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DOCKET: 70-27

LICENSEE: BWX Technologies, Inc.
Nuclear Products Division
Lynchburg, VA

SUBJECT: SAFEGUARDS EVALUATION REPORT: SUBMITTAL DATED MARCH 9, 2005,
REVISION TO HIGH ENRICHED URANIUM FUNDAMENTAL NUCLEAR
MATERIAL CONTROL PLAN

BACKGROUND

By cover letter dated March 9, 2005, BWX Technologies (BWXT), Nuclear Products Division submitted a revision to all chapters of its high enriched uranium (HEU) Fundamental Nuclear Material Control (FNMC) plan (hereafter referred to as "FNMC Plan" or simply "Plan"). The evaluation of the submitted FNMC Plan was processed following the provisions of 10 CFR 70.34 to ensure there would be no decrease in the overall effectiveness of the licensee's material control and accounting (MC&A) program.

DISCUSSION

This Plan revision provided a better description for clarity for various process control units in Chapter 1.0, and addressed some changes for the measurement systems in Chapter 4.0 resulting from follow-up items of a previous MC&A inspection at the facility in March 2005. All other Plan changes were minor wording changes or provided clarification of current practices. The changes affected all five chapters of the HEU FNMC Plan. The Plan was submitted in its entirety with a new effective date and the text changes denoted by shading. The Plan changes are summarized as follows:

General Discussion Chapter

- Added referenced regulations applicable to low enriched uranium (LEU) requirements into this HEU FNMC Plan.

Chapter 1 - Abrupt Loss Detection

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

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Chapter 2 - Item Monitoring

- Revised the section on item identification to reflect current practices.
- Changed the exempted amount in scrap and waste containers to agree with the regulatory requirement.
- Updated the identification of item storage areas.
- Clarified the two sampling methods for LEU materials from the [REDACTED] operations and practices for independent confirmation of SNM items.

Chapter 3 - Alarm Resolution

- Added referenced sections for clarity.
- Added referenced material balance area (MBA) to further define the specific location.
- Added the NRC Operations Center in the notification reporting section.

Chapter 4 - Quality Assurance

- Revised the reporting functions within the Nuclear Materials Control organization.
- Provided general revisions for clarity within the section on the scrap recovery facility.
- Updated the material and measurements table to reflect current activities in each MBA.
- Revised the method in use for uncertainty determinations with the mass measurement systems.
- Clarified the section on the volume calibration exemption.
- Included the bar code scanning as part of form controls in the inventory process.
- Added the new database programs for the accountability record system.
- Included requirements for receiving LEU materials into this HEU FNMC Plan.
- Revised the section on scrap control to more correctly reflect current practices.
- Revised the section on material custodianship for discontinued location of scrap material transfers.

Based on the review and evaluation of the licensee's submittal, the staff has determined that the proposed changes to the facility's HEU FNMC Plan are adequate and continue to provide an effective MC&A program at BWXT. Approval of the revised HEU FNMC Plan is recommended.

ENVIRONMENTAL REVIEW

The staff has determined that the revision of the facility's FNMC Plan involves the safeguards plans and material accountability which are categorically excluded from the requirements to prepare a site-specific environmental assessment. Therefore, in accordance with 10 CFR 51.22(c)(12), neither an environmental assessment nor an environmental impact statement is warranted for this action.

CONCLUSION

The staff concludes that the revised HEU FNMC Plan contains appropriate and necessary commitments to meet applicable MC&A requirements stipulated in 10 CFR Parts 74.51-59, and that approval of the revised Plan does not reduce the effectiveness of the licensee's safeguards

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system. Therefore, the existing Safeguards License Condition SG-5.1 should be reissued to reflect the revised HEU FNMC Plan as follows:

- SG-5.1 To achieve the performance objectives of 10 CFR 74.51(a) and maintain the system capabilities of 10 CFR 74.51(b) with respect to all activities involving special nuclear material, the licensee shall follow the General Discussion and Chapters 1.0 through 4.0 (all pages dated March 9, 2005) of its "Fundamental Nuclear Materials Control Plan - Special Nuclear Materials License 42." Any revisions to this Plan shall be made in accordance with, and pursuant to, either 10 CFR 70.32(c) or 70.34.

PRINCIPAL CONTRIBUTOR

Thomas N. Pham