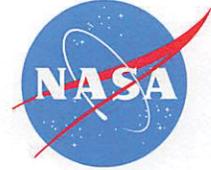


National Aeronautics and Space Administration
Goddard Space Flight Center
Greenbelt, MD 20771



February 14, 2022

Reply to Attn of: 360

Licensing Assistance Team
Division of Nuclear Materials Safety
U. S. Nuclear Regulatory Commission, Region I
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-1415

**Subject: RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
CONCERNING APPLICATION FOR RENEWAL OF LICENSE, MAIL
CONTROL NO. 629190 DATED FEBRUARY 11, 2022**

This is in reference to your request for additional information on our October 5, 2021
submission to renew NRC License No. 19-05748-02. Enclosed you will find a response to
each of your requests.

If you have questions, please feel free to contact GSFC's Radiation Safety Officer, Dan
Simpson, at (301) 286-0280 or daniel.s.simpson@nasa.gov.

STANLEY HUNTER Digitally signed by STANLEY
HUNTER
Date: 2022.02.14 15:21:24 -05'00'
Dr. Stanley D. Hunter
Chair, GSFC's Ionizing Radiation Safety Committee

Enclosure

**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION CONCERNING
APPLICATION FOR RENEWAL OF LICENSE, MAIL CONTROL NO. 629190
DATED FEBRUARY 11, 2022**

The following are responses to the requests for additional information from our October 5, 2021 license renewal request of License No. 19-05748-02.

NRC's Request: *Your application requested quantities of unsealed materials, and foils or plated sources that could exceed the 10 CFR 30.72 quantities for consideration of a formal emergency plan in accordance with 10 CFR 30.32(i). You provided four options that we could use to address this.*

GSFC's Response: We agree to limit the line items authorizing unsealed materials and foil or plated sources to the requested amount and to have the condition stated in your letter for this item be added to our license. We confirm that we will maintain an inventory of material which demonstrates that we have not exceeded the quantities in 10 CFR 30.72 for unsealed and foil or plated sources, including the 'unity rule' if multiple radionuclides are possessed.

NRC's Request: *Your application did not include then currently authorized use at temporary job sites aboard ships in U.S. Coastal waters, at sea, and in inland waters. Please confirm whether you wish to maintain this authorization, or if it is no longer required. If you wish to maintain this authorization, confirm if the information in the June 13, 2006, document is current, or provide updated information.*

GSFC's Response: The authorization to use radioactive material "at temporary job sites aboard ships in U.S. Coastal waters, at sea, and in inland waters" is no longer required.

NRC's Statement: *Your application conditions that training will be provided to workers "requesting the use of ionizing radiation sources and/or devices..." In accordance with NUREG-1556, Volume 11, Revision 1, describe the training program for other categories of workers (support staff working with NRC-licensed material, other researchers co-located in laboratories where licensed materials are used, maintenance or janitorial staff, etc.) who may be exposed to radioactive material in the course of their duties. The training program should include the topics covered, qualifications of the instructors, method of training, method of assessment, and frequency of training and refresher training.*

GSFC's Response: Access to areas where licensed material is used or stored is limited to personnel defined as "Approved User" or "Occupationally Exposed Individuals that would likely to receive in a year an occupational dose of radiation greater than 100 mrem" and the information listed in Section 8.1 and 8.2 in our application package covers their training requirements. These areas are restricted by secured doors or keycard readers. Anyone assigned to these areas must become an "Approved User", which includes "other researchers co-located in laboratories where licensed materials are used".

"Approved Users" also includes "support staff working with NRC-licensed material", which would be personnel from the Radiation Protection Office.

**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION CONCERNING
APPLICATION FOR RENEWAL OF LICENSE, MAIL CONTROL NO. 629190
DATED FEBRUARY 11, 2022**

“Maintenance, janitorial or housekeeping staff” must make arrangements with the Laboratory Supervisor, Radiation Source Custodian or Principal Investigator before getting access to areas where radioactive material is stored or used. Additionally, “housekeeping staff” do not clean or pull trash from approved radioactive material labs. Due to this restricted access, custodial, facilities, maintenance and housekeeping staff will be provided a “simple hand-out” as stated in NUREG-1556, Volume 7, Revision 1’s Appendix F which provides information about the Radiation Symbol, What is Radiation, What is Radiation Dose, Radiation Laboratories, Rules to Follow, What to do in specific situations (i.e. emergency, repair equipment) and Emergency Phone Numbers which includes the Radiation Protection Office’s phone number to call if they have any questions or concerns.

“Security staff” who would respond to an emergency situation in an area where radioactive material, falling under this license, is stored or used are provided a “hand-out” that provides information about Radioactive Material usage, the Radiation Effects Facility, Radiation Exposure Potential, Emergency Entry Protocol, a map of the campus that shows which buildings and room numbers are locations where radioactive material is used/stored, and Phone Number for the Radiation Safety Officer to call if they any questions or concerns.

NRC’s Statement: *Section 10.1 of the application requested the flexibility to enable management to make changes in the Radiation Protection Program without requesting amendment to the license, as discussed in NUREG 1556, Volume 11, Revision 1, in Section 8.7.3 “Radiation Safety Committee.” a. Additional flexibility is discussed in Sections 8.8, “Training...”; 8.10.1 “Audit and Review of Program”; 8.10.2 “Radiation Monitoring Instruments”; 8.10.3 “Material Receipt and Accountability”; 8.10.4 “Occupational Dose”; 8.10.6 “Safe Use...”; and 8.10.7 “Surveys and Leak Tests.” Confirm if you wish the same flexibility in these areas, with the same procedure for such changes as already described in the application. b. Confirm that if a noncompliance is identified, actions taken will include analysis of the cause, corrective actions, and actions to prevent recurrence.*

GSFC’s Response: We would like to have the flexibility in the NUREG-1556 areas listed above using the same procedures already described in our application package. We confirm that if we identify a “noncompliance” issue that actions will be taken to analyze the cause of the “noncompliance”, corrective actions needed for compliance, and actions to prevent recurrence.