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

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

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.

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 [illegible]MING, 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

JAN 23 P2:41

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 12-16218-01

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

Henkel Corporation
South Kensington Road
P.O. Box 191
Kankakee, IL 60901

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

Henkel Corporation
South Kensington Road
P.O. Box 191
Kankakee, IL 60901

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

L. M. Hoepfinger, Ph.D.

TELEPHONE NUMBER: (815) 932-6751

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

8509110389 850903
REG3 LIC30
12-16218-01 PDR

10. RADIATION SAFETY PROGRAM

11. WASTE MA[illegible]

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*

FEE CATEGORY: 1-I
AMOUNT ENCLOSED: $110.00

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
L. M. Hoepfinger	L. M. Hoepfinger	Quality Control Manager	12-31-84

14. VOLUNTARY ECONOMIC DATA

a. ANNUAL RECEIPTS
- [ ] <$250K
- [ ] $250K–500K
- [ ] $500K–750K
- [ ] $750K–1M
- [ ] $1M–3.5M
- [ ] $3.3M–7M
- [ ] $7M–10M
- [ ] >$10M

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

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)*

- [ ] YES
- [ ] NO

RECEIVED
JAN 07 1985
REGION III

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
Ren	Jan 13	3P		CS
AMOUNT RECEIVED	CHECK NUMBER			DATE
$110	165855		CONTROL NO. 78064	1/7/85

JAN 7 1985

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

Application for Material License
Henkel Corporation, Kankakee, IL

5. Radioactive material.

a.	Nickel-63	b.	Foil Source (Hewlett Packard Detector Cell Model No. 18713A).	c.	No single source to exceed 15 millicuries.
a.	Cesium-137	b.	Sealed source (New England Nuclear Model No. NER570; General Radioisotope Products Model No. 850233; Gamma Industries Model VD or 3M Company Model No. 456M).	c.	No single source to exceed 500 millicuries.

6. Purpose(s) for which licensed material will be used.
Nickel-63 is used in a Hewlett Packard gas chromatograph for sample analyses.
Cesium-137 is used in Kay-Ray Model 7063P source holder for density measurements.

7. Individual(s) responsible for radiation safety program and their training and experience.
L. M. Hoepfinger
Education: Ph.D. in biochemistry, Purdue University, 1968.
B.A. in chemistry, Hastings College, 1963.
Courses in isotope tracer techniques, Purdue University, 1964.
Experience: Responsible for monitoring of Nickel-63 foil source at Mead Johnson and Company. Assured compliance with NRC license and employee safety, 1974-1978.

8. Training for individuals working in or frequenting restricted areas.
Individuals working with the gas chromatography device will follow all instructions and precautions as outlined in the manufacturer's instruction manual.

Operators of the Kay-Ray density detectors have been trained to monitor the remote readout needle. Henkel instrument mechanics have been trained by Kay-Ray service personnel to calibrate and adjust the density measuring device.

9. Facilities and equipment.
The Nickel-63 foil source is housed in a Hewlett Packard gas chromatograph, Model 5713. The chromatograph is in a modern, well-equipped quality control laboratory.

The Cesium-137 source is housed in a Kay-Ray Model 3600F density measuring device which has been permanently installed on a methylation reactor.

CONTROL NO. 78064

10. Radiation safety program.

a. Each chromatograph detector cell containing Nickel-63 will be tested for leakage and/or contamination at an interval not to exceed six months. This test is capable of detecting 0.005 microcurie of radioactive material on a test sample. The test sample will be taken from surfaces on the device in which Nickel-63 is contained where one might expect contamination to accumulate. Records of the leak test results will be kept in units of microcuries for inspection by the NRC. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the detector cell will immediately be withdrawn from use and decontaminated, repaired, or disposed of in accordance with NRC regulations. Tests for leakage and/or contamination will be performed by the licensee or other persons authorized by the NRC to perform such services.

Maintenance, repair, cleaning, replacement and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.

b. Each Cesium-137 sealed source will be tested for leakage and/or contamination at intervals not to exceed three years. The test will be capable of detecting 0.005 microcurie of radioactive material on the test sample. The test sample will be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted on which one might expect contamination to accumulate. Tests for leakage and/or contamination will be performed by Kay-Ray, Incorporated or by other persons authorized by the NRC. Records of leak test results will be kept in units of microcuries for inspection by the NRC. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the sealed source will be immediately withdrawn from use and decontaminated, repaired, or disposed of in accordance with NRC regulations.

Installation, initial radiation survey of devices, relocation, maintenance, repair, and removal from service of the devices containing licensed material and installation, replacement, and disposal of sealed sources containing licensed material used in the devices shall be performed only by Kay-Ray, Incorporated or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

c. Detector cells containing licensed material will not be opened by the licensee.

11. Waste management.

Disposal of foils contained in detector cells will be performed only by the device manufacturer or other persons authorized by the Commission or an Agreement State to perform such services.

Disposal of sealed sources containing licensed material used in devices shall be performed only by Kay-Ray, Incorporated or by other persons authorized by the Commission or an Agreement State to perform such services.