

ORC

03013376

VOID SHEET

TO: License Fee Management Branch

FROM: Carolyn Boyle

SUBJECT: VOIDED APPLICATION

Control Number: 021811

Applicant: Inter Science Institute

Date Voided: 06/05/96

Reason for Void: Approved for one-time 5-year

extension of license expiration date.

Susan L. Greene

Signature

IMAB/IMNS/NMSS

06/05/96

Date

Attachment:
Official Record Copy of
Voided Action

FOR LFMB USE ONLY

Final Review of VOID Completed:

- ☒ Refund Authorized and processed
☐ No Refund Due
☐ Fee Exempt or Fee Not Required

Comments: _____

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Log completed ☒

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 4, 1996

INTER SCIENCE INSTITUTE
ATTN: MR. ALAN KACENA
Radiation Safety Officer

944 WEST HYDE PARK BOULEVARD
INGLEWOOD, CA 90302

SUBJECT: ONE-TIME EXTENSION OF LICENSE EXPIRATION DATE
LICENSE NUMBER 04-17814-01E, DOCKET NUMBER 3013376

Dear MR. ALAN KACENA

On January 16, 1996, the Nuclear Regulatory Commission (NRC) amended its regulations in 10 CFR 30, 40, and 70 to extend the expiration date of certain byproduct, source, and special nuclear material licenses by five years (61 FR 1199). The above referenced license was extended by this rulemaking and will now expire on February 28, 2001. Your license will not be amended to show this extended date until the next routine licensing action. Until then, you may provide copies of this letter to vendors and other interested parties as evidence that the license has been extended as a result of the rule.

The extended license authorizes the same activities and contains the same limitations as it previously did. There will be no change in the frequency that the NRC inspects activities authorized by this license.

The amended rules state that in the case of licensees who are granted extensions and who have a currently pending renewal application for that extended license, the application will be considered withdrawn by the licensee and any renewal fees paid by the licensee for that application will be refunded. This will apply to licenses with expiration dates after July 1, 1995, for which renewal applications and the appropriate fees have been submitted and the renewal is still pending. Refunds will be mailed to licensees under separate cover.

All licensees, including those whose renewal applications were withdrawn by this rulemaking, who wish to change their radiation safety programs must request amendment of their licenses to reflect these changes. Amendment requests must include the correct amendment fee since the NRC cannot apply pending renewal refund balances toward amendment fees.

If you have any questions regarding this letter, please contact the individual below.

Headquarters: Susan L. Greene, (301) 415-7843

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Cool", is written over the word "Sincerely,".

Donald A. Cool, Director
Division of Industrial and Medical Nuclear Safety
Office of Nuclear Materials Safety and Safeguards



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

NOTE: THE ONE-TIME, 5-YEAR EXTENSION OF YOUR LICENSE EXPIRATION DATE DOES NOT ELIMINATE THE 5-YEAR REPORTING REQUIREMENTS ASSOCIATED WITH YOUR DISTRIBUTION LICENSE. THEREFORE, YOU MUST SUBMIT A PRODUCT TRANSFER REPORT AS OUTLINED IN 10 CFR PART 32 EVEN THOUGH YOUR LICENSE WAS GRANTED A ONE-TIME, 5-YEAR EXTENSION.

January 31, 1996

License No. 04-17814-01E
Docket No. 030-13376
Control No. 021811

Inter Science Institute
ATTN: Alan Kacena
Radiation Safety Officer
944 West Hyde Park Boulevard
Inglewood, California 90302

SUBJECT: LICENSE RENEWAL APPLICATION

Dear Mr. Kacena:

This is to acknowledge receipt of your application for renewal of the materials 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 the renewal application should reference your license number and the control number specified above.

Sincerely,

Original signed by:

DISTRIBUTION:

License File 04-17814-01E
NMSS r/f
IMNS c/f
LWCamper
PSantiago
RIV-WCFO

Carolyn Boyle, Licensing Assistant
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
and Safeguards

Docket No. 030-13376

DOCUMENT NAME: C:\32-DEEMT.CB

C = COVER E = COVER & ENCLOSURE N = NO COPY

OFC	IMAB:NMSS	C					
NAME	CBoyle:cjb						
DATE	01/31/96						

OFFICIAL RECORD COPY

NRC FORM 313

U. S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES 6-30-96

(10-94)

10 CFR 30, 32, 33

34, 35, 36, 39 and 40

APPLICATION FOR MATERIAL LICENSE

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 9 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U. S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

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:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U. S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

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

NUCLEAR MATERIALS LICENSING SECTION
U. S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

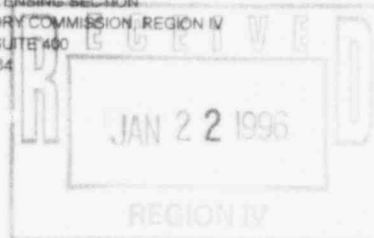
IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING SECTION
U. S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
Lisle, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS,
LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA,
OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH,
WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U. S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064



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 JURISDICTIONS.

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

☐
☐
☒

A. NEW LICENSE

B. AMENDMENT TO LICENSE NUMBER

C. RENEWAL OF LICENSE NUMBER 04-17814-01E

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

INTER SCIENCE INSTITUTE
944 WEST HYDE PARK BOULEVARD
INGLEWOOD, CALORNIA 90302

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

SAME AS ABOVE

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

ALAN KACENA

TELEPHONE NUMBER

(310) 677-3322

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 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 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 3I

AMOUNT
ENCLOSED \$ 2600.00

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, 36, 39 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.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

ALAN KACENA, RADIATION SAFETY OFFICER

SIGNATURE

DATE

JANUARY 11, 1996

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

021811

ITEM 5

<u>Element and Mass Number</u>	<u>Chemical/Physical Form</u>	<u>Maximum Amount</u>
1. Iodine-125	Sodium Iodide Iodinated hormones	75 millicuries
2. Hydrogen-3	Tritiated hormones	40 millicuries
3. Cobalt-57	Incorporated in hormones	10 millicuries
4. Carbon-14	Incorporated in hormones	5 millicuries

ITEM 6

The chemical forms of the materials listed above will be used as tracer substances and components of In Vitro Radioimmunoassay kits for the determination of various hormone levels. The sodium iodide will be used to prepare iodinated hormones.

ITEM 7

Alan Kacena

Mr. Kacena has undergone the training program for safe handling and use of radioactive materials including instruction in the areas:

- Health and safety principles of radiation.
- The use of the survey meter for checking environmental safety of the work and storage areas.
- The use of beta and gamma spectrometers for determining radioactive content of materials. This instruction includes use of background and standard materials to determine function and efficiency of the equipment.
- Wipe test principles and practices to check for contamination of work areas.
- An overview of the state and federal regulations for possessing, storage, handling and use of radioactive materials.
- Possible biological effects of radiation due to handling and use of radioactive materials in quantities used in the laboratory.

Mr. Kacena has used radioactivity in radioimmunoassay tests in our laboratory since 1972. Amounts for these tests were in microcurie quantities. He has used millicurie quantities in radioiodination of various compound for use in the radioimmunoassays. Also, Mr. Kacena has served as Radiation Safety Officer since 1977.

ITEM 8

Training Program for Safe Handling and Use of Radioactive Materials

All employees are to be trained in the safe handling and use of radioactive materials by the Radiation Safety Officer. Training includes the following:

1. Health and Safety Principles of radiation.
2. The use of instrumentation for the measurement of beta and gamma radiation.
3. The principles and practice of using standardized sources of radioactive materials for use in calibrating beta and gamma spectrometers. This includes training in decay rates and half lives of the isotopes used.
4. The use of monitoring equipment for the detection of radioactive materials and the principles and practice of wipe tests for checking environmental surfaces and areas.
5. A list of statements that accompanies all shipments of radioactive material.
6. An overview of all state and federal regulations involving the possession, storage, handling and use of radioactive materials.

ITEM 9 Facilities

The attached floor plan indicates rooms and areas of the basic facility. A specific area is indicated as the only area to use for storage or use of quantities of radioactivity over 1 millicurie.

Room #3 contains a fume hood and this room is used for performing all iodinations. The iodinations are to be done in the hood with the window closed to indicated levels to permit proper air flow during the procedure.

Rooms #1, #2 and #4 are use locations to test and process the byproduct material. Radioactive materials in these areas should be less than 1 millicurie.

All rooms and refrigerators used for radioactive handling or storage are indicated by radioactive material labels.

Room #4 contains the Beckman counter and LKB gamma counter; #1 contains the Abbott counter and the survey meter will be located in one of the use areas.

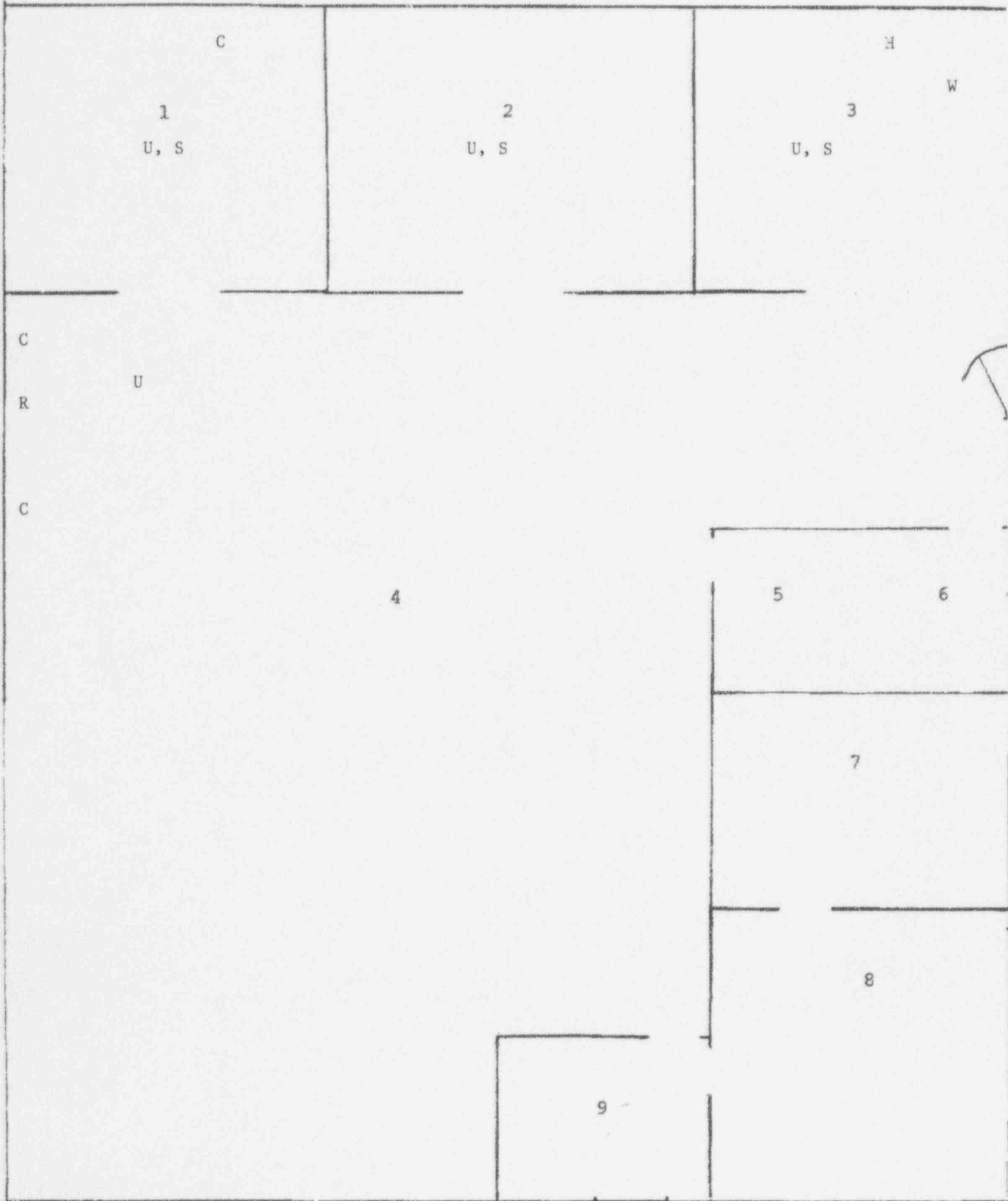
944 West Hyde Park Boulevard
Inglewood, California 90302

Description of Floor Plan

<u>Room#</u>	<u>Function</u>	<u>Dimensions (approximate)</u>
1	Laboratory #1	16 x 14
2	Laboratory #2	16 x 14
3	Laboratory #3	16 x 14
4	Laboratory #4	35 x 45
5	Filing Cabinets, storage	8 x 7
6	Restroom	6 x 7
7	Office	14 x 10
8	Library	14 x 14
9	Reception Area	10 x 8

944 Hyde Park Boulevard
Inglewood, California 90302

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Definition of Abbreviations for Floor Plan

S	Radioactive storage area
U	Radioactive use area
H	Iodination hood
W	Radioactive waste storage area
F	Fire extinguisher
B	Fire blanket
C	Beta and Gamma Counters
R	Radiochromatogram scanner

ITEM 9a Storage Facilities

All radioactive material is stored in the fume hood or in refrigerators and freezers while it is not being used or processed, with the exception of radioactive waste which is stored as indicated in room #3. Refrigerators and freezers used for storage are located in rooms #1, 2, and 3.

Lead bricks are available for use if the situation warrants it.

ITEM 9 Radiation Detection Instruments

1. Beckman model #LS-230 Liquid Scintillation Spectrometer. 1 available
Detects beta radiation. Sensitive to 30 cpm.
2. W.S. Johnson model GSM-5 Survey meter. 1 available. Detects gamma and
beta radiation. Sensitive to 0.05 milliroentgens/hour.
3. LKB 1272 Clinigamma Counter. 1 available. Detects gamma radiation.
Sensitive to 100 cpm.
4. Abbott single well counter. 1 available. Detects gamma radiation.
Sensitive to 200 cpm.

ITEM 9 Calibration of Instruments

1. Beckman model #LS-230 Liquid Scintillation Spectrometer
The spectrometer is calibrated as follows:

Two sealed standards, background and H-3 standard, prepared by Beckman are counted on a daily basis. The background count is used to determine contamination of the machine.

The counting platform is cleaned and the cords checked for damage annually, or as necessary.

2. W.S. Johnson model #GSM-5 Survey Meter

The survey meter is tested monthly for battery strength. Push the red button on the right side of the control panel. Meter will register for strength of batteries.

For maintenance that cannot be done by in-house personnel, the work shall be performed by Don Collins, or another properly licensed company.

3. LKB 1271 Clinigamma Counter

The counter's two wells are standardized by counting an I-125 source daily as used in both wells. Equalization of the wells is performed by the machine. Background counts of both wells is also performed. Cleaning of the racks, platform and counting chambers is performed as necessary.

4. Abbott Gamma Counter

This counter is used only for rough approximations of gamma radiation and is not calibrated. Background checks and cleaning of contamination is performed as necessary.

ITEM 10 Radiation Safety Program

The following attachments comprise the radiation safety program defining day to day duties, monitoring, testing and responsibilities of personnel.

The Radiation Safety Officer is responsible for the training program and checking of monitoring and testing to ensure that the radiation safety program is followed.

Copies of the California Radiation Control Regulations and the United States Nuclear Regulatory Commission Rules and Regulations are not included in this submission. These copies will be available upon request.

RADIATION PROTECTION PROGRAM

The attached radiation control policies cover the following major areas:

1. Copy of the California Radiation Control Regulations.
2. Copy of the United States Nuclear Regulatory Commission Rules and Regulations.
3. Standards for protection of personnel against radiation.
4. Training program for the safe handling and use of radioactive material.
5. Policy for receiving and inventory of radioactive materials.
6. Decontamination procedures.
7. Wipe tests for working surfaces.
8. Statement accompanying shipments of radioactive material.

Standards for Protection of Personnel Against Radiation

1. Laboratory areas using radioactive materials are monitored by survey meter and/or wipe tests on a daily basis.
2. Storage areas and work areas where radioactive materials are stored or used must be labeled with stickers stating: CAUTION! RADIOACTIVE MATERIAL.
3. Limits for acceptable amounts of radiation detected by wipe tests are established to ensure safety of persons in the area.
4. The State of California Department notice RH2364 is posted prominently in the laboratory.
5. All personnel are to be trained in the safe handling and use of radioactive materials.
6. All radioactive materials are to be stored in refrigerators or freezers to preclude access by unauthorized personnel and to insure against leakage or spill in case of fire.
7. Radioactive waste is to be disposed of according to California Department of Health regulations. Only firms licensed to receive radioactive waste will be permitted to pick up such material.
8. Only authorized personnel shall open packages containing radioactive materials.
9. Methods for calibrating equipment are included in a separate section.
10. All radioiodinations are to be performed in the fume hood in room #3.
11. Copies of all licenses are posted in the laboratory.
12. A copy of all regulations is available to employees.
13. A monthly estimate of material disposed through the sanitary sewer system is to be maintained.
14. All employees are to have free access to discuss or bring to the attention of inspectors any matter concerning radiation safety.
15. No radioactive material is to be used for internal or external use on humans or animals.
16. A Radiation Safety Officer possessing full authority and responsibility is to be appointed to monitor the radiation safety of personnel.
17. All laboratory records involving radioactive materials are to be made available to inspectors on demand.
18. All serious exposures, accidents, loss, or thefts involving radioactive materials, as outlined in the California Department of Health regulations, are to be reported to the proper departments.

Personnel

Past records of film badge monitoring by Landauer Company have indicated that no individual at Inter Science Institute has been exposed to excessive quantities of radiation. The type of work that is being performed is identical now to the performance before.

Iodinations are limited to quantities not to exceed 2 millicuries and must be performed in a fume hood. The efficiency of the fume hood has been checked by the State of California inspection. Assays are performed using no more than 10 uCi of radioactive material in a non-volatile form (I-125 hormones, for example). Work areas are monitored on a daily basis to detect radioactive spills and prevent accidental exposure to radiation.

Persons suspected of over exposure to I-125 during iodinations will be checked by thyroid scan at the University of California, Los Angeles Medical Center.

At the time when an increase in the amount of radioactivity is encountered by personnel or the processes are changed to yield a higher incidence of exposure, Inter Science Institute will resume film badge monitoring.

Training Program for the Safe Handling and Use of Radioactive Materials

All employees handling and/or using radioactive materials will be instructed in the policies and procedures of safe handling and use of radioactive materials before being permitted to handle or use such materials. Other personnel not handling or using radioactive material will be instructed as to restricted areas and limitations upon functions.

All employees handling and/or using radioactive materials will have access to all pertinent State and Nuclear Regulatory Commission regulations and be supplied any safety equipment necessary to perform their assigned functions.

Policy for Receiving and Inventory of Radioactive Materials

Receiving of Radioactive Materials

1. Upon reception of radioactive materials, an assigned person should immediately be notified to inspect package.
2. Only authorized personnel are permitted to receive, inspect and open packages containing radioactive materials.
3. Inspection of and opening of packages:
 - A. Packages containing Iodine-125 or Iodine-131 are to be scanned with the survey meter on a reading scale 1. If there is no evidence of leakage, the package is to be opened in the Iodination room under the fume hood. If there is no evidence of leakage, the material is inventoried and placed in proper storage. If there is evidence of leakage, the shipment is not to be opened. The supplier is to be notified of the leakage and decontamination procedures are to be followed.
 - B. Packages containing Hydrogen-3 and Carbon-14 are to be inspected for physical damage before opening in the fume hood in the Iodination room. The immediate container is to be wiped and counted in a beta spectrometer to determine leakage. If there is no evidence of leakage, the material is to be inventoried and placed in proper storage. If there is evidence of leakage, the supplier is to be notified and decontamination procedures are to be followed to prevent spread of radioactivity.
 - C. Disposable plastic gloves should be worn when packages are opened and inspected. The gloves must be disposed of in the radioactive waste.

DECONTAMINATION PROCEDURES

Hydrogen - 3 or Carbon - 14 Contamination

1. Wear disposable plastic gloves before handling anything within the contaminated areas.
2. Wipe the contaminated area clean with methanol - soaked paper towels and dispose of towels in the radioactive waste.
3. Take a small piece of filter paper soaked in methanol and wipe contaminated area. Also wipe an adjacent area that was not contaminated.
4. Place filter papers in scintillation vials, add scintillation fluid and count in a beta spectrometer.
5. Differences of less than 4000 dpm per 100 square centimeters will complete the decontamination procedure. A difference of greater than 4000 dpm per 100 square centimeters will require procedure to be repeated.
6. Dispose of gloves in the radioactive waste.

Iodine - 125

1. Survey the contaminated area with the survey meter to determine level and extent of contamination.
2. Wear disposable plastic gloves to decontaminate area.
3. Clean the area with water soaked paper towels. Dispose of towels in the radioactive waste.
4. Perform a wipe test as above. Levels of less than 200 dpm Iodine-125 or Iodine-131 per 100 square centimeters will complete the decontamination procedure. Levels of greater than 200 dpm Iodine-125 or Iodine-131 per 100 square centimeters will require repeating the above procedure using a 10% solution of potassium iodine.
5. Dispose of gloves in the radioactive waste.

CHEMICAL FORM	ISOTOPE	QUANTITY PER KIT
Gastrin	I-125	1 uCi
Gastric Inhibitory Polypeptide	I-125	1 uCi
Glucagon	I-125	1 uCi
Insulin	I-125	1 uCi
Motilin	I-125	1 uCi
Pancreatic Polypeptide	I-125	1 uCi
Pepsinogen I	I-125	1 uCi
Pepsinogen II	I-125	1 uCi
Secretin	I-125	1 uCi
Vasoactive Intestinal Polypeptide	I-125	1 uCi
Reverse T3	I-125	1 uCi
Thyrocalcitonin	I-125	1 uCi
Thyroid Stimulating Immunoglobulins	I-125	1 uCi
Thyrotropin Releasing Hormone	I-125	1 uCi
Prostaglandin E1	H-3	2 uCi
Prostaglandin E2	H-3	2 uCi
Prostaglandin F2 alpha	H-3	2 uCi
Aldosterone	I-125	1 uCi
Androstenedione	I-125	1 uCi
11-HydroxyAndrostenedione	H-3	1 uCi
Androsterone	H-3	1 uCi
Corticosterone	I-125	1 uCi
Corticosterone	H-3	1 uCi
Cortisol	I-125	1 uCi
Cortisone	H-3	1 uCi
Dehydroepiandrosterone	H-3	1 uCi
Dehydroepiandrosterone-Sulfate	I-125	1 uCi
Dihydrotestosterone	H-3	1 uCi
Estradiol	I-125	1 uCi
Estriol	I-125	1 uCi
Estrone	I-125	1 uCi
Etiocholanolone	H-3	1 uCi
Progesterone	H-3	1 uCi
Hydroxyprogesterone	H-3	1 uCi
Testosterone	I-125	1 uCi

RADIOACTIVE DISTRIBUTION INSTRUCTIONS

Contents are exempt from NRC or Agreement State licensing requirements. The radioactive material contained in this kit is "Radioactive Material - Not For Human Use - Introduction Into Foods, Beverages, Cosmetics, Drugs, or Medicinals, or Into Products Manufactured for Commercial Distribution is Prohibited. Exempt Quantities Should not Be Combined"

1. Radioactive material should be stored in a designated area.
2. Radioactive material should be used only at designated work stations.
3. Radioactive material should not be pipeted by mouth. Use a bulbette or a syringe fitted to the pipet with flexible tubing.
4. Spills should be wiped up and the surfaces involved should be washed with an alkali detergent (Alconox or equivalent). Use absorbent material that may be flushed down the sanitary sewer system.
5. Do not eat or drink with the designated radioactive area.
6. Practice good hygiene and wash after handling radioactive material.
7. Persons under 18 years of age should not be permitted to handle radioactive material or enter radioactive areas.
8. Keep radioactive areas exceptionally clean. Dispose of cleaning materials by flushing through the sanitary sewer system.
9. Materials are packaged so that less than 0.5 MR/HR radiation is at the package surface and exposure to radiation is negligible. However, good practice is to designate a storage area as far from a work station as possible.

DISPOSAL

Used radioactive test solutions may be disposed of by flushing down a laboratory sink drain with copious quantities of water.

ITEM #11 EFFLUENT AND ENVIRONMENTAL MONITORING

All radioactive waste materials are to be separated from other waste materials. Radioactive waste containers are to be clearly marked.

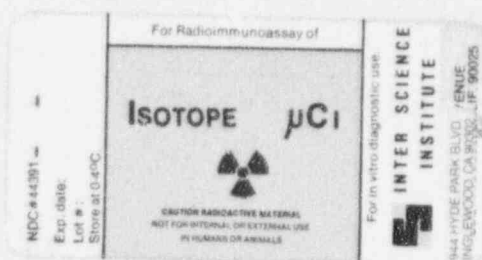
Non-radioactive waste from locations where radioactive materials are utilized are to be checked with the survey meter prior to disposal. Readings below 0.05 mREM/hour are assumed to be non-radioactive. All instances of positive readings are to be recorded and investigated as to cause of contamination.

All liquid radioactive waste must be estimated in radioactive content. The amount introduced into the sewer system must fall within the permissible limits stated in Item #10.

QUANTITIES OF RADIOACTIVE MATERIAL CONTAINED PER DEVICE

The quantity of Hydrogen-3 material will not exceed 10 uCi per device. The quantity of Iodine-125 material will not exceed 1 uCi per device. The dose rate at the external surface of the container will not exceed 0.5 millirems per hour. Each device will be packaged separately to prevent exceeding of the above state limits.

Immediate container label for radioactive materials:



Wipe Test Procedures

Environmental Surfaces

Areas using Hydrogen - 3, Carbon - 14, Iodine - 125, and/or Iodine - 131 are to be monitored by wipe tests or survey meter checks on a daily or weekly basis. The areas to be checked include the laboratory bench, the floor area in front of the bench and other areas in the laboratory chosen at random.

Procedure

1. Prepare 1 inch square pieces of filter paper.
2. Wipe an area of approximately 100 square centimeters of the bench, and the floor.
3. Place filter paper in scintillation vial, add scintillation fluid to vial and count in a beta spectrometer.
4. Record radioactive content.

Acceptable levels

1. Hydrogen - 3 and Carbon - 14 levels should not exceed 4000 dpm per 100 square centimeters.
2. Iodine - 125 and Iodine - 131 levels should not exceed 200 dpm per 100 square centimeters.
3. Any areas exceeding these limits must be decontaminated according to procedures established.

QA/QC PROCEDURES

1. All kits containing radioactive materials are tested following the procedure stated in the package insert to determine the following:
 - a. The kit performs as stated in the insert
 - b. The content of radioactive material does not exceed the quantity stated on the label

Any discrepancies of these tests are to be recorded and the kit not distributed.

2. The completed kits are to be checked to ensure that the items are properly capped and sealed.
3. Packages ready to be shipped are to be scanned with a survey meter to ensure that the surface dose rate does not exceed 0.5 mRem per hour. Any packages exceeding this rate are to be immediately transferred to the radioactive storage area for resolution of problem. A record is to be maintained of any packages that exceed the 0.5 mRem surface dose rate and the disposition of these packages.

R1201021

LICENSING TRACKING SYSTEM

DATE: 960124

PAGE: 1

LTS WORKSHEET

DOCKET NO : 03013376 LICENSE NO : 04-17814-01E STATUS: 2
MAIL CONTROL: 021811 RECEIPT DATE : 960124 ACTION TYPE: 3
DUE DATE : 960722
FED. GOVT : N INST. CODE : 17814 LICENSE REGION: 0
ISSUE DATE: 910221 ORIGINAL DATE: 841129 EXPIRATION DATE: 19960228
NAME : INTER SCIENCE INSTITUTE DECOM FIN ASSUR REQD: N
SUBM: _
DEPT/BUREAU: _____ CONT PLAN REQD: N APPRV: _
BUILDING : _____
STREET : 944 WEST HYDE PARK BOULEVARD
CITY : INGLEWOOD STATE: CA ZIP: 90302
CONTACT PERSON: ALAN KACENA PHONE: ³¹⁰~~213~~ 677-3322
PRIMARY PGM CODE : 03253 SECONDARY PGM CODES: _____
INSPECTION REGION: 4 PRIORITY CODE: 5 INSPECTION CATEGORY: E
RADIATION SAFETY OFFICER: _____
STATES WHERE USE IS AUTHORIZED: 1 0 - ALL LISTED STATES
1 - SAME AS STATE IN ADDRESS
2 - ALL STATES
3 - NON-AGREEMENT STATES
AUTHORIZED STATES: _____ (USE ONLY IF ABOVE IS ZERO)
REPORTING IDENTIFICATION SYMBOL: _____
APPROVAL FOR: REDISTRIBUTION: N STORAGE ONLY: N
TEMPORARY JOB SITES: N INCINERATION: N
BURIAL: N
EXEMPTIONS: (1) _____ (2) _____

Prod transfer?

POSSESSION LIMIT INFORMATION

PAGE: 2

MATERIAL TYPE : NPA FORM CODE: NPA AGGREGATE CODE: NPA
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : 0000000.000000000 UNIT: _____
OTHER : _____ # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
OTHER : _____ # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
OTHER : _____ # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
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MODEL NUMBER : _____
DESCRIPTION : _____
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OTHER : _____ # SOURCES: _____

MATERIAL TYPE : _____ FORM CODE: _____ AGGREGATE CODE: _____
MODEL NUMBER : _____
DESCRIPTION : _____
TOTAL QUANTITY : _____ UNIT: _____
OTHER : _____ # SOURCES: _____

NAME

AUTHORIZATION

ADDRESS WHERE MATERIAL IS USED OR POSSESSED

BUILDING:			
ROOM:			
STREET:			
CITY:			
STATE:			
BUILDING:			
ROOM:			
STREET:			
CITY:			
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ROOM:			
STREET:			
CITY:			
STATE:			

DOCKET: 03013376 LIC: 04-17814-01E NAME: INTER SCIENCE INSTITUTE

PARTY ISSUING MECHANISM: ASSUR TYPE : (C=CERT D=DFP)
NAME : MECH TYPE :
ADDR1: MECH AMOUNT:
ADDR2: APPROVED? DATE:
CITY : EXPIRES ? DATE:
STATE: ZIP:

PARTY ISSUING MECHANISM: ASSUR TYPE : (C=CERT D=DFP)
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ADDR1: MECH AMOUNT:
ADDR2: APPROVED? DATE:
CITY : EXPIRES ? DATE:
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CITY : EXPIRES ? DATE:
STATE: ZIP:

PARTY ISSUING MECHANISM: ASSUR TYPE : (C=CERT D=DFP)
NAME : MECH TYPE :
ADDR1: MECH AMOUNT:
ADDR2: APPROVED? DATE:
CITY : EXPIRES ? DATE:
STATE: ZIP:

LICENSE DATA, CONTINUED

PAGE: 5

=====

DOCKET NO: 03013376 LICENSE NUMBER: 04-17814-01E

NAME : INTER SCIENCE INSTITUTE

MEDICAL QUALITY MANAGEMENT PROGRAM REQUIRED: N RECEIVED: _ APPROVED: _

DECOMMISSIONING FINANCIAL ASSURANCE REQUIRED: N SUBMITTED: _

CONTINGENCY PLAN REQUIRED: N APPROVED: _

DECAY-IN-STORAGE APPROVED: N HOLDING FOR < 10 HALF-LIVES APPROVED: _

T 1/2 > 65 DAYS, ISOTOPE(S): _____

INTERIM STORAGE UP TO 1996: N

=====

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03253
Status Code: 2
Fee Category: 3I
Exp. Date: 19960228
Fee Comments:
Decom Fin Assur Req'd: N
1996 JAN 25 PM 4: 47

LICENSE FEE TRANSMITTAL

A. REGION *HA*

1. APPLICATION ATTACHED

Applicant/Licensee: INTER SCIENCE INSTITUTE
Received Date: 960124
Docket No: 3013376
Control No.: 021811
License No.: 04-17814-01E
Action Type: Renewal

2. FEE ATTACHED

Amount: *\$2,600*
Check No.: *3266*

3. COMMENTS

Signed
Date

Boyle
1/24/96

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

1. Fee Category and Amount: *3I* *\$2,600*

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

Amendment
Renewal *V*
License

3. OTHER

Signed
Date

sk
2/5/96

Log	<i>Feb. 1</i>
Remitter	<i>HA</i>
Check No.	<i>3266</i>
Amount	<i>\$2,600</i>
Fee Category	<i>3I</i>
Type of Fee	<i>Renewal</i>
Date Check Paid	<i>2/5/96</i>
Date Completed	<i>sk</i>
By:	

Refunded \$2,600.

OCT 24 1996

DIVISION OF ACCOUNTING AND FINANCE REQUEST FOR REFUND TO EMPLOYEE/VENDOR

THE EMPLOYEE/VENDOR IDENTIFIED BELOW HAS OVERPAID THE NUCLEAR REGULATORY
COMMISSION FOR GOODS AND/OR SERVICES PROVIDED AND IS DUE A REFUND

EMPLOYEE/VENDOR/PAYEE CODE: _____

NAME: Inter Science Institute

ADDRESS: ATTN: Alan Kacena, RSD

ADDRESS: 944 West Hyde Park Blvd

CITY: Inglewood STATE: CA ZIP: 90302

TRANS CODE: PX

TRANS TYPE: FE FUND: X5280 JOB CODE: _____ AMOUNT: \$2,600.00

TRANS TYPE: IR FUND: R1435 JOB CODE: INTR AMOUNT: _____

TRANS TYPE: IR FUND: R1099 JOB CODE: ADCH AMOUNT: _____

TRANS TYPE: IR FUND: R1099 JOB CODE: FINE AMOUNT: _____

TOTAL REFUND AMOUNT: \$2,600.00

COMMENTS: Lic 04-17814-01E/CK 3266/REN EXTN/RLMEG

(Limit comments to 40 characters, including spaces)

PREPARED BY: Sandra Kimberley DATE: 10/24/96

AUTHORIZED BY: Don B. Don DATE: 10/24/96

ORIGINAL INV. NO: _____ DATE PAID: _____ AMOUNT: _____

REFUND ENTERED INTO COLLECT BY: _____

REFUND DETERMINED BY: _____ DATE: _____

PLEASE ATTACH APPROPRIATE SUPPORTING DOCUMENTATION

See 021811 -- Feb. 1 '95