment.

The Division of Waste Management and Region II concur with this recommendation.

PRINCIPAL CONTRIBUTORS

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