



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DOCKET NO. 040-02384

LICENSE NO. SMB-602

LICENSEE: RMI ENVIRONMENTAL SERVICES, A DIVISION OF
RMI TITANIUM COMPANY, EXTRUSION PLANT FACILITY,
ASHTABULA, OHIO

SUBJECT: SAFETY EVALUATION REPORT, LICENSE AMENDMENT REQUESTS
DATED MAY 13, 1998, AND APRIL 23, 1999, RE: AMENDMENT TO
THE DECOMMISSIONING LICENSE

1. INTRODUCTION

1.1 Background

The RMI Titanium Company Extrusion Plant facility in Ashtabula, Ohio (hereafter RMI or the licensee), is listed in the U.S. Nuclear Regulatory Commission's (NRC) Site Decommissioning Management Plan.

NRC staff (staff) approved RMI's decommissioning plan on September 11, 1997 (License Amendment No. 8 to License SMB-602; hereafter decommissioning license). To support NRC issuance of RMI's decommissioning license, staff prepared a safety report, titled "Safety Evaluation Report, License Amendment Request Dated June 12, 1995, RE: Approval of Decommissioning Plan" (Decommissioning SER). The Decommissioning SER provides a detailed radiological safety evaluation of RMI's program to decommission the site.

By license amendment requests dated May 13, 1998 and April 23, 1999, RMI requested changes to its decommissioning license for the extrusion plant facility. This amendment (Amendment No. 9) to RMI's license is needed to bring to closure three license conditions on RMI's decommissioning license, namely: establishment of a release criterion for technetium-99 (Tc-99) in soil; documentation that site soils are not contaminated with thorium-230 (Th-230); and certification of authority of the signator of the U.S. Department of Energy's (DOE) statement of intent to fund decommissioning of the site.

This safety evaluation report (to support License Amendment No. 9 to amend the decommissioning license) supplements the Decommissioning SER.

1.2 Radiological Status of the Site

The site is contaminated with uranium and Tc-99. Section 1.0 of the Decommissioning SER provides details on radiological contaminants on buildings and equipment and in soil and groundwater, and gives exposure rates for the site area.

2. SAFETY EVALUATION

A complete radiological safety evaluation of RMI's decommissioning program is presented in the Decommissioning SER. Specific considerations associated with Amendment No. 9 to RMI's decommissioning license are discussed below.

2.1 Radiation Protection Program

The licensee provided the staff analytical results on levels of Th-230 in soils, as required by License Condition 20.e of RMI's decommissioning license and Section 2.2.4 of the Decommissioning SER. RMI provided analytical results for soil samples taken from various locations throughout the site. The Th-230 values were representative of background levels. Staff evaluated RMI's analytical results and concluded that site soils are not contaminated with Th-230 and, therefore, License Condition 20.e can be deleted.

The licensee found that site soils are contaminated with Tc-99. In letters and supporting justification submitted to NRC on December 16, 1997, and April 23, 1999, the licensee proposed an alternative release criterion of 2.4 Becquerels (Bq) (35 picocuries (pCi))/gram(g) for Tc-99 in soil. RMI's proposal was made to bring to closure (1) License Condition 20.d to RMI's decommissioning license, and (2) Section 2.2.4 of the Decommissioning SER, which required that RMI inform NRC of contamination levels and, if necessary, define release criteria.

To determine long-term radiological impacts associated with Tc-99 in soils and release of the site for unrestricted use, the licensee performed RESRAD dose analyses for all pathways, and utilized site specific Kd (distribution coefficient, a measure of retardation in geologic media) values as requested by NRC staff. NRC staff reviewed RMI's submittal and also performed independent dose analyses, using RESRAD, for the proposed release criterion.

The dose analyses show that potential dose from soils containing 2.4 Bq (65 pCi)/g Tc-99 would initially be 0.25 millisieverts (mSv) (25 millirem (mrem))/year (yr), and would decrease thereafter.

Staff finds the proposed Tc-99 release criterion acceptable.

2.2 Final Radiological Release Criteria

The RMI-proposed release criterion for Tc-99 in soil, as discussed in Section 2.1 above, is acceptable, based on the staff's dose assessment.

2.3 Financial Assurance

License Condition 22 of RMI's decommissioning license and Section 2.8 of the Decommissioning SER required that RMI provide certification from DOE that the signatory of the DOE statement of intent dated June 14, 1995, is authorized on behalf of DOE to make the commitment to request the necessary funds for decommissioning the RMI facility. The licensee submitted the requisite certification information.

Staff reviewed the licensee's submittal and finds it acceptable. License Condition 22 of RMI's current decommissioning license can be deleted.

2.4 Conclusions

Staff evaluated RMI's request for amending its decommissioning license to ensure that decommissioning of the RMI site can be carried out in accordance with NRC regulations and the ALARA principle. Staff concludes that an amendment to RMI's decommissioning license can be issued without undue risk to workers, the public, or the environment, and that the amendment meets the requirements for approval described in 10 CFR 40.32.

Staff reviewed the licensee's submittal and finds it acceptable. License Condition 22 of RMI's current decommissioning license can be deleted.

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