



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

January 08, 2014

Docket No. 03003575
Control No. 580935

License No. 01-06571-10

Jamie Banks
Manager
National Aeronautics and Space Administration
George C. Marshall Space Center
NASA, MSFC, AS10M
Huntsville, AL 35812

SUBJECT: NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, REQUEST FOR
ADDITIONAL INFORMATION CONCERNING FINANCIAL ASSURANCE
DOCUMENTS, CONTROL NO. 580935

Dear Mr. Banks:

This is in reference to e-mail exchanges from June 27, 2013, to December 19, 2013, between Philip Brown of your staff and Thomas Thompson of this office; and to the telephone discussions on September 16, 2013, providing financial assurance for decommissioning for Nuclear Regulatory Commission License No. 01-06571-10. In order to continue our review, we need the following additional information:

Your current Decommissioning Funding Plan (DFP) only covers your licensed activities involving the use of Krypton-85. However, you are authorized for other radioisotopes with half-lives of greater than 120 days requiring financial assurance under items 6.A. and 7.B. of the license.

The first step in the process is to develop a historical perspective of the use of licensed material at your facility(ies). Licensed activities were initially authorized with the issuance of the above license on August 19, 1966. 10 CFR 30.35(g) contains the requirements for records pertaining to decommissioning. These records should allow you to determine which areas should be included in your historical assessment, including outdoors areas that may be contaminated. You should supplement the above, with a review of licensed material authorizations, survey records, and interviews of personnel.

The second step of the process is to examine your current use of licensed material. You should take note of the room number, what types of licensed material, and whether there have been any spills of licensed material or leaking sealed sources.

The third step is to divide the areas into three categories: (1) areas where sealed sources were used, (2) areas where only unsealed licensed material with a half-life of less than 120 days was used, and (3) areas where licensed material with a half-life of

greater than 120 days was used.

If there is documentation showing that there was a leaking sealed source in an area, then the licensee must show the efforts taken to reduce the contamination levels in the area below prescribed limits. If the documentation indicates that there were no leaking sealed sources in the area, then you need to state the fact that the records indicate there was no contamination from sealed sources in the room.

Decommissioning costs for areas where only unsealed material with a half-life of less than 120 days need not be considered in the DFP.

Follow the procedure in NUREG-1757, Volume 3 to determine the decommissioning costs for those areas where licensed material in an unsealed form with a half-life of greater than 120 days was used. Factors to consider are if there were disposals to the sanitary sewer, use of volatiles in a fume hood, records of spills, and the amount of laboratory bench space. You must consider labor costs as including only contractors and not your personnel. The Department of Labor Web site may be used to obtain the current estimated costs for health physicists, technicians and administrative personnel. Current costs for the disposal of radioactive waste can be obtained from your current radioactive materials waste disposal vendor.

Note: Depleted and natural uranium in any form is not a required part of the DFP because the amount of licensed material authorized does not exceed that requiring financial assurance. However, if a spill of the above materials occurred in a laboratory, the regulations in 10 CFR 20.1501(b) apply and the records would need to be kept in the decommissioning file. Future DFP would require the inclusion of such rooms for cost estimates unless they were decontaminated and released for unrestricted use.

You may determine that it is more efficient to hire a consultant to perform a DFP analysis and cost estimate. The NRC, as the regulator, does not suggest one consultant over another but you may want to consider speaking with your current vendors or the local Health Physics Society for options.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Med, Ind, & Academic Uses**; then **Licensee Toolkits, see our toolkit index page**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to my attention at the Region I Office and refer to Mail Control No. 580935. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5075.

The NRC's Safety Culture Policy Statement became effective in June 2011. While a policy statement and not a regulation, it sets forth the agency's *expectations* for individuals and organizations to establish and maintain a positive safety culture. You can access the policy

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statement and supporting material that may benefit your organization on NRC's safety culture Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html>. We strongly encourage you to review this material and adapt it to your particular needs in order to develop and maintain a positive safety culture as you engage in NRC-regulated activities.

Your cooperation with us is appreciated.

Sincerely,

Original signed by Steve Courtemanche

Steven Courtemanche
Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety

cc:
Philip O. Brown, Radiation Safety Officer

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