



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V

SUITE 202, WALNUT CREEK PLAZA
1990 N. CALIFORNIA BOULEVARD
WALNUT CREEK, CALIFORNIA 94596

INSPECTION REPORT NO. 80-01

VETERANS ADMINISTRATION HOSPITAL CENTER
WILSHIRE & SAWTELE BLVD.
LOS ANGELES, CA 90073

Telephone No: _____

Attached

- ☐ Appendix A
☐ Appendix B
☐ Appendix C
☐ Memo

License No. 04-00181-04 Last amendment & date: 02/22/80 / 73

Category: G1 & Priority: 3, as of last amendment.

Inspection date(s): SEPTEMBER 4, 1980 Type of inspection: ROUTINE

SUMMARY OF FINDINGS AND ACTION

- ☒ No noncompliance, clear 591 ☐ Noncompliance, 591 issued
☐ Noncompliance, Appendix A ☐ Regional action ☐ HQ action
☐ Action on previous n/c, App B ☐ Supplemental info, App C

RECOMMENDATIONS

See basis in Appendix C or attached memo.

- ☐ Change Category to: _____ ☐ Change Priority to: _____
☐ Next inspection date: SEPTEMBER, 1982

PERSONS CONTACTED

W. H. BLAND, M.D. CHIEF, NUCLEAR MEDICINE SERVICES
RALPH MCINTOSH, MEDICAL PHYSICIST
L. (SKIP) WETTERDAU, RADIATION SAFETY OFFICER
DR. GALLANGER, RESEARCHER MS. T. WERNER, RESEARCH TECH.

Inspector: J. J. J. / J. E. P.

Approved: R. J. J.

9/22/80
9/25/80

Plan approved: _____

Date: _____

Licensee:

VETERANS ADMINISTRATION HOSPITAL CENTER

License no:

04-00181-04

Inspection Items	Scheduled for inspection	Post-inspection status	Module no.	756 Time Info
Management meeting - Entrance and Exit Interviews [REQUIRED]			307033	1
Initial Management Meeting				
Program requirements, MC 22 [REQUIRED]			78710B	6
Licensee Event Followup			927003	
Followup on Inspector-identified problems			927013	
Followup on Noncompliance and Deviations			927023	
IE Bulletin/Immediate Action Letter Followup			927033	
Followup on Headquarters Requests			927043	
Followup on Regional Requests			927053	
Independent Inspection Effort [REQUIRED]			92706B	1
Inspector Dispatched to Site			937003	
Followup on Significant Events Occurring During Inspection			937013	

AREAS INSPECTED AND FINDINGS

Licensee: VETERANS ADMINISTRATION
HOSPITAL CENTER, LOS ANGELESLicense no: 04-00181-04 Amendment no: 73

INSPECTION ITEMS CRITERIA FINDING

1. Organization

O.K.

Structure of organization as described in requirements?

Lic Cond _____

NOTES & REMARKS:

W. ANDERSON, DIRECTOR
 D. NUTER, ASSIST. DIRECTOR
 H. E. GORDON, M.D., CHIEF OF STAFF
 CHIEF OF NUCLEAR MEDICINE
 W. H. BLAND, M.D.
 F. L. WEFERAU, RSO
 CHIEF, RADIATION THERAPY
 Z. PETROVICH, M.D.
 R. MCINTOSH
 MEDICAL PHYSICIST. (over)

2. Licensee internal audits

Lic Cond _____

NA

Scope and frequency of audits as required?

Conducted by appropriate persons? Records maintained? Reviewed by management?

Deficiencies identified & corrected?

NOTES & REMARKS:

No requirements

3. Training and qualification of personnel

Lic Cond _____

O.K.

Training & retraining conducted as required?

Written & oral exams conducted? Examination results reviewed by management?

Instructions to workers per 19.12?

19.12

NOTES & REMARKS:

Training is a big effort at this institution. Jerome Lambino is the prime function in to provide training in various aspects of nuclear medicine and rad. safety. Classes were offered to residents, nursing personnel and other hospital personnel. Withrow maintained a record of the rad. safety classes and attendance records were maintained for each class. Video tapes were also used for Part 19.

4. Radiation protection procedures

Lic Cond _____

O.K.

Procedures available and implemented? Identify radiopharmaceutical and dose(s)? Cover handling of patients receiving therapeutic doses? Cover handling of cadavers?

Emergency procedures for spills, etc?
 Personnel understand procedures?

NOTES & REMARKS:

Procedures established for the renewal applications were still in effect and practiced.

"Logging Procedures for sealed Radioactive Sources for Implants" dated July 10, 1978 was reported by the RSO as the procedure in radiation therapy.

1 (continue) The members of the Medical Radiobiology Committee are:

W. H. Bladd, M.D. Chairman
D. F. Nuttle, Asst. Director
L. R. Friedman, M.D. Chief of Medicine
L. W. Mayron, Ph.D. Chief, Laboratory Service
L. Gage, M.D. Chief of Staff for Research
Z. Petrovich, M.D. Chief, Radiation Therapy
L. Wetterau, RSO
J. Ross, M.D., UCLA Dean's Committee (Consultant)
M. Zubis, Ph.D. Research Chemist (Consultant)

In 1978 when this license was renewed, the Committee approved 43 programs. In 1979 seven proposals were granted, and 5 programs were approved in 1980.

AREAS INSPECTED AND FINDINGS

Licensee: VETERAN'S ADMINISTRATION HOSPITAL CENTER License no: 01-00151-04 Amendment no: 73

INSPECTION ITEM CRITERIA FINDING

5. Use of materials

Lic Cond _____

O.K.

Procurement and use as required?

Special tests (moly breakthrough, leak tests, etc) required? O.K.Dose calibration checks performed? O.K.Posting & labeling as required? O.K.

20.203

NOTES & REMARKS:

Three specific areas of use of licensed material were noted - Brachytherapy in the Radiation Therapy Dept., Nuclear Medicine out building and the old hospital grounds. All radiopharmaceuticals were prepared by the full time radiopharmacists. Leak test on all sealed sources were O.K.

O.K.

6. Storage of materials

Material secured in both restricted and unrestricted areas? Adequately?

20.207

NOTES & REMARKS:

All storage areas inspected appeared to have adequate security. Either the laboratories were locked or under attendance of the physicians.

7. Facilities

Lic Cond _____

O.K.

As described in lic cond or application?

Any changes made? Adequacy?

NOTES & REMARKS:

Facilities were not described in detail in the license application, but the facilities appeared adequate. Nuclear Medicine expects to expand into glass area soon.

8. Instruments

Lic Cond _____

O.K.

Survey meters & instruments adequate for program?

Instruments & meters operable? Calibrated? Calibration adequate?

NOTES & REMARKS:

Instruments were on an annual calibration schedule, RSO maintained the record of these calibrations. These records appeared adequate. Inspection of the instruments at the places of use showed the proper calibration dates.

AREAS INSPECTED AND FINDINGS

Licensee:

VA HOSPITAL CENTER
L.A.

License no: 04-00181-04 Amendment no: 73

INSPECTION ITEMS	CRITERIA	FINDING
9. Receipt and transfer of material		<u>O.K.</u>
Written procedures for pickup, receiving, opening packages?	20.205	
Survey of packages when received?	20.205(c)(1)	
Records of survey of packages?	20.401(b)	
Transfer of materials proper? Transfer records maintained?	30.41, 30.51	
Authorized containers used? Shipping papers & package labels proper for packages on hand?	71.5	

NOTES & REMARKS: All receipts were via the radiopharmacy. All requirements of 20.205 were met and record of the surveys, wipe tests and material were maintained by the Radiopharmacists.

10. Personnel protection - external

O.K.

Personnel monitoring controls adequate?	20.101, 20.202
Exposures minimized? <i>Yes. ALARA in effect.</i>	
Exposure records (NRC-4 or 5) maintained? <i>NA</i>	20.102(b), 20.401(a)
Available for employee review? <i>yes</i>	
Surveys conducted? Adequate? <i>weekly</i>	20.201
Records of monitoring, surveys? <i>yes</i>	20.401
Levels in unrestricted areas within limits? <i>yes</i>	20.1, 20.105

NOTES & REMARKS: No overexposures noted in the monthly film badge reports. Highest exposure appeared in nuclear medicine where 70-80 mR/month were recorded. Research areas essentially were 0 mR/month. Radiation therapy averaged about 10 mR/month.

11. Personnel protection - internal

Airborne concentrations in restricted areas?	20.103
Exposures to minors?	20.104
Posting of airborne radioactivity areas?	20.203(d)
Survey, monitoring adequate for airborne radioactivity, surface contamination? Records maintained?	20.201 20.401

NOTES & REMARKS: Use of I^{131} and I^{125} -131 personnel were bioassayed at least quarterly. Linnin 7, records showed no positive uptake. P50 reported that even if therapeutic iodine I^{131} were used, only I^{131} capsules were administered to patients. For FY 79 (see report) only 20 I^{131} tests were conducted. P50 agreed in pulmonary studies they are going towards the 990TPA control material of I^{131} .

AREAS INSPECTED AND FINDINGS

Licensee: V.A. Hosp. Center License no: 04-00181-04 Amendment no: 73
L.A.

INSPECTION ITEM	CRITERIA	FINDING
12. <u>Effluent controls, waste disposal</u>		<u>O.K.</u>
Release of effluents controlled?	20.106, 20.303	
Waste disposals controlled? <u>yes</u>	20.301, 20.303, 20.304, 20.305	
Procedures, records maintained?	20.401, Lic Cond _____	
Surveys made? Adequate?	20.401	
NOTES & REMARKS: All wastes were essentially collected for disposal or held for disposal "Radioactive Handling Procedures..." (enclosed) were developed as part of radioactive handling class.		
13. <u>Notifications and reports</u>		<u>O.K.</u>
To individuals.	19.13	
Overexposures, excessive levels & concentrations, incidents.	20.403, 20.405	
Personnel exposures and monitoring, termination reports.	20.407; 20.408	
Theft or loss of licensed material.	20.402	
NOTES & REMARKS: No reports were necessary.		
14. <u>Posting of notices</u>		<u>O.K.</u>
Part 20, license & documents, procedures, notice of violations posted?	19.11(a)	
NRC-3 posted?	19.11(c)	
NOTES & REMARKS: <u>Posted</u>		
15. <u>Other license conditions</u>	Lic	<u>NA</u>

AREAS INSPECTED AND FINDINGS

Licensee: V.A. Hospital Center, L.A. License no: 04-00181-04 Amendment no: 73

INSPECTION ITEMS	CRITERIA	FINDING
16. Confirmatory measurements	Wigs were taken at the following areas:	<u>O.K.</u>
Research Lab Rm 312 - floor, Nuclear Medicine Radiopharmacy Rm 0070 - floor, Nuclear Med. County Lab Rm 0076 floor, Bldg 346 waste preparation area - floor, and Radiation Therapy source storage area Rm 0425 - floor. All wigs were counted on R.I. gas proportional counter. And all wigs, results were less than the instrument background. Periodic surveys conducted with the Eberline Z-520 (NRC 008253) and Tetra 305B (NRC 008237) showed no area exceeding the radiation limits in unrestricted areas.		
17. Independent inspection effort	In addition to the Nuclear Medicine walk around inspection, a tour of the Radiation Therapy Dept was made. R. MC Intest reviewed the storage, inventory and accountability procedures. 70 X 0.3 mg ^{25mCi} Sr 90 eye applicator and 10 mCi Sr 90 chest probe were located. Also 2 blocks of depleted Uranium (not licensed) were found. In the Research Areas, Dr. Gallinger in Bldg 85 was inspected. About 20 mCi H ³ and 5 mCi C ¹⁴ in organic compounds were used. In Bldg 114, Tracy Werner was interviewed on her handling procedure for H ³ . In Rm 311, solutions of Co ⁶⁰ , Cs ¹³⁷ and Sr ⁹⁰ were observed. Waste preparation Bldg 340, where a compactor is being installed, and Waste Storage Bldg 344, were also toured. all	<u>O.K.</u>
18. Incidents and events	Any incidents of misadministrations, contamination, etc, not otherwise covered by reports?	

No misadministrations were noted in the record of incidents and events, maintained by the RSO

RADIOWASTE HANDLING PROCEDURES
FOR
VA WADSWORTH MEDICAL CENTER

The waste disposal procedures outlined herein apply to anyone who uses or plans to use radioactive isotopes at this institution.

Table 1. The following physical states of radioactive waste are encountered at Wadsworth and are required to be kept separate:

Dry waste

Liquid waste (including droplets & serum or other type vials)

Liquid scintillation counting vials (LSC)

Organic solvents

Animal carcasses

Table 2. Radiowaste segregation must be accomplished by separation according to increasing half-lives (see below). Do not mix items from separate columns, or mix beta with gamma:

Gamma radiowastes

<u>Very short</u> <u><1 day</u>	<u>Short</u> <u><1 week</u>	<u>Medium</u> <u><1 mo</u>	<u>Long</u> <u>>1 mo</u>
Tc-99m	Tl-201	Cr-51	Fe-59
I-123	Ga-67	I-131	Co-57
	In-111		I-125
	Xe-133		Se-75
	Na-24		Sr-85
	Ca-47		Na-22

Beta radiowastes

<u>Short</u> <u><1 mo</u>	<u>Medium</u> <u><1 yr</u>	<u>Long</u> <u>>1 yr</u>
P-32	Ca-45	H-3
	S-35	C-14
		Cl-36
		Ni-63

SOLID WASTE - DRY

Definition: Waste such as paper, plastic, dry solids, glass, etc. Cannot include absorbed or solidified liquids, or serum vials or counting tubes containing any liquid

Lab handling:

Collect daily accumulations of waste in small plastic bags to form a package approximately 8" x 12" (for compactor processing), tie neck of bag and store bag in laboratory radiowaste can until full.

Maintain log of isotope, amount and date, and label each disposal bag accordingly.

Segregate radioisotopes according to chart provided. Do not mix radioisotopes of short and long half-lives, or gamma with beta emitters.

Transport dry waste to Bldg. 340. Radiation Safety Officer, or designee, will arrange for final packaging.

Radiowaste storage facility - packaging instructions for radiation safety personnel:

When dry waste arrives at Bldg. 340, monitor for surface activity, and compress material in compactor. Obtain information from lab re isotope, amount, and dates generated.

Place compacted material in 55-gal barrel lined with 4 mil plastic drum liner. Record isotope, amount, date, and lab. After container is filled, seal plastic liner with a bag tie, or tape. Label barrel with radioactive white or yellow label, as appropriate for contents. Log contents and number the barrel. Monitor barrel and record findings.

WASTE LIQUID SCINTILLATION COUNTING VIALS

Definition: Consists of vials containing or having contained solutions used in liquid scintillation counters. Vials must not contain more than 30 uCi/ml of liquid if isotope is of transport Group III or IV (H-3 & I-125, for example).

Lab handling: Store vials in original shipping trays in shipping cartons. Do not accumulate more than 2 cartons (1,000 vials) in the lab at any time. Label and log radioisotope, amount, and date.

Transport to Bldg. 346 for disposal.

Radiowaste storage facility - handling instructions for radiation safety personnel for packaging of scintillation vials

1. Container must be DOT approved 17H drum, either 30 gallon or 55 gallon.
2. Container must be lined with double 4 mil plastic liner and sealed at the top when container is packed.
3. Place approximately 3" of absorbent at the bottom of the container. Vials and absorbent must be placed in the container in layers not exceeding 6" in depth. Between each layer, at least 1" of absorbent must be placed. The top layer must be approximately 3" of absorbent.
4. The vials are not to be opened.
5. The container must be filled with a two-to-one ratio of absorbent to liquid in the vials.
6. Approved absorbents are:

Perlite (medium grade)

Diatomaceous earth (medium grade)

Super Fine (Diatomite)

Speedi Dry

BIOLOGICAL RADIOACTIVE WASTE

Definition: Consists of animal matter, limited to carcasses and excreta. As of this date (11-26-79), no waste repository is accepting this type of waste.

Lab handling: It is suggested that labs refrain from production of such wastes until packaging, transportation, and disposal procedures are approved.*

Radiowaste storage facility - handling instructions for radiation safety personnel

Waste of this nature will not be accepted in Bldg. 346 without the approval of the Radiation Safety Officer.

* In the event that national waste repositories re-open, it is expected that carcasses will be packaged according to the following protocol:

1. Container must be a DOT approved double wall 30 gallon size inside 55 gallon.
2. Line 30 gallon drum with 4 mil plastic liner.
3. Place animal carcasses into 30 gallon drum with absorbent and lime.
Ratio: One part lime to 10 parts absorbent.
4. Seal plastic liner and 30 gallon drum.
5. Place inside 55 gallon drum.
6. Place absorbent between walls of 30 gallon drum and 55 gallon drum.
7. Seal 55 gallon drum.
8. Approved absorbents are:

Perlite (medium grade)

Diatomaceous earth (medium grade)

Super Fine (Diatomite)

Speedi Dry

LIQUID WASTES - ORGANIC

Definition: Consists of solvents such as toluene, alcohol, etc., or mixtures with water. Disposal of this type of waste is under continuous investigation. There have been many rule changes.

Lab handling:

It is suggested that labs refrain from production of such wastes until the situation can be resolved. It may be possible to evaporate organic phases, if the possibility of entrainment of the radioactive component can be overcome.

Diatomaceous earths can be used under certain circumstances.

Contact Radiation Safety Officer if you are planning to produce radiowaste of this nature.

Radiowaste storage facility - handling instructions for radiation safety personnel

Waste of this nature will not be accepted in Bldg. 346 without authorization from the Radiation Safety Officer.

LIQUID WASTE - AQUEOUS

Definition: Consists of supernatants, counting specimens, and diluting or stock solutions. No organic solvent material is permitted.

Lab handling: Liquid wastes should be concentrated/reduced in volume prior to absorption on a suitable absorber (Pel-E-Cel), providing that there is no possibility of volatilization of the radioactive component during concentration. Segregate isotopes according to table provided. Do not mix short and long-lived radio-isotopes, or gamma with beta emitters.

Store liquid wastes in lab in 1 qt, wide-mouth plastic jars with caps. Do not fill more than half full with Pel-E-Cel. Remember that one pint of Pel-E-Cel by volume is used to absorb one-half pint of liquid maximum. The remaining one pint space is for expansion.

Transport jars to Bldg. 346 for disposal packaging. Maintain a log for each jar, indicating isotope, amount, and date.

Radiowaste storage facility - packaging instructions for radiation safety personnel for absorbed liquids:

1. Container must be a DOT approved 17H drum, either 30 gallon or 55 gallon.
2. Container must be lined with a double 4 mil plastic liner and sealed at the top when container is packed.
3. Container must be filled with a two-to-one ratio of absorbent-to-liquid layered in approximately one-foot layers to ensure even dispersion.
4. Approved absorbents are:
 - Perlite (medium grade)
 - Diatomaceous earth (medium grade)
 - Pel-E-Cel
 - Super fine (Diatomite)
 - Speedi dry
5. This applies to aqueous wastes only