

MATERIALS LICENSE

Amendment No. 30

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.

301802

Licensee

1. University of Wisconsin-Stevens Point
ATTN: Radiation Safety Officer
Department of Biology
2. 1100 Main Street
Stevens Point, WI 54481

In accordance with letter dated
August 30, 19963. License Number 48-09993-01 is amended in
its entirety to read as follows:

4. Expiration Date June 30, 1995

5. Docket or
Reference No. 030-011616. Byproduct, Source, and/or
Special Nuclear Material

- A. Strontium-90
- B. Americium-241
- C. Gold-198
- D. Carbon-14
- E. Germanium-68
- F. Silver-110m
- G. Americium-241
- H. Iron-55
- I. Cesium-137
- J. Hydrogen-3
- K. Iodine-131
- L. Phosphorus-32
- M. Sulfur-35

7. Chemical and/or Physical
Form

- A. Strontium contained
in Nuclear-Chicago
Corp. Model RS-90
ampoule
- B. Plated source (ORTEC
Model AM-1C)
- C. Foil
- D. Any
- E. Any
- F. Any
- G. Sealed source (New
England Nuclear
Model NER-476A)
- H. Sealed source (New
England Nuclear
Model NER-461A)
- I. Sealed source
(R.E.A.C. Model E-
117A)
- J. Any
- K. Any
- L. Any
- M. Any

8. Maximum Amount that Licensee
May Possess at Any One Time
Under This License

- A. 1 microcurie
- B. .1 microcurie
- C. 200 microcuries
- D. 3 millicuries
- E. 10 microcuries
- F. 10 microcuries
- G. 100 millicuries
- H. 50 millicuries
- I. 1 millicurie
- J. 4 millicuries
- K. 3 millicuries
- L. 2 millicuries
- M. 1 millicurie

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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 |
| N. Hydrogen-3 | N. Foil (U.S. Radium Model LAB-508-1 in an Electron Capture Detector Model 02-0220) | N. 500 millicuries (2 foils not to exceed 250 millicuries each) |
| O. Nickel-63 | O. Foil | O. 15 millicuries |
| P. Hydrogen-3 | P. Tritiated Titanium Targets | P. 1.25 curies |
| Q. Plutonium-239 | Q. Sealed Pu-Be Neutron Source (NUMCC Type B) | Q. 32 grams |
| R. Selenium-75 | R. Any | R. 1 millicurie |
| S. Bromine-82 | S. Any | S. 1 millicurie |
| T. Cesium-137 | T. Sealed source (Troxler Dwg. No. A-102112) | T. No single source to exceed 10 millicuries |
| U. Americium-241 | U. Sealed source (Troxler Dwg. No. A-102451) | U. No single source to exceed 50 millicuries |
| V. Curium-244 | V. Foil source (Isotope Products Laboratory AFR Series mounted in A-2 capsule) | V. One source not to exceed 500 microcuries |
| W. Americium-241 | W. Foil source (Isotope Products Laboratory AFR Series mounted in A-2 capsule) | W. One source not to exceed 500 microcuries |

9. Authorized Use:

A. through C. To be used for instrument calibration

D. through M. To be used for tracer studies, laboratory research studies, and student instruction. Iodine-131 may also be used for animal studies described in application dated September 10, 1979. Carbon-14 may also be used in field studies described in application dated December 22, 1978, and letter dated December 23, 1978.

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- N. For storage only.
- O. To be used in a detector cell within a gas chromatograph unit for sample analysis.
- P. To be used in a Kaman Nuclear Model A-700 Neutron Generator.
- Q. To be used in an Atomic Accessories Visiflux I Model ND-327 neutron howitzer for laboratory experiments and student instruction.
- R. and S. To be used for instrument calibration.
- T. and U. To be used in Troxler Model 3400 Series surface moisture/density gauges.
- V. and W. To be used for laboratory experiments and student instruction.

CONDITIONS

10. A. Licensed material shall be used only at the University of Wisconsin, Stevens Point facilities in the Physics/Astronomy and Chemistry Departments in the Science Building, and the Biology Department in the Natural Resources Building.
- B. Licensed material listed in Subitems 6.T., and 6.U., may be used at the University of Wisconsin-Stevens Point, Wisconsin 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 listed in Item 6 above is authorized for use by, or under the supervision of, the following individual(s) for the materials and uses indicated:

Gregory Kulas

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, and sulfur-35

Dr. Roland Thurmaier

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, and sulfur-35

Dr. Jagdish Chander

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, sulfur-35, selenium-75, bromine-82, plutonium-239, and curium-244

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Dr. Allen Taylor

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, sulfur-35, and plutonium-239

Dr. Byron Shaw

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, and sulfur-35

Dr. Joseph B. Harris

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, and sulfur-35

Dr. Ronald A. Lokken

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, plutonium-239, sulfur-35, selenium-75, bromine-82, and curium-244

Dr. Francis L. Schmitz

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, plutonium-239, and sulfur-35

Dr. Lyle Nauman

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, and sulfur-35

Dr. Donald Shawolter

Strontium-90, americium-241, carbon-14, germanium-68, silver-110m, iron-55, nickel-63, gold-198, hydrogen-3, cesium-137, phosphorus-32, iodine-131, sulfur-35, selenium-75 and bromine-82

Dr. Sol Seppenwol

Carbon-14, hydrogen-3 (excluding tritiated titanium targets), iodine-131, and sulfur-35

Dr. Virgil A. Thiesfeld

Carbon-14

- B. Licensed material listed in Subitems 6.T. and 6.U. shall be used by, or under the supervision of and in the physical presence of, individuals who have completed a portable gauge manufacturer's training course and have been designated by the licensee's Radiation Protection Officer. The licensee shall maintain records of the individuals who have been designated as authorized users.

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12. The Radiation Protection Officer for the activities authorized by this license is Ralph M. North.
13. A. (1) Each sealed source containing licensed material, (including chromatograph detector cells containing nickel-63 and encapsulated plutonium sources designed for the purpose of emitting neutron or gamma radiation), 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; except those sealed sources as specified by the manufacturer and specifically authorized by the Commission or an Agreement State may be leak tested at intervals not to exceed three years. 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) Notwithstanding the periodic leak test required by this condition, the source(s) specified in Item(s) 7.V. and 7.W. shall be tested for leakage and/or contamination at intervals not to exceed three months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within three months before the transfer shall not be put into use until tested.
- (3) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak test 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 person, it shall be tested before use or transfer.
- 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, 801 Warrenville Road, Lisle, Illinois 60532-4351, ATTN: Chief, Nuclear Materials Safety 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. The licensee is authorized to collect leak test samples for analysis by the University of Wisconsin-Madison (NRC License No. 48-09843-18). 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.

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14. Detector cells containing licensed material shall not be opened or the sources removed from the detector cell by the licensee.
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. 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.
17. Experimental animals administered licensed materials or their products shall not be used for human consumption.
18. Pursuant to Sections 20.106(b) and 20.302, 10 CFR 20, the licensee is authorized to dispose of licensed material by incineration provided the gaseous effluent from incineration does not exceed the limits specified for air in Appendix B, Table II, 10 CFR 20. Ash residues may be disposed of as ordinary waste provided appropriate surveys pursuant to Section 20.201 are made to determine that concentrations (in terms of microcuries per gram) specified for water in Appendix B, Table II, 10 CFR 20.
19. Except for plutonium contained in a medical device designed for individual human application, no plutonium, regardless of form, shall be delivered to a carrier for shipment by air transport or transported in an aircraft by the licensee except in packages the design of which the NRC has specifically approved for transport of plutonium by air.
20. Sealed sources containing licensed material shall not be opened.
21. 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.
22. 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 byproduct material, manufacturer's name and model numbers, location of sealed sources and the date of the inventory.

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23. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
24. The licensee shall maintain records of information important to safe and effective decommissioning at the University of Wisconsin, Science Building, 740 Reserve Street, Stevens Point, Wisconsin per the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.
25. 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. Applications dated March 27, 1978, November 22, 1978, December 22, 1978, February 17, 1981, January 25, 1984, November 20, 1987, January 4, 1990 and January 27, 1992; and
- B. Letters dated May 18, 1977 (with attachments), July 26, 1978, December 23, 1978, September 10, 1979, January 23, 1981, May 17, 1982, May 27, 1983, August 4, 1983, January 31, 1985, March 24, 1988, June 21, 1988, January 4, 1990, July 16, 1990 (with attachments), April 2, 1992, and August 30, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date

September 11, 1996

By

Laticia J. Peone

Nuclear Materials Licensing Branch, Region III

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BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03620
Status Code: 2
Fee Category: EX 3M 1C 3P
Exp. Date: 19950630
Fee Comments: 170.11(A)(4)
Decom Fin Assur Req'd: Y

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: WISCONSIN-STEVENSON POINT, UNIVERSITY
Received Date: 960903
Docket No: 3001161
Control No.: 301802
License No.: 48-09993-01
Action Type: Amendment

2. FEE ATTACHED

Amount: 0
Check No.: D

3. COMMENTS

Signed D. Hersey
Date 7-4-96

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / /)

1. Fee Category and Amount: 170.11(A)(4)

2. Correct Fee Paid. Application may be processed for:

Amendment
Renewal
License

FEE EXEMPT

3. OTHER

Signed SC
Date 9/16/96

SEP 19 1996

RECEIVED BY LFDCB

Date Sept 12, 1996
Log Sept 4 III
By SC
Date Completed 9/16/96



University of Wisconsin-Stevens Point

Business Affairs
Environmental Health and Safety

Stevens Point, WI 54481-3897 (715) 346-2320
FAX (715) 346-3780

August 30, 1996

Materials Licensing Section
U.S. Nuclear Regulatory Commission, Region III
801 Warrenville Road
Lisle, IL 60532-4351

Re: License #48-09993-01

To Whom it May Concern:

The University submitted a letter dated June 23, 1995 to your regional office requesting a license renewal and amending our current license (48-09993-01, amendment 29). Our Radiation Safety Officer at that time, Dr. C. Edward Gasque had submitted the renewal request. Dr. Gasque has recently stepped down as Radiation Safety Officer. The purpose of this letter is to amend our earlier renewal/amendment request reflecting Dr. Gasque's departure and to outline our proposed method of meeting campus radiation safety responsibilities.

In the June 23, 1995 letter, we asked to modify our license to reflect reduced isotope usage which would be limited solely to the Department of Physics and Astronomy and a gas chromatograph in a chemistry lab. In order to find the most cost effective and professional manner to manage our radiation safety program, we approached the University of Wisconsin-Madison Radiation Safety Office about providing a consulting Radiation Safety Officer. We believe the program outlined in this letter will provide better access to higher quality radiation safety information for our users and a better control of isotope and inventory management. The campus has never had access to professional health physics services, and has historically relied on part-time faculty assuming the function as an overload responsibility. Given the limited scope of our radiation program, we feel this approach will be effective and anticipate significant improvements in our operations as a result of the UW-Madison relationship.

The requested changes to the June 23, 1995 letter are described in the attachment. If you have any questions, please do not hesitate to contact Jim Morrison, Environmental Health and Safety Director at (715)346-2320.

Sincerely,

James M. Morrison
Environmental Health
and Safety Director

Greg Diemer
Assistant Chancellor
Business Affairs

cc: R. Bresell (UW-Madison), G. Diemer, E. Gasque, B. Johnson, R. Lokken,
R. North (UW-Madison), P. Orr, J. Paul

file: rad/pgm. info.
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170.11(A)(4)
FEE EXEMPT

pm: 8-30-96

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REGION III

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**Requested Changes to June 23, 1995 Letter
for License (48-09993-01, Amendment 29) Renewal/Amendment**

<u>Page</u>	<u>Requested Change</u>
3	<p>Under letter No. 7, Individual Responsible for Radiation Safety Program and Their Training Experience, text should read as follows:</p> <p>The consulting Radiation Safety Officer is Ralph North. Mr. North is currently a health physicist with the UW-Madison Radiation Safety Office. His training and experience is documented in the attached form NRC 313M-Supplement A. Jim Morrison, Environmental Health and Safety Director and Ron Lokken, Professor of Physics and former RSO will also assist in responding to campus incidents concerning isotope use. See attached forms.</p>
4	<p>Delete references to Dr. C. Edward Gasque. He is no longer serving as Radiation Safety Officer and should not be listed as an authorized user. Ralph North should be added as an authorized user. Mr. North has been a health physicist with the UW-Madison Safety department since 1991. He provides radiation protection engineering, consultation, design, and implementation services to the UW-Madison Radiation Safety Officer. He is also responsible for the UW-Madison low level radioactive waste program. Form NRC 313M-Supplement A is attached for Mr. North.</p>
6	<p>Under No. 10 Radiation Protection Program, text beginning with the second paragraph through the remainder of No. 10 shall be replaced with the following.</p> <p>Leak wipe testing will be performed by UW-Madison radiation staff and analyzed at the Madison campus. Testing shall be performed every six months in the cases of items 5. F., 5. H., and 5. N. (new form, license renewal application) and every three months in the cases of items 5. Q. and 5. R. (new form, license renewal application).</p> <p>Items 5. F., 5. H., 5. N., 5. Q. and 5. R. are inventoried every six months. The inventory log shall be kept in the Environmental Health and Safety (EHS) Office, 101 George Stien Building, UW-Stevens Point.</p> <p>An NVLAP certified commercial dosimetry service is used. Users of radioactive materials listed under Item 5 (Chander, Lokken and individuals under their supervision and direction) wear TLD badges. The badges are analyzed quarterly for neutron, shallow and extremity doses and for deep, lens and extremity accumulated doses. Dosimetry records shall be maintained in the UWSP EHS Office.</p> <p>In addition to the training provided in our radiation safety program, as outlined in the documents cited above, we now have available three videocassette training tapes. We have three programs in the series put out by Radiological Training Services, P. O. Box 288, Burke, VA 22015: "Radiation Protection Standards", "Fundamentals of Radiation Safety", and "Occupational Radiation Exposure". These programs are available for the training of students, staff (e.g. custodians), and faculty.</p>

The radiation safety program at the University of Wisconsin-Stevens Point is overseen by the Environmental Health and Safety (EHS) Director. The EHS Director shall be responsible for all administrative aspects of the program including license maintenance, management of dosimetry data, and coordinating with the consulting Radiation Safety Officer (RSO). The consulting RSO shall visit the campus quarterly and shall leak test items noted above, review inventory, meet with users, consult with the EHS Director on licensing issues, use concerns and emergencies, and will participate on the Radiation Safety Committee (RSC). The RSC shall meet quarterly and shall consist of users (Lokken and Chander), EHS Director, a representative of the administration, and consulting RSO. The EHS Director and Dr. Lokken shall be the primary campus contacts in the event of emergencies concerning isotopes.

The radiation safety program at the University of Wisconsin-Stevens Point, including the activities of the consulting Radiation Safety Officer and the budget for the radiation safety program, is overseen by the Environmental Health and Safety Director, who in turn reports to the Director of Safety and Loss Control. The offices for both individuals are located at 101 George Stien Building, University of Wisconsin-Stevens Point, Stevens Point, WI 54481.

TRAINING AND EXPERIENCE AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER NORTH, Ralph M.		2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE	
3. CERTIFICATION			
SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C	
4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES			
FIELD OF TRAINING A	LOCATION & DATE(S) OF TRAINING B	TYPE & LENGTH OF TRAINING	
		LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION	Audit UW Madison MP569 "Health Physics"; Engineering Professional Development "Radiation Safety"; et. al. UW-Safety Department OJT Madison, WI. May 1987 - August 1996	168 ~20	~20 >2000
b. RADIATION PROTECTION	MP569 "Health Physics", Engineering Professional Development "Radiation Safety"; Rockwell Int. "Radiation Safety for Laboratory Technicians"; et. al. UW-Safety Department OJT Madison, WI. May 1987 - August 1996	~100	>2000
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	Minor in Mathematics - University of Wisconsin 1978, Additional Statistics while studying Industrial Engineering UW Madison 1981-1983 UW-Safety Department OJT Madison, WI. May 1987 - August 1996	>100	>2000
d. RADIATION BIOLOGY	MP569 "Health Physics", Engineering Professional Development "Radiation Safety"; Rockwell Int. "Radiation Safety for Laboratory Technicians"; et. al.	~20	
e. RADIOPHARMACEUTICAL CHEMISTRY	UW-Safety Department OJT Madison, WI. May 1987 - August 1996	~20	
5. EXPERIENCE WITH RADIATION. (Actual use of radioisotopes or Equivalent Experience)			
Isotopes with Atomic Numbers 3 through 82, Ra-226, source material and Depleted Uranium in conjunction with duties as Health Physicist supporting an NRC Broadscope Byproduct Materials License at University of Wisconsin - Madison (License # 48-09843-18); July, 1990 through August 1996. Handling experience includes sealed and unsealed sources, open beam and self-shielded irradiators.			

UNITED STATES ATOMIC ENERGY COMMISSION
APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved
Budget Bureau No. 38-20027

INSTRUCTIONS — Complete Items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commission with respect to Items 8 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545, Attention: Isotopes Branch, Division of Materials Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.

1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital person, etc. Include ZIP Code.)		(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1(a). Include ZIP Code.)	
Dr. Ronald A. Lokken Department of Physics & Astronomy University of Wisconsin Stevens Point, WI 54481		same	
2. DEPARTMENT TO USE BYPRODUCT MATERIAL		3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)	
Department of Physics & Astronomy			
4. INDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.)		5. RADIATION PROTECTION OFFICER. (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.)	
Dr. Ronald A. Lokken Associate Professor		Dr. Ronald A. Lokken	
6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.)		(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)	
as per existing license			
7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)			

TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)

TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	Utah State University and the National Reactor Testing Station	4 years	(Yes) No	(Yes) No
b. Radioactivity measurement standardization and monitoring techniques and instruments	Oak Ridge Associated Universities	8 weeks	Yes (No)	(Yes) No
c. Mathematics and calculations basic to the use and measurement of radioactivity	Utah State University	2 years	Yes (No)	(Yes) No
d. Biological effects of radiation			Yes No	Yes No

9. EXPERIENCE WITH RADIATION. (Actual use of radioisotopes or equivalent experience.)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
All radio isotopes with A, Z less than 198, ^{137}Cs , ^{132}I , ^{131}I , ^{125}I , ^{125}Sb , ^{125}Te , ^{125}Ba , ^{125}La , ^{125}Ce , ^{125}Pr , ^{125}Nd , ^{125}Pm , ^{125}Sm , ^{125}Eu , ^{125}Gd , ^{125}Tb , ^{125}Dy , ^{125}Ho , ^{125}Er , ^{125}Tm , ^{125}Yb , ^{125}Lu , ^{125}Hf , ^{125}Ta , ^{125}W , ^{125}Re , ^{125}Os , ^{125}Ir , ^{125}Pt , ^{125}Au , ^{125}Hg , ^{125}Tl , ^{125}Pb , ^{125}Bi , ^{125}Po , ^{125}At , ^{125}Rn , ^{125}Ac , ^{125}Th , ^{125}Pa , ^{125}U , ^{125}Np , ^{125}Pu , ^{125}Am , ^{125}Cm , ^{125}Bk , ^{125}Cf , ^{125}Es , ^{125}Fm , ^{125}Md , ^{125}No , ^{125}Lr , ^{125}La , ^{125}Ce , ^{125}Pr , ^{125}Nd , ^{125}Pm , ^{125}Sm , ^{125}Eu , ^{125}Gd , ^{125}Tb , ^{125}Dy , ^{125}Ho , ^{125}Er , ^{125}Tm , ^{125}Yb , ^{125}Lu , ^{125}Hf , ^{125}Ta , ^{125}W , ^{125}Re , ^{125}Os , ^{125}Ir , ^{125}Pt , ^{125}Au , ^{125}Hg , ^{125}Tl , ^{125}Pb , ^{125}Bi , ^{125}Po , ^{125}At , ^{125}Rn , ^{125}Ac , ^{125}Th , ^{125}Pa , ^{125}U , ^{125}Np , ^{125}Pu , ^{125}Am , ^{125}Cm , ^{125}Bk , ^{125}Cf , ^{125}Es , ^{125}Fm , ^{125}Md , ^{125}No , ^{125}Lr	~ 0.1 Ci total	The National Reactor Testing Station NRTS	2 years 2 years	experimental investigation of spallation processes in Au-197+P reactions Electron spectrometer sources

10. RADIATION DETECTION INSTRUMENTS. (Use supplemental sheets if necessary.)

TYPE OF INSTRUMENTS (include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, surveying, measuring)

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED (For film badges, specify method of calibrating and processing, or name of supplier.)

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. (Circle answer) Yes No

14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source.

15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

Date 12-22-76

Donald A. Zolner
Applicant named in item 1

By: _____

Title of certifying official _____

WARNING.—18 U. S. C., Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

EXHIBIT 2
SUPPLEMENT A

SUPPLEMENT		U.S. NUCLEAR REGULATORY COMMISSION	
TRAINING AND EXPERIENCE AUTHORIZED USER OR RADIATION SAFETY OFFICER			
1. NAME OF PROPOSED AUTHORIZED USER OR RADIATION SAFETY OFFICER James M. Morrison		2. FOR PHYSICIANS, STATE OR TERRITORY WHERE LICENSED	
3. CERTIFICATION			
SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C	
Institute of Hazardous Materials Management	Certified Hazardous Materials Manager	1990 (#2271)	
American Board of Industrial Hygiene	Industrial Hygienist in Training	1995 (#10785)	
4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES			
FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	TYPE AND LENGTH OF TRAINING	
		CLOCK HOURS IN LECTURE OR LABORATORY	CLOCK HOURS OF SUPERVISED ON-THE-JOB EXPERIENCE
a. RADIATION PHYSICS AND INSTRUMENTATION			
b. RADIATION PROTECTION	University of Michigan (M.S. '88 Env. Health) Fund. of Ind. Hygiene / Illinois State Univ. (B.S. '86 Env. Health) Ind. Hygiene	12	
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY			
d. RADIATION BIOLOGY			
e. RADIOPHARMACEUTICAL CHEMISTRY			
5. EXPERIENCE WITH RADIATION. (Actual use of Radioisotopes or Equivalent Experience)			
ISOTOPE	mCi USED AT ONE TIME	LOCATION	CLOCK HOURS
Assisted with the radioactive waste program at Argonne National Laboratory, 1985 (C ₁₄ , H ₃) Managed low level radioactive waste program at Illinois State University, 1990-1992 (C ₁₄ , H ₃ , S ₃₅ , P ₃₂ , I ₁₂₅)			

OCT 02 1996

James M. Morrison
Environmental Health Safety Director
University of Wisconsin-Stevens Point
1100 Main Street
Stevens Point, WI 54481

Dear Mr. Morrison:

Enclosed is Amendment No. 30 to your NRC Material License No. 48-09993-01 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

Please note that we have replaced your previous Radiation Safety Officer (RSO), C. Edward Gasque, with Mr. Ralph North pursuant to your request. In addition, based on the information provided in your letter, you have reduced the scope of your program to limit the use of materials to the Department of Physics and Astronomy and a gas chromatograph in a chemistry lab, and request that your license be renewed accordingly. We will be handling your license renewal as a separate matter and will contact you for additional information regarding the reduction of your licensed program.

Sincerely,

Original Signed By
Patricia J. Pelke
Nuclear Materials Licensing Branch

License No.: 48-09993-01
Docket No.: 030-01161

Enclosure: Amendment No. 30

DOCUMENT NAME: M:\03001161.CL6

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301802



University of Wisconsin-Stevens Point

College of Letters & Science
Department of Biology

Stevens Point, WI 54481-3897 (715) 346-2159

FAX (715) 346-3624

September 1, 1996

United States Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, IL 60532-4351

To Whom It May Concern:

I have resigned as Radiation Safety Officer for the University of Wisconsin-Stevens Point campus, effective immediately. I have submitted my resignation as campus RSO to the Chancellor of the University of Wisconsin-Stevens Point, the highest official at our institution

The task of appointing a new RSO is being handled by Mr. James Morrison, Director of Environmental Health and Safety. Relevant addresses and telephone numbers are listed below.

Dr. Thomas George
Chancellor
University of Wisconsin-Stevens Point
Room 213, Main
2100 Main Street
Stevens Point, WI 54481
715-346-2123

Mr. James Morrison
Director of Env. Health & Safety
University of Wisconsin-Stevens Point
Room 101 George Stein Building
1925 Maria Drive
Stevens Point, WI 54481
715-346-2320

As a reference, our license number is 48-09993-01.

Sincerely,

C. Edward Gasque
Professor of Biology

RECEIVED
SEP 03 1996
REGION III

*Issue currently being reviewed by
Lacey. BSA # 915726*

301802

SEP 03 1996