

## DEPARTMENT OF THE NAVY U.S. NAVAL REGIONAL MEDICAL CENTER FPO SAN FRANCISCO + + + + +

NRMCGUAM:33:jam 5700 23 November 1981

From: Commanding Officer To: Robert H. Engelken, Director of U. S. Nuclear Regulatory Commission, Region V, 1450 Maria Lane, Suite 260, Walnut Creek, California 94596

Subj: NRC Inspection of 23 September 1981

Ref: (a) Your 1tr of 12 November 1981

Encl: (1) Quarterly Radiation Safety and Quality Control Audit Worksheet

1. Reference (a) documents the recent NRC Inspection of NRMC, Guam's Nuclear Medicine Department authorized by NRC License No. 04-14869-01. The violations contained in reference (a) require a specific response as to corrective action implemented.

2. In accordance with 10CFR 2.201, the following corrective actions are submitted:

a. <u>Discrepancy</u>: Door to Nuclear Medicine storage room containing licensed quantities of 99mTc and 125I was propped open and unattended.

<u>Corrective Action</u>: By 3 November 1981, an automatic door closer and automatic lock have been installed on the door to the Nuclear Medicine storage room. Personnel have been instructed regarding the necessity of having the door closed and locked when unattended to avoid unauthorized removal of radioactive material.

b. <u>Discrepancy</u>: TLD ring badges were not used by personnel during generator elution, dose and kit preparation, dose administration and assay procedures from the period 2 November 1979 to 31 July 1981.

<u>Corrective Action</u>: At the time of the NRC inspection, TLD rings were on order from NNMC Bethesda, Maryland. These TLD badges were received on 10 October 1981 and have been properly utilized by the Nuclear Medicine Technologists since that date. A quarterly radiation safety and quality control audit has been instituted at NRMC, Guam. This audit will monitor the proper use of the TLD finger rings to insure compliance.

c. <u>Discrepancy</u>: The Medical Isotope Committee shall meet at least on a quarterly basis. Three of the quarterly meetings had not been conducted during the period between 1 January 1980 and 1 July 1981.

Corrective Action: A quarterly Medical Isotope Meeting was held on 10 November 1981. In order to insure that quarterly Medical Isotope Committee meetings are properly convened, a monthly tickler file has been implemented which details when these committee meetings are to be held.

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d. <u>Discrepancy</u>: Medical Isotope Committee held only one annual review of the radiation safety program during the period 1 January 1979 to 23 September 1981.

<u>Corrective Action</u>: An annual review of the radiation safety program by the Medical Isotope Committee was conducted on 10 October 1981. In order to insure that the annual review of the Radiation Safety Program by the Medical Isotope Committee is properly performed, this program has been included in the monthly tickler file.

e. <u>Discrepancy</u>: At the time of the inspection, a bottle of club soda was kept in the refrigerator in Room J-406 where byproduct materials are stored for the RIA laboratory.

Corrective Action: The bottle of club soda was removed on 23 September 1981. Personnel have been thoroughly briefed about the hazard of storing items of food and drink in the proximity of radioactive material.

f. <u>Discrepancy</u>: At the time of the inspection, all of the survey instruments on hand were out of calibration.

Corrective Action: At the time of the inspection, six survey instruments were at the Naval Calibration Laboratory being calibrated. These were returned in proper calibration on 27 September 1981. The instruments found to be out of calibration at the time of the inspection, ANPDR-27, Serial No. 2179, IM-160E/PDR-56, and Eberline Model E-140N, Serial No. 468, were delivered to the Naval Calibration Laboratory on 27 September 1981. These instruments were returned to NRMC, Guam, on 7 October 1981, after being calibrated. To prevent this problem from happening in the future, the dates that they must be re-calibrated has been added to our tickler file.

g. <u>Discrepancy</u>: Records of the daily constancy checks of the dose calibrator were not maintained from 2 November 1979 to 19 July 1981.

Corrective Action: A daily dose calibrator log has been properly maintained since 20 July 1981. The quarterly radiation safety and quality control audit will determine if this log is being properly maintained.

h. <u>Discrepancy</u>: Records of survey maps and radiation contamination surveys were not conducted in the laboratory areas during the period of 2 November 1979 and 23 September 1981.

<u>Corrective Action</u>: A survey map and a radiation contamination survey log was instituted on 24 September 1981. The quarterly radiation safety and quality control audit will determine if this survey log is being properly maintained.

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i. <u>Discrepancy</u>: At the time of the inspection, NRC-3 "Notice to Employees" was not posted at the hospital.

Corrective Action: A copy of NRC-3 was received from the NRC on 10 November 1981 and was posted that day in the Nuclear Medicine Clinic.

j. <u>Discrepancy</u>: Records of disposals into the sanitary sewerage system in the RIA laboratory were not maintained for the period of 9 October 1980 to 23 September 1981.

Corrective Action: A radiation disposal log was implemented on 24 September 1981. Effective that day, all quantities of radioactive material that are disposed of are properly logged. The quarterly radiation safety and quality control audit will determine if this log is being properly maintained.

3. As stated above, all the violations noted in your inspection of 23 September 1981 have been corrected by 10 November 1981. In order to prevent future discrepancies, a managerial control system of a monthly tickler file and a quarterly radiation safety and quality control audit, (enclosure (1)), have been instituted in the Nuclear Medicine Department at NRMC, Guam.

"I certify that all information contained in this letter, including any supplements attached thereto, is true and correct to the best of my knowledge and belief."

Mr. Haunds C. W. BRAMLETT CAPT MC USN

TERRITORY OF GUAM) )SS MARIANA ISLANDS )

On this 24th day of November 1981, before me, a Notary Public, personally appeared the above-described grantor, known to me to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same as his Act and Deed.

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NOTARY PUBLIC IN AND FOR THE TERRITORY OF GUAM

MY COMMISSION EXPIRES: 8 June 1986

From:

To:

Subj:

## radiation safety and quality control; report of

The following QC and radiation safety procedures were performed at various intervals during the previous quarter.

## PROCEDURE

ADEQUATELY PERFORMED

INADEQUATELY PERFORMED

Monitor packages upon receipt

Disposal log maintained

Calculate SD of controls

Calibration of DC

99Mo checks

Ganna Camera QC

Utilization & Human Use Report

Pipette accuracy test

Gamma well QC

Radiac gear calibration

Leak test of reference sources

Annual radiation safety and QC review (syringe shields, etc.)

Radiation contamination survey and log

Precautions to follow for therapy patients

Personnel exposure log maintained

Monitoring of technologist's thyroid gland