



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

February 8, 2005

Docket No. 04008868
Control No. 136238

License No. STA-1455

Carl J. Johnson
Chief Executive Officer
II-VI Incorporated
375 Saxonburg Boulevard
Saxonburg, PA 16056

SUBJECT: II-VI INCORPORATED, ISSUANCE OF LICENSE AMENDMENT, CONTROL
NO. 136238

Dear Mr. Johnson:

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

Your application should have been signed by a management representative rather than the Radiation Safety Officer, indicating that management has reviewed the application and concurs in the statements and representations contained therein. Note also that a management representative should sign all future correspondence that requests a change in your license.

Your application contained a diagram that was marked "II-VI Proprietary Information". NRC regulations regarding requests for withholding information are found in Title 10, Code of Federal Regulations (10 CFR) 2.390, "Public Inspections, exemptions, requests for withholding." Your application did not include a request to withhold the information or the required supporting documentation, and therefore has not been exempted from disclosure.

The regulations in 10 CFR 40.36(f) require that records important to the decommissioning of a facility be maintained. These records include modifications of structures in restricted areas where radioactive materials were used and stored, such as the original configuration of the restricted area. These records will be used at the time of decommissioning of the facilities to identify areas in which licensed activities took place. Based on a comparison of the 2004 diagram to previous submissions, it appears that the reconfigured area encompasses the previous restricted area.

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).

C. Johnson
II-VI Incorporated

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Please note that on October 25, 2004, the NRC suspended public access to ADAMS, and initiated an additional security review of publicly available documents to ensure that potentially sensitive information is removed from the ADAMS database accessible through the NRC's web site. Interested members of the public may obtain copies of the referenced documents for review and/or copying by contacting the NRC Public Document Room pending resumption of public access to ADAMS. The NRC Public Document Room is located at NRC Headquarters in Rockville, MD, and can be contacted at 800-397-4209 or 301-415-4737 or pdrr@nrc.gov.

Thank you for your cooperation.

Sincerely,

Original signed by Elizabeth Ullrich

Betsy Ullrich
Senior Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety

Enclosure:
Amendment No. 17

cc:
Jason M. Tennant, Radiation Safety Officer

DOCUMENT NAME: E:\Filenet\ML050400182.wpd

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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 style="text-align: center;">Licensee</p> <p>1. II-VI Incorporated</p> <p>2. 375 Saxonburg Boulevard Saxonburg, Pennsylvania 16056</p>	<p>In accordance with the letter dated December 29, 2004,</p> <p>3. License number STA-1455 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date October 31, 2012</p> <hr/> <p>5. Docket No. 040-08868 Reference No.</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Thorium</p> <p>B. Manganese 54</p> <p>C. Cobalt 60</p> <p>D. Krypton 85</p> <p>E. Strontium 90</p> <p>F. Technetium 99</p> <p>G. Cadmium 109</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Sealed sources</p> <p>C. Sealed sources</p> <p>D. Sealed sources</p> <p>E. Sealed sources</p> <p>F. Sealed Sources</p> <p>G. Sealed Sources</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 2000 kilograms</p> <p>B. Not to exceed 500 microcuries per source and 1 millicurie total</p> <p>C. Not to exceed 600 microcuries per source and 600 microcuries total</p> <p>D. Not to exceed 500 microcuries per source and 500 microcuries total</p> <p>E. Not to exceed 500 microcuries per source and 500 microcuries total</p> <p>F. Not to exceed 600 microcuries per source and 600 microcuries total</p> <p>G. Not to exceed 50 millicuries per source and 250 millicuries total</p>

MATERIALS LICENSE SUPPLEMENTARY SHEET

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6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
H. Iodine 129	H. Sealed sources	H. Not to exceed 500 microcuries per source and 1 millicurie total
I. Barium 133	I. Sealed sources	I. Not to exceed 500 microcuries per source and 5 millicuries total
J. Cesium 137	J. Sealed sources	J. Not to exceed 500 microcuries per source and 5 millicuries total
K. Americium 241	K. Sealed sources	K. Not to exceed 50 millicuries per source and 350 millicuries total
L. Americium 241	L. Plated Sources	L. 100 microcuries per source and 500 microcuries total
M. Californium 252	M. Sealed Neutron Sources (Frontier Technology Corporation Model 100 Series)	M. 100 microcuries

9. Authorized use:

A. Plating of optical equipment other than eye pieces; manufacture of products containing thorium for distribution to persons exempt from licensing under the provision of 10 CFR 40.13(c)(1) and 10 CFR 40.13(c)(4).

B. through M. For quality control testing of radiation detectors.

CONDITIONS

10. Licensed material may be used or stored only at the licensee's facilities at 375 and 373 Saxonburg Boulevard, Saxonburg, Pennsylvania.

11. A. Licensed material shall be used by or under the supervision of individuals designated, in writing, by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.

B. The Radiation Safety Officer for this license is Jason M. Tennant.

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12. Licensed material shall not be used in or on human beings.
13. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
14. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
15. 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.
- 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.

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- I. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.
16. 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.
17. Pursuant to 10 CFR 20.2002, the licensee may dispose of solid materials (filtercake and soils) containing thorium-232 as ordinary waste in an industrial landfill provided that the concentration of thorium-232, in picocuries per gram of solid material, at the time of disposal are not greater than 25 picocuries per gram. In addition, not more than two (2) effective packages (where an effective package contains a volume of approximately 24 cubic meters) may be disposed of to the industrial landfill in any 30-day period.
18. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
19. 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 January 28, 2002 [ML020310116]
 - B. Letter dated June 14, 2002 [ML021680105]
 - C. Letter dated September 13, 2002 [ML022620138]
 - D. Letter dated September 19, 2002 [ML022750516]
 - E. Letter dated October 15, 2002 [ML022960062]
 - F. Letter dated November 27, 2002 [ML023360484]
 - G. Letter dated September 5, 2003 [ML032540080]
 - H. Letter dated December 29, 2004 [ML050190347 and ML050190350]

For the U.S. Nuclear Regulatory Commission

Original signed by Elizabeth Ullrich

Date February 8, 2005

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By

Elizabeth Ullrich

Commercial and R&D Branch

Division of Nuclear Materials Safety

Region I

King of Prussia, Pennsylvania 19406

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