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UNIVERSITY OF THE DISTRICT OF COLUMBIA
College of Arts and Sciences

Department of Chemistry and Physics
4200 Connecticut Avenue, N.W.
Washington, D.C. 20008

Telephone: (202) 274-7408
Fax No.: (202) 274-6043

April 21, 2005

MS16
K-4

Mr. Steven Courtemanche
Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety
Nuclear Regulatory Commission
475 Allendale Road
Region 1, Mail Control No. 136009
King of Prussia, Penn. 19406-1415

License No. 08-16631-02
Docket No. 030-19607
Control No 136009

Dear Mr. Courtemanche:

This is in reference to your letter dated February 7, 2005 requesting information on the renewal of License No. 08-16631-02. The information you request is as follows:

1. The facsimile number for Mr. Chares Ester (RSO) is 202/274-6043, and the e-mail address is CEster@udc.edu.

2. Iodine – 125 labeled compounds were never used. We request that this item be removed from the license.

3. Dr. Norman Kondo is to be removed from the license. Drs. Carolyn Cousin and Freddie Mae Dixon will be authorized users. (See Attachment #1)

4. Records of Dr. Deepak Kumar's Radiation Safety Training at Georgetown University are enclosed. (See Attachment #2)

5. Laboratory technicians and anyone working under the supervision of an authorized user are required to attend and successfully complete a formal training session conducted at places such as NIH or elsewhere. There will be no undergraduate students working with radioactive materials.

136009

NMSS/RGN1 MATERIALS-002

6. We have corrected the typographical error to read: NUREG 1556 in item 10, Radiation Monitoring Instruments, Occupational Dose, and Section 11, Waste Disposal.

7. Materials with a half-life less than or equal to 120 days, including ^{32}P and ^{35}S, are appropriate for Decay in Storage (DIS). This procedure (DIS) will be followed in this laboratory:
    - Waste will be separated and stored in a suitable well-molded container with adequate shielding (Plexiglas).
    - When full, it will be sealed and labeled.
    - Liquid and solid waste will be separated.
    - All radiation labels will be defaced or removed from containers and packages prior to disposal.
    - When materials are held for decay, a written record will be maintained which shows the initial activity, isotope, initial date, final date, the results of monitoring the material, for residual activity, ultimate fate of the material, and the person performing the tests and disposal.

If additional information is needed, please contact Mr. Charles Ester, 202/274-7408.

Sincerely,

Wilhelmina Reuben-Cooke, Provost
and Vice President of Academic Affairs

Cc: Mr. Charles Ester, RSO
Dr. Isadora J. Posey, Chair
Radiation Safety Committee

ATTACHMENT #1

5. Radioactive material

Unsealed:

Radionuclides	1. Phosphorus, ^{32}P
	2. Sulfur, ^{35}S
Physical form:	Aqueous liquid for both ^{32}P and ^{35}S

Maximum possession limit: 500 micro curies for each.

6. Purpose for which licensed material will be used.

1. ^{32}P will be used for Northern and Southern blotting and labeling of olignucleotides for other analyses.

2. ^{35}S will be used for DNA sequencing.

Authorized Users:

Carolyn Cousin, Ph.D.
Formal Training: Attended, completed and passed Fundamentals Health course.
Experience: 1972 - Techniques in the use of Radioisotopes, NIH, Bethesda, Md.

Use of Radiation Techniques in the Study of Parasitic Infection of Man at Uniformed Services University, Bethesda, MD (3 week course).

1991 – Biomedical Research Institute, Rockville, Md. (1 Year)

Used ^{3}H and ^{14}C – at the University of the District. (10 years)

Freddie Dixon, Ph.D.
Formal Training: Effect of Ionizing and Deionizing Radiation, Uniformed Services University, Bethesda, Md. (Course)

1996 to Present – Trained in the use of isotopes in the Candida Research Laboratory at Georgetown University Medical School, Department of Microbiology and Immunology.

8. Laboratory technicians and anyone working under the supervision of an authorized user are required to attend and successfully complete a formal training session conducted at places such as NIH. There will be no undergraduate students working with radioactive materials.

9. Facilities and Equipment:

   This is the same as the diagram that was provided for Dr. Kumar since he shares this laboratory.

10. Radiation Safety Program:

    Radiation Monitoring Instruments. Each user will wear a film badge or a ring badge which will be exchanged on a monthly basis. Survey meters will be calibrated every six months by the Radiation Service Organization (RSO) and will be used before, during and after each experiment.

ATTACHMENT #2

Georgetown University

Office of Environmental Health and Safety

Room LM12 Preclinical Science
3900 Reservoir Road, N.W.
Washington, D.C. 20057-1431

Radiation Safety
(202) 687-4712
fax (202) 687-5046

To: Whom It May Concern

From: Catalina E. Kovats, M.S.
Radiation Safety Officer

Subject: Deepak Kumar, Ph.D.
Record of Radiation Safety Training

Date: March 1, 2005

This is to verify that the individual named above has attended the following Georgetown University training sessions in order to maintain approval to work with radioactive materials:

Date	Class Title	Class hours
November 12, 1997	Basic Radiation Safety	4.0
November 12, 1997	GU RAM Worker	4.0
October 14, 1998	Annual Refresher	1.5
October 13, 1999	Annual Refresher	1.5
August 16, 2000	Annual Refresher	1.5
August 14, 2001	Annual Refresher	1.5
June 12, 2002	Annual Refresher	1.5

Attached is the outline of topics which are reviewed at each training. If you should have any questions regarding this matter, please contact me at (202) 687-4712.

Georgetown University

Basic Radiation Safety

SCHEDULE

8:00 a.m.		Registration and Orientation
8:10		Natural and Man-made Radiation
8:25		Atomic Structure and Radioactivity
8:35		Radiation Related Terminology and Units
8:45		Atomic Nomenclature and Types of Radiation
9:10		Video: Working Safely with Radioactive (Amersham)
9:25		Biological Effects and Radiation Risk
9:50		External and Internal Exposure
10:05		ALARA
10:10		Regulatory Requirements: Title 10 CFR Parts 19 and 20
10:25		Dose Limits, Internal and External Dosimetry
10:35		Radiation Detection and Monitoring
10:45		Radionuclide Information (C, H, I, P, P, S)
10:55		Video: Radionuclide Hazards (Howard Hughes)
11:05		General Laboratory Safety and Emergency Response
11:20		Written Test
12:00		Adjourn

Georgetown University

GU RAM Worker

SCHEDULE

1:00 p.m.	✇	Radiation Detection Instruments
1:15	✇	Radiation Detection Instruments - Hands On Demonstration
1:45	☛	Exposure and Contamination Control: Lab and Personal Surveys
2:30	▶	Video: The Key to Contamination Detection
2:45	☺	Break
3:00	✪	Georgetown University Radiation Safety Program
3:20	✇	Radioactive Waste Disposal
3:30	▶	Video: Emergency Procedures (University of Indiana)
3:40	☛	Laboratory Safety and Emergency Response
3:55	☛	Radiation Safety Office Compliance Inspections
4:00	☺	Adjourn

Georgetown University

Radiation Safety Refresher Training

SCHEDULE

Topics covered during the annual training:

- Training Requirements
- Management Structure and Statement of Authority
- NRC License and Inspection Results
- Authorizations to Use Radioactive Materials
- Checklist for Laboratory Space Change
- NRC Safeguards Advisory - RAM Security
- RAM Purchasing
- RAM Receipt Surveys & Incidents
- RAM Shipping & Incidents
- AU Quarterly Inventory Reports & Followup
- Laboratory RAM Security Incidents
- Radiation Dose Limits & Dosimetry Management
- ALARA Program
- Laboratory Survey Techniques & Requirements
- Personnel Contamination Monitoring
- RSO Laboratory Inspection Requirements & Followup
- Emergency Procedures
- Radioactive Waste Program
- Research Irradiator Procedures