

**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. Nucletron Corporation</p> <p>2. 7021 Columbia Gateway Drive Suite 200 Columbia, Maryland 21046</p>	<p>In accordance with the letter dated July 25, 2011,</p> <p>3. License number 19-28772-01 is amended in its entirety to read as follows:</p> <p>4. Expiration date March 31, 2013</p> <p>5. Docket No. 030-32842 Reference No.</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Iodine 125</p> <p>B. Cesium 137</p> <p>C. Iridium 192</p> <p>D. Iridium 192</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed Sources (Isotron Model 130.002)</p> <p>B. Sealed Sources (Amersham Model CDC.SP1 and CDC K series)</p> <p>C. Sealed Sources (Nucletron Models 105.002 and 096.001)</p> <p>D. Sealed Sources (Mallinckrodt B.V. Model 136147; Flexisource)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. Not applicable (See Condition 10)</p> <p>B. Not applicable (See Condition 10)</p> <p>C. Not applicable (See Condition 10)</p> <p>D. Not applicable (See Condition 10)</p>
<p>9. Authorized use:</p> <p>A. Incident to the installation, maintenance, repair, and source exchange of Nucletron Brachytherapy Afterloader Model seedSelectron 130.001.</p> <p>B. Incident to the installation, maintenance, repair, and source exchange of Nucletron Selectron Remote Afterloading Brachytherapy Units SEL 103 and SEL 106 and Nucletron microSelectron Remote Afterloading Unit Model SEL-400 and microSelectron-LDR.</p> <p>C. Incident to the installation, maintenance, repair, and source exchange of Nucletron microSelectron HDR Model 105.999, OncoSelect PDR Model 106.999, and Onco Select HDR 3 Model 105.980, Nucletron microSelectron HDR Classic, and microSelectron Model 106.990 remote afterloading devices.</p> <p>D. Incident to the installation, maintenance, repair, and source exchange of Nucletron Flexitron HDR Model 136149A02 remote afterloading device.</p>		

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Docket or Reference Number  
030-32842

Amendment No. 31

**CONDITIONS**

10. The licensee does not take possession of the radioactive material(s) and/or source(s) while at the client's facility.
11. Licensed material may be used only at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material, including areas of exclusive Federal jurisdiction within Agreement States.

If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.

12. Licensed material shall be used by, or under the supervision and in the physical presence of, individuals who have received the training described in the application dated February 26, 2003 and letter dated June 10, 2003.
13. The Radiation Safety Officer for this license is Debra L. Bensen.
14. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at 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. Notwithstanding Paragraph A of this Condition, sealed sources designed to primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- D. 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.
- E. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.

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- F. 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.
- G. 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.
- H. 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.
- I. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.
15. Sealed sources containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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17. 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 U.S. 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 February 26, 2003 (ML030630329)
  - B. Letter dated June 10, 2003 (ML031671326)
  - C. Facsimile dated June 24, 2003 (ML031770118)
  - D. Letter dated July 27, 2007 (ML072190600)
  - E. Letter dated July 19, 2010 (ML102070479)
  - F. Letter dated July 25, 2011 (ML112101418)



For the U.S. Nuclear Regulatory Commission

***Original signed by Stephen Hammann  
for***

Date August 10, 2011 By \_\_\_\_\_

Judith A. Joustra, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety  
Region I  
King of Prussia, Pennsylvania 19406