

SAFETY EVALUATION REPORT

DOCKET NO: 70-398
LICENSE NO: SNM-362

LICENSEE: U.S. DEPARTMENT OF COMMERCE
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

SUBJECT: LICENSE AMENDMENT REQUEST FOR APPOINTMENT OF RADIATION
SAFETY OFFICER (COST ACTIVITY CODE L60423)

BACKGROUND

Special Nuclear material (SNM) License SNM-362 was first issued in 1960 by the Atomic Energy Commission to the National Bureau of Standards (renamed as the U.S. Department of Commerce National Institute of Standards and Technology [NIST] in 1988). NIST is a federal agency within the Department of Commerce. NIST uses licensed materials for research, development, calibration, and testing activities. Under SNM-362, NIST develops, maintains, and disseminates national standards for ionizing radiation and radioactivity to support health care, industry, and homeland security at its Gaithersburg, Maryland, site.

The SNM-362 was last renewed in September 2013 (Agencywide Documents Access and Management System [ADAMS] Number ML13207A206) and the last amendment was approved March 23, 2017 (ADAMS ML17059D433) to adjust the possession limits for license SNM-362. On November 14, 2016, NIST submitted a License Amendment Request (LAR) to revise the training and experience requirements for the Radiation Safety Officer (RSO) position. This was approved on February 23, 2017 (ADAMS ML17033A307).

REGULATORY REQUIREMENTS

Title 10 of the *Code of Federal Regulations*, (10 CFR) Paragraph 70.22(a)(6) states that each application for a license shall contain the technical qualifications, including training and experience of the applicant and members of his staff to engage in the proposed activities in accordance with the regulations in this chapter.

Paragraph 33.13(c)(2) of 10 CFR states that the applicant has established administrative controls and provisions relating to organization and management including the appointment of a radiological safety officer who is qualified by training and experience in radiation protection, and is available for advice and assistance on radiological safety matters.

PROPOSED CHANGES

NIST is requesting to appoint Mr. Manuel Mejias as the permanent RSO for the facility. This amendment request was dated March 31, 2017. The former RSO named on the license retired in October 2016 and the position was staffed on an interim basis pending revision to the requirements stated in the license.

DISCUSSION

NIST submitted an application for renewal of the license in 2007 with the stated requirement that the RSO position be filled by someone board certified by the American Board of Health Physics, possess a Bachelor's Degree in science or an engineering field, and have 5 years of experience in applied health physics. The RSO at the time of renewal submission (2007)

possessed those attributes and had worked in a health physics role prior to assuming the RSO position. NIST has a unique materials license in that it combines both SNM and Byproduct Materials under one SNM license. There are no specific requirements for the position stated in the Code of Federal Regulation for an RSO for these types of licenses.

NIST submitted a request on November 14, 2016, to amend the requirements for the position on the basis that board certification was inconsistent with the Office of Personnel Management (OPM) standards for the position and was limiting in consideration of other well-qualified candidates. The requirements in the requested language derive from the OPM qualification standard for the health physics series and NUREG-1556, Volume 11, Program Specific Guidance about Licenses of Broad Scope, Revision 1, Sec. 8.7.3 (ADAMS ML17059D332). These requirements include, at a minimum, completion of at least 30 semester hours in health physics, engineering, radiological science, chemistry, physics, biology, mathematics, and/or calculus; and 1 year of specialized experience at the GS-14 level, where specialized experience means:

The NIST Gaithersburg RSO must have the following qualifications and training:

- (1) At a minimum, a college degree at the bachelor level or equivalent training and experience in physical, chemical, biological sciences, or engineering;
- (2) Training and experience commensurate with the types, forms, and quantities of radioactive material authorized on the license;
- (3) Training and experience sufficient to identify and control anticipated radiation hazards associated with the use, in research and development, of radioactive material authorized on the license; and
- (4) Experience in applying knowledge of the regulatory requirements applicable to licensed activities.

NIST initiated a full scale hiring effort in order to fill the position in a timely manner. The position was advertised through government and other sources. As a part of the amendment to modify the requirements for the RSO position, the NIST Chief Safety Officer confirmed that when a decision is made in regards to a prospective RSO, NIST would provide (1) a description of the training and experience for the proposed RSO that demonstrates that the individual is qualified to perform the duties required under the license; and (2) a Radiation Safety Officer Delegation of Authority signed by the licensee's executive management. The training and experience requirement changes and Delegation of Authority were approved in Amendment 6, License Condition 10, on February 23, 2017.

FINDINGS

On March 31, 2017, NIST submitted a LAR to appoint Mr. Manuel Mejias as the permanent RSO. Enclosed in the request were Mr. Mejias resume, a summary of his training and experience, and a Delegation of Authority letter, dated March 20, 2017, from the Office of the Director.

The staff reviewed NIST's submittal pursuant to requirements of 10 CFR 70.23(a)(2) and following the guidance contained of NUREG-1556, Vol. 11 and NUREG-1520, Revision 1,

“Standard Review Plan for License Applications for Fuel Cycle Facilities,” (ADAMS ML15176A258). The NRC reviews the applicant’s organization and administration to ensure that the proposed management hierarchy and policies provide reasonable assurance that the licensee controls site activities in a manner that ensures the safety of workers, the public, and the environment. To make such determination the staff reviews licensee’s key personnel and management qualifications to understand how these will provide reasonable assurance that the health, safety and environmental protection functions and oversight will be effective.

Based on its review, the staff finds that NIST has provided complete documentation, as required by License Condition 10, and that Mr. Mejias’s extensive experience, education, and training in the radiation field, and at NIST’s radiation safety program, adequately demonstrates that he possesses the qualifications and resources to oversee the safe operation of the facility.

ENVIRONMENTAL REVIEW

According to 10 CFR 51.22(c)(11), the issuance of amendments to licenses for fuel cycle plants which are administrative, organizational, or procedural in nature—or which result in a change in process operations or equipment—are eligible for categorical exclusion provided that:

- (i) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.
- (ii) There is no significant increase in individual or cumulative occupational radiation exposure.
- (iii) There is no significant construction impact.
- (iv) There is no significant increase in the potential for or consequences from radiological accidents.

The changes in this amendment do not affect the scope or nature of the licensed activity and will not result in a significant change in the types or amounts of effluents released offsite. There will not be any significant increase in individual or cumulative occupational radiation exposure, and there will not be any significant increase in the potential or consequences from radiological accidents. There is no construction associated with these changes, so there will not be any impact from construction.

CONCLUSION

The NRC staff reviewed the licensee’s amendment request as submitted on March 31, 2017. The NRC staff concludes that the information and regulatory commitments provided by NIST, in their license application provide reasonable assurance of adequate safety of the proposed operations and will not have an adverse impact on the public health and safety, the common defense and security, or the environment; and meet the applicable requirements in 10 CFR Parts 19, 20, 36, 51, 70, 73, and 74.

RECOMMENDATION

The NRC staff recommends that the amendment request be approved.

PRINCIPAL CONTRIBUTOR

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