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

March 27, 2009

TO: Docket File 030-03732

FROM: Robert Evans, CHP, PE, Senior Health Physicist **/RA/**
Nuclear Materials Safety Branch B
Division of Nuclear Materials Safety

SUBJECT: TECHNICAL REVIEW OF LICENSE AMENDMENT REQUEST

By letter dated January 29, 2009 (ML090420433), the U.S. Department of Commerce, National Institute of Standards and Technology (NIST), submitted a license amendment request to the NRC. The licensee requested NRC approval of Revision 0 to the Final Status Survey Plan (FSSP).

The NRC staff conducted an initial review of the FSSP and provided comments to the licensee during a conference call held on March 25, 2009. In response to this conference call, the licensee submitted a revised FSSP by letter dated March 26, 2009 (ML090860844).

I conducted a detailed review of the two submittals, and I conclude that the request agrees with the guidance provided in several NUREG documents and with NRC regulatory requirements. I recommend that the NRC amend the license to approve the FSSP. Details of my review are provided in the attachment to this Memorandum.

Docket File 030-03732
License No. 05-03166-05

Enclosure: Technical Review of License Amendment Request

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Technical Review of License Amendment Request

Background

The licensee submitted a license amendment request to the NRC by letter dated January 29, 2009. The licensee requested approval of its Final Status Survey Plan (FSSP). The NRC staff provided comments and questions about the Plan to the licensee during a conference call held on March 25, 2009. As a result of this call, the licensee submitted a revised FSSP to the NRC by letter dated March 26, 2009.

Requested Licensing Action

The licensee requested NRC approval of its FSSP. The FSSP provides the methodology that will be used by NIST to verify that the impacted areas can be free-released for unrestricted use. The FSSP includes the areas to be radiologically surveyed, the equipment to be used, the number of sample points, and the release criteria that will be used.

The NRC staff conducted a review of the FSSP using the following references:

- The radiological criteria for license termination provided in Subpart E to 10 CFR Part 20
- The decommissioning processes described in NUREG-1757, "Consolidated Decommissioning Guidance: Characterization, Survey and Determination of Radiological Criteria," Volume 2, Revision 1
- The survey design guidance provided in NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)," Revision 1
- The instrument calculations provided in NUREG-1507, "Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions"

In summary, the licensee's proposed FSSR demonstrates compliance with the above references, and the licensee's protocols are As Low As Reasonably Achievable (ALARA) as required by 10 CFR 20.1402, Radiological Criteria for Unrestricted Use.

The licensee's proposed building surface and soil derived concentration guideline levels (DCGLs) were reviewed and approved as part of Amendment 34 to the license dated January 24, 2009. The NRC staff approved the site-specific DCGLs because they were calculated using NRC-approved computer programs with standardized screening criteria.

Clarifications

On March 27, 2009, the NRC staff contacted NIST to clarify two statements provided in the revised FSSP. On Page 9, the licensee stated that the average activity level was estimated to be 32 ± 46 dpm/100 cm^2, using the data provided in Attachment 9.2. The NRC staff noted that the summary values provided in Attachment 9.2 were different from the values provided on Page 9. The licensee stated that the average activity level consisted of only the floor sample results and not the wall sample results. This explains the differences between the numerical values provided on Page 9 and Attachment 9.2.

Second, Page 9 also listed the minimum number of building survey sample points as 15, while Attachment 9.6 listed the required number of sample points as 14. Although 15 is more conservative than 14, the NRC staff questioned the licensee about the difference. The licensee stated that Attachment 9.6 had been updated, but the updated attachment had not been included in Revision 1 to the FSSP. However, the licensee stated that the actual number of sample points was about 25, indicating that the sample point discrepancy is not safety significant.

Conclusions

The NRC staff recommends approval of the license amendment request which will approve the FSSP. The information provided by the licensee agrees with NRC requirements, and the licensee's proposed activities are protective of worker safety, the public, and the environment.