

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, 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.

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| Licensee | | In accordance with application dated August 30, 1985 | |
| 1. | Department of the Navy Quality Assurance Office, Code 130 | 3. License number 04-06145-02 is amended in its entirety to read as follows: | |
| 2. | Long Beach Naval Shipyard Long Beach, CA 90822-5099 | 4. Expiration date May 31, 1987 | |
| | | 5. Docket or Reference No. 030-19692 | |
| 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 |
| A. Nickel 63 | | A. Foil contained in Antex Instruments Model 203 detector cells | A. Not to exceed 15 millicuries per source |
| B. Cadmium 109 | | B. Sealed source (IPL Model AN 109A) | B. Not to exceed 25 millicuries per source |
| C. Americium 241 | | C. Sealed source (IPL Model AN 241) | C. Not to exceed 25 millicuries per source |
| D. Americium 241 | | D. Sealed source (IPL Model AN 241) | D. Not to exceed 25 millicuries per source |
| 9. Authorized use | | | |
| A. For use in gas chromatography for sample analysis. | | | |
| B. and C. For use in Kevex Corp. Model 0202 x-ray fluorescence analyzer for sample analysis. | | | |
| D. For use in Kevex Corp. Model 0122 x-ray fluorescence analyzer for sample analysis. | | | |

CONDITIONS

10. Licensed material shall be used only at Laboratory Division (Code 134), Bldg. 129 2nd and 3rd Floor, and Bldg. 55, Ground Floor, Long Beach Naval Shipyard, Long Beach, California.
11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."

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CONDITIONS

12. Licensed material shall be used by, or under the supervision of, Eike Hohenadl, Clare Kline, Donald I. Johnson, Lourdes Dabu, Dennis Estep, Robert MacPhee, Mario Mariotta, or Donald Rice.
13. A. (1) Each sealed source containing licensed material, other than hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
(2) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.
- B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within five (5) days of the test with the U. S. Nuclear Regulatory Commission, Region V, 1450 Maria Lane, Suite 210, Walnut Creek, California 94596, describing the equipment involved, the test results, and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
- E. The licensee is authorized to collect leak test samples in accordance with the procedures described in the licensee's application dated March 12, 1982 for analysis by the device manufacturer, Nuclear Sources and Services, or ICN Chemical and Radioisotope Division.
14. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.

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15. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), Title 10, Code of Federal Regulations, Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.
16.
 - A. Each chromatograph detector containing Nickel 63 shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a detector received from another person shall not be put into use until tested.
 - B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the surfaces of the device in which the foil is mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
 - C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the foil from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within five (5) days of the test with the U. S. Nuclear Regulatory Commission, Region V, 1450 Maria Lane, Suite 210, Walnut Creek, California 94596, describing the equipment involved, the test results, and the corrective action taken.
 - D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
 - E. The licensee is authorized to collect leak test samples in accordance with the procedures described in the licensee's application dated March 12, 1982 for analysis by the device manufacturer, Nuclear Sources and Services, or ICN Chemical and Radioisotope Division.
17. Installation, relocation, removal from service, maintenance, repair, and initial radiation survey of devices containing licensed material and installation, replacement, and disposal of sealed sources containing licensed material used in devices shall be performed only by the manufacturer or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

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18. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of licensed material, location of sealed sources and the date of the inventory.
19. Detector cells containing licensed material shall not be opened or the foil sources removed from the detector cell by the licensee.
20. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in applications dated March 12, 1982 and August 30, 1985. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

SEP 26 1985

Date _____

FOR THE U. S. NUCLEAR REGULATORY COMMISSION

Original Signed By

By _____

J. Bruce Carrioc

Material Licensing Branch
Division of Fuel Cycle and
Material Safety
Washington, D.C. 20555

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