UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

MEMORANDUM TO: Jack E. Whitten, Chief
Nuclear Materials Safety Branch B
Division of Nuclear Materials Safety

FROM: D. Blair Spitzberg, Ph.D., Chief
Repository and Spent Fuel Safety Branch
Division of Nuclear Materials Safety

SUBJECT: CLOSURE MEMORANDUM FOR UNIVERSITY OF ALASKA-FAIRBANKS, CONTROL NO. 472507

By Letter dated July 30, 2008, the University of Alaska-Fairbanks requested approval to decommission an incinerator. By NRC Memorandum dated April 14, 2010, this project was transferred from NMSB-B to RSFS. In summary, we have completed our review of this project and we recommend that the incinerator be released from the license. We recommend that your staff issue a license amendment to allow the licensee to free-release the incinerator.

This project was reviewed as a Group 3 decommissioning project in accordance with the guidance provided in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Volume 1, Revision 2. Table 1.2 of NUREG-1757, Volume 1, provides the principle regulatory features of the seven decommissioning groups. Provided below is a status of each of the principle regulatory features for a Group 3 decommissioning project:

Principle Regulatory Feature	**Status**
NEPA Compliance - completion of an Environmental Assessment	EA & FONSI were published in the Federal Register on April 8, 2011 (76 FR 19794)
Restricted or Unrestricted Use	Licensee requested unrestricted use
Decommissioning Plan Required - Yes or No	Yes
Decommissioning Plan Review Documentation	DP approved by Amendment 52 dated August 12, 2009
Radioactive Material Disposition Documentation	The final status survey report stated that "no remediation efforts were required as the survey unit did not exhibit any residual radioactivity." For this reason, an NRC Form 314 was not submitted.
Method for Demonstrating Site is Suitable for Release - Survey or Demonstration	A final status survey report was submitted to NRC by letter dated November 16, 2009
Confirmatory or Side-by-Side Survey	The NRC staff concluded that a confirmatory survey was unnecessary because the

	radionuclides of concern were carbon-14 and hydrogen-3, radionuclides with low energy beta particulate radioactivity
Closeout Inspection	A closeout inspection was not necessary because the licensee is not terminating the license
FRN Used to Inform the Public of Staff Actions	The DP was not announced per categorical exclusion 10 CFR 51.22(c)(14)(v); the EA/FONSI was published in 76 FR 19794
Documentation Used to Support License Termination	NMSB-B staff plans to issue a license amendment to free-release the incinerator in the near future

The NRC staff considered whether a consultation with EPA is required per the EPA-NRC Memorandum of Understanding dated October 9, 2002. An EPA consultation was not required because the contamination was limited to internal building surfaces only; there was no known groundwater or outdoor soil contamination resulting from previous licensed operations of the incinerator.

Our review of the final status survey report is complete. The results of the final survey meet the criteria of NUREG-1757 and similar guidance documents; therefore, RSFS approves the final status survey report. Please issue an amendment to License No. 50-02430-07 authorizing the removal of the incinerator from the license so that it may be released for unrestricted use as requested by the licensee.

Docket:030-01179
License: 50-02430-07
Control: 472507

Enclosure: Safety Evaluation Report

Safety Evaluation Report

The University of Alaska-Fairbanks (licensee) was authorized by the NRC on June 28, 1982, to begin using an incinerator to dispose of radioactive wastes. The licensee used the incinerator to dispose of biologically hazardous wastes containing low levels of radioactive materials including hydrogen-3 and carbon-14.

By letter dated July 30, 2008 (ML082420967), the licensee requested authorization to decommission the incinerator and to remove the incinerator from the license. The licensee conducted an initial survey of the incinerator and the areas adjacent to the incinerator. This initial survey consisted of measurement of ambient gamma radiation levels and collection of swipe samples for removable contamination. The wipe tests were analyzed using a liquid scintillation counter capable of detecting low-energy beta particulate contamination. The results of this survey indicated that the incinerator was not contaminated with carbon-14 or any other beta emitters above normal background levels.

The NRC subsequently requested additional information by letter dated June 4, 2009 (ML091560189). The licensee provided this additional information by letter dated July 12, 2009 (ML110310647). The licensee included additional survey measurements of the accessible areas of the incinerator in this second submittal. The NRC subsequently approved the decommissioning plan by license amendment 52 dated August 12, 2009 (ML092240357).

The licensee completed decommissioning and submitted a final status survey report to the NRC by letter dated November 16, 2009 (ML093641107). The final status survey report included survey data for the discharge stack—an area that was inaccessible during previous surveys.

The NRC staff conducted a technical review of the licensee's radiological survey data presented in the three submittals. The licensee's final status survey results were well below the NRC's screening values for hydrogen-3 and carbon-14 as presented in NUREG-1757, Volume 1, Revision 2, "Consolidated Decommissioning Guidance: Decommissioning Process for Materials Licensees," Table B.1, Acceptable License Termination Screening Values of Common Radionuclides for Building-Surface Contamination. In summary, the licensee provided sufficient information to the NRC demonstrating that the incinerator meets the license termination criteria specified in Subpart E to 10 CFR Part 20 for unrestricted release of the incinerator.

In summary, the NRC staff has determined that the licensee had effectively demonstrated that the incinerator met the NRC's criteria for free-release of the incinerator. Therefore, the licensee's request to remove the incinerator from Condition 10.G of the licensee should be granted.

ENCLOSURE

bcc w/enclosure (via ADAMS e-mail distribution):
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DRAFT: S:\DNMS\!NMSB-B\RJE\University of Alaska-Fairbanks Closure Memo.docx FINAL: R:_DNMS\!2011 MLxxxxxxx

ADAMS	☐ No	■ Yes	☐ SUNSI Review Complete	Reviewer Initials: RJE
Category	■ Publicly Available		■ Non-sensitive	
Category	☐ Non-publicly Available		☐ Sensitive	
KEYWORD:		**Sensitive:**		

DNMS:RSFS	C:RSFS	C:NMSBB		
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