

National Aeronautics and
Space Administration

John H. Glenn Research Center
Lewis Field
Cleveland, OH 44135-3191



October 22, 2018

Reply to Attn of: QSH

U.S. Nuclear Regulatory Commission, Region III
Chief, Materials Licensing Branch
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Subject: Update to License #34-00507-16, Docket #030-05626

The NASA John H. Glenn Research Center (GRC) would like to make the following updates to its radioactive materials license. First, we would like to update our allowable inventory of radioactive materials to include an Americium 241-Beryllium (Am241-Be) sealed source. Second, the GRC would like to update its list of locations where licensed radioactive materials may be used and/or stored.

New Source Information:

100 mCi (nominal) Am241-Be, Sealed Source, QSA Global, Inc., Model AMN.V340, Capsule Code X2105 (containing Capsule Assembly X1188), Registry of Sealed Sources and Devices (SSDR) Number: MA-1059-S-358-S

This doubly encapsulated sealed source will be used and handled in accordance with the respective SSDR. The source will be used for both research and development purposes as defined by 10 Code of Federal Regulation (CFR) 30.4, as well as for instrument calibration/performance testing of the licensee's instrumentation.

Applying source strength scaling factors to stated external radiation levels in the SSDR safety evaluation report, one can estimate worst case exposures (gamma plus neutron) from the 100 milliCurie (mCi) Am-Be source of 74 milliRem per hour (mrem/h), 5 mrem/h, and 1.0 mrem/h at distances of 5 centimeters (cm), 30cm, and 100cm, respectively. Employees accessing the Am-Be source will be trained as radiation workers and appropriate radiological controls will be implemented to assure the safe and secure handling, use, and storage of the radioactive material. The "Radiation Protection for Radioactive Materials" chapter from the Center's Occupational Health Programs Manual prescribes the use authorization and other requirements for conducting the research and development activity. Use of the source for instrument calibration/performance testing by health physics staff members shall be consistent with applicable radiation safety work practices.

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Location Information:

Use and storage locations of the 100 mCi Am-Be sealed source, as well as all licensed radioactive materials at GRC, shall afford appropriate configuration controls and shielding to assure that external doses to members of the public are compliant with 10 CFR 20 - Subpart D and storage and security considerations satisfy requirements of 10 CFR 20 - Subpart I.

Should you have questions or require additional information, you may contact Mr. Christopher J. Blasio, Radiation Safety Officer at (216) 433-6520.

A handwritten signature in black ink, appearing to read 'Steven L. Herron', with a long, sweeping horizontal line extending to the right.

Steven L. Herron
Chief, Safety and Health Division

National Aeronautics and
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