Ltr 3/31/85 ~~37098~~ (03028728)

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: 8-31-87

APPLICATION FOR MATERIAL LICENSE

new

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

L 15-918

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

02410

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
- [XX] C. RENEWAL OF LICENSE NUMBER 12-15918-01

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

Damon Clinical Laboratories
3231 S. Euclid Avenue
Berwyn, Illinois 60402

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

Damon Clinical Laboratories
3231 S.Euclid Avenue
Berwyn, Illinois 60402

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Leonas G. Bekeris, M.D., Medical Director

TELEPHONE NUMBER: (312) 282-9500

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. LICENSEE FEES (*See 10 CFR 170 and Section 170.31*)
FEE CATEGORY: P-3
AMOUNT ENCLOSED: $ 120.00

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
	Leonas G. Bekeris, M.D.	Medical Director	18 Mar 85

14. VOLUNTARY ECONOMIC DATA

[ ]	$250K	[ ]	$1M–3.5M
[ ]	$250K–500K	[ ]	3.5M–7M
[ ]	$500K–750K	[XX]	$7M–10M
[ ]	$750K–1M	[ ]	>$10M

15. NUMBER OF EMPLOYEES (*Total for entire facility, excluding outside contractors*): 181

16. NUMBER OF BEDS: N/A

17. 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 information furnished to the agency in confidence.*)

[ ] YES [XX] NO

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
app	Lapp 320	3P	8509120231 850903 REG3 LIC30 12-15918-02 PDR	18863
AMOUNT RECEIVED	CHECK NUMBER			DATE
$120	007135			6/25/85
# 110	007293			18863

PRIVACY ACT STATEMENT ON THE REVERSE

RECEIVED REGION III
APR 2 7:10
85

Item 5

	By Product Source/ Special Nuclear Material	Chemical and/or Physical Form	Maximum Amount at any one time
A	Carbon 14	Any	100 microcuries
B	Hydrogen 3	Any	1 millicurie
C	Iodine 125	Any	10 millicuries
D	Cobalt 60	Any	100 millicuries
E	Cobalt 57	Any	10 microcuries

Item 6

In vitro testing with byproduct material under general license.

Item 7

Leonas G. Bekeris, M.D., Medical Director - 11 years of Clinical Laboratory Service

Prabhakaran Koteel, Ph.D., Technical Director - 6 years Clinical Laboratory experience; in charge of RIA Dept. among others.

Beryl Young, MT(ASCP), Laboratory Manager - 28 years Clinical Laboratory experience

Personnel working in or frequenting restricted areas:

Richard Swiatek,	B.S.,MT (ASCP)
Karen Lynch	B.S., MT(ASCP)
Yaseen Ansari	B.S.
Delfine Ramos	M.L.T.
Sharon Radcliffe	MT(ASCP)
Aurora Mangahas	MT (ASCP)
Mary Larke	MT (HEW)
Tahira Akhtar	M.S.
Louise Janusz	MT (HEW)

All other personnel frequenting the area are Medical Technologists and Laboratory Technicians.

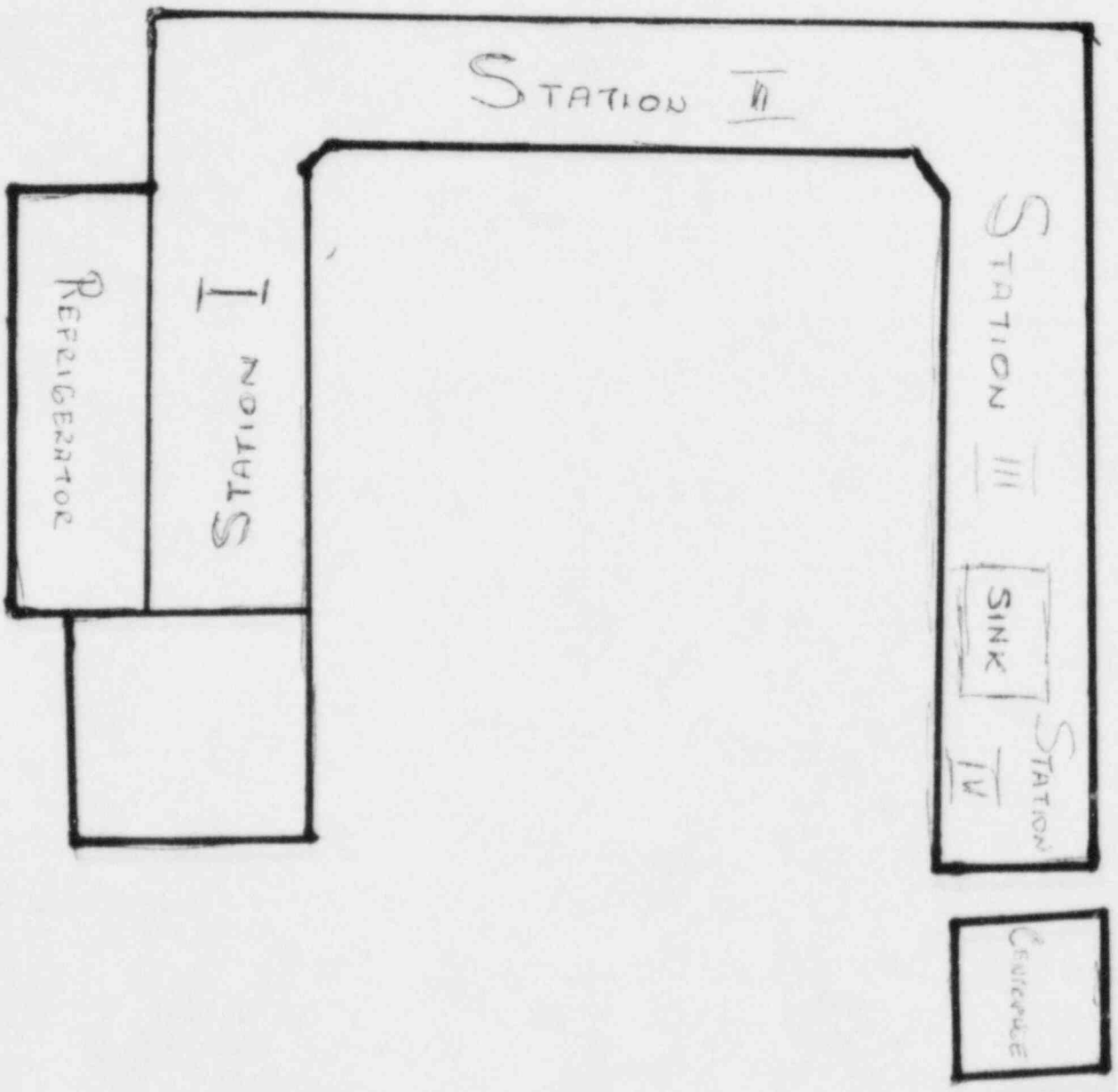
Item 9

Survey meters	1	Texas Nuclear Division Model 2650 Serial # 3619M Minimum range 0.0 mR/hr to 0.1 mR/hr Maximum range 0 mR/hr to 100 mR/hr
	2	Multiwell Gamma Counter Isc Data Inc. 20/10 Series Serial No. 8310268
	3	4-Well Gamma counter Micromedic Systems 4/600 Model # 28150

Item 9

Wipe Test

Map of Areas Wiped



2/15/84
RMS

DAMON CLINICAL LABORATORIES — RIA Area

BACKGROUND COUNTS AND WIPE TEST PROCEDURE

Isodata Counter: Insert rack containing 10 empty tubes into counter.

Set counting time for 1 minute, begin count.

Post counts in appropriate space on record sheet.

Record sheet should record cpm for one week.

Micro-Medic Counter: Insert 20 empty tubes in empty counting rack.

Program Micro-Medic counter to count 1 minute. Use protocol Ø, with background counts of Ø for channels 1,2,3,4. Begin count.

Average counts per minute for channels 1,2,3,4.

Post counts (average) in appropriate space on record sheet.

Wipe Test: Wash station at which shift work is to be done with decontaminate solution. Wash thoroughly.

Wipe area with alcohol swab.

Insert wipe into empty tube and count on Isodata or MicroMedic Counter for 1 minute.

Record cpm on appropriate space on record sheet.

Background counts and wipe tests are done daily. CPM should be no higher than 100 CPM. If wipe test shows CPM greater than 100 area will require further washing with decontaminant solution. If Isodata has counts greater than 100 CPM wash wells with decontaminant solution. If Micro-Medic has counts greater than 100 CPM refer to manual for Micro-Medic counter. Micro-Medic service may have to decontaminate the channels.

Items 10/11

RIA

INTRODUCTION:

In many clinical laboratories, the exposure of radiation are well below the limits established by state or federal regulation for which specific safety precautions are required. The following procedures are suggested as a guide for good practices and to meet state or federal regulations.

WARNING SIGNS AND LABELS:

1. Warning signs indicating presence of radioactive materials shall be placed in the radionuclide storage area.

2. Appropriate labels shall be placed on all containers of radionuclides.

RECEIPT AND NOTIFICATION:

Most routine shipments of radionuclides are exempt from regulations. However, the following procedures are recommended.

1. Radionuclides should be delivered directly to the laboratory or the laboratory notified on arrival to enable immediate pickup.

2. The technologist on duty will:

   a. Receive the package and sign courier's receipt.
   b. Inspect package for damage.
   c. Monitor if necessary.
   d. Log shipment into inventory log.
   e. Place shipment in a lead-lined container.

3. Inspection of shipment:

   a. Note condition of package:

      (1) If undamaged, note condition in log and place in storage.

      (2) If the package is crushed, torn, punctured or wet (suggesting leakage), it must be checked for radiation.

   b. Monitoring for leakage is required for all shipments with evidence of damage or leakage.

   c. Not required for routine shipments if packages are not damaged.

   d. Tolerance limits:

      (1) Surface activity should not exceed 200 millirads/hour.
      (2) Activity at 3 feet should not exceed 10 millirads/hour.

4. Notification procedures: If tolerance limits are exceeded:

a. Notify the supervisor or safety officer.

b. Notify the courier and supplier.

c. Notify the AEC regional office.

d. Complete and file an incident report documenting the date, time of receipt, condition of package, surface activity, procedures followed and persons notified.

e. Give incident report to laboratory supervisor. Copies should go to:

(1) Administration
(2) Safety Committee
(3) Laboratory director
(4) Laboratory file

5. Procedure for handling damaged packages:

a. Place packages in a plastic bag to prevent further leakage.

b. Place bagged package in a lead or shielded container.

c. Survey all areas where the package has been to identify areas of contamination. Mark areas (wax pencil, chalk or signs) to restrict traffic in area until cleaned up.

d. Notify housekeeping immediately to wash down areas of contamination.

e. Monitor area after cleaning to determine effectiveness of decontamination.

INVENTORY LOG, STORAGE AND SECURITY:

1. Record all shipments into the inventory log.

2. Note the following:

a. Date and time received.
b. Supplier/courier.
c. Radionuclide.
d. Condition of package.
e. Monitor results (if indicated).
f. Notification (if applicable).
g. Actions taken (if applicable).

3. Storage: place all shipments in the lead-lined container and place in the refrigerator.

4. Security:

a. Shipments of radionuclides must not be left unattended in a public place.

b. Shipments must be received directly by an authorized person (laboratory personnel) and placed in the isotope storage area.

c. The storage area should be locked whenever laboratory personnel are not in attendance.

DISPOSAL PROCEDURES:

1. Patient wastes: Secretions, urine, blood samples, and/or fecal specimens may be disposed of into the sanitary sewer system and flushed with copious amounts of water.

   NOTE: Amounts disposed of in this manner are negligible.

2. Test procedures: Effluents from in vitro tests are aspirated and flushed into the sink with copious amounts of water. The amounts should not exceed 20 microcuries per day. If large quantities are being disposed of, they should be trapped and allowed to decay before disposal.

3. Unused isotopes:

   a. Are allowed to decay in storage.
   b. May be returned to the supplier for recycling of containers.

4. No radioactive materials are incinerated or buried.

HANDLING OF RADIONUCLIDES:

1. Liquids:

   a. Do not pipette or handle directly. Remove liquid from vials with a syringe and needle or automatic pipetting device.
   b. Leave vials inside the lead containers.
   c. Wash hands after each procedure.

2. In vitro test kits:

   a. The level of activity is generally very low.
   b. Use care in adding labeled materials to test tubes.
   c. Cover tubes with the caps provided.
   d. Washing: flush with aspirators and wash into the drain with adequate amounts of water. Avoid splashing rinse water.

3. Capsules: Handle indirectly with forceps or with plastic or paper cups. Do not handle directly.

4. Clothing:

   a. Wear a lab coat or apron when handling liquids.

   b. Change immediately if coat or apron become contaminated. Have coat washed or set aside until contamination decays.

c. Check coat or apron with survey meter periodically to detect contamination.

SPILLS:

1. Capsules may be picked up with forceps.

2. Liquids:

a. Notify supervisor or safety officer.

b. Keep other personnel out of the area.

c. Put on rubber gloves and soak up the spill with absorbent paper. Place the wet toweling in a plastic bag and add the gloves to the bag when finished. Place the bag behind adequate shielding to decay before disposal.

d. Scrub the area with soap and water. Rinse adequately.

e. Survey the area with the portable rate meter to detect residual contamination. Repeat washing if necessary.

f. Wash hands thoroughly.

ENVIRONMENTAL AND PERSONNEL MONITORING:

1. Surveys:

a. Monitor the work area (perform wipe test), storage area and specimen receipt area at the end of each shift. Record results.

b. Tolerance limits:

(1) Surface areas should not exceed 200 mrem/hour.
(2) Three (3) foot distances should not exceed 10 mrem/hour.

c. Corrective actions:

(1) Surface areas found to exceed limits should be washed with decontaminant solution. (3/14/84 JG)
(2) Excessive or unusual contamination should be reported to the safety officer.

2. Personnel monitoring:

a. Film badges must be worn by all personnel.

b. Reports of environmental surveys and personnel exposure levels must be available to employees on request.

PERSONNEL:

General requirements for notification of employee rights and of potential hazard.

1. All personnel handling or exposed to radionuclides must be notified and instructed regarding the presence and potential hazard of radionuclides and instructed in safe handling procedures.

2. Personnel performing in vitro tests are required to wear film badges (primarily for legal purposes).

3. Personnel are entitled to:

   a. Reports of exposure records (film badges) upon request.

   b. A report of any accidental exposure (i.e. notice of any reports to AEC).

   c. To file complaints.

   d. To accompany an AEC inspector during an inspection of a facility.

   Complaints: Must be filed in writing and directed to:

   Director of Regulatory Operations
   U. S. Atomic Energy Commission
   Washington, D.C. 20545

PERSONNEL -- NOTIFICATION AND RESTRICTIONS:

1. Posting of notices: Federal regulations require posting of the following:

   a. Regulations pertaining to notices, instructions and reports. Title 10, Chapter I, Part 19.

      (1) Posted on bulletin boards.
      (2) Copy in Procedure Manual.

   b. License and conditions on file in:

      (1) Isotope Committee book.
      (2) Administrator's office.
      (3) Laboratory.

   c. Notices: On bulletin boards.

2. Instructions: Personal safety procedures:

   a. Only those who have been instructed in proper techniques and safety precautions will handle radioisotopes.

b. Persons with open cuts or sores will not handle radioisotopes.

c. THERE WILL BE NO SMOKING IN THE LABORATORY, PARTICULARLY IN OR AROUND THE AREA WHERE RADIOISOTOPES ARE HANDLED.

d. Pregnant women are advised of potential hazard but are not excluded from working.

NRC Form 314
(11-82)
10 CFR 30.36(d)(1)(iv)
10 CFR 40.42(d)(1)(iv)
10 CFR 70.38(d)(1)(iv)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB
3150-0028

CERTIFICATE OF DISPOSITION OF MATERIALS

(All items MUST be completed, please print)

LICENSEE NAME AND ADDRESS	LICENSE NUMBER
Damon Clinical Laboratories	12-15913-01
	LICENSE EXPIRATION DATE: 31 March 1985

THE LICENSEE OR ANY INDIVIDUAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE LICENSEE CERTIFIES THAT: *(Check and/or complete the appropriate item(s) below.)*

A. MATERIALS DATA *(Check one and complete, as necessary)*

☐ 1. NO MATERIALS HAVE EVER BEEN POSSESSED OR PROCURED BY THE LICENSEE UNDER THIS LICENSE.

OR

☐ 2. ALL MATERIALS PROCURED AND/OR POSSESSED BY THE LICENSEE UNDER THE LICENSE NUMBER CITED ABOVE HAVE BEEN TRANSFERRED ON

DATE	TO	WHICH HAS NRC LICENSE NUMBER

OR

☐ 3. ALL MATERIALS PROCURED AND/OR POSSESSED BY THE LICENSEE UNDER THE LICENSE NUMBER CITED ABOVE HAVE BEEN TRANSFERRED ON

DATE	TO	WHICH HAS LICENSE NUMBER	ISSUED BY THE STATE OF

AN AGREEMENT STATE PURSUANT TO SECTION 274 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED, AND THE ENERGY REORGANIZATION ACT OF 1974.

OR

☐ 4. MATERIALS HAVE BEEN DISPOSED OF IN THE FOLLOWING MANNER. *(Describe specific disposal procedures--if additional space is needed, use the reverse of this form, or provide attachments)*

See attachment Item 10/11

B. OTHER DATA

☐ 1. OUR LICENSE HAS NOT YET EXPIRED; PLEASE TERMINATE IT.

☐ 2. WAS A RADIATION SURVEY CONDUCTED TO CONFIRM THE ABSENCE OF LICENSED RADIOACTIVE MATERIALS AND TO DETERMINE WHETHER ANY CONTAMINATION REMAINS ON THE PREMISES COVERED BY THE LICENSE? *(Check one)*

- ☐ NO
- ☐ YES, THE RESULTS *(Check one)*
  - ☐ ARE ATTACHED, OR
  - ☐ WERE FORWARDED TO NRC ON *(Date)*

3. THE PERSON TO BE CONTACTED REGARDING THE INFORMATION PROVIDED ON THIS FORM

NAME	TELEPHONE NUMBER

4. MAIL ALL FUTURE CORRESPONDENCE REGARDING THIS LICENSE TO

RETURN TO:

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

CERTIFYING OFFICIAL

SIGNATURE	DATE

PRINTED NAME AND TITLE

18863