Celgene Corporation
7 Powder Horn Drive
Warren, New Jersey 07059
Tel 732-271-1001
Fax 732-271-4184

Q-2

July 7th, 2003

29-28056-01
030-30074

Dr. Sattar Lodhi
Health physicist
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety

Dear Dr. Lodhi,

As per your request for our license renewal, I am including the application for material license (NRC form313). I also included additional documents to satisfy the requirements by NRC for license renewal. These items are including: (1) Three pages of written answer to questions 5 through 11 of NRC form 313. (2) Pictures to identify the rooms that are used for radioactive work (3) General rules for the safety use of radioactive materials. (4) Emergency procedures, and (5) Area survey procedures.
The NRC form 313 is also signed by Dr. David Stirling, Executive Vice President Pharmaceutical R& D in Celgene.

Sincerely yours,

Faribourz Payvandi Ph.D., RSO
Group leader, Oncology research
Celgene Corporation
Warren NJ 07059

A/1

133168

NRC FORM 313 (5-1997) 10 CFR 30, 32, 33 34, 35, 36, 39 and 40

U. S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIAL LICENSE

APPROVED BY OMB: NO. 3150-0120 EXPIRES: 7/31/1998

Estimated burden per response to comply with this information collection request: 7 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. NRC may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a currently valid OMB control number.

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:

ATLANTA FEDERAL CENTER
U. S. NUCLEAR REGULATORY COMMISSION, REGION II
61 FORSYTH STREET, S.W., SUITE 23T85
ATLANTA, GEORGIA 30303-3415

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

030-30074

2003 JUL -8 AM 10:

RECEIVED REGION 1

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 _____
   - [x] C. RENEWAL OF LICENSE NUMBER 29-28056-01

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip code)*
   Faribourz Fayvandi
   Celgene corp
   7 Powder Horn Drive
   Warren NJ 07059

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED
   Celgene Corporation
   7 Powder Horn Drive
   Warren NJ 07059

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION
   Faribourz Fayvandi
   TELEPHONE NUMBER
   (732) 271-4137

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 | AMOUNT ENCLOSED $

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	SIGNATURE	DATE
DAVID FIRUNG CSO		7/7/03

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			$		133168
APPROVED BY				DATE	

RECEIVED
REGION 1
2003 JUL 10 PM 1:39

Application for material license (questions 5 through 11 from NRC form 313)
(Celgene corporation)

5) **Radioactive material:**

Radioactive material	Chemical/physical form	Maximum amount that license may possess at any one time under this license
a) Hydrogen 3	Any	100millicuries
b) Carbon 14	Any	100milicuries
c) Phosphorus 32	Any	100milicuries
d) Phosphorus 33	Any	100milicuries
e) Sulfur 35	Any	100milicuries

As needed the materials will be purchased from either ICN Biochemical (Irvine CA) or Amersham (Piscataway, NJ).

6) **Purpose(s) for which licensed material will be used:**
The materials in this license are used only for research purposes in laboratory (in-vitro research). For instance using ^{3}H for either proliferation assay or PDE and cAMP enzymatic assay and using ^{32}P or ^{33}P for labeling in gel-shift or northern blot assays.

7) **Individual(s) responsible for radiation safety program and their training Experience:**

Faribourz Payvandi RSO (worked with radioactive materials such as ^{32}P, ^{33}P and ^{3}H for last 15 years), Trained by CSI radiation Safety Training in Gaithersburg MD to become radiation safety officer in Celgene.
Two other individuals also involved in helping RSO if there is a need (if RSO is in a meeting or out of office for other reasons)

a) Peter Schafer (worked with radioactive materials such as ^{32}P, ^{33}P and ^{3}H for the last 7years)
b) Syedah Nazirudin (worked with radioactive materials such as ^{33}P, ^{32}P and ^{3}H for the last 6years)

There are total of 11 people who are considered as authorized users: Faribourz Payvandi, Peter Schafer, Lei Wu, Ling Zhang, Jankhana Patel, Anstasia Parton, Anita Gandhi, Ling Lu, Xu Jean, Sun Yali and Syedah Naziruddin
Either experience person such as RSO or a person who have more than 4 years of experience in using radioactive materials in our group has trained each person in this list.

8) **Training for individuals working in or frequenting restricted areas:**

Each person who will work with radioactive materials will be given training in the form of lecture training or an orientation session supplemented with training manful. This training will cover a review of basic physical concepts of radiation protection and control and radiation exposure limits. We will also use two

videotapes that we received from Howard Hughes Medical Institute about radionuclide hazards. In this tape there are several example of safe use of radioactive materials and how to prevent and report contaminated area or any lab accident.

Annual refresher training will be also conducted for each person who will work with radioactive materials. This training will be done by certified radiation protection technologist consultant from university of dentistry of New Jersey (Mr. Venkata Lanka or Mr. Patrick McDermott). Their training will consist of at least one hour review of the radiation protection techniques that are applied to the isotope work being conducted. Employees will be required to read the training manual, take the accompanying exam, and fill out a signature page stating that they have read the manual and list any questions that they might have. Their questions will be addressed by the radiation safety officer or designee.

Topics that are covered in annual training are as follow: Atomic structure, Types of radiation, penetrating ability of each type of radiation, Half-life and activity, Ionizing and non-ionizing radiation, Radioactive decay, Radionuclide segregation, Protecting against radiation, Regulatory limit for exposure, Biological effects, Recommended daily radiation safety checks, Contamination monitoring (Wipe surveys), The ALARA principle, Necessary ingredients for radiation safety (Training, posting, measurements, handbook, policies safety glasses.....) Protective clothing, minimizing external exposure, minimizing internal exposure, radiological emergencies/primary actions and Survey instruments.

A copy of our general roles for the safe use of radioactive materials and Emergency procedures plus area survey procedures are attached in separate sheets.

9) Facilities and equipment:

Licensed materials will be used only at our facilities located at 7 Powder Horn Drive, Warren New Jersey.

There are six rooms that we use for our radioactive work. These rooms are highlighted by yellow color in attached map (rooms number (b)(4) (b)(4) . These rooms are separated by dry wall sheets from the rooms that are occupied by non scientists employees. Furthermore, all the radioactive rooms are designated by radioactive signs and symbols that can be clearly identified by everyone who passes in the hallways. Also are included two pictures from bench area inside the rooms (b)(4) and (b)(4) hat is used for most of our radioactive works. The surface of all the benches that are used for radioactive work is made of CHMICAL RESISTANCE EPOXY-RESIN. These benches are covered with blue pads that can absorb possible radioactive liquids. The floors in these rooms are made of VINAL COMPOSIT TILES can be easily cleaned incase of radioactive contamination.

10) Radioactive safety program:

All radioactive materials will be received by our shipping and receiving personnel in shipping/receiving section of company, which is located at east part of our building in 7 powder horns drive. This location is clearly marked in the attached map that also shows the location for radioactive rooms. Purchase requisition for radioactive material will be reviewed and approved by the radiation safety officer or alternate radiation safety officer, prior to placing an order with a vendor. The RSO or alternate RSO will ensure the order meets licensed possession, kinds and type limits.

Shipping and receiving personnel are instructed to deliver packages marked or labeled RADIOACTIVE MATERIALS directly to the package opening areas in room (b)(4) and to notify the radiation safety officer or alternate radiation safety officer. The radiation safety officer, alternate radiation safety officer or authorized persons trained in package opening procedures will open the packages. The person who opens the package will then make an entry into the master log of incoming radioactive materials. Then a wipe test of box and containers inside the box is obtained and evaluated by GM detector and gamma counter. If wipe test reads greater than twice the background, the supplier will be notified. The radioactive materials are kept in locked container inside either freezer or refrigerator in room (b)(4) room (b)(4) and room (b)(4)

Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under license. We will also survey our facility and maintain contamination levels in accordance with the survey frequencies and contamination levels published in appendix Q to NUREG-1556, vol7. For some of our equipment (XRAY machine), leak tests will be performed at the intervals approved by NRC.

Regarding to radiation monitoring instrument, we will use instruments that meet the radiation monitoring instrument specifications published in appendix M to NUREG-1556, vol. 7. Additionally, we will implement the model survey meter calibration program published in appendix M to NUREG-1556, Vol. 7.

Radiation surveys will be performed monthly. A sketch of the laboratory and location of radioactive material work areas with indicated location for wipe sample is attached. Using filter papers a series of wipe test samples on laboratory surfaces will be taken. The wipe samples will be placed in liquid scintillation fluid and will be counted using gamma counting system. The counts are compared with blank filter paper as background. Any count more than twice as the count for blank is considered as contaminated area and will be decontaminated using count off or other reagents. Survey results will be maintained on file as a part of Celgene radioactive documents.

Regarding to occupational dose, we will monitor individuals in accordance with the criteria in the section entitled radiation safety program-occupational dose in NUREG-1556 Vol-7. All the individuals who work with radiative materials will use ring and badge during their work with radioactive materials. The rings and badges will be sent to Landuer Inc (Glenwood Illinois) once every three months to detect any possible contamination. We will then receive a complete report of their analysis that will be kept in Celgene radioactive file.

A copy of our general rules for the safe use of radioactive materials are included with these documents.

11) Waste management:

We keep radioactive materials such as ^{32}P, ^{33}P or ^{35}S for decay-in-storage for minimum of ten half-lives before disposal in ordinary trash. After 10 half-lives, the waste will be surveyed at the container surface with Geiger counter set at its most sensitive scale and with gamma counter to determine that its radioactivity cannot be distinguished from background. We will also remove all radiation labels before disposal.

For radioactive materials that have longer half-life such as ^{3}H and ^{14}C we do have contract with radiation Science Inc (Cranbury NJ) to carry our radioactive waste from Celgene and ship to GTS Deuratek (Okridge Tense). While these disposed radioactive materials are waiting to be picked up by the above mentioned company, they are stored in large cardboard containers for dry waste, plastic pails for scintillation vials used in 3H measurements and large drums for liquid 3H waste, in accordance of procedural instructions specified by the company. The area concerned with waste disposal and storage is enclosed and locked with restricted inflow of only authorized personnel. After processing in GTS Deuratek (Okridge Tense), waste will be shipped to envirocare in Utah for long-term storage.

NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 8

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Celgene Corporation	In accordance with the letter dated June 29, 1999, 3. License number 29-28056-01 is amended in its entirety to read as follows:
2. 7 Powder Horn Drive Warren, New Jersey 07059	4. Expiration date July 31, 2003 5. Docket No. 030-30074 Reference No.

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Hydrogen 3	A. Any	A. 100 millicuries
B. Carbon 14	B. Any	B. 90 millicuries
C. Phosphorus 32	C. Any	C. 100 millicuries
D. Phosphorus 33	D. Any	D. 10 millicuries
E. Sulfur 35	E. Any	E. 100 millicuries

9. Authorized use:

A. through E. Research and development as defined in 10 CFR 30.4.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at 7 Powder Horn Drive, Warren, New Jersey.

11. A. Licensed material shall be used by, or under the supervision of, David Stirling, Faribourz Payvandi, or Peter Schafer.

    B. The Radiation Safety Officer for this license is Faribourz Payvandi.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
29-28056-01

Docket or Reference Number
030-30074

Amendment No. 8

12. Licensed material shall not be used in or on human beings.

13. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.

14. The licensee is authorized to hold radioactive material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal in ordinary trash, provided:

    A. Waste to be disposed of in this manner shall be held for decay a minimum of ten half-lives.

    B. Before disposal as ordinary trash, the waste shall be surveyed at the container surface with the appropriate survey instrument set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.

    C. A record of each such disposal permitted under this License Condition shall be retained for three years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.

15. Radioactive waste generated under this license shall be stored in accordance with the statements, representations, and procedures included with the licensee's waste storage plan described in the licensee's letter dated June 2, 1993.

16. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
29-28056-01

Docket or Reference Number
030-30074

Amendment No. 8

17. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

    A. Application dated August 27, 1992
    B. Letter dated April 27, 1993
    C. Letter dated June 2, 1993
    D. Letter dated June 23, 1993
    E. Letter dated September 25, 1998
    F. Letter dated December 10, 1998

For the U.S. Nuclear Regulatory Commission

Date August 12, 1999

By Pamela J. Henderson

Pamela J. Henderson
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406

97735191

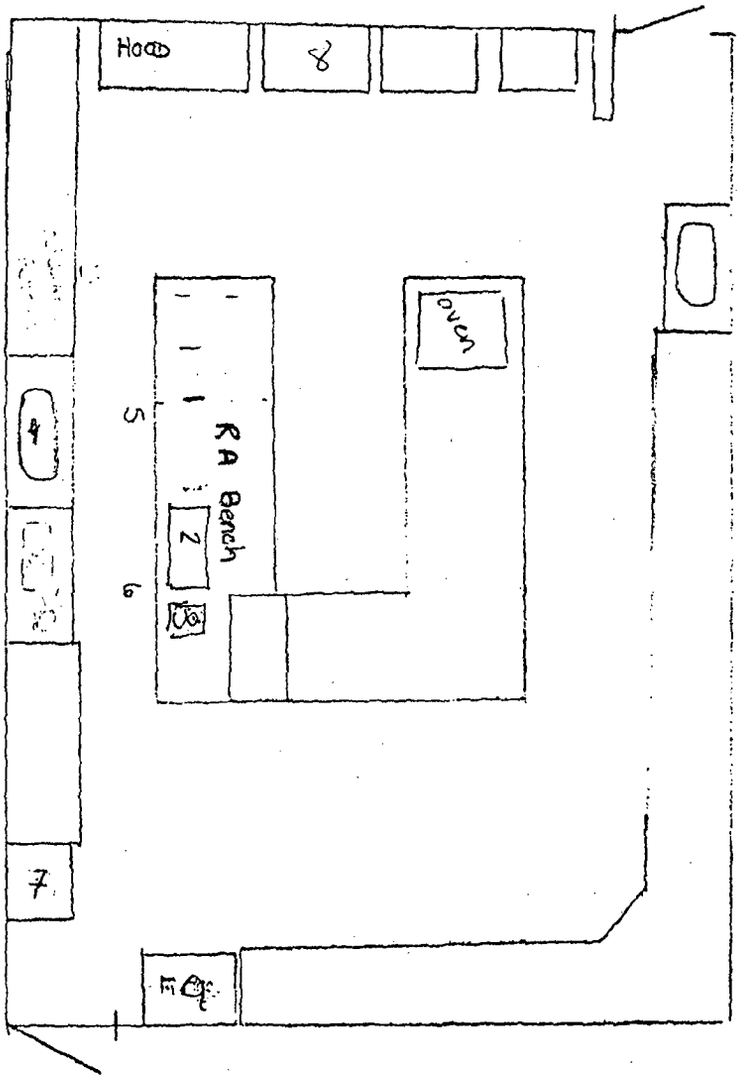
(b)(4)

(b)(4)

CELGENE CORPORATION
(WEST WING)

[redacted]

* As of 5/12/01 - Updated * Lab (b)(4) 3H



Swipe Sites

1 & 2: radioactive bench (right & left sides)

3: radioactive column set-up

4: sink

5: H_2O bath

6: hot plate

7: centrifuge (floor)

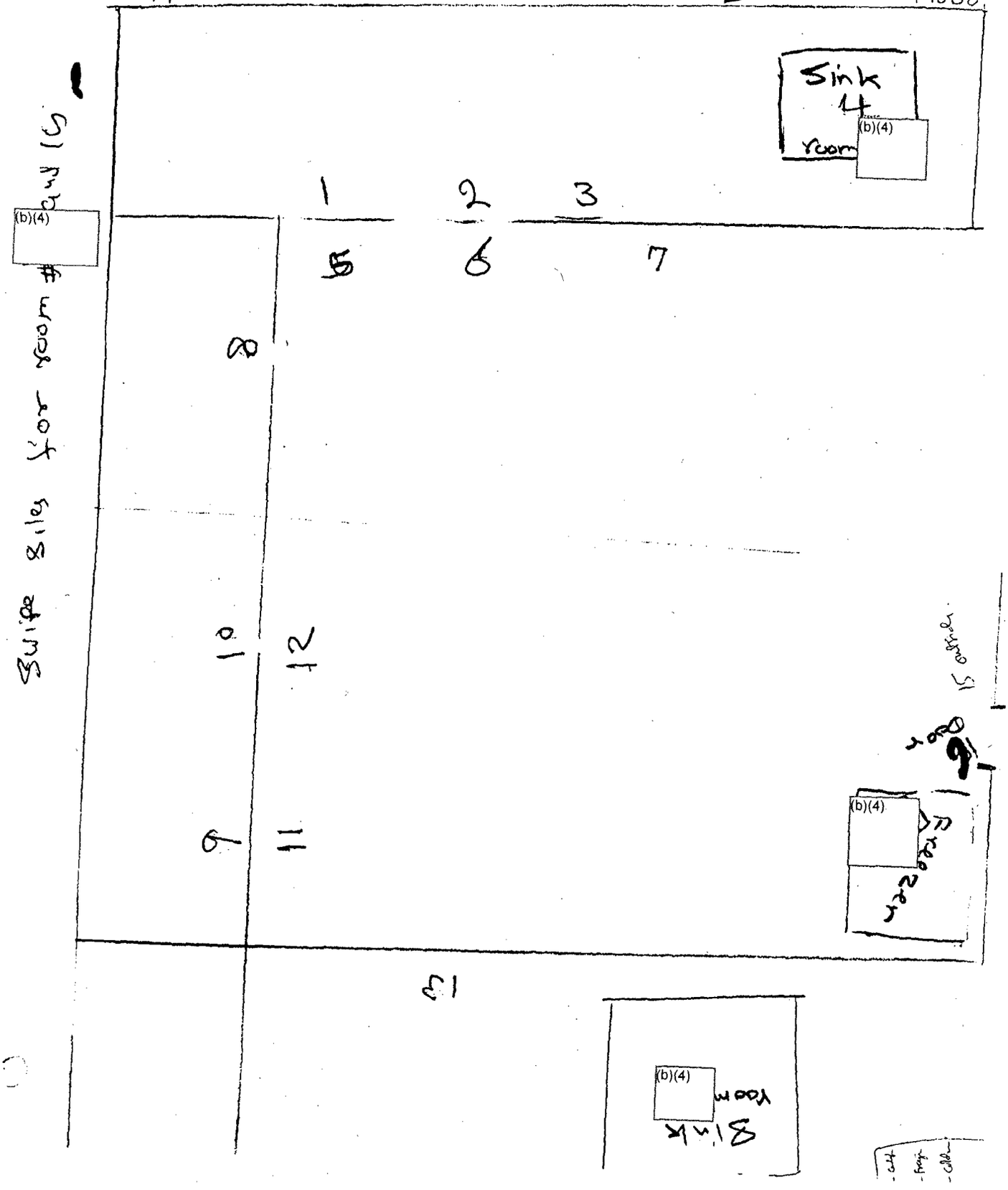
8: freezer

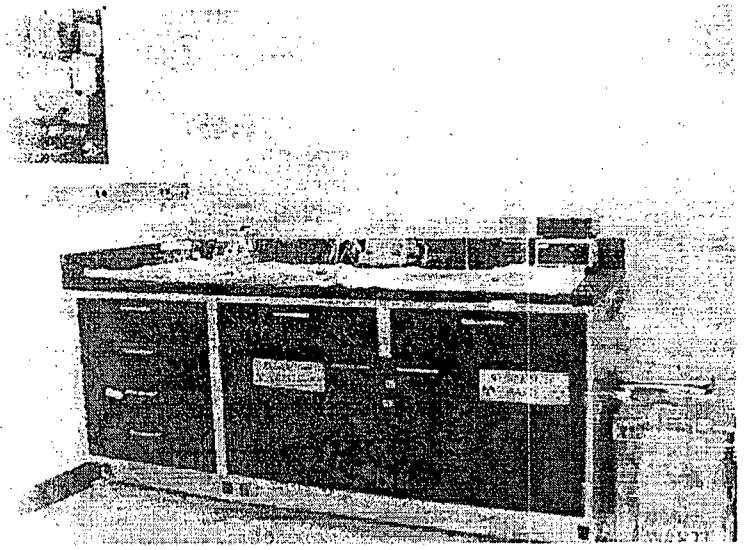
9: 2° radioactive bench

1. Bench (L) Side
2. Water Bath
3. Hot Plate
4. Sink
5. Flow (L) side
6. Floor (R) Side
7. Centrifuge
8. freezer
9. Refrigerator
10. Blank

#17 - Centrifuge in room (b)(4)
#18 - freezer door - in hallway closet
#19 - Cold room door knob.

20 pipette's - P20
2φ P200
22 P1000





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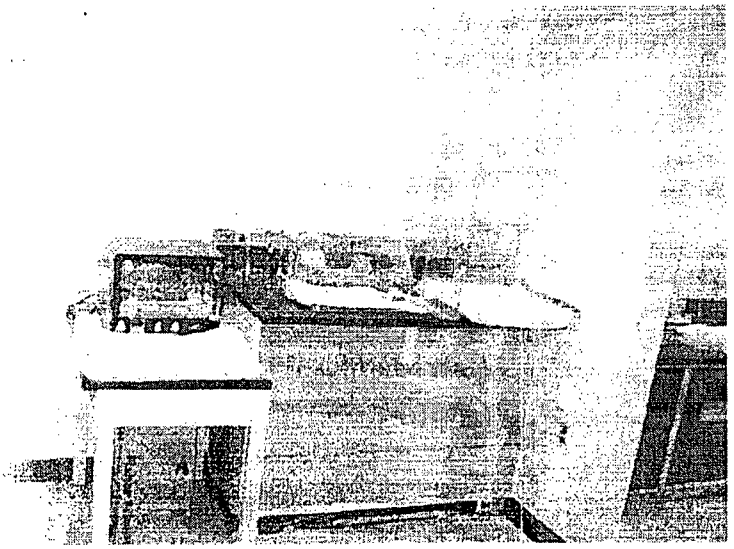

(b)(4)

GENERAL RULES FOR THE SAFE USE OF RADIOACTIVE MATERIALS

1. Laboratory coats and other protective clothing will beworn at all times in areas where radioactive materials are used.

2. Disposable gloves will be worn at all times while handling radioactive materials.

3. Hands and clothing will be monitored for contamination at the end of each working day.

4. There will be no eating, drinking, smoking or application of cosmetics in any area where radioactive material is stored or used.

1c. 5. Personnel monitoring devices (film badge or TLD) will be worn at all times while in areas where radioactive materials are used or stored. Finger dosimeters will be worn when using 1 mCi or more of any isotope.

6. Radioactive waste will be disposed of only in specifically designated receptacles.

7. There will be no pipetting by mouth.

8. Radioactive solutions will be confined in covered containers, plainly identified and labeled with name of compound, radionuclide, date, activity and radiation level, if applicable.

9. Work surfaces will be covered with absorbent paper where radioactive materials are being used.

10. Confine work with gaseous, volatile or dust-forming radioactive materials to fume hoods.

1d. 11. Review pertinent safety practices frequently, especially before using new radioactive compounds. When trying new or unfamiliar procedures, a dry run should be done without the use of isotope. The radiation safety officer should be present during these procedures.

12. Refrigerators containing radioactive materials will not be used for the storage of food or other consumable items.

13. The laboratory will be locked when personnel are not present.

14. Emergency notification home telephone numbers will be posted on the door.

1a. 15. Low density shielding (1/2" plexiglass) will be used when working with 1 mCi or more of ^{32}P.

1e. 16. Eye protection will be worn when using radioactive materials.

1b. 17. After each procedure involving 1 mCi or more, a radiation survey and wipe test will be mandatory (see also AREA SURVEY PROCEDURES part 1).

EMERGENCY PROCEDURES

Minor Spills

1. All persons in the area will be notified when a spill has occurred.

2. The spill will be covered with absorbent paper to prevent its spread.

3. Disposable gloves and remote handling tongs will be used to clean up the spill. The absorbent paper and pad will be carefully folded, inserted into a plastic bag and disposed of in the radioactive waste container. All other contaminated materials such as disposable gloves will also be inserted into the plastic bag.

4. The survey will be conducted using a low-range, GM survey meter. The area around the spill, hands and clothing will be checked for contamination.

5. The incident will be reported to the Radiation Safety Officer.

Major Spills

1. All persons not involved in the spill will be notified to vacate the room.

2. The spill will be covered with absorbent pads, but no attempt to clean it up will be made. The movement of all personnel potentially contaminated will be confined to prevent the spread.

3. If possible, the spill will be shielded, but only if it can be done without further contamination or without significantly increasing one's radiation exposure.

4. The room will be vacated, and the door locked to prevent entry.

5. The radiation safety officer will be notified immediately.

6. Contaminated clothing will be removed and stored for further evaluation by the radiation safety officer. If the spill is on the skin, the area will be flushed thoroughly and washed with mild soap and lukewarm water.

AREA SURVEY PROCEDURES

The following area survey procedures will be conducted by the authorized user, or his designee, in each area where radioactive material is used or stored:

1. Preparation and work areas, when in use, will be surveyed on a daily basis with a low range GM survey meter or appropriate detection instrument (e.g., scintillation counter) and decontaminated if necessary.

   In those cases where an experiment lasts longer than one regular working day, the work area will be monitored and, if necessary, decontaminated at the end of the experiment.

   During those times when the work area is left unattended, the area will be shielded and appropriately posted as to the radiation hazard.

2. All other laboratory areas will be surveyed monthly.

3. The monthly survey will consist of:

   a. A measurement of radiation levels with a survey meter sufficiently sensitive to detect 0.1 mRem per hour.

   b. A series of wipe tests to measure contamination levels. The method for performing wipe tests will be sufficiently sensitive to detect 2000 dpm per sq. cm. for the contamination involved.

4. A permanent record will be kept of all survey results, including negative results. The record will include:

   a. Location, date and type of equipment used.

   b. Name of person conducting the survey.

   c. A drawing of the area surveyed identifying relevant features such as active storage areas, active waste areas, etc.

   d. Measured exposure rates, keyed to location on the drawing (point out rates that require corrective action).

   e. Detected contamination levels, keyed to locations on drawing.

   f. Corrective action taken in the case of contamination or excessive exposure rates, reduced contamination levels or exposure rates after corrective action or any appropriate comments.

5. The area will be cleaned if the contamination level exceeds 2000 dpm per sq. cm..