MOUNT SINAI

DANIEL A. KANE President

June 19, 1984

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Dr. William Adam U.S. Nuclear Regulatory Commission Material Licensing 799 Roosevelt Road Glen Ellyn, Illinois 60137

Re: License No. 48-03280-01

Dear Dr. Adam:

It is requested that the Mount Sinai Medical Center NRC license be amended to reflect the following changes:

- Authorize Mr. Robert E. Black, M.S., as the Radiation Safety Officer for Mount Sinai Medical Center. Mr. Black's training is summarized on the enclosed Form NRC-313M-Supplement A; his clinical experience is described on the attachment to that form.
- 2. Under item 8, maximum amount that licensee may posses at any one time under this license. Increase sub-items Q, S, and T to 15 millicuries.
- 3. Authorize Mount Sinai Medical Center to elect the options of disposing of experimental animal carcasses containing Xe-133, and Cr-51, Ce-141, Ru-103, and Nb-95 in the form of microspheres by holding the carcasses in a restricted area for a minimum of ten half-lives and then incinerating them as unradioactive waste, or by commercial disposal by ADCO, Inc., or by incineration while radioactive with general institutional waste in a heat recovery incinerator. A description of the methods proposed and concentration calculations are attached.
- 4. Authorize Mount Sinai Medical Center to elect the option of disposing of solid lab waste containing trace amounts of tritium and C-14 by the present method of commercial disposal through ADCO, Inc. or by incinerating the waste with other institutional waste in a heat recovery incinerator. Additional information and calculations are attached.

Enclosed is a check for \$40.00 payable to the Nuclear Regulatory Commission to cover the cost of the amendment. Thank you for your prompt attention to this matter.

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Enclosures

Sincerely. Daniel

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950 North Twelfth Street, P.O. Box 342 . Milwaukee, Wisconsin 53201 . 414/289-80 REGION III

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Postmarked 6/20/84 JUN 22 1994

The University of Wisconsin Medical School • The Medical College of Wisconsin • Marquette University School of Dentistry

| FORM NRC (8-78) | AUTHOR | TI ZED US | RAINING AND EXPERIE | U.S. NUCLI NCC FETY OFFICER | EAR REGULATO | RY COMMISSIO |
|---|---------------------|--------------|--|--|--|--|
| 1. NAME OF AUTHORIZED USER OR RADIATIO | | | ON SAFETY OFFICER | | 2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE | |
| | 0 21 0100kg 1110 | | 3. CERTIFICATION | | L | |
| | SPECIALTY BOARD | | CATEGORY | | MONTH AND YEAR CERTIFIED | |
| | - | | - | | - | |
| | 4. TRAININ | G RECEIV | ED IN BASIC RADIOISOTO | PE HANDLING TE | CHNIQUES | |
| i ser en | | | | | TYPE AND LENGTH OF TRAINING | |
| FIELD OF TRAINING | | | LOCATION AND DATE (S) OF TRAINING | | LECTURE/ LABORATOHY COURSES (Hours) C | SUPERVISED LABORATORY EXPERIENCE (Hours) D |
| e. RAI | DIATION PHYSICS AND | | Manchester College Ind.; Vanderbilt U Tenn.; Oak Ridge N | e, N. Manche J, Nashville National Lab | ster 144 , 234 s. | 160 |
| 6. RADIATION PROTECTION | | | Vanderbilt U, Nash Oak Ridge National | . 64 | 160 | |
| c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY | | | Manchester College Ind.; Wayne State Oak Ridge Nationa | ster 192 , Mi. 96 | 40 | |
| d. RADIATION BIOLOGY | | | Vanderbilt U, Nashville, Tenn Oak Ridge National Labs | | . 8 | 40 |
| *. RADIOPHARMACEUTICAL CHEMISTRY | | | | | 0 | .0 |
| | 5. EXPERIENC | E WITH R | ADIATION. (Actual use of Ru | dioisotopes or Equ | livalent Experienc | e) |
| ISOTOPE | MAXIMUM AMOUNT | WHER | E EXPERIENCE WAS GAINED | DURATION OF E | XPERIENCE | TYPE OF USE |
| | | See A | ttachment | | | |

(8-78)

Page 5

Robert E. Black Attachment.to NRC 313M - Supplement A

| RADIONUCLIDE | AMOUNT | CLINICAL EXPERIENCE AT MOUNT SINAI MEDICAL CENTER (UNLESS OTHERWISE NOTED) | DURATION |
|--|------------|---|----------|
| Weak beta emitters: S ³⁵ , H ³ , C ¹⁴ | 0.5-16mCi | Performed wipe tests, surveys and waste processing in medical research laboratories. Shipped material to another institution. | |
| Gamma emitters:Cr ⁵¹ | 0-10mCi | Processed laboratory waste, performed wipe tests. | 6 mo. |
| Mo ⁹⁹ -Tc ^{99m} | 5-16 Ci | *Generator studies: performed five, including radiation surveys during elution and dose preparation, observation of assay, making breakthrough measurement, and obser- vation of cleanup and wipe tests after procedure. | 6 weeks |
| Tc ^{99m} | 4 - 25 mC1 | Nuclear Medicine tests: observed and performed radiation surveys during 12 - cardiac scans, 4 - bone scans, one each scan of brain, renal system, testicles and liver (using sulfur colloid). Observed dose preparation and calibration. | 6 mo. |
| | | Performed wipe tests in Nuclear Medicine lab and hot lab. Measured air-flow rates. | 1 mo. |
| | 1-500 mCi | Performed linearity checks of dose calibrators and test for geometrical variation. | 3 mo. |
| Xe ¹³³ | 10-16mCi | Nuclear Medicine Tests: observed and performed radiation survey of three lung scans. | 2 mo. |
| | 2000 mCi | Radiation survey and observation of set-up and operation of xenon-in-saline dose preparation station; initiated improvements of station and its shielding. | 2 mo. |
| Radioiodine: I-123 | .46 mCi | Nuclear Medicine thyroid imaging test (one): observed and performed radiation survey. | 1 day |
| I-125 | Trace | Performed bioassay scans on technologists. | 2 wks. |
| I-131 | 2mCi | Nuclear Medicine thyroid imaging tests (two): observed and performed radiation survey. | 1 mo. |
| | 3mCi | **Radioiodination procedures (two): observed, made radiation surveys, helped with wipe tests and decontami- nation, and observed air sampling techniques. | 5 Wks. |
| 1-131 | 3-23mCi | Treatment of hyperthyroidism: seven cases. Performed radiation surveys during physician's treatment and consultation. In six cases, the medication was in capsule form. In the seventh, the patient drank a solution containing I-131. Estimated the amount of I-131 retained in mouth and the amount swallowed. Directed decontamination of Nuclear Medicine Technologist after procedure and performed survey. | 3 mo. |

Attachment to NRC 313M - Supplement A Page Two

| RADIONUCLIDE | AMOUNT | CLINICAL EXPERIENCE AT MOUNT SINAI MEDICAL CENTER (UNLESS OTHERWISE NOTED) | DURATION |
|--------------|-------------|---|----------|
| I-131 | 100-150 mCi | *** Thyroid tissue ablation: participated in five cases. Performed radiation surveys, calculated body burdens, assisted in decontamination of rooms, and made final surveys of cleaned rooms. Discussed home radiation safety precautions with patients. | 5 mo. |
| Cs-137 | 25-50mCi | Made test exposures of film badges to evaluate reliability of supplier's results. | 5 mo. |
| | 25-938mCi | Performed wipe tests of sealed brachytherapy sources; made radiation surveys of storage room. | 4 mo. |
| | 2800 Ci | Performed wipe test of Gammacell irradiation unit; made radiation surveys around unit. | 6 mo. |
| | | * Performed at Nuclear Pharmacy, Inc., 933 N. Mayfair Road, Wauwatosa, Wisconsin, under the supervision of Mr. James Pancy, R.Ph., Manager | |
| | | ** Performed at the Medical College of Wisconsin, 8701 Watertown Plank Koad, Wauwatosa, Wisconsin, under the supervision of Robert Yoss, Radiation Safety Technologist, and Dr. Robert Hussa, Ph.D. | |
| | | <pre>***Two studies were performed at the Milwaukee County Medical Complex, 8700 W. Wisconsin Avenue, Wauwatosa, Wisconsin, under the supervision of Dr. Charles Wilson, Ph.D., Radiation Safety Officer, and Robert Yoss, Radiation Safety Technologist. Three cases were at Mount Sinai Medical Center.</pre> | |
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