NRC FORM 313
(10-87)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires: 5-31-90

APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION B
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCLEAR MATERIALS SAFETY SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
NUCLEAR MATERIALS SAFETY SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [X] C. RENEWAL OF LICENSE NUMBER SNM 918

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip Code)*

Oregon State University
Radiation Safety Office
Radiation Center A-124
Corvallis, OR 97331-5904

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.

Oregon State University, Corvallis, OR
hatfield Marine Science Center, Newport, OR

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION | **TELEPHONE NUMBER**

Gordon A. Little, University Radiation Safety Officer | (503) 737-2227

SUBMIT ITEMS 5 THROUGH 11 ON 8½ x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.	**6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.**
7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.	**8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.**
9. FACILITIES AND EQUIPMENT.	**10. RADIATION SAFETY PROGRAM.**
11. WASTE MANAGEMENT.	**12. LICENSE FEES** *(See 10 CFR 170 and Section 170.31)* FEE CATEGORY 10CFR170.11(4) | AMOUNT ENCLOSED $ --0--

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

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.

SIGNATURE--CERTIFYING OFFICER	TYPED/PRINTED NAME	TITLE	DATE
Gordon A Little	Gordon A. Little	Radiation Safety Officer	7-31-89

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
Reg	Aug. 1-Dec	1XD	170.11(a)(9)	M. Knapp
AMOUNT RECEIVED	**CHECK NUMBER**			**DATE** 8/15/89

71020

Request for License Renewal
SNM 918: Oregon State University

5. RADIOACTIVE MATERIAL

Byproduct , source, and/or special nuclear material	Chemical and/or physical form	Maximum amount that licensee may possess at any one time under this license
A. Plutonium 239	A. Sealed sources (Monsanto Research Corp. Model Nos. MRC-N-SS-W-PuBe 359 and MRC-N-SS-W-PuBe 329	A. 80 grams
B. Plutonium 239	B. Nickel foil	B. 10 milligrams, no single source to exceed 100 micrograms
C. Uranium 233	C. Nickel foil	C. 10 milligrams, no single source to exceed 100 micrograms
D. Uranium 235	D. Sealed fissium chamber Reuter-Stokes Model No. RS-C6-0201-221	D. 8 milligrams total
E. Uranium 235	E. Metal foils	E. 160 milligrams total
F. Uranium 235	F. UO_2 fuel pellets sealed in stainless steel or zircalloy containers not exceeding 14.5 grams each	F. 145 grams
G. Plutonium 242	G. Oxide	G. 1 milligram
H. Uranium 235	H. NBS Standards (SRM 993)	H. 500 milligrams
I. Plutonium 238	I. Plated source	I. 0.086 microgram

J.	Uranium 235	J.	Reuter-Stokes sealed fission chamber	J.	5 milligrams
K.	Uranium (enriched in uranium 235)	K.	UO_2 or U_3O_8	K.	Not to exceed 250 grams of uranium enriched to not more than 4% U-235
L.	Uranium (enriched in uranium 235)	L.	U_3O_8	L.	Not to exceed 1 gram of uranium enriched to not more than 50% U-235

Request for License Renewal
SNM 918: Oregon State University

6. Purposes For Which Licensed Material Will Be Used

A - The two Pu-Be sources will be used for teaching, training, research, and instrument calibration activities at the Oregon State University Radiation Center facility. This remains unchanged from the activity described previously in the letter of 6-19-78.

B, C, E, F, G, H, I, K, L - These items will be used in teaching, training, research, and instrument response studies at the OSU Radiation Center and other OSU facilities at Corvallis Campus; I may also be used at Hatfield Marine Science Center. This remains unchanged from activities described previously in letters of 6-19-78, 12-30-82, 1-31-83, 3-3-83, 4-7-83, and 8-25-83.

D, J - These two Reuter-Stokes chambers will be used for neutron detection and measurement at the OSU Radiation Center. This remains unchanged from activities described in letters of 6-19-78, 2-25-80 and 11-13-80.

7. Individuals Responsible for Radiation Safety Program

a. RADIATION SAFETY OFFICER

Gordon A. Little

Training and Experience

Formal Education

BS - Chemistry	Lewis and Clark College	1952
US PHS Fellow	Oregon State University	1964-5

Professional Certification

CSP (#3468)	Cert. Safety Prof. of the Am	1973
PE - Safety (#3070)	State of California	1978

Professional Affiliations

Health Physics Society (Charter Member)	1956
Columbia Chapter, HPS	1984
Northern California Chapter, HPS	1966
American Nuclear Society	1968
ASSE	1982
National Safety Council	1975
California College and University EH & S Assn.	1981

Professional Work Experience

5/84 to present - Oregon State University
University Radiation Safety Officer

Manage Radiation Safety Office, provide secretariat for University Radiation Safety Committee. Represent university management on University Safety Committee.

4/66 to 4/84 -	University of California, Berkeley
10/82 to 4/84 -	Senior Technologist
1/76 to 9/82 -	Associate Technologist

Responsible for independent surveillance of TRIGA reactor facility and professional advice to facility management concerning all matters of safety at the facility. Secretary for the Reactor Hazards Committee. Manage radiation control,

personnel monitoring, environmental monitoring, and survey instrument programs for the facility. Maintain EH & S survey instruments, and provide advice and assistance to Campus RSO. On 7/82 assigned additional duties to manage microwave safety, laser safety, electrical safety, and hazardous waste programs for Campus. Assigned major responsibility for design and preparation of new EH & S facilities. Work involved supervision of five persons. Two papers were presented at conferences.

4/66 to 1/76 - Technologist II

Function as assistant to Campus RSO. Act for RSO and RHP in absence of either. Oversee routine surveillance, personnel dosimetry, radiomaterial handling, and instrument maintenance programs, establish and manage radiation machine safety program. Design and obtain waste handling facility. Acted as RHP for one-plus years while recruiting for that position. Work involved functional supervision of five persons.

9/57 to 3/64 - General Electric Co., Richland, WA
6/52 to 8/57 - Specialist, Radiation Monitoring
Engineer, Radiation Monitoring
Technical Graduate, Rotational

For two-plus years provided technical support and functional direction for radiation monitoring programs at plutonium facilities, test reactor during initial startup, and other facilities. For five-plus years developed equipment and procedures to solve field problems in radiation safety, including tritium air monitor, revised bioassay procedure, revised dosimeter and meter calibration procedures, clothing and reactor component decontamination techniques, etc. One paper presented at HPS Annual Meeting, coauthored one paper published in "Nuclear Safety."

1/55 to 8/57 - U.S. Army, Army Chemical Center, MD
Pvt to Spec 4
Survey to Chief, Survey Section

Performed or directed routine surveys of facilities, handled radiomaterial shipments, maintained fixed and portable instruments, processed personnel dosimeters, maintained records, etc.

b. RADIATION SAFETY COMMITTEE

Bylaws of the Radiation Safety Committee are given in Section IX, revised Radiation Safety Manual (4/89). Per the Bylaws, membership of the RSC is for a three-year term, with terms staggered so that about one-third of the members are replaced or reappointed each academic year (starts September 16). Information on current members is given below.

Professor Brian Dodd - Term ends September, 1989

Associate Professor of Nuclear Engineering and Rad Health, and Assistant Reactor Administrator.

Academic - BS, Nuc. Eng., Queen Mary College, London, 1969
- PhD, Reactor Physics, Queen Mary College, London, 1973

Work - Lecturer, Royal Naval College Greenwich, London 6/75 - 3/78
- Asst, Assoc Prof, Oregon State Univ., 3/78 to present

RSC Specialties - Rad shielding and handling, dose determinations, physics and engineering.

Professor Jack Higginbotham - Term ends September, 1991

Assistant Professor of Nuclear Engineering and Senior Health Physicist, Radiation Center

Academic - BS, MS, PhD, Nuclear Engineering, Kansas State University, 1981, 1983, 1987

Work - GRM, NAA technician, reactor supervisor, KSU, 1979-87

RSC Specialties - Radiation protection practices, instrumentation physics and engineering.

Professor Gary Merrill - Term ends September, 1990

Assistant Professor, Biochemistry/Biophysics

Academic - BS, Zoology, Ohio State University, 1973
- PhD, Biology, Syracuse University, 1977

Work - Syracuse - Uses of 3H, 14C, 125I, 42K, 86Rb, 1973-77
- Univ. of Washington - uses of 3H in enzyme assays, etc., 1977-82
- Fred Hutchinson Cancer Research Center - various biochemical techniques, 1982-84
- OSU - various biochemical techniques, 1984 to present

RSC Specialties - Reviews of procedures involving use of radiochemicals in procedures involving animals, cells in cultures, enzymes and nucleic acids in vitro.

Professor Thomas Murray, Chairman, RSC - Term ends September, 1989

Associate Professor, Pharmacy

Academic - BS, Biology, North Texas State Univ., Denton, 1971
- PhD, Pharmacology, Univerity of Washington, 1979

Work - Biology teacher, 1971-73
- TA, Washington St. Univ., Pharmacology, 1974-76
- RA, Univ. of Washington, Pharmacology, 1976-79
- Pharmacy Res. Assoc, NIMH, 1979-81
- Asst. Prof., Pharmacology, Washington State Univ., 1981-83
- Asst., Assoc. Prof., Pharmacology, OSU, 1983 - present

RSC Specialties - Use procedures for biochenical studies of brain and nervous system components; general biochemical applications involving animal tissues in vitro and in vivo.

Professor Carol Rivin - Term ends September, 1990

Assistant Professor, Botany and Plant Pathology

Academic - AB, Biology, University of California, 1973
- PhD, Genetics, Univerity of Washington, 1978

Work - UCSF, research involving radiochemicals, 1971,72
- UCSC, research involving radiochemicals, 1972,73
- Univ. of Washington, research involving radiochems, 1973,78
- Washington Univ., research involving radiochemicals,1978-80
- Stanford Univ., research involving radiochemicals, 1981-84
- OSU, research involving radiochemicals, 1984 - present

RSC Specialties - Applications of radiochemicals in molecular biology, general biochemical procedures.

Professor George Rohrmann - Term ends September, 1991

Associate Professor, Agricultural Chemistry

Academic - BA, Zoology, University of Washington, 1965
- PhD, Microbiology, University of Washington, 1970

Work - Asst., Assoc. Professor, Ag. Chemistry, OSU, 1975-present
- Work on Baculovirus molecular biology
- Expert, NIH, research on vaccinia virus, 1984-85

RSC Specialties - Virus biochemistry procedures, general lab procedures.

Professor Carl Schreck - Term ends September, 1991

Professor, Fisheries and Wildlife; Leader, Oregon Co-op Fisheries Research Unit, U.S. Fish and Wildlife Service

Academic - AB, Zoology, University of California, 1966
- MS, Fishery Biology, Colorado State Univ., 1969
- PhD, Fishery Biology, Colorado State Univ., 1972

Work - TA, University of California, 1966
- Tech. Asst., Humbolt State College, 1966-67
- GRA, Colorado Co-op Fish Unit, 1967-72
- GTA, Colorado State Univ., 1970-71
- Asst. Prof., Fish Sci., Virginia Poly Inst., 1972-75
- Asst. Prof., Prof., OSU, 1975 - present

RSC Specialties - Research involving aquatic organisms

Professor Joe Zaerr - Term ends September, 1990

Professor, Forest Science

Academic - BS, Forest Management, University of Calif., 1954
- PhD, Plant Physiology, University of Calif., 1964

Work - USDA, Beltsville, MD, 1964-65
- OSU, 1968 - present

RSC Specialties - Research in plant hormone analysis, general plant biology studies.

Mr. Gordon Little, Secretary, RSC - Term Indefinite

University Radiation Safety Officer

See Item 7a for information

Dr. L. Edwin Coate, ex officio member - Term Indefinite

Vice President for Finance and Administration

Academic - BS, Civil Engineering, Oregon State Univ., 1959
MPA, San Diego State University, 1969
PhD, U.S. International University, 1973

No experience with radiation safety claimed. However, was US EPA Deputy Regional Administrator for several years.

c. INDIVIDUAL PROGRAM DIRECTORS

Specifically designated by the Radiation Safety Committee. List is continually varying.

d. UNIVERSITY OFFICERS HAVING OVERALL RESPONSIBILITY

1. President
John V. Byrne
AdS A-600

2. Vice President for Finance and Administration
L. Edwin Coate
AdS A-600

3. Director of Business Affairs
Richard C. Greenwood
AdS B-100C

Note that all addresses are at Oregon State University
Corvallis, OR 97331

8. Training for Individuals

See Radiation Safety Manual Section VIII, X, XI, XII

Requet for License Renewal
SNM 918: Oregon State University

9. Facilities and Equipment

Most uses of SNM will be at the OSU Radiation Center. This building, on Corvallis Campus, was designed to accommodate a TRIGA MkII reactor (license R-106), associated support facilities, and a number of teaching and research laboratories wherein radioisotopes are to be used. Most work surfaces are stainless steel; others are impervious to most liquids. Floors are vinyl tile. Work areas include fume hoods or provision for easy installation thereof. One drain system leads to a holdup tank which is sampled before dumping. Access to the building is restricted at all times. The building is patrolled routinely during off-hours by University Security.

Use of small amounts of SNM for tracer studies or instrument response determinations may be at Burt Hall (Oceanography) or Weniger Hall (General Science) on Campus, or at Hatfield Marine Science Center, Newport, Oregon. Facilities used for SNM are inspected and authorized by the Radiation Safety Committee before use, as are facilities within the Radiation Center.

Equipment available includes lab coats, impervious gloves, forceps and similar handling devices, crucible tongs and similar larger handling devices, various sizes and shapes of shielding materials (lead, steel, wood, plastic, water, concrete, etc.).

Portable radiation detection measurement devices owned by the Radiation Safety Office include six assorted G-M meters with thin-window normal or pancake detectors, two alpha scintillation meters, five air ionization dose rate meters, one BF3 slow-fast neutron meter. Non-portable device includes one windowless gas flow proportional counter with automatic sample changer.

Similar equipment owned by the Radiation Center includes one Liquid Scintillation Counter, several multi-channel analyzers, and about seventy portable and semi-portable survey meters of the types mentioned above plus a "Bonner Spheres" neutron spectrum and dose rate measuring device. Additional instruments are possessed by various using research groups.

Pulse rate instruments are maintained, and calibrated at least annually, by Radiation Center staff. Other instruments are calibrated at least annually, but maintained by various groups.

10. Radiation Safety Program

See Radiation Safety Manual, Part A

Request for License Renewal
SNM 918: Oregon State University

11. Waste Management

Packaging and disposal will meet or exceed requirements of 10 CFR 61.

Wastes are picked up by Radiation Safety Office personnel, packaged appropriately, then held for pickup, transport, and disposal by the vendor holding the State contract for radioactive waste disposal. Minute quantities may be composited with other radioactive wastes. Larger quantities may be "potted" into concrete per the vendor's approved procedures. Note that pharmacokinetics experiments using rats have been ended. Consequently, no more biological wastes are expected; waste expected will be sealed or plated sources or results of contamination spreads from ruptures of sources.

Minimization of waste involves mainly care in handling to prevent damage to sources which would result in leaks, plus care in cleanup to minimize contaminated materials. No waste is routinely produced at this time. Note that all radioisotope procedures require approval by the Radiation Safety Committee, thus review and evaluation of activities is assured and waste minimization procedures will be specified as needed.

Waste contractor will be the firm holding the statewide radioactive waste disposal contract. At present the contractor is U.S. Ecology, Pleasonton, California. The contractor probably will not change before 1992. Since Oregon is a member of the Northwest LLRW Compact we anticipate no difficulty with waste disposal.

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 22120
Status Code: 2
Fee Category: EX 1D
Exp. Date: 19890831
Fee Comments: _____

LICENSE FEE TRANSMITTAL

A. REGION V

1. APPLICATION ATTACHED
   Applicant/Licensee: OREGON STATE UNIVERSITY
   Received Date: 890801
   Docket No: 7000971
   Control No.: 571020
   License No.: SNM-918
   Action Type: Renewal

2. FEE ATTACHED
   Amount:
   Check No.: None

3. COMMENTS

Signed _____
Date 8/15/89

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /1/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:
   Amendment _____
   Renewal 1 170 11 6 / 62
   License _____

3. OTHER _____

Signed _____
Date 8/16/89

89 AUG 17 A10:01

RECEIVED
NRC
REGION V

AUG 16 1999

Docket No. : 070-00971
License No.: SNM-918
Control No.: 70796

Oregon State University
Radiation Safety Office
Radiation Center A124
Corvallis, Oregon 97331-5904

Attention: Mr. Gordon Little
Radiation Safety Officer

SUBJECT: LICENSE RENEWAL APPLICATION

Gentlemen:

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding this renewal application should reference the control number specified above and your license number.

Sincerely,

Frances Browne
Licensing Assistant
Nuclear Materials Safety Section

Distribution

bcc:
License docket folder (original concurrence) (Peggy)
Inspection folder (Peggy)
Reading file (Frances)
Maurice Messier, LFMB, MNBB 4503

E. Browne
7/16/89

REQUEST COPY
YES / NO

ABOV CLASS C SOURCE/DEVICE INVI ORY SURVEY

Licensee's (name and address) **License #:** SNM-918

Licensee Name: Oregon State University, Radiation Safety Office
Contact Name: Gordon Butler
Title: RSO
Department: Radiation Safety
Street: Radiation Center 4129
City: Corvallis **State:** Ore. **Zip Code:** 97331-5904
Phone Number: (503) 737-2227 **Ext.:** ____

Provide accurate and complete responses to each question below:

1) How many sealed sources and/or devices do you have that are above Class C (i.e. Am-241 > 27 mCi, Pu-238 or -239 > 27 mCi, Cm-244 > 27 mCi, Cs-137 > 910 Ci, or any other transuranic > 27 mCi with a half-life greater than five years)? Identify each source or device on the attached inventory sheet.

2) How do you dispose of your sources and/or devices? (check appropriate box)

Manufacturer: ___
Transfer to another licensee: ___
Other: ___

If other, please elaborate: Will return to authorized recipient when one is found.

3)a. Are you able to find and use an authorized recipient to purchase, dispose, or store any sources and/or devices that you no longer want? (check one) Yes ____ No ✓

If no, please elaborate: No one wants to take the source.

b. Are there any diffculties in using this authorized recipient? (check one) Yes ___ No ___

If yes, please elaborate: N/A

4) Additional comments - check here ___ and use back of this sheet.

Surveyor: R Thomas Date: 10/31/89

Note: Activity levels described in question 1 were derived from limits established in 10 CFR 61 section 61.55. The levels were based on typical size sources.

License #: _____

ABOVE CLASS C SOURCE/DEVICE INVENTORY SHEET

Manufacturer	Model #	Type	Isotope	Activity mCi or Ci	Use	Active	Inactive	Explanation
Monsanto Research Corp.	MRC-N SS-W-Pu2		Pu 239	80 gm	Calibration Source		✓ T	In storage

NOTE: List each source/device separately. If inactive or use is other, please explain.

CODES:

Isotope: Am-241, Cm-244, Cs-137, Pu-238, Pu-239

Inactive: D - Damaged; L - Lost; T - Wants to dispose or transfer; DT - Damaged and wants to dispose or transfer; X - Surplus; O - Other

Use: A - Well logging; B - Irradiator; C - Teletherapy; D - X-ray fluorescence; E - Portable gauges; F - Fixed gauges; G - Broad licensee; H - Pacemakers; I - Waste brokers; O - Other