



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

October 29, 2007

Docket No. 03036068  
Control No. 141112

License No. 37-30617-02

Jean Rankin, Sr.  
Senior Vice President, General Counsel & Secretary  
LSI Corporation  
LVCC, Room 12K-303  
1110 American Parkway, NE  
Allentown, PA 18109

SUBJECT: LSI CORPORATION, LICENSE AMENDMENT, CONTROL NO. 141112

Dear Ms. Rankin:

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](http://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 Dennis R. Lawyer***

Dennis R. Lawyer  
Health Physicist  
Commercial and R&D Branch  
Division of Nuclear Materials Safety

Enclosure:  
Amendment No. 4

J. Rankin, Sr.  
LSI Corporation

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cc:  
Marianne Santarelli, Radiation Safety Officer

DOCUMENT NAME: C:\FileNet\ML073080017.wpd

**SUNSI Review Complete: DLawyer**

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NAME	DLawyer/DRL							
DATE	10/29/2007							

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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. LSI Corporation</p> <p>2. LVCC, Room 12K-303 1110 American Parkway, NE Allentown, Pennsylvania 18109</p>	<p>In accordance with the letter dated August 20, 2007,</p> <p>3. License number 37-30617-02 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date October 31, 2011</p> <hr/> <p>5. Docket No. 030-36068 Reference No. 29-30676-01; 37-30617-01</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cobalt 60</p> <p>B. Cesium 137</p> <p>C. Americium 241</p> <p>D. Americium 241</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed Sources (Tracer Lab Model R-31)</p> <p>B. Sealed Sources (Tracer Lab Model R-59)</p> <p>C. Sealed Sources (Monsanto Research Corporation Model MRC-N-SS-W-AmBe)</p> <p>D. Plated Alpha Sources</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 20 millicuries per source and 20 millicuries total</p> <p>B. 10 millicuries per source and 20 millicuries total</p> <p>C. 30 millicuries per source and 60 millicuries total</p> <p>D. 40 microcuries total</p>
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9. Authorized use:
- A. through D. Research and development as defined in 10 CFR 30.4; calibration of licensee's instruments.

**CONDITIONS**

10. Licensed material may be used or stored only at the licensee's facilities located at 555 Union Boulevard, Allentown, Pennsylvania.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
37-30617-02Docket or Reference Number  
030-36068  
29-30676-01; 37-30617-01

Amendment No. 4

11. Licensed material shall be used by, or under the supervision of, Marianne Santarelli.
12. The Radiation Safety Officer for this license is Marianne Santarelli.
13. The licensee shall not use licensed material in or on human beings.
14.
  - 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.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number  
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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.
15. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
16. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
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 December 7, 2000 [ML010240112]  
 B. Letter dated February 21, 2001 [ML010580313]  
 C. Letter dated September 5, 2001 [ML012560271]  
 D. Application dated July 3, 2002 [ML021970167]  
 E. Letter dated May 8, 2003 [ML031420452]  
 F. Letter dated August 20, 2007 [ML072750763]

For the U.S. Nuclear Regulatory Commission

Date October 29, 2007

By ***Original signed by Dennis R. Lawyer***

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 Dennis R. Lawyer  
 Commercial and R&D Branch  
 Division of Nuclear Materials Safety  
 Region I  
 King of Prussia, Pennsylvania 19406