



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 14, 2007

Docket No. 03032842
Control No. 140892

License No. 19-28772-01

Lisa Dimmick
RSO
Nucletron Corporation
8671 Robert Fulton Drive
Columbia, MD 21046

SUBJECT: NUCLETRON CORPORATION, LICENSE AMENDMENT, CONTROL NO.
140892

Dear Ms. Dimmick:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Regulations, Guidance, and Communications**. 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 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

Thank you for your cooperation.

Sincerely,

Original signed by Jenny Johansen

Jenny Johansen
Health Physicist
Materials Security and Industrial Branch
Division of Nuclear Materials Safety

Enclosure:
Amendment No. 27

L. Dimmick
Nucletron Corporation

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DATE	8/14/07							

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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. 8671 Robert Fulton Drive Columbia, Maryland 21046</p>	<p>In accordance with the letter dated July 27, 2007,</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. Iridium 192</p> <p>B. Iridium 192</p> <p>C. Iridium 192</p> <p>D. Iridium 192</p> <p>E. Cesium 137</p> <p>F. Phosphorus 32</p> <p>G. Iodine 125</p> <p>H. Cesium 137</p> <p>I. Iridium 192</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed Sources (Nucletron Model 105.002)</p> <p>B. Sealed Sources (Nucletron Model 096.001)</p> <p>C. Sealed Sources (Mallinckrodt Model C1-L BV)</p> <p>D. Wire or seeds</p> <p>E. Sealed Sources (Amersham Model CDC.SP1 and CDC K series)</p> <p>F. Sealed Sources (Guidant GDT P-32 series)</p> <p>G. Sealed Sources (Isotron Model 130.002)</p> <p>H. Any</p> <p>I. Any</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. Not applicable</p> <p>B. Not applicable</p> <p>C. Not applicable</p> <p>D. Not applicable</p> <p>E. Not applicable</p> <p>F. Not applicable</p> <p>G. Not applicable</p> <p>H. As needed</p> <p>I. As needed</p>

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9. Authorized use:

- A. For possession 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, and microSelectron Model 106.990 remote afterloading devices.
- B. For possession incident to the installation, maintenance, repair, and source exchange of Nucletron microSelectron HDR Classic remote afterloading devices.
- C. For possession incident to the installation, maintenance, repair, and source exchange of Nucletron Model microSelectron-HDR Mobile Unit.
- D. For possession incident to the installation, maintenance, repair, and source exchange of Nucletron Models SEL-4000 (alternate identity 030.000) and microSelectron-LDR.
- E. For possession 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
- F. For possession incident to the installation, maintenance, repair and source exchange of Guidant Corporation Intravascular Brachytherapy (IVB) High Dose Rate Afterloader (HDR) Device Model Galileo Series.
- G. For possession incident to the installation, maintenance, repair, and source exchange of Nucletron Brachytherapy Afterloader Model seedSelectron 130.001.
- H. and I. Taking of leak test samples; analysis of test samples as a service for other persons as defined in 10 CFR 20.1003.

CONDITIONS

10. Licensed material may be used 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.

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11. A. 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.
- B. The Radiation Safety Officer for this license is Lisa Dimmick.
12. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
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. 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.
- 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.

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- 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.
14. Sealed sources containing licensed material shall not be opened or sources removed from source holders by the licensee.
15. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
16. 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)

For the U.S. Nuclear Regulatory Commission

Date August 14, 2007

By

Original signed by Jenny Johansen

Jenny Johansen
Materials Security and Industrial Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406