

MATERIALS LICENSE

Amendment No. 01

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.

OFFICIAL RECORD COPY

Licensee		In accordance with letter dated January 29, 1997, 3. License Number 29-30342-01 is amended in its entirety to read as follows:	
1. Metorex Inc.			
2. Princeton Crossroads Corporate Center 250 Phillips Boulevard Ewing, New Jersey 08618		4. Expiration Date October 31, 2005	
		5. Docket or Reference No. 030-34246/37-28461-01	
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. Iron 55	A. Sealed sources (Models Amersham IEC.D1, IEC.D2, and IEC.A1; DuPont NER-462; and Isotope Products XFB)	A. Not to exceed 200 millicuries per source and 50 curies total	
B. Cadmium 109	B. Sealed sources (Models DuPont NER-465; Amersham CUC.D1N and CUC.D1; and Isotope Products XFB)	B. Not to exceed 20 millicuries per source and 5 curies total	
C. Americium 241	C. Sealed sources (Models Amersham AMC.A1, AMCL and AMC.D2; DuPont NER-478C; and Isotope Products XFB and GFS)	C. Not to exceed 500 millicuries per source and 25 curies total	
D. Curium 244	D. Sealed sources (Models Amersham CLCL and CLC.A1; and Isotope Products XFB)	D. Not to exceed 200 millicuries per source and 25 curies total	
E. Any byproduct material atomic numbers 1 through 83	E. Any sealed, plated, or foil sources	E. Not to exceed 50 millicuries per source and 500 millicuries total	
9. Authorized use			

- A. through D. For use and/or possession incident to:
- 1) Research and development as defined in 10 CFR 30.4.
 - 2) Manufacturing and testing of analyzer devices.
 - 3) Installation into or removal from analyzer devices.
 - 4) Repair and servicing of Metorex Inc. and Outokumpu Electronics devices.
 - 5) Calibration of instruments.

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(Condition 9. continued)

- 6) Receipt, storage, and transfer of Princeton Gamma Tech, Metorex Inc. and Outokumpu Electronics, devices from customers for disposal.
 - 7) Demonstrations of Metorex Inc. and Outokumpu Electronics devices.
 - 8) Distribution in Princeton Gamma Tech, Metorex Inc. and Outokumpu Electronic devices to persons authorized to receive licensed material pursuant to the terms and conditions of specific licenses issued by the U.S. Nuclear Regulatory Agency or any Agreement State.
 - 9) Instruction and training in the use of Metorex Inc. and Outokumpu Electronic devices.
- E. Calibration of instruments.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at Princeton Crossroads Corporate Center, 250 Phillips Boulevard, Ewing, New Jersey; and 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.
11. A. Licensed material shall be used by, or under the supervision of, individuals who have received the training described in letter dated March 6, 1990 and have been designated in writing by the Radiation Safety Officer.
B. The Radiation Safety Officer for this license is Stanislaw Piorek, Ph.D..
12. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
13. 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.
14. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
15. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed three months.

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(Condition 15. continued)

- C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. 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.
- E. Sealed sources and detector cells need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer 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 or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source or detector cell involved, the test results, and corrective action taken.
- G. The licensee is authorized to collect leak test samples for analysis by the licensee. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
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 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, 1989
- B. Letter dated March 6, 1990
- C. Letter dated November 12, 1993
- D. Letter dated April 20, 1994
- E. Letter dated March 28, 1995
- F. Letter dated September 17, 1996

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Date _____

For the U.S. Nuclear Regulatory Commission

ORIGINAL SIGNED BY:
SHERI A. ARREDONDO

By

Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406