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Form AEC-591
(11/3/66)

UNITED STATES ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE

INSPECTION FINDINGS AND LICENSEE ACKNOWLEDGMENT

1. LICENSEE	2. REGIONAL OFFICE
Veterans Administration Center Wadsworth Hospital Wilshire & Sawtelle Boulevards Los Angeles, California 90073	Region V, Division of Compliance U. S. Atomic Energy Commission 2111 Bancroft Way Berkeley, California 94704
3. LICENSE NUMBER(S)	**4. DATE OF INSPECTION**
4-181-4	May 23, 1967

5. INSPECTION FINDINGS

☒ A. No item of noncompliance was found.

☐ B. Rooms or areas were not properly posted to indicate the presence of a RADIATION AREA. 10 CFR 20.203(b) or 34.42

☐ C. Rooms or areas were not properly posted to indicate the presence of a HIGH RADIATION AREA. 10 CFR 20.203(c) (1) or 34.42

☐ D. Rooms or areas were not properly posted to indicate the presence of an AIRBORNE RADIOACTIVITY AREA. 10 CFR 20.203(d)

☐ E. Rooms or areas were not properly posted to indicate the presence of RADIOACTIVE MATERIAL. 10 CFR 20.203(e)

☐ F. Containers were not properly labeled to indicate the presence of RADIOACTIVE MATERIAL. 10 CFR 20.203(f) (1) or (f) (2)

☐ G. A current copy of 10 CFR 20, a copy of the license, or a copy of the operating procedures was not properly posted or made available. 10 CFR 20.206(b)

☐ H. Form AEC-3 was not properly posted. 10 CFR 20.206(c)

☐ I. Records of the radiation exposure of individuals were not properly maintained. 10 CFR 20.401(a) or 34.33(b)

☐ J. Records of surveys or disposals were not properly maintained. 10 CFR 20.401(b) or 34.43(d)

☐ K. Records of receipt, transfer, disposal, export or inventory of licensed material were not properly maintained. 10 CFR 30.51, 40.61 or 70.51

☐ L. Records of leak tests were not maintained as prescribed in your license, or 10 CFR 34.25(c)

☐ M. Records of inventories were not maintained. 10 CFR 34.26

☐ N. Utilization logs were not maintained. 10 CFR 34.27

(AEC Compliance Inspector)

6. LICENSEE'S ACKNOWLEDGMENT

The AEC Compliance Inspector has explained and I understand the items of noncompliance listed above. The items of noncompliance will be corrected within the next 30 days.

(Date) (Licensee Representative — Title or Position)

COPIES: ☐ LICENSEE ☒ COMPLIANCE REGION ☐ DIV. OF ST. & LIC. REL. ☐ DIV. OF COMPLIANCE

DRAFT
[redacted]/Metzger:vj
5/31/67

Veterans Administration Center
Wadsworth Hospital
Los Angeles, California
License No. 4-181-4 (Broad, Research, Diagnosis, Therapy)

General

1. An announced reinspection of the subject licensed program was conducted on May 23, 1967 by H. S. North and J. R. Metzger, Inspectors, Region V, Division of Compliance. Mr. L. W. Wettereau, Radiation Protection Officer, represented the licensee during the entire inspection. Dr. W. H. Blahd was interviewed briefly at the beginning of the inspection and at the exit interview. There was no accompaniment by personnel from the State of California.

2. At the exit interview held with Dr. Blahd and Mr. Wettereau, inspection findings were discussed. A form AEC-591 was issued with no items of non-compliance noted.

Persons Contacted

3. Discussions were held with:

Mr. L. W. Wettereau, Radiation Safety Officer and Health Physicist. His responsibilities include control of receipt of radioactive material, radioactive waste disposal, use of isotopes, and radiation safety training.

Dr. W. H. Blahd, M.D., Chief of Radioisotope Services and Radioisotope Research Services. Among his responsibilities are supervision of administering isotopes for human use and chairman of the Radioisotopes Committee.

Dr. A. Yuwiler, head of the Neurobiochemistry research section.

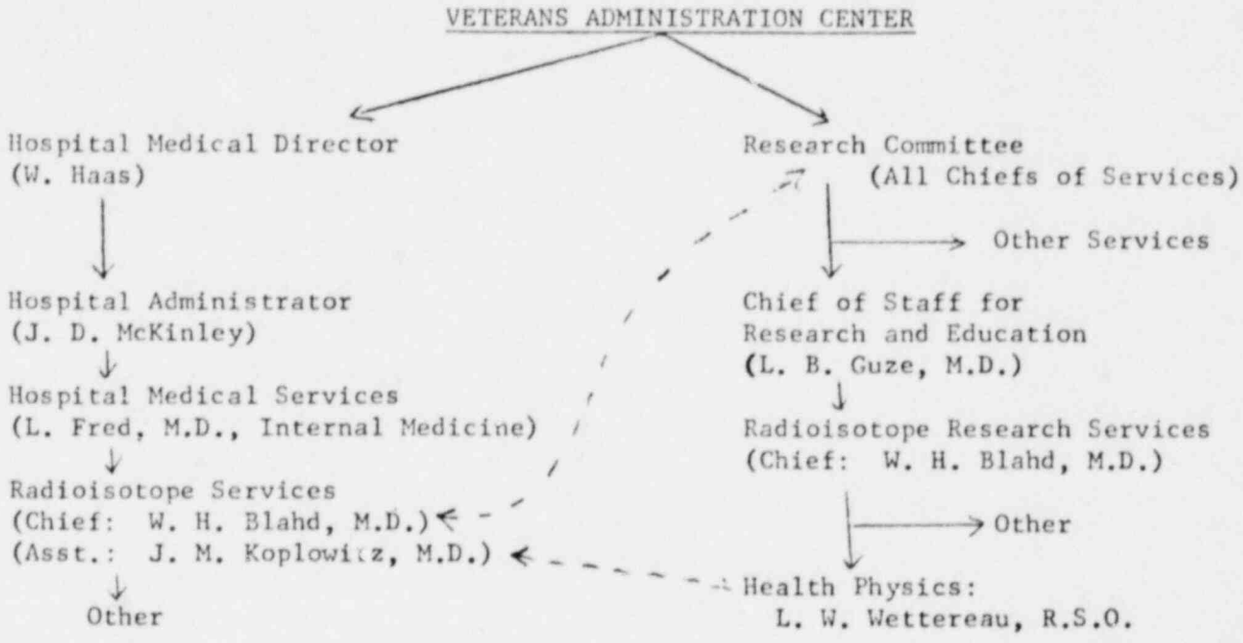
Dr. E. Galler, Neurobiochemistry research scientist.

Dr. G. Slates, Neurobiochemistry research scientist.

K. Shoaf, Research Technician, Wadsworth Hospital.

Organization

4. The V. A. Center is divided into two organizations, research and hospital. Dr. Blahd holds positions in both organizations, Chief of Radioisotopes Services under the Hospital and Chief of Radioisotope Research Services under the Research organization. Mr. Wettereau is the R.S.O. for the V.A. Center. An organizational diagram follows:



5. The Radioisotope Committee members meet infrequently and conduct most of their business by mail; comments on proposals of protocol (VA Form 10-378(6009) attached) for research projects and ~~for~~ radioisotope uses submitted to the committee are reviewed by the committee by mail. If questions or problems arise, the committee calls a meeting. The radioisotope application form (VA Form 10-1152 attached) is circulated by the prospective user and a user experience form (VA Form 10-1153 attached) is circulated by Dr. Blahd. However, All but one of the members, is also a member of the Research Committee which meets formally every two weeks. The Research Committee approves projects and reviews reports and must approve all activities involving isotopes for human use ~~together with the~~ approval ~~of~~ the Radioisotopes Committee. The Radioisotopes Committee members are as follows:

Drs. W. H. Blahd, Chairman

Ben Fishkin, Hematologist, Chief of Laboratory Services.

Leo Fred, Internal Medicine, Head of Hospital Medical Services.

Lucian Guze, Chief of Staff for Research and Education.

Otis True, Chief of Radiotherapy Services

Mr. L. W. Wettereau, Jr., R.S.O.

Minutes of the Research Committee meetings were not readily available at the time of the inspection. Minutes of the last Radioisotope Committee meeting was received.

Radiation Safety

6. According to Mr. Wettereau, R.S.O., Dr. Blahd has given him essentially ~~all~~ full authority regarding health and safety problems and ~~absolute~~ mandated action authority in areas of radioisotope misuseage. ~~He~~ Wettereau stated that he also writes letters for Dr. Blahd to the U.S.A.E.C. in regard to licensing and other ~~types of necessary~~ correspondence with the Commission.

Personnel Instruction

7. Written procedures for proper action in handling radioisotopes are available and disseminated to all employees working with ~~the radioactive~~ these material. According to Mr. Wettereau the procedures are being followed to the best of his knowledge and, to the best of his knowledge, no changes in ~~the~~ procedures, ~~have taken place~~.

8. A training course on radiation protection and isotope handling is presented to employees by experts in several fields, ~~of radiology as required~~ of nuclear medicine, radiation biology, etc. The course consists of ~40 hours instruction with lectures lasting approximately 1½ hours per week. The course content consists of history of radiation useage, radiation measurement, properties of radiation, etc. It is mandatory that all researchers and investigators take the course. M.D.'s must also receive instruction if they have not already done so elsewhere. It was remarked that technicians who wash glassware which had contained radioisotopes also receive instruction applicable to their work. In addition, special instruction is given to nurses, [illegible] patients.

Isotope Procurement - Receipts, Transfers, Exports and Inventory

9. Close communications is maintained between the R.S.O. (Mr. Wettereau) and the V.A.C. purchasing group. When approval is granted for purchase of isotopes, the materials request form is marked "Radioactive Materials" so that personnel in purchasing are especially aware of this type of purchase, both for ordering and identifying shipments received. Although the R.S.O. must approve each material request of this type, the purchasing people, who are informed of licensed materials limits, notify the R.S.O. if there is any question as to the validity or approval of the request. They also alert the R.S.O. whenever the order is for purchase abroad, involves above normal quantities of radioactive material or if it involves transactions with companies not normally contacted for orders.

10. When shipments of radioactive materials arrive at the center, they are delivered immediately to the R.S.O. by the purchasing group. He in turn opens the packaged material, makes a survey, ascertains the integrity of the package, quantity of material prescribed, and records the results in a special receipt log. The log book information includes the recipient, sender, date, chemical form, quantity and other pertinent information. The shipment packing list is also filed. Peel-off labels that accompany the shipment are pasted in the log showing quantity, type and number of material units. These types of labels are found on shipments from Squibb Drug Co. and Abbott Industries.

11. The R.S.O. indicated that the approximate isotope procurement rate is as follows:

Mo^{99}-Tc^{99m},	200mC_i	per week
I-131,	50-100mC_i	per week
P-32,	25 "	per month
Au-198,	5-10 "	per week
H-3,	400-500 "	per quarter
C-14	2-10 "	per quarter

12. Radioactive materials users must each submit a monthly inventory sheet to the R.S.O. who then updates the V.A.C. inventory. As of May 22, 1967 the inventory was as follows:

*Co-60	0.2	mC_i
*Sr-90	50.0	"
*Sr-90	1150.0	"
C-14	29.516	"
H-3	417.612	"
Hg-197	0.075	"
Hg-203	3.7	"
I-131	104.6	"
Cr-51	1.4	"
Fe-59	0.025	"
Na-22	0.124	"
Zn-65	1.0	"
Au-198	3.0	"
Sr-85	0.3	"
Mo-99, Tc99m	200.0	"
P-32	0.293	"
Se-75	1.8	"
S-35	0.642	"
H-3 foils	4x100=400.0	"

* Sealed Sources

13. No exports of radioactive materials were noted. Transfers include those to other V.A. hospitals and ~~specific material to specific users at~~ UCLA. Bootlegging of radioactive material into or out of the center has not been

a problem. It was stated by the R.S.O. that users are on the honor system in this respect, plus internal controls which help to ~~prevent~~ limit bootlegging possibilities.

Operations, Facilities and Instrumentation

14. Assurance was given by the R.S.O. that the use of the licensed material is as described in the license.

15. The hospital is not restricted except for the isotope preparation lab and "hot" lab (rooms nos. 212, 212A) in which high level radioactive materials are stored and work is done with I-131 experiments. A key to the two rooms is possessed by Mr. Wettereau and Dr. Blahd. It was stated that no more than 7-10 persons of the Radioactive Isotopes staff are authorized to enter these labs. The dose rate in the labs is kept at < 2.5 mr/hr. In lab 212 are stored some radioactive wastes in cans and a box with low level activity isotope storage. In lab 212A is stored higher level activity material. ~~Also in~~ this lab, also contains ~~there is~~ a Kuwanee glove box for I-131 work which exhausts thru two absolute filters and into the ~~stack outlet over~~ charcoal unit of the open face hood adjacent to the glove box. The stack sampler consists of a tube sticking up into the hood exhaust pipe and a s/s sample cup operated with a low volume GAST pump. The air sample media used is charcoal impregnated filter paper. The open face hood is used for sample preparations and appeared to have an air flow rate of at least 125 LFM.

16. Other areas where radioactive materials are used or where studies are conducted are:

    a. Lab 210A, Bldg. 114, storage vault for Rad. Mat'l ($< 2 mC_i$).

    b. Lab 209, Bldg. 114, liquid scintillation counting.

    c. Lab 229, Bldg. 114, "Clinical Radioisotopes" for uptake studies

    d. Lab 118, Bldg. 114, Biochemistry, work with C-14, H-3. Also performs gas & liquid chromatography with 400 channel analyzer.

e. Whole body counter in small bldg. behind Bldg. 114.

f. Lab (HUT-T-45) - small amounts of tracer material.

All areas and containers were posted and labeled according to 10 CFR 20.203. ~~Also,~~ AEC-3's were properly posted.

17. Instrumentation is as described in paragraph 14 of the previous inspections. Funds have been allocated for the purchase of an ~~ANKER~~ ANGER camera, a device used for visual display of isotope location and intensity in the human body.

Radiological Practices

18. Survey records appear to be well organized and complete. Records are kept of each area's surveys showing dates, maximums and quantities of radioactive materials. The maximum contamination recorded was 16,000 dpm in the hot lab hood and 500 dpm on the lab bench. Decontamination of the locations had been effected immediately. Surveys in general revealed low ~~amounts~~ levels of radioactive contamination.

19. Routine contamination surveys are performed monthly and whenever special jobs are in progress. Air samplers are operated continuously during work involving radioactivity where the possibility of exceeding the MPCs for air exists. Stack sampling is continuous for all jobs involving potential radioactive aerosols.

20. Sixty-two employees are issued film badges on a regular basis which are exchanged monthly and analyzed by Landauer Co. It was pointed out that of these perhaps only 10-12 employees are likely to approach 25% of the values listed in 10 CFR 20.101(a). The maximum recorded film badge result since the last inspection was 530 mrem/qtr received by an employee in the 3rd quarter of 1966. AEC Forms 4 and 5 are kept for each employee on the film badge list. It was noted that film badge reports were recorded by hand rather than on a printed data sheet. Pocket dosimeters Landsverk L-49 are available if needed.

21. The whole body counter is used mainly as a research tool. However, isotope users are counted on a routine basis. ~~Users~~ These personnel are given a background count upon initial employment and thereafter according to isotope use. Personnel working with small quantities of radioisotopes are given a yearly count; ~~those~~ those using millicurie quantities are counted semi-annually. Records revealed nothing significant for whole body depositions of radioactive materials.

Radioactive Wastes

22. Both solid and liquid wastes in bottles are buried on the V.A.C. grounds in the area described in the last inspection report. The site is not marked except on a plot plan. Wastes are buried approximately 10 feet deep in trenches dug by a grave digging machine. Records revealed that the quantity of radioactive material buried has not exceeded 200 mC_i/yr and for 1966 was approximately 130 mC_i. High level wastes are packaged and shipped by Calif. Salvage ~~&~~ or W. R. Hutchison Co. Three shipments were made in 1966.

23. Liquid wastes are not intentionally released to the sewer but are held for burial. No waste is incinerated.

Leak Tests - Sealed Sources

24. Leak tests were performed on sealed sources at 6-month intervals with one exception; the Tracerlab RA-1A Sr-90 eye irradiator was tested on 6-9-65 and again on 3-10-66 or at an interval of ~9 months. The R.S.O. gave assurance that a ~~better~~ tickler file would be kept on the sources ~~in order~~ to insure ~~keep the~~ tests at 6-month ~~intervals~~ intervals. He stated that until recently he had relied on his memory for leak tests.

25. The method used for leak testing is by application of cotton-tipped swabs to the source, which is then counted in a 2 π gas flow prop. counter, ~~and determinations made~~. All leak test records revealed < 0.005 μC_i of removable ~~contamination~~.

Miscellaneous

26. No incidents ~~had~~ occurred since the last inspection. One item of interest was the ~~expiration~~ of a patient containing 8.5 mC_i P-32. Because the patient was of Jewish faith, no embalming was necessary and burial was immediate.

27. The V.A.C. has no ~~pending~~ AEC contracts.