

DEC 28 1990

Docket No. 70-398
License No. SNM-362

U.S. Department of Commerce
National Institute of Standards
and Technology
ATTN: Mr. L. E. Pevey, Chief
Occupational Health and Safety Division
Gaithersburg, Maryland 20899

Gentlemen:

This refers to your application dated March 30, 1990, requesting renewal of Materials License No. SNM-362. Our review of your application has identified additional information that is needed before final action can be taken on your request. The additional information, specified in the enclosure, should be provided within 30 days of the date of this letter.

If you have any questions regarding this matter, please contact Sean Soong of my staff at (301) 492-0604.

Sincerely,

Original Signed By:

George H. Bidinger, Section Leader
Uranium Fuel Section
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Enclosure: As stated

Distribution w/encl.

Docket No. 70-398	PDR	NRC File Center	NMSS R/F	IMUF R/F
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Request for Additional Information
Application Dated March 30, 1990
U.S. Department of Commerce
National Institute of Standards and Technology (NIST)
Docket No. 70-398

General

Existing License Condition Nos. 14 and 17 should be incorporated into Part I of the renewal application or justification should be provided for not incorporating them.

Specific

Page

Comments

I-1-2

In Section 1.5, the request to use licensed material at offsite locations should be moved to Section 1.8, Exemptions and Special Authorizations.

In Section 1.6, the definitions for "qualified expert" and "radiation worker" should be deleted because of lack specificity and training issues, respectively.

I-1-3

In Section 1.6, a safety review should be conducted by an individual who has the same qualifications as the Supervisory Health Physicist. Please revise.

Provide criteria for radiation projects that will be approved by the Radiation Safety Committee.

Delete "At the Committee's option or as programmed" in the definition of Safety Review.

In Section 1.7, delete the last sentence of the first paragraph.

In Section 1.8, delete request for disposal of waste by decay-in-storage method. This is authorized by 10 CFR 35.92.

I-2-1

Revise Section 2.1 so that the Director of NIST has the overall responsibility for safe operations using licensed material.

Revise Section 2.3 to require that the Radiation Safety Committee annual report will address personnel internal exposure levels.

For the Radiation Safety Committee, provide the education and experience qualifications.

<u>Page</u>	<u>Comments</u>
I-2-2	<p>In Section 2.5, delete "or an equivalent organization."</p> <p>The Supervisory Health Physicist should have, as a minimum, a bachelor's degree in science or engineering with 2 years' experience in applied health physics. Please revise.</p> <p>Delete the Professional Health Physicist's qualifications which are based on OPM requirements.</p>
I-2-3	<p>In Section 2.6, all individuals must complete a training program in radiation safety prior to working independently with radioactive material. Please revise.</p> <p>In Section 2.7, written operating procedures or changes thereto must be approved by an individual who has the same qualifications as the Chief of Health Physics or Supervisory Health Physicist. Please revise.</p>
I-3-1	<p>In Section 3.1.1, a Radiation Work Permit must be reviewed for Industrial Safety and approved by the individual who meets the qualifications for the Supervisory Health Physicist. An RWP previously approved by the Health Physicist may be reissued and approved by the Health Physics Technician. Please revise.</p> <p>In Section 3.2.2, the air face velocity at the entrance of the hood must be tested monthly. Please revise.</p>
I-3-2	<p>In Section 3.2.4, the action level for beta contamination should set at 2,000 dpm/100 cm². Please revise.</p> <p>Radiation and contamination survey should be conducted at least weekly for areas involving radioactive material.</p> <p>Specify the frequency for reviewing the worker's internal and external exposure levels.</p> <p>Provide a description of your bioassay program for estimating internal deposition of the radiation material.</p> <p>Your bioassay program may be established by the following references:</p> <ol style="list-style-type: none"> (1) Regulatory Guide 8.11, "Application of Bioassay for Uranium." (2) Regulatory Guide 8.20, "Application of Bioassay for I-125 and I-131."

<u>Page</u>	<u>Comments</u>
	(3) Regulatory Guide 8.26, "Application of Bioassay for Fission and Activation Products."
	(4) "Draft Internal Dosimetry Standards for Plutonium," prepared by the Health Physics Society Standard Subcommittee on Plutonium Internal Dosimetry Standards, January 1979.
I-4-1	In Section 4.1, establish criteria for monitoring the air effluents at the discharge point.
I-5-1	The request to transfer calibrated sources to general licensees in accordance with of 10 CFR 70.39 should be moved from Section 5.1 to Section 1.8.
I-5-1	Sections 5.2.5 and 5.3 are not necessary. Please delete.
I-5-2	Table I-5.2 should be revised to apply to uranium as well as the specified isotopes.
II-13-1	In Section 13.1, provide an analysis of workers' internal exposure, covering the past 5 years of NIST operations. The analysis should consider air sampling data as well as bioassay data.