

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

<p>Licensee</p> <p>1. National Aeronautics and Space Administration Goddard Space Flight Center</p> <p>2. Radiation Safety Officer/Code 205.9 Greenbelt, Maryland 20771-0001</p>	<p>In accordance with letter dated October 26, 2001,</p> <p>3. License number 19-05748-03 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date July 31, 2005</p> <hr/> <p>5. Docket No. 030-06929 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cobalt 60</p> <p>B. Cobalt 60</p> <p>C. Cobalt 60</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed source (BNL Mark-1)</p> <p>B. Sealed source (AECL C-167)</p> <p>C. Sealed Sources (JL Shepherd Model 7810)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. (b)(7)(F)</p> <p>B.</p> <p>C.</p>
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9. Authorized use:

- A. For use in a Gamma Process Company custom made Irradiator for irradiation of material except explosives, flammables, or corrosives.
- B. For use in a Gammacell 220 Irradiator for irradiation of material except explosives, flammables, or corrosives.
- C. Two sources for use in a JL Shepherd Model 81-24Q irradiator/calibrator for irradiation of material except explosives, flammables or corrosives and two sources in shipping containers necessary for replacement of the sources in the irradiator unit.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at National Aeronautics & Space Administration, Goddard Space Flight Center, (b)(7)(F) Greenbelt, Maryland.

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11. A. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described in application dated March 28, 1995 and letter dated December 8, 2000 and have been designated in writing by the Radiation Safety Officer.
- B. The Radiation Safety Officer for this license is Todd Mobley.
12. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
- C. Sealed sources need not be tested if they are in storage and are not being used; however, when they are removed from storage for use or transferred to another person and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- D. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.
- E. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
14. The licensee shall not perform repairs or alterations of the irradiator involving removal of shielding or access to the licensed material. Removal, replacement, and disposal of sealed sources in the irradiator shall be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

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15. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
16. The procedures contained in the manufacturer's instruction manual for the irradiator authorized by this license shall be followed and a copy of this manual shall be made available to each person using or having responsibility for the use of the device.
17. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
18. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Application dated March 28, 1995
 - B. Letter dated May 4, 1999
 - C. Letter dated December 8, 2000
 - D. Letter dated November 7, 2001

For the U.S. Nuclear Regulatory Commission

Date November 21, 2001

By

Original signed by Sattar Lodhi, Ph.D.Sattar Lodhi, Ph.D.
Nuclear Materials Safety Branch 2
Region I
King of Prussia, Pennsylvania 19406