Form AEC-417
(4-58)

UNITED STATES ATOMIC ENERGY COMMISSION

COMPLIANCE INSPECTION REPORT

1. Name and address of licensee
DEPARTMENT OF THE NAVY
U. S. Naval Hospital
Radioisotope Laboratory
St. Albans 25, New York

2. Date of inspection
December 24, 1963 Initial

3. Type of inspection ~~Reinspection~~

4. 10 CFR Part(s) applicable
20 - 30

5. License number(s), issue and expiration dates, scope and conditions (including amendments)

License No.	Type	Date of Issue	Expiration Date
31-76-6	~~Reinspection~~ Initial	5/29/62	5/31/64

(FOR SCOPE AND CONDITIONS SEE REPORT DETAILS)

6. Inspection findings (and items of noncompliance)

The United States Naval Hospital at St. Albans is a general hospital with 1000 beds attending to the medical needs of naval personnel. Radionuclides are used within the X-ray department for human use and by the Department of Surgery for research on animals. Lieutenant Commander W. O. Pischnotte, a Radiologist, is the RSO. Pischnotte is responsible to the Radioisotope Committee and to Captain W. F. Hansen, Chief of Radiology. A Radioisotope Committee authorizes all use, users and facilities. Direct physical surveys are performed and film badges are used for personnel monitoring. Records were noted to be maintained of receipt of materials, use, surveys and personnel monitoring. The only items of noncompliance noted or observed during the course of the inspection is as set out below:

20.401(b) - records were not maintained of disposals of active waste to the hold-up tank and then to the sewerage system or of surveys made to ensure that other material so disposed did not contain any activity. (See paragraphs 36-38 of report details.) Records also were not maintained on evaluation of hazards in work with Sr-90-Y-90. (See paragraphs 27 and 44 of report details.)

(CONTINUED)

7. Date of last previous inspection
April 2, 1959 and
September 14, 1959
(For License No. 31-76-4)

8. Is "Company Confidential" information contained in this report? Yes ☐ No ☒
(Specify page(s) and paragraph(s))

DISTRIBUTION:
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Eugene Epstein
(Inspector)

Approved by:
R. S. Cleveland, Radiation Specialist (Review), Region I,
Division of (Operations office) Compliance

January 24, 1964
(Date report prepared)

If additional space is required for any numbered item above, the continuation may be extended to the reverse of this form using foot to head format, leaving sufficient margin at top for binding, identifying each item by number and noting "Continued" on the face of form under appropriate item.

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Information in this record was deleted in accordance with the Freedom of Information Act.
Exemptions 6
FOIA/PA 2009-0207

D/1

ITEM NO. 6 (CONTINUED)

20.201(b) - adequate evaluations were not made of concentrations and total amounts of waste released to the sewer (see paragraphs 36-38 of report details), of the circumstances surrounding and hazards resulting from a spill of Sr-90-Y-90 (see paragraphs 23-28 of report details), of air effluent concentrations from the exhaust hood where Sr-90-Y-90 was used (see paragraph 24 of report details.)

License Condition 28C - in that the licensee has Sr-90, Co-60, and Ir-192 sealed sources which have not been tested for leakage and removable contamination at intervals which did not exceed six months or less. (See paragraphs 29, 31 and 32 of report details.)

License Condition 28D - in that records of leak test results were not maintained in units of microcuries. (See paragraph 30 of report details.)

License Condition 43 - in that the Radioisotope Committee was never informed of the spill of Sr-90-Y-90 in the licensee's "Hot" laboratory as required by the licensee's procedures included in the application of 3/22/62, a part of the license condition. (See paragraphs 24, 39, and 46 of report details.)

10 CFR 20.201(b) and License Condition 43 - in that the Radiological Safety Officer, Lt. Commander W. O. Pischnotte never assessed the Sr-90-Y-90 contamination existing in the "Hot" laboratory nor supervised its decontamination as stated in the licensee's procedures included in the application of 3/22/62, a part of the license condition (See paragraphs 22(c), 24, 26 and 27 of report details.)

PART 30 INSPECTION

DEPARTMENT OF THE NAVY
U. S. Naval Hospital
Radioisotope Laboratory
St. Albans 25, New York

Date of Inspection: December 24, 1963 (Announced ~~Reinspection~~ Initial)

Persons Accompanying Inspector:

None

Persons Contacted:

Captain Walter F. Hansen, USN, Medical Corps, Chief of Radiology
Margaret Posipanka, Chief Petty Officer, Hospital Corpsman
LCDR W. O. Pischnotte, USN, Medical Corps, RSO
Joseph Beggs, Hospital Man
Robert Van Syke, Hospital Man - 3rd Class

DETAILS

Background Information

9. An initial inspection of the licensee's facility under License 31-76-4 was performed on 4/2 and 9/14/63. Items of noncompliance noted were as follows:

   (1) Y-90 was administered to humans without prior independent assay.

   (2) Possession of byproduct material without authorization in a specific license.

   (3) Failure to perform leak tests on a Sr-90 applicator.

   (4) Incineration of animal carcasses containing byproduct material without authorization.

   (5) Failure to label containers as required by 10 CFR 20.203 (f)(1) and (4).

   (6) Failure to maintain records of surveys.

   (7) No records showing releases of byproduct material to the sanitary sewer.

10. Enforcement action was completed June 15, 1960 and License -4 was superseded by License -6, a broad license, on May 24, 1962.

Organization and Administration

11. St. Albans Naval Hospital (SANH) uses radioisotopes in the X-ray Department for human diagnosis and therapy and in the Department of Surgery for research. The hospital has 1000 beds and an out-patient department. Lieutenant Commander W. O. Pischnotte, MC, a Radiologist, is the RSO. Pischnotte took a 12 week course in Radiation Physics at the Naval Hospital, Bethesda, Maryland. Pischnotte reports to Captain Walter F. Hansen, USN, Chief of Radiology, who in turn reports to the Hospital Director, Captain Joseph Yown, MC. Persons who actively perform health physics functions under Pischnotte's direction are CPO Margaret Posipanka, HMC, and Joseph Beggs, SHM and Robert Van Syke, HM-3.

12. An active formal Radioisotope Committee meets weekly to discuss the clinical aspects of radioisotopes for human use. Hansen stated the committee meets weekly to discuss each patient and authorize the use of radioisotopes as well as the user. The members of the committee are as follows:

Captain Haskill Weitheimer, Chief of Surgery, Chairman

Captain A. R. Errion, Chief of Medicine

Captain Charles Rogers, Chief of Oncology

Captain W. F. Hansen, Chief of Radiology

Commander Gino Szakacus, Chief of Pathology

Facilities and Uses of Byproduct Material

13. The scope of the license as listed below was discussed with Posipanka.

	Isotope	Form	Amount Authorized	On Hand	Use
A.	Byproduct material 1-83	any	10 mc each	(1) 4 mc Hg-203	Brain and Renal Scans 5 Scans per week, 5 uc/Kg body weight per Scan.
				(2) 9 uc Co-60	Vitamin B-12 for Schilling Test - 10 tests/week 0.5 uc per test.
				(3) 509 uc H-3 (9/25/63)	In storage - no use to date
				(4) H-3 as Tri-met	100 uc/week for RVC uptake in vitro 0.1 uc per test, 9 tests per week.
				(5) Cr-51 (1 mc)	Blood volume and red cell survival study 20-150 uc/test, 1 test per week.

	Isotope	Form	Amount Authorized	On Hand	Use
B.	I-131	any	500 mc	(1) 3 mc as Iodide	For thyroid uptakes 5-50 uc, 9 tests/week. For hyperthyroid 5-7 mc, 1 patient/week, Carcinoma - none.
				(2) 5 mc as IHSA	For blood circulation rate in dogs - 5 dogs per week - 2 uc/dog.
				(3) 1 mc as Hippurin	Liver absorption study 10 - 50 uc/study, 1 per month.
				(4) 516 uc (Nov. 29, 1963) as triolein and oleic acid.	Fat absorption study not used to date.
C.	P-32	any	100 mc	none, ordered as needed	3.5 mc/patient occasional use for polycythemia.
D.	Sr-90-Y-90	any	1000 mc	15 mc (10/63)	In a Y-90 cow for breast Carcinoma, not used during 1963.
E.	Au-198	any	150 mc	1 mc (11/13/63)	In storage, result of decay, prior use for pleural effusion 1/year.
F.	Sr-90	Tracerlab RA-1A Medical Applicator		40 mc (9/52)	Eye applicator totally in storage
G.	Ir-192	Stainless steel encased seeds in nylon ribbon		1200 mc 14 seeds - 78 mc 2/20/61 (now 8 uc)	Not used, totally in storage
H.	Co-60	U.K. Henscke sealed sources		25 mc - 2 wires 25 mc total 6/2/61	Not used, totally in storage.

14. Radionuclides are used, according to Posipanka in the "Hot" laboratory and in the Surgical Research Laboratory. The "Hot" laboratory was noted to consist of 3 adjoining rooms off a corridor in the sub-basement. The rooms consisted of a combined counting and patient treatment room, a Y-90 area, a refrigerator area, and a storage area. The entire area was designated as restricted. The "Hot" laboratory was equipped with stainless steel table tops, 3 five foot wide Kewaunee filtered exhaust hoods, each with a flow of 1200 cfm, and stainless steel sinks. All liquid waste from the "Hot" laboratory are drained into a metal 500 gallon sub-surface hold-up tank.

15. A separate storage room called the "Radium" room also located in the sub-basement is used to store gamma sources consisting of Co-60 wires and Ir-192 seeds as well as a Sr-90 eye applicator. This room is also restricted.

16. A nonrestricted surgical research laboratory with similar equipment as the "Hot" laboratory is used for dog experiments using 2 uc I-131 as IHSA per dog. The dogs are not sacrificed according to Rogers, who conducts experiments. Rogers stated he uses no more than 1 dog per week.

17. In addition to the above, the licensee has 7 diagnostic X-ray units and 4 X-ray therapy units of 140 KVP, two at 250 KVP and one 1 MEV GE unit. Posipanka stated that 50 mg of radium are also used and stored in the radium room.

Instrumentation and Calibration

18. Posipanka had on hand the following operable survey instruments. A U. S. Navy Model AN/PDR-27C meter range 0-200 mr/hr, AN/PDR-27F meter range 0-500 mr/hr, AN/PDR-18A, 0-500 mr/hr, and a Nuclear Chicago Cutie Pie survey meter, range 0-2500 mr/hr. Posipanka stated the survey meters are calibrated every six months by the calibration facility at the Brooklyn Navy Yard, New York. He stated the instruments are calibrated using standards and checking two points on each scale. The inspector also noted "Sparrow" audible radiation detection instruments being worn by Laboratory personnel.

Safety Precautions and Procedures

A. Instructions

19. Pischnotte stated that all personnel, five doctors and 10 technicians involved with radionuclides, have all taken a course of instruction in radiation physics given at the U. S. Naval Center at Bethesda, Maryland. He stated the course included instruction in the use of radionuclides, counting, equipment, surveys, personnel monitoring, regulations as contained in 10 CFR 20 and 30 and emergency procedures. The licensee was noted to have procedures entitled "Operating Procedure and General Instructions for the Radioisotope Laboratory." Posipanka stated that all persons involved in the use of radioisotopes have received a copy of the referenced instructions. The instructions contained in the license back-up material was noted to contain provisions regulating receipt of materials, storage, shielding, internal transportation, personnel monitoring, emergency procedures, security of material and waste disposal.

20. Posipanka had a copy of the license and copies of 10 CFR 20 and 30 together in one file. He stated the file was available to all users upon request.

B. Surveys

21. Posipanka stated that she performs direct radiation surveys weekly of all restricted areas of use and storage and surrounding unrestricted areas. Records of these surveys were noted to be maintained in a bound book. The last survey was dated 12/13/63 and showed the following:

Storage area in rear of "Hot" laboratory	4.0 mr/hr
At 1 foot distance from Radium Safe (Restricted Area)	46 mr/hr
At surface of hood where Sr-90-Y-90 cow was located (Restricted Area)	4.8 mr/hr
At surface of storage refrigerator	0.16 mr/hr
At all unrestricted areas	0.02 mr/hr

Pischnotte stated that he has left all health physics functions such as surveys, waste disposal, and record keeping up to Posipanka and that, although nominally the RSO, he never functioned as such. He stated that Posipanka had 15 years experience at Bethesda in the Radiotherapy Section and that he never questioned or even reviewed her work.

22. Independent measurements were taken by the inspector using a Serial #5575 NMC thin end window GM survey meter calibrated 10/21/63 and a serial #175 Raychronix ionization chamber calibrated 10/2/63. The following radiation levels were noted:

(a)	At the surface of a floor drain in the center of the "Hot" lab at 1 cm distance	50 mrad/hr beta
(b)	At the surface of a lead brick storage area in the restricted "Hot" laboratory	4 mr/hr gamma
(c)	At 6" distance from the surface of stored waste material, consisting of a hot plate, glassware, and wipe cloths	200 mrad/hr beta and 4 mr/hr gamma
(d)	On a table top near the storage area in the restricted laboratory	20 mrad/hr beta and 1 mr/hr gamma
(e)	At several locations on the floor in the "Hot" laboratory where radiation levels at 1 cm distance from the floor	from 1-5 mrad/hr beta
(f)	The radiation level background in the restricted radium storage room	2 mr/hr beta-gamma
(g)	At 1 foot distance from a safe in the radium storage room where 50 mg radium, 8 uc Ir-192 seeds, and 25 mc Co-60 as wires were stored	50 mr/hr gamma
(h)	Radiation levels in unrestricted areas were noted	less than 0.1 mr/hr beta-gamma

23. The inspector questioned Posipanka, Pischnotte, and Hansen regarding any accidents and spills in the restricted "Hot" laboratory and all three stated they had no knowledge of any spill or accident involving beta emitting material.

24. Robert Van Syke HM-3 stated he knew of a spill occurring approximately over one year ago of Y-90 being chemically separated from the Sr-90-Y-90 solution. He stated that some of the Sr-90-Y-90 solution being heated in a beaker by means of an electric hot plate boiled over and spilled inside the Kewaunee exhaust hood and some of the contents spilled over the floor. He stated he was not involved in the incident nor did he know the identity of the persons involved in the incident since he had heard about it indirectly. He stated that contamination from the above spill still exists inside the exhaust hood and that the exhaust filter is very hot and has not been removed. Pischnotte, the RSO, who was at the SANE during early 1962 at which time the supposed incident occurred, stated that no report was made of any spill or contamination to him or the Radioisotope Committee. He stated they subsequently knew of contamination because Posipanka orally reported to him in early 1963 that there appears to be contamination in the "Hot" laboratory but that smears samples were never taken to determine the extent of the contamination. He also stated no records were ever made to show the identity of the persons involved and that no surveys were made to determine the concentration of Sr-90-Y-90 in the "Hot" laboratory due to the spill and no evaluation was made as to the concentrations of Sr-90-Y-90 effluent to the unrestricted environs via stack discharge from the Y-90 exhaust hood.

25. The inspector took smear samples using filter paper of various areas in the restricted "Hot" laboratory and the radium storage room as well as surrounding unrestricted areas. Analysis by HASL showed:

(a) Ledge projecting from the "Kewaunee" exhaust hood where the Y-90 cow was located - 5552 dpm (equivalent to 2.5×10^{-3} uc/100 cm^2) beta activity. This smear was identified by HASL as containing Sr-90-Y-90 contamination.

(b) Floor in front of the above exhaust hood - 185 dpm (equivalent to 8.5×10^{-5} uc/100 cm^2) beta activity.

(c) Floor near sink near Y-90 hood - 314 dpm (equivalent to 1.4×10^{-4} uc/100 cm^2) beta activity.

(d) Inside floor drain - 1203 dpm (equivalent to 5.5×10^{-4} uc/100 cm^2) beta activity.

(e) Groove in floor between rooms - 928 dpm (equivalent to 4.2×10^{-4} uc/100 cm^2) beta activity.

(f) Other floor areas within the restricted "Hot" laboratory had removable contamination of approximately 898 dpm (equivalent to 4.4×10^{-5} uc/100 cm^2) beta activity.

(g) Unrestricted areas surrounding the "Hot" laboratory had removable contamination noted as 23 dpm (equivalent to 1×10^{-5} uc/100 cm^2) beta activity.

(h) No removable contamination was noted in the restricted radium storage room or surrounding areas.

26. License Condition 43 requires the licensee to possess and use byproduct material in accordance with an application dated 3/22/62 and amendment dated 5/8/62. The licensee's procedures entitled "Operating Procedures and General Instructions for the Radioisotope Laboratory" are included as part of the application of 3/22/62. Paragraph VI of the procedures stated that items shall be considered contaminated if the beta-gamma radiation level in the storage area exceed 7.5 mr/hr or 200 cpm and in other areas of the "Hot" laboratory 1 mr/hr or 50 cpm. In an amendment to the procedures dated 5/8/62 the licensee stated that a gas flow counter with an efficiency of 20% would be used in evaluating contamination and therefore using this efficiency factor the removable contamination in the storage area should not exceed 1000 dpm and in other areas of the "Hot" laboratory not exceed 250 dpm.

27. As noted in paragraph 22(c) of this report, radiation levels from contaminated glassware and a contaminated hot plate in the storage area were 200 mrad/hr beta-gamma at 6" distance from these articles. Removable contamination in other parts of the "Hot" laboratory in excess of 250 dpm were noted at a projection from the Y-90 exhaust hood, floor of sink near Y-90 hood, 2" wide groove in the floor between rooms in the "Hot" laboratory, and inside a floor drain. See Exhibit "A" HASL results. Paragraph VII of the referenced procedures states the Radiological Safety Officer shall assess the extent of the contamination and supervise the necessary decontamination procedures. Pischnotte, the RSO, stated he never knew of the spill that caused the contamination, nor was he ever aware of the resulting contamination or the attempts by HM-3 Van Syke to clean up the "Hot" laboratory. He also stated he knew of no written records which described the spill, any surveys which were made or of any decontamination efforts. He stated he has been at St. Albans for approximately 18 months and the preceding RSO, had left a full three months prior to his arrival, and no records existed for his review to explain the circumstances of the spill.

28. Pischnotte also stated that the contamination noted by the inspector is a small fraction of the total contamination because the floors of the "Hot" laboratory consist of vinyl tiles which are waxed weekly. He stated that most of the contamination must be fixed under layers of wax.

C. Leak Tests

29. License Condition 28 requires sealed sources other than H-3 with a half-life greater than 30 days to be tested at intervals which do not exceed 6 months. Tests shall be sensitive to detect 0.005 microcuries removable contamination. Test results shall be maintained in units of microcuries.

30. Posipanka stated she takes wet filter paper wipes of accessible surfaces of sealed sources and counts the filter paper smears with a GM tube calibrated with a Sr-90 standard or a scintillation detector calibrated with a Cs-137 standard. The inspector examined a written log which Posipanka maintained of leak tests. The results of all tests for leakage of the 40 mc Sr-90 sealed source and the 25 mc Co-60 sealed source were entered only as counts per minute. There were notentries as to disintegrations per minute or units of microcuries or of the efficiency of the detectors used to count smear samples. Posipanka stated these were the only records maintained of tests for leakage.

31. The 25 mc Co-60 source as two sealed wires was received on June 2, 1961 with a test showing it had been tested for leakage within six months prior to transfer. The lead container in which the Co-60 was stored, was wiped with filter paper again on 12/15/61, 2/11/63, and 12/24/63. 28 cpm was noted for the test of 12/24/63.

32. Records of leak tests show that the 40 mc Sr-90 sealed source as an eye applicator received 9/52, was tested for leakage and removable contamination on 2/11/63 and 12/24/63. The 14 Ir-192 seeds in nylon ribbon, 78 mc when received on 2/20/61 were never tested for leakage and removable contamination subsequent to receipt according to Posipanka. She stated no other tests for leakage were ever performed.

33. Certificates were maintained showing that leak tests had been performed by the supplier of the Sr-90 eye applicator and the Ir-192 seeds. Posipanka stated no sealed sources have ever been prepared at the SANH.

Storage and Security of Material

34. All material on hand was noted to be stored either in the rear storage area of the "Hot" lab, or in the "Radium" storage room. Both areas are restricted and locked when not in use. Keys are in the possession of Posipanka and the security division.

Receipt of Materials

35. Posipanka stated that all materials currently used in humans are received from Squibb or Abbott, firms which certify the assay and pharmaceutical quality of radionuclides. She stated that all materials are delivered to a general receiving room, and that immediately upon receipt the Radioisotope Unit is notified and some representative picks up the package and brings the package to the "Hot" lab storage area. She stated all packages are monitored by direct physical surveys before opening.

Waste Disposal

36. Pischnotte stated all liquid waste from the "Hot" laboratory is emptied into a subsurface 500 gallon metal hold-up tank. Pischnotte stated the hold-up tank is emptied by the hospital engineer at periodic intervals, but that no samples are taken of the hold-up tank water to determine the concentration of radionuclides disposed to the sanitary sewer. Pischnotte stated he did not know the quantity of water disposed from the hospital to the sanitary sewer. Pischnotte stated he did not know the intervals at which the hold-up tank was emptied.

37. As previously stated, the inspector noted radiation levels of 50 mrad/hr beta and 0.1 mr/hr gamma existing at 1 cm distance from a floor drain in the "Hot" lab which drains floor water into the hold-up tank. Pischnotte stated it was evident that these levels existed because of the contamination discovered by the inspector of a Sr-90-Y-90 spill at an unknown date. Pischnotte stated that no evaluation had been made of the concentration of Sr-90-Y-90 disposed to the sanitary sewer, nor had any records been made of these disposals showing the kind, quantity and date of assay.

38. Posipanka stated that all soluble I-131 liquid wastes are stored for 6 or 7 half-lives and then poured down a sink in the "Hot" lab which also discharges into the hold-up tank. Posipanka stated that no records of these disposals were maintained showing kind, quantity or date of disposal. She also stated that she monitored the liquid I-131 wastes prior to disposal and that the wastes had little or no apparent activity when measured with the end window of an AN/PDR-27C GM survey meter range 0-200 mr/hr with a minimum sensitivity of 0.1 mr/hr. She stated she never made any record of these surveys to show that little or no activity was disposed of.

Personnel Monitoring

39. The SANH has its own film badge service. Dupont 552 double packet films are sent from the National Naval Medical Center at Bethesda, Maryland, and are put into badges worn by eight persons involved with radioisotopes. The film badges are developed each month by Posipanka, according to Pischnotte. The film badge results are maintained on Form DD-1141, a form similar in all respects to AEC-5. The inspector examined the film badge results from 1961 to date of inspection. They showed that [(b)(6)] received a maximum whole body exposure of 235 mrem during the third calendar quarter of 1963. A film badge worn by [(b)(6)], showed 1 rad beta during July 1963. [(b)(6)] said that this exposure occurred to a wrist badge worn by him when he attempted to clean up beta contamination existing in several areas of the "Hot" laboratory apparently caused by a prior unknown spill of Y-90. [(b)(6)] stated he wore gloves during this clean up. He stated that there were several hot areas in the laboratory particularly

EXT

on the floor in the vicinity of the hood containing the Sr-90-Y-90 cow. He stated he did not record these radiation levels or make any smear tests. He stated he orally reported the contamination to Posipanka. Posipanka stated that [(b)(6)] had orally reported to her that there was existing contamination in the "Hot" lab and that he had cleaned it up. She stated she made no further report to her superiors or to Pischnotte, the RSO. All other film badges showed less than 225 mrem whole body exposure per calendar quarter year. Posipanka stated she compares the density of the personnel films she develops against film standards which she received from Bethesda. She said that films are given standard exposures at Bethesda and developed there. These are then sent to her to use in calibrating the films she develops at SANH. She confirmed that the exposed film standards are not representative or a part of the same batch of film she received for use in SANH badges. She stated she uses a standard Navy type Densitometer in comparing the density of film badges against the exposed film standards received from Bethesda. She stated she has no knowledge as to whether the film badges and film standards are of the same emulsion or were even developed by the same method.

Posting and Labeling

40. The inspector noted Form AEC-3, "Notice to Employees" to be posted at the entrances to restricted areas allowing all persons entering, an opportunity to see the notice.

41. The inspector noted all containers to have labels affixed reading "Caution - Radioactive Materials" with symbol and which also noted the kind, quantity and date of assay of contained material. Both restricted areas, the "Hot" lab and the "Radium" storage room were posted with signs reading "Caution - Radiation Area", and "Caution - Radioactive Materials" with conventional symbol.

License Conditions Not Previously Discussed

License Condition 10

42. Pischnotte stated and the inspector noted that all materials were used at SANH, the address stated in item 2 of the license.

License Condition 21

43. Examination of the minutes of the Radioisotope Committee revealed that only persons who were authorized by the Committee used radionuclides as required.

License Condition 23

44. Byproduct material used in humans was noted to be received from Squibb and Abbott who certify assay and pharmaceutical quality as required. Pischnotte stated that the Y-90 cow was used prior to 18 months ago when he first reported for duty. He stated he believed that an independent assay was performed of all Y-90 used in humans for interstitial implants, but stated he could not verify this since his predecessor Lt. CMDR J. E. Turner left 3 months prior to his arrival with records of Y-90 use in which assay data may have been contained.

License Condition 24

45. Posipanka stated that byproduct material as sealed source have never been opened as required.

License Condition 43

46. The license condition requires the licensee to possess and use byproduct material in accordance with statements noted in an application dated 3/22/62 and amendment dated 5/8/62. An attachment to the application of 3/22/62 entitled NAVHOSP INST. 6470.1 22 DAS, 22 MARCH 1962 subject Radioisotope Committee; establishment of states in PP. 3(i) "The board shall be informed of all spills of activity or of exposure of personnel above the maximum permissible limits. Remedial action concerning these matters shall be reviewed."

47. Pischnotte and Posipanka stated the Radioisotope Board or Committee was never informed of the spill of a large quantity of Sr-90-Y-90 occurring in the "Hot" lab some unknown time in 1962 and totally unreported. Pischnotte again stated that Posipanka was left to her own resources with regard to radioisotopes.

48. The above documents were reviewed with Posipanka and Pischnotte and compliance was noted with respect to all other details except as noted in previous discussion.

FORM NT-99
REV. 8-1-59

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY LABORATORY
376 HUDSON STREET
NEW YORK 14, N. Y.

SAMPLE REQ. D 3713

DATE SENT
DATE RECEIVED 12/27/63
DATE REPORTED 12/31/63

Exhibit "A"

PLANT: St. ALBANS Naval HOSPITAL

MAILING ADDRESS:

TYPE OF SAMPLE: Smear

METHOD OF DETERMINATION: Manual & Scintillation Counter

ROUTE RESULTS TO: Compliance

ANALYZE FOR: Sr^{90}-Y^{90} B

SAMPLE NO.	DATE	HOUR START	HOUR STOP	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	Dpm		RESULTS
0 881	12/24			Ledge of hood (Y^{90} cow) 100 cm²			5552		
1 880				floor in front of Y^{90} hood			148		
2 878				floor under sink			314		
3 1				rut between rooms			928		
4 2				sink tray (stainless)			713		
5 3				floor near Y^{90} cow			185		
6 4				floor near rear storage room			91		
7 5				top side floor drain grill			98		
8 6				underside floor drain grill			1203		
9 7				Inside floor drain			1072		

COLLECTED BY: E. Epstein

ANALYZED BY: J. W. Hawkins

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GPO 959255

FORM NY-99
REV. 8-1-59

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY LABORATORY
376 HUDSON STREET
NEW YORK 14, N. Y.

SAMPLE REQ. D 3714
DATE SENT 12/27/63
DATE RECEIVED 12/27/63
DATE REPORTED 12/30/63

PLANT: St ALBANS Naval Hosp
MAILING ADDRESS:

Exhibit "A"

TYPE OF SAMPLE: Smears.
METHOD OF DETERMINATION: β Scintillation γ-well Counter; α β phosphor

ROUTE RESULTS TO: Compliance
ANALYZE FOR: Sr^{90} - Y^{90} — β

SAMPLE NO.	DATE	HOUR START	HOUR STOP	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	dpm		RESULTS
0 8	12/24			floor AROUND drain			49		
1 9				UNRESTRICTED Hall			23		
2 879				floor near sink			186		
3				IR^{192} γ					
4 10				wipe IR^{192} container			0.0		
5 11				wipe lead pig			0.0		
6				~~Co^{60}~~ γ					
7 12				wipe floor Storage Room			0.0		
8 ~~13~~				Co^{60} γ			~~0.0~~		
9 13				wipe pig containing Co^{60} WIRES			0.0		

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