DRAFT INSPECTION REPORT FORM

1. Name and Address of Licensee

Veterans Administration Hospital
Wilshire and Sawtelle Blvd.
Los Angeles, California 90073

2. Date of Inspection 12/3/74

3. Type of Inspection Announced Reinspection

4. License Number(s), Docket Number(s), Number and Date of Last Amendment for Each License - Category and Priority of Each Licensee

04-00181-04, Amendment No. 62, February 6, 1974, (G(1), II

5. Date of Previous Inspection September 28, 1973

6. Proprietary Information Instrumentation Quality Control Procedures

7. Scope of Inspection if Other than Routine Routine

8. Participants (Licensee Representatives & Titles, State Representatives, etc.)

L. W. Wetterean, RSO, Physicist
W. H. Blahd, M.D., Chief, Nuclear Medicine Service

9. Management Interview (Information Required for N/C Cases)

L. W. Wetterean, RSO, Physicist
W. H. Blahd, M.D., Chief, Nuclear Medicine Service

10. Action and Date: Letter to Licensee

AEC-591 Clear December 3, 1974

AEC-591 N/C

11. Recommend Reinspection Date 6-3-76

12. H. S. North, Radiation Specialist
Inspector(s)

Date of Report

F. A. Wenslawski, Radiation Specialist

Reviewer

Date of Review

Herbert E. Book, Chief
Radiological & Environmental
Protection Branch

Attachment to Section 1010

Veterans Administration Hospital
Los Angeles, California 90073

License No. 04-00181-04

13. Inspection Summary

The licensee's program continues substantially as described in previous inspection notes. Since the last inspection, the licensee has ceased the use of generators and is now purchasing technetium-99m at a rate of approximately 2 curies per week from Mediphysics. The licensee is continuing the on-going training program in the use of radioactive materials. The licensee has established a quality control program covering all instrumentation. The program provides for daily, weekly and monthly tests and for maintenance of records of the tests. Quality control procedures are contained in a manual, a copy of which was provided to the inspector. The licensee has requested that this manual be considered to be Confidential, not for release.

The inspection disclosed no items of noncompliance or health and safety significance. A Form AEC-591 was issued at the conclusion of the inspection reflecting these findings.

14. Summary of Licensed Program

The licensee is engaged in the practice of nuclear medicine and in addition in the training of professional and technical level personnel

and performing research in the areas of medical specialties. The clinical nuclear medicine staff consists of one staff physician, one clinical radiobiochemist, one biologist, four nuclear medicine technologists, and one nuclear medicine technology trainee. The Nuclear Medicine Training Section consists of the head of the training program, a biologist instructor, three physicians in training in the field of nuclear medicine, four technologists and two or three pharmacists training in the field of radiopharmacy during the summer months for a period of approximately six weeks. The licensee's research use of radioactive materials involves principally small quantities of carbon, tritium, iodine, mercury and indium, and work is performed in the following laboratories: Arteriosclerosis, Cardiology, C-14 Lab., Metabolic Laboratory, Dermatology, Cerebral Circulation, Gastroenterology, Neurobiochemistry, Renal Laboratory, and Endocrinology. The licensee badges a total of 76 individuals as the result of possible contacts with licensed materials. An inventory of the licensed material possessed at the time of the inspection is attached to these notes as Appendix A. On the basis of discussions with the licensee, an examination of records and a tour of facilities it appeared that materials were possessed and used as authorized by the license.

15. Organization and Administration

The Acting Hospital Director is Mr. Joseph Bermingham. Reporting to him as Chief of Staff is Ed Wright, M.D. Reporting to Dr. Wright

is Dr. William Blahd, Chief, Nuclear Medicine Service, who is assisted by Dr. M. Winston, the Assistant Chief. Mr. Wettereau is the licensee's RSO and acts as Dr. Blahd's Administrative Officer. Mr. Wettereau is also an active participant in the licensee's training program, both in the Nuclear Medicine Training Section and the Radioisotopes Training Course. Mr. Bennett assists Mr. Wettereau one day per week. Reporting to Dr. Blahd is the Nuclear Medicine Training Section headed by Dr. Gambino, a biologist, who is in charge of the Nuclear Medicine Training Program which presently includes three physicians and four nuclear medicine technologists and during the summer two to three radiopharmacists in a six-week intern service. Also reporting to Dr. Blahd is the Clinical Section which normally includes one staff physician, presently Dr. G. T. Krishnamurthy who is presently assisted by Dr. J. Pritchard. The staff also includes one clinical radiobiochemist, Dr. Tubis, one biologist in the field of radioimmunoassay, four nuclear medicine technologists and one nuclear medicine technology trainee. The Wadsworth Hospital Research Services is headed by Dr. Guze. Research use of licensed materials is shown in the following list which identifies the laboratory's responsible user of the isotopes used.

Laobractry	Responsible User	Licensed Material
Arteriosclerosis Lab.	Dr. Dayton	Tritium, C-14
Cardiology	Dr. Rollet	Tritium

C-14 Lab.	Dr. M. Schotz	Tritium (lipid research)
Metabolic Lab.	Dr. S. Lavin	C-14, I-125
Dermatology	Dr. Wright (Chief of Staff)	Hg-203
Cerebral Circulation	Dr. Oldendorf	Tritium, C-14 In-113M
Gastroenterology	Dr. Morton Grossman	I-125, Tritium, C-14
Neurobiochemistry	Dr. Euyler	Tritium, C-14, I-125
Renal Lab.	Dr. Coleman	Ca-45
Endocrinology	Dr. Hirshman	I-125 & 131

Condition 12A of the license specifies that materials shall be used by individuals authorized by the licensee's Radioisotope Committee, Dr. W. Blahd, Chairman. Appendix B, a memorandum dated May 1, 1973, identifies the licensee's Radioisotope Committee and the various individuals serving on that Committee. Individual positions and researchers are authorized to use materials only when they have satisfied the Committee of their qualifications. For individuals who have no experience using licensed materials or have not had recent experience a radioisotope training course is provided on a continuing basis. A copy of the radioisotope training course schedule is attached as Appendix C. The licensee institution is also a participant with UCLA in a physician training program and as such has high standards for technician and physician training.

16. Facilities

During the inspection the inspector toured the following facilities and noted the items reported for each facility:

Building 114

Hot Lab

Record of receipt of RAM maintained identifies supplier, chemical form, total volume, assay date, special account, total account and consigne clear Chicago, Mediac, dose calibrator and Baird 530A Sing.e Channel well scintillation counter available. Access controlled by lock and key.

RSO's Lab-Office

NMC, PC-3A proportional, TEW-GM and Nuclear-Chicago 3" auto gamma well counters available. Portable instruments include Nuclear Chicago, Ion Chamber, TEW-GM and T/A BUG-1A.

Building 115

Radio Immunio Assay (RIA) Lab

Mr. R. Huebotter, Biologist in charge

R. Taylor, M.D., Resident in Nuclear Medicine

Monthly performed, approximately the following number of tests:

Australia Hepatitis Antigen - 60

B-12 (Co^{57}) - 120

Serum Folate (H^3) - 100

Digoxin (I^{125}) - 500

T-3, T-4 - 300

Bukman 310, 300 sample, 3 channel gamma spectrometer

Packard Tri Carb. 332 Liquid Scintillation, 3 channel

Room 28

Cerebral Circulation Studies by Dr. Oldendorf, L. Braun, Shigo Hyman, using rats and rabbits and In^{113m} H^{-3} and C^{14}. Carry out liquid scintillation counting of liquid samples. Packard Tri Carb., L.S. and Baird Atomic gamma well, Model 708.

Building 213

Nuclear Medicine Clinic

R. Cullison, Acting Technologist Supervisor

Instrumentation available:

Nuclear Chicago, Pho Gamma, H.P.

Nuclear Chicago, Clincom

Nuclear Chicago, Model 8725, 2" single channel gamma analyzer for uptakes

Nuclear Chicago, 5" Crystal, Pho Dot V, Scanner

Picker Nuclear, Magna Scanner 500 (3" crystal)

Lab 20

Used for XE^{133} lung perfusion tests

Mediphysics device

Nuclear Chicago, Mediac dose calibrator

Nuclear Chicago, single channel, 2 crystal TOBOR

Records of receipt and use of RAM maintained.

Color coding of individual dose units (syringes) to identify isotope and quantity.

Old Wadsworth Hospital Site

AF-10 Out Patient Clinic

Mr. K. Forrest, Registered Technician

Nuclear Chicago Pho Gamma III

Volemetron, blood volume device

Picker Nuclear, Magna Scanner 500

Nuclear Chicago, single channel, 1" crystal used for uptakes

Mediac dose calibrator (individual patient doses prepared and calibrated in Building 213 and sent to the Out Patient Clinic as required, where doses are recalibrated).

Color tagged of doses is used.

Access to all facilities is controlled by personnel during normal working hours and lock and key at night. The housekeeping staff has been advised of the presence of RAM's and instructed in their duties.

17. Equipment

See item No. 16

18. Radiological Safety Procedures

The licensee has developed a Procedures Manual, May 1974 (Appendix D) and Q.C. procedures for counting instrument (Appendix E) both of which are considered Proprietary. The procedures were developed in response to an AMA requirement for hospital certification. Copies of the licensee's procedures, license application and the regulations are available.

Forms AEC-3 are posted as required.

19. Personnel Monitoring - External Radiation

Monthly film badges and TLD finger rings used by technicians are supplied by Radiation Detection Company. A total of 76 badges and 17 rings are currently used.

To assure a review of exposure data the RSO personally transfers the Radiation Detection Company exposure data to individual AEC-4 forms.

Exposure data for the period 3rd quarter 1973 to end of October 1974 was examined. The high exposures during this period were as follows:

Monthly - Film	-	280 mrem
Film Annual (1973)	-	800 mrem
Monthly - Ring		1010 mrem
Ring Annual (1973)	-	3070 mrem

Annual average whole body exposure ~~0~~ ~150 mrem .

20. Exposure to Airborne RAM

Not applicable.

21. Effluents to Unrestricted Area

Not applicable.

22. Disposals

The licensee disposes of liquid and solid waste by transfer to W. H. Hutchinson and Sons (Cal Salvage). Since the last inspection a total of five disposals totaling 68, 55 gal. drums and 291.3 millicuries of activity have been made. Records of disposals are maintained.

23. Miscellaneous Surveys, Evaluations and Records

Routine area surveys are performed monthly of approximately 35 laboratories by the RSO or his assistant. Surveys consist of dose rate evaluation with occasional smears. The RSO relies on individuals in labs to notify him of spills or occurrences of more than minor significance. When smearable activity is identified, cleanup and resmear to no significant activity levels is required. Records were examined. Most surveys disclosed background level dose rates up to a maximum of 1.5 mr/hr. Most in the region of 0.1 to 0.3 mr/hr or less.

Leak test records of the following sealed sources were examined and found to be timely and at background levels:

RA-1-Sr^{90} medical applicator

R-30-Co^{60}

I-125 Bone Mineral Analyzer

24. Special License Condition

Condition 18 requires bioassay for H^3 when quantities greater than 100 mCi are handled. No such use was identified.

25. Posting and Labeling

Posting and labeling were observed during the tours of facilities. No discrepancies with regulatory requirements were identified.

26. Independent Measurements

None

27. Operations Observed

Patient counting in clinic.

28. Incidents, Overexposures, Theft or Loss, Equipment Malfunction

The licensee maintains a log of unusual occurrences (Radiation Safety Non Routine Radsafety Surveys) which was examined.

The following items were identified. All items were described in full and corrective actions reported.

11/30/73 Disconnected I.V. drip tube, 3 mCi Tc^{99m} MAA, spill - decontaminated.

11/18/74 Receipt of damaged RISA shipment. 10, 5 uCiI^{131} syringes, resulting from the TWA crash of 1/16/74, reported to H. North at IE:V, later 10 more syringes received. All disposed as radioactive waste.

3/13/74 Patient contaminated with 500 uCi of In^{113m} DTPA. Patient decontaminated.

10/11/74 Xe^{133}-Saline solution spill, 16.8 mCi lost. Airborne concentration calculated as 2.24×10^{-4} uCi/cc assuming all released at once.

The ventilating fan was running which served to reduce the airborne concentration. Initial concentration was greater than 500 times the Appendix B Table II limit for 24 hours but with fan running the 24-hour air concentration was less than Appendix B Table II value. The release was not detectable on film badges or with a Cutie Pie.

11/5/74 Four 2 uCi, Ca^{47} syringes were lost in transit (fell out of the container). The syringes were recovered intact. No exposure resulted.

29. Other Information or Continuation from Previous Paragraphs

Not applicable