

SAFETY EVALUATION REPORT INPUT

DOCKET: 70-27

LICENSE: SNM-42

LICENSEE: Babcock & Wilcox Nuclear Operations Group, Inc., (B&W NOG)
Lynchburg, Virginia

SUBJECT: REQUEST TO AMEND CHAPTER 10 OF LICENSE SNM-42 LICENSE
APPLICATION TO UPDATE THE SITE DECOMMISSIONING COST ESTIMATE

BACKGROUND

In a letter dated November 30, 2009, B&W NOG submitted a request to amend Chapter 10 of the license application with updated information in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 70.25(e), which requires a fuel cycle licensee to update their Decommissioning Cost Estimate at intervals not to exceed three years. The previous update was submitted in 2006, and an overall increase of 16.7 percent was noted due to increases in labor rates and costs of disposal and transportation of wastes. The request was accompanied by three enclosures: changed pages for Chapter 10 of the license application, including a description of each change and its justification; a redacted version of Chapter 10; and an affidavit attesting to the proprietary nature of the financial information which was furnished.

The original request was followed by a letter dated December 4, 2009, which furnished amended financial documents (letter of credit, standby trust agreement, and certification of financial assurance) based on the updated Cost Estimate.

In a letter dated July 16, 2010, the U.S. Nuclear Regulatory Commission (NRC) requested additional information regarding the request. B&W NOG responded to the request in a letter dated September 14, 2010.

DISCUSSION

Staff from the Fuel Manufacturing Branch and the Office of Federal and State Materials and Environmental Management Programs reviewed the request using the guidance in NUREG-1757, Volume 3, Appendix A, *Consolidated Decommissioning Guidance – Financial Assurance, Record Keeping, and Timeliness*, which provides an approach for an application for decommissioning a materials license. The tables in Appendix A of NUREG-1757, Volume 3, provide a summary of the types of information that should accompany a request for license termination, and—by inference—the types of information that should accompany an application for a fuel cycle license.

The material in the license application for SNM-42 includes details regarding the levels of contamination that will remain after decommissioning, as well as key considerations when residual radioactive material is detected. General procedures for removal of contamination are provided in Sections 10.2.1 and 10.2.2. The requirements for reporting to the NRC at the completion of decommissioning are specified in Section 10.2.3. Financial assurance for decommissioning of Naval Reactors Areas is provided through the Naval Reactors contract with the U.S. Department of Energy and is described in Appendices 10-1 and 10-2.

Enclosure

A summary of labor rates, man-hours, disposal volumes, transportation and disposal fees, as well as a 25 percent contingency are provided in the style requested by NUREG-1757, Volume 3, Appendix A, for the applicable plant areas as follows: Downblending, Appendix 10-3; Research Test Reactors and Former Targets (RTRT), Appendix 10-4; Lynchburg Technology Center (LTC), Appendix 10-5. The appendices in the license application state that the estimates contain no sale value or credit for sale of the equipment after it is removed from the facility. Third party rates are used for the LTC (Appendix 10-5) and include the hourly rate of \$24 per hour plus \$111 per hour overhead. Descriptions of components and associated dimensions or waste volumes in each area to be decontaminated, waste volumes and associated labor hours, and total costs are provided in the appendices for Downblending, RTRT, and the LTC.

The result of the information detailed above is an increase in the Decommissioning Cost Estimate from \$24,531,906 in 2006 dollars to \$33,699,571 in 2009 dollars.

The staff notes that the next Decommissioning Cost Estimate is expected late in calendar year 2012. Per guidance described in NUREG-1757, Appendices A.3.6 through A.3.9, that provides substantial information related to perform the Cost Estimate, the staff requests B&W NOG to perform the following during the preparation of the next Decommissioning Cost Estimate:

Downblending:

For this portion of the estimate, the staff requests the following information (if any of the below are covered by the Naval Reactor decommissioning, B&W NOG should provide such clarification):

- Cost, labor categories and basis for planning and preparation, preparation of decommissioning plan, final status survey, and restoration of facility grounds.
- Clarification on decontamination methods.
- Packing materials, equipment and supplies (e.g., Personal Protective Equipment [PPE], rental of equipment), lab costs, and miscellaneous expenses (license fees, insurance, taxes, etc.) should be clearly identified.
- A clear basis for transportation/shipping unit cost.

RTRT:

For this portion of the estimate, the staff requests the following information:

- Planning and Preparation for Decommissioning, and preparation of a Decommissioning.
- Plans are included in the estimate but should include additional justification (e.g., labor hours, labor categories, equipment, lab fees, miscellaneous expenses, etc.).
- Regarding waste volumes, a clearer basis should be provided for the assumption of no soil contamination (e.g., based on recent samples, no contamination identified) and the exclusion of disposal costs related to any fuel elements remaining at the site at the time of decommissioning.

- Packing materials, equipment and supplies (e.g., PPE, rental of equipment), lab costs, and miscellaneous expenses (license fees, insurance, taxes, etc.) should be clearly identified.
- A clear basis for transportation/shipping unit cost.

LTC:

The staff requests the following information:

- Cost, labor categories and basis for planning and preparation, preparation of decommissioning plan, final status survey, and restoration of facility grounds.
- Decontamination and/or dismantlement of facility components, and the volumes of waste should be clearly stated (e.g. while the estimate appears to break down this information per major area of the LTC, it does not present decontamination and/or dismantlement and waste volumes at the component-level of detail presented in other parts of the estimate).
- Packing materials, equipment and supplies (e.g. PPE, rental of equipment), lab costs, and miscellaneous expenses (license fees, insurance, taxes, etc.) should be clearly identified.
- A clear basis for transportation/shipping unit cost.

ENVIRONMENTAL REVIEW

The staff has determined that the change requested is related to administrative matters which do not: (1) result in a significant change to the types or amounts of any effluents, (2) result in a significant increase in an individual or cumulative occupational radiation exposure, (3) result in any construction impact, or (4) significant increase in the potential for or consequences from radiological accidents, and are therefore in accordance with 10 CFR 51.22(c)(11) categorically excluded from the requirements to prepare a site-specific Environmental Assessment.

CONCLUSION AND RECOMMENDATION

Based on the evaluation of the licensee's submittal, the staff has determined that the proposed changes to the facility's license application were properly submitted in accordance with 10 CFR 70.25(e). The Cost Estimates adequately reflect the cost to carry out the activities required for license termination. In addition, the financial assurance instruments are adequate. An amendment should be issued to include the revised Decommissioning Cost Estimate in Chapter 10 of the license application.

PRINCIPAL CONTRIBUTORS

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