

MATERIALS LICENSE

Amendment No. 04

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.

Licensee		In accordance with letter dated January 10, 1986	
1. Environmental Protection Agency Environmental Research Laboratory-Duluth		3. License number 22-13390-01 is amended in its entirety to read as follows:	
2. 6201 Congdon Boulevard Duluth, MN 55804		4. Expiration date	March 31, 1993
		5. Docket or Reference No.	030-05045
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. Any byproduct material with Atomic Nos. 3-83, inclusive	A. Any	A. 75 millicuries per radionuclide. Total possession not to exceed 500 millicuries	
B. Any byproduct material with Atomic Nos. 3-83, inclusive	B. Sealed sources	B. No single source to exceed 1 microcurie	
C. Hydrogen-3	C. Foil sources (which have been evaluated and approved by the NRC or an Agreement State)	C. No single foil source to exceed 250 millicuries millicuries	
D. Nickel-63	D. Foil or plated sources (which have been evaluated and approved by the NRC or an Agreement State)	D. No single foil or plated source to exceed 15 millicuries	
E. Carbon-14	E. Any	E. 500 millicuries	
F. Hydrogen-3	F. Any	F. 500 millicuries	

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License number

22-13390-01

Docket or Reference number

030-05046

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9. Authorized Use

- A. To be used in laboratory studies.
- B. To be used for instrument calibration.
- C. and D. To be used in gas chromatographs for sample analysis.
- E. and F. To be used in laboratory research for the determination of productivity and bioaccumulation studies.

CONDITIONS

- 10. Licensed material shall be used only at the licensee's facilities located at 6201 Congdon Boulevard, Duluth, Minnesota and at the permanent research laboratory at Monticello Ecological Research Station on the Grounds of Northern States Power Company, Monticello, Minnesota.
- 11. A. Licensed material shall be used by, or under the supervision of, Gary E. Glass, Gilman D. Veith, Alfred Jarvinen, James M. McKim, Allan R. Batterman, Glen Christenson, Rodney Johnson, Patricia K. Schmieder, or Steven Bradbury.
B. Licensed material listed in Subitems 6.C. and 6.D. may also be used by or under the supervision of, Michael L. Knuth.
- 12. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
- 13. A. (1) The source(s) specified in Item(s) 7.C. and 7.D. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.
(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another persons, it shall be tested before use or transfer.

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12. (Continued)

- C. 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, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, ATTN: Chief, Nuclear Materials Safety and Safeguards Branch. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
14. The licensee shall conduct a physical inventory every 6 months to account for all sources, plated sources and foils and/or devices received and possessed under the license. Records of inventories shall be maintained for 2 years from the date of each inventory.
15. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR 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. Detector cells containing licensed material shall not be opened or the sources removed from the detector cell by the licensee.
17. A. Detector cells containing titanium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 225 degrees Centigrade.
- B. Detector cells containing scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 325 degrees Centigrade.
18. Except as otherwise specified in this license, the licensee shall have available and follow the instructions contained in the manufacturer's instruction manual for the chromatography devices.
19. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".

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20. Licensed material shall not be used in or on human beings or in field applications where activity is released except as provided otherwise by specific condition of this license
21. The licensee shall establish a bioassay program for individuals handling millicurie amounts of iodine-131 in accordance with frequencies and procedures contained in Regulatory Guide 8.20, "Applications of Bioassay for I-125 and I-131."
22. 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 March 27, 1980 (with attached Radiation Safety Manual); and
 - B. Letters dated October 8, 1980, January 10, 1986 and January 21, 1988.

For the U.S. Nuclear Regulatory Commission

Date: March 1, 1988

Original Signed
By Patricia J. Whiston
Materials Licensing Section, Region III

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CONVERSATION RECORD

TIME 2:05

DATE 2/22/88

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☐ INCOMING

☒ OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Allan Bateman 250

ORGANIZATION (Office, dept., bureau, etc.)

EPA

TELEPHONE NO.

780-5513

SUBJECT

Contol No. 19487

SUMMARY

Determine if licensee is performing field studies at temporary job sites other than those conducted at the Monticello Ecological Research Station -

~~Nothing~~
They are not conducting any field studies at temporary job sites at this time.

Acknowledge the following documents are included in renewal:

March 27, 1980 → Radiation Safety Manual
October 8, 1980 = Response letter to March 27, 1980 application

ACTION REQUIRED

Mr. Bateman acknowledged the above.

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

Kathy J. Gaden

2/22/88

ACTION TAKEN

SIGNATURE

TITLE

DATE