NRC FORM 313
(1-84)
10 CFR 30, 32, 33, 34, 35 and 40

APPLICATION FOR MATERIAL LICENSE

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires: 5-31-87

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.

FEDERAL AGENCIES 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 JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIAL SECTION B
631 PARK AVENUE
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
MATERIAL RADIATION PROTECTION 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
MATERIAL RADIATION PROTECTION 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)*

- [X] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER ____________
- [ ] C. RENEWAL OF LICENSE NUMBER ____________

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

Simplimatic Engineering Company
1301 Wards Ferry Road P. O. Box 11709
Lynchburg, Virginia 24506

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

ONLY AT TEMPORARY JOB SITES OF THE LICENSEE

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION: John W. Cure, III

TELEPHONE NUMBER: 804/384-7003

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.

8611200580 860915
REG2 LIC30
45-24854-01 PDR

11. WASTE MANAGEMENT.

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY 3N, 3P
AMOUNT ENCLOSED $1,160.00

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
William C. Butt	William C. Butt	Executive Vice-President Operations	6/16/86

14. VOLUNTARY ECONOMIC DATA

a. ANNUAL RECEIPTS

- [ ] <$250K
- [ ] $250K–500K
- [ ] $500K–750K
- [ ] $750K–1M
- [ ] $1M–3.5M
- [ ] $3.5M–7M
- [ ] $7M–10M
- [X] >$10M

b. NUMBER OF EMPLOYEES *(Total for entire facility excluding outside contractors)*: 360

c. NUMBER OF BEDS

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION *(Dollar and/or staff hours)* ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? *(NRC regulations permit it to protect confidential commercial or financial—proprietary—information furnished to the agency in confidence)*

- [X] YES
- [ ] NO

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
APP	Jul-1-II	3P/3N	(See also S&D Jun! 86) 51099	[illegible]

AMOUNT RECEIVED	CHECK NUMBER		DATE
$1,160 ([illegible])	4604	Received 6/23/86 Region II	7/1/86

PRIVACY ACT STATEMENT ON THE REVERSE

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 313. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY**: Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b)).

2. **PRINCIPAL PURPOSE(S)**: The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30, 32, 33, 34, 35 and 40 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.

3. **ROUTINE USES**: The information may be (a) provided to State health departments for their information and use; and (b) provided to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for an NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you.

4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION**: Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed. A request that information be held from public inspection must be in accordance with the provisions of 10 CFR 2.790. Withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned need to inspect the document.

5. **SYSTEM MANAGER(S) AND ADDRESS**: U.S. Nuclear Regulatory Commission
Director, Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Safeguards
Washington, D.C. 20555

ITEM 5 RADIOACTIVE MATERIAL

a. Americium-241

b. As sealed sources

c. Maximum quantity is not applicable

ITEM 6 PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED

Possession is necessary for the installation, removal, relocation, packaging and conducting leak testing and radiation surveys for the Simplimatic Engineering Company Model Heuft Gamma devices.

ITEM 7 INDIVIDUAL RESPONSIBLE FOR RADIATION SAFETY

TRAINING AND EXPERIENCE

JOHN W. CURE, III
Resume Attached

Current manuals will be used to provide information recommended for the installation and servicing procedures and methods for the Heuft Gamma "device".

RESUME
JOHN W. CURE, III

Education

B.S., Virginia Military Institute, Lexington, Virginia
M.S., Vanderbilt University, Nashville, Tennessee

Professional Certification

Mr. Cure holds Certificate #62-17 issued by the American Board of Health Physics November 10, 1961. He participates in Continuing Education Programs as required to maintain current valid Certification.

Special Training in Health Physics

1952-1953 Mr. Cure was awarded an AEC Radiological Physics Fellowship for health physics education and training program at Vanderbilt University and Oak Ridge National Laboratory under noted health physics educator, Dr. Elda E. Anderson.

1981 Mr. Cure completed intensive medical health physics training with one of the leading medical physics firms in the Southeast.

Professional Experience

1981-present Health Physics Consultation--President and founder, providing medical radiation physics services to hospitals, clinics, physicians and industry.

1970-1986 Supervisor of Radiation and Safety--Babcock and Wilcox Company, Lynchburg Research Center. Responsibility for radiation and safety programs for 1 megawatt pool reactor; hot cell examination facility handling kilocurie quantities of gamma emitters; critical experiment and fuel development facilities and the transportation of radioactive materials. Member of various radiation safety committees at Babcock and Wilcox and the Radiation Safety Committee of Virginia Polytechnic Institute and State University. Consultant to other Babcock and Wilcox divisions and private sector clients. Member of three man team to audit radiation safety operations at Oak Ridge National Laboratory. Teacher of Radiation Safety in Nuclear Technology Curriculum at Central Virginia Community College and numerous courses in health physics and radiation safety for company sponsored educational programs. Active in Speaker's Bureau for educating general public on radiation and nuclear matters.

1964-1970 Health Physicist--Babcock and Wilcox Co., Nuclear Development Center. Developed, initiated and operated the health physics program which included a 6 megawatt test reactor; the Plutonium Development Laboratory handling kilogram quantities of plutonium; and the facilities detailed above.

1956-1963 Health Physicist and Experimental Physicist--Babcock and Wilcox Co., Critical Experiment Laboratory. Implemented Health Physics program and assisted with special experiments.

1954-1956 U.S. Air Force, Kirtland Air Force Base, New Mexico--1st. Lt., research officer. Participated in Nevada test site "Operation Teapot".

1953-1954 Oak Ridge National Laboratory--Junior Health Physicist.

Professional Activities

Served twice as President, Virginia Chapter of Health Physics Society, one term as the founding president.

Member - American Association of Physicist in Medicine, Health Physics Society, American Nuclear Society, American Industrial Hygiene Association.

Member - several committees of Health Physics Society on national and state levels and the ANSI Committee on Bioassey Standards.

Licensure

NRC Byproduct License: 45-19958-08
North Carolina Registration: 999-S00164
Virginia Radioactive Material License: 156-01

ITEM 8 TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

8.1 TRAINING PROVIDED SECO ANCILLARY EMPLOYEES

No training is needed for SECO employees as radioactive materials will not be permitted at the Lynchburg, Virginia, facility.

8.2 TRAINING PROVIDED OTHER USERS (CUSTOMER PERSONNEL)

No training is needed for customer personnel as this is a general licensed device. However, as a minimum, a responsible customer individual will be named and informed of the following:

1) Basic radiation safety of the "device" as specified in the manual.
2) Nuclear Regulatory Commission Rules and Regulations that apply: Part 19, 20,30, 31, 32
3) Required postings: Form NRC-3 and Radioactive Material label on the "device".
4) Leak testing and shutter "ON-OFF" required testing.
5) Means of disposal, and transportation of the "device".

ITEM 9 FACILITIES AND EQUIPMENT

Services will be performed only at customer-owned locations and will use only customer-owned facilities and equipment.

ITEM 10 RADIATION SAFETY PROGRAM

10.1 PERSONNEL MONITORING EQUIPMENT:

It is not likely that service personnel will receive exposure in excess or 25% of that specified in paragraph 20.101(a) of 10 CFR Part 20. However, as a minimum, service personnel will wear either a film badge, changed monthly, or a TLD badge, changed quarterly, to monitor whole body radiation exposure.

10.2 RADIATION DETECTION INSTRUMENTS AND CALIBRATION:

As a minimum, a portable GM survey meter capable of detecting beta and gamma radiation with a range from 0-50 mR/hr will be used for monitoring and surveying. The survey meter will have a minimum window thickness of 30 mg/cm^2.

The instrument will be calibrated by procedures specified in Mr. Cure's license #45-19958-01 which expires April 30, 1987. In brief, the instrument to be calibrated will be placed in a known radiation field and will be checked at two points on each scale and adjusted as appropriate. Calibration will be performed at least annually.

10.2.1 LEAK TESTING

Leak testing will be performed by Mr. Cure in accordance with procedures specified in Mr. Cure's license #45-19958-01 which expires April 30, 1987.

10.3 OPERATING AND EMERGENCY PROCEDURES

Each individual who will perform services on a customer's "device" will have a set of step-by-step operating procedures and emergency procedures to follow.

10.3.1 OPERATING PROCEDURES

1) Step-by-step procedures for performing installation, removal, relocation, packaging, leak testing and radiation surveys will be provided.
2) Instructions will be provided for storing the source in the "OFF" position during installation, relocation, removal, packaging and other necessary circumstances.
3) Procedures will be provided for:
    a) Proper mounting or relocation.
    b) Specifying when it is safe to turn the source of the device "ON".
    c) Final survey of the source, including "ON" and "OFF" modes, and leak testing.
4) Typical final survey report and leak test certificate are presented in ATTACHMENT A.
5) No procedures are needed for customer need of personnel monitoring equipment or radiation warning signs other than a statement in the manual that instructs the customer not to remove the warning label from the "device".

10.3.2 EMERGENCY PROCEDURES

In case of an emergency, serious fire or explosion which could result in severe damage to the "device", the following actions are to be taken:

1) Isolate the "device" and the immediate area by roping off the area or other suitable means.
2) Make sure "ON-OFF" control is in the "OFF" position.
3) Limit access to the "device" (source housing) until a leak test can be performed by a qualified person.
4) Keep customer personnel informed about accident or emergency situation.
5) Obtain assistance from SECO radiation safety officer.
6) Make the required notification pursuant to regulatory requirements if required.

ITEM 11 WASTE MANAGEMENT

Licensed material needing disposal will be handled in the following manner:

1) By using a licensed disposal service or broker.

OR

2) By returning the sealed source to Amersham in accordance with 49 CFR or the manufacturers packaging and shipping instructions.

ATTACHMENT A

REPORT OF SEALED RADIOACTIVE SOURCE LEAK TEST

Sealed source leak tests were performed as shown below under the provisions of radioactive materials license #45-19958-01.

Date of Test: May 1, 1986

Responsible Authority: Successful Business Company, Inc.

Address: 1 USA Avenue
All American City, Virginia 24503

Radioactive Source(s) Tested:

		Serial No.
Calibration Sources:	Americium-241	2060136Z-15

Results: All sources listed above showed less than 0.005 microcuries of removeable contamination. This result indicates no evidence of a leaking source.

Important: A copy of this report should be kept available for inspection of state health department or Nuclear Regulatory Commission personnel.

John W. Cure III

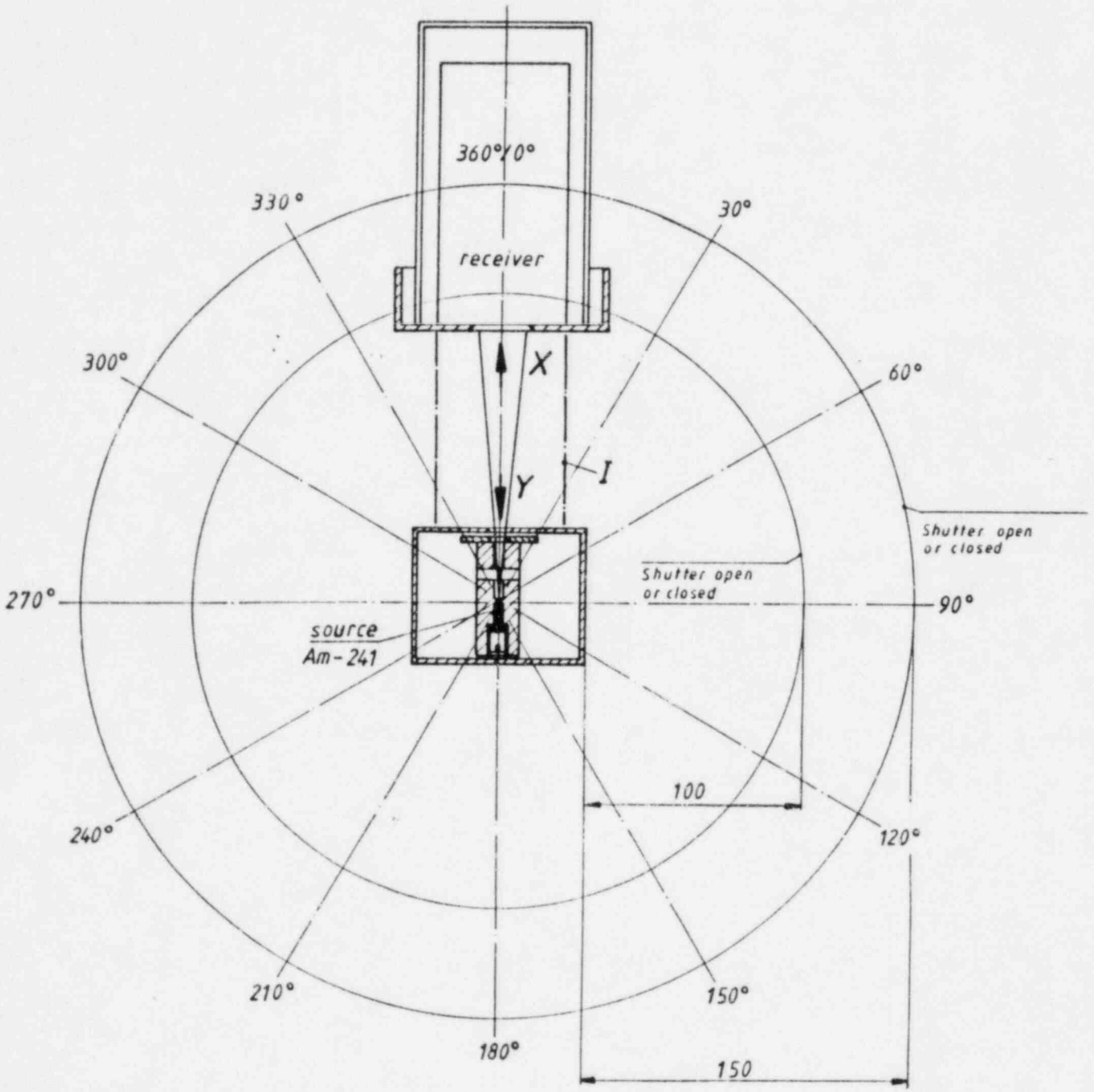
JOHN W. CURE, III
Certified Health Physicist

HEALTH PHYSICS CONSULTATION
2308 Interlink Road Lynchburg, Virginia 24503
804/384-5060

RADIATION SURVEY

DATE

Instrument: _____ Serial No: _____



Health Physics Consultation
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