

# MUNICIPAL HOSPITAL

IOWA HOSPITAL LICENSE #146

PHONE (712)542-2176

Administrator  
Ed Butler



Director of Nurses  
Mrs. Beth Gregory

CLARINDA, IOWA

November 26, 1982

J.R. Miller, Chief  
Technical Inspection Branch  
United States Nuclear Regulatory Commission  
Region 3  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Re: NRC License # 14-18869-01

Dear Mr. Miller:

This is to acknowledge receipt of your letter dated November 9, 1982, requesting further information regarding action taken to correct apparent infractions and deficiencies associated with our NRC Biproduct Materials License #14-18869-01.

Please find enclosed a copy of the operational procedure for opening packages. This form will be completed and filed for each shipment of radioactive material received.

Also included is a copy of the dose calibrator accuracy record test. We require accuracy tests to be performed using three reference standards.

To insure compliance in the future, a technologist has been hired whose responsibility is to perform dose calibrator linearity and accuracy checks. Quarterly audits will continue after the initial six month audit program is completed.

Should you require additional information or clarification, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "E.P. Butler", is written over the typed name. The signature is fluid and extends across the line of the name.

E.P. Butler, Administrator

8212080387 821202  
NMS LIC30  
14-18869-01 PDR

Member American Hospital Association - Iowa Hospital Association

NOV 29 1982

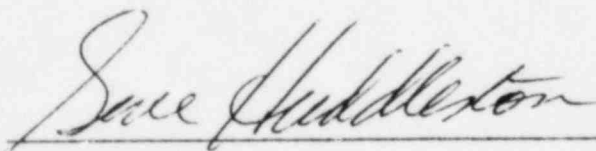
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## Operational Procedure:

Subject: Procedure in Opening Packages      Effective Date: November 1, 1982

Service: Mobile Nuclear Medicine      Revised Date: \_\_\_\_\_

1. Put on gloves to prevent hand contamination.
2. Visually inspect packages for signs of damage (e.g., wetness, crushed). If damage is noted, stop procedure and notify Radiation Safety Officer.
3. A) Measure exposure rate using thin-end-window G-M Survey Meter at 1 meter from package surface and record. If greater than 10 mR/hr., stop procedure and notify Radiation Safety Officer.  
B) Measure surface exposure rate and record. If greater than 220 mR/hr., stop procedure and notify Radiation Safety Officer.
4. Wipe external surface of final source container (each pig) with an alcohol swab. All containers may be wiped with the same swab. Remove swab to a low background area and check wipe with a thin-end-window G-M Survey meter, and take precautions against the spread of contamination as necessary.
5. Monitor the packing material and packages for contamination before discarding. If not contaminated, OBLITERATE radiation label before discarding in regular trash.



Gene Huddleston  
Director, Nuclear Medicine & Ultrasound

CLINISHARE - MOBILE NUCLEAR MEDICINE

PACKAGE SURVEY: RADIOACTIVE SHIPMENT

Date \_\_\_\_\_ Time \_\_\_\_\_ Technologist \_\_\_\_\_

1. Visual Condition of Package:

- \_\_\_\_\_ O.K.
- \_\_\_\_\_ Wet
- \_\_\_\_\_ Crushed
- \_\_\_\_\_ Punctured
- \_\_\_\_\_ Other (Explain) \_\_\_\_\_

2. Measured Radiation Levels:

- A. 1 meter from package surface \_\_\_\_\_ mR/hr.
- B. Package surface \_\_\_\_\_ mR/hr.

3. Wipe Results From Final Source Container:

\_\_\_\_\_ mR/hr.

4. Survey Results of Packaging to be Discarded:

\_\_\_\_\_ mR/hr, CPM

5. Contamination Notification: Radiation Safety:

Officer contacted on \_\_\_\_\_ (date)

at \_\_\_\_\_ hours (time).

**QUARTERLY DOSE CALIBRATOR  
ACCURACY TEST RECORD**

RS-32 (3/8/82)

Location: \_\_\_\_\_  
 Qtr: \_\_\_\_\_ 19 \_\_\_\_\_ Date Test Performed: \_\_\_\_\_  
 Person Performing Test: \_\_\_\_\_  
 Dose Calibrator Make: \_\_\_\_\_  
 Model: \_\_\_\_\_ Serial: \_\_\_\_\_

Type of Measurement		REFERENCE STANDARDS			
		137-Cs- NES-356	57-Co- NES-206	133-Ba- NES-358	Other: _____
Dose Calibrator Calibration Factor					
CALCUL. ACTIVITY	Date Reference Std. Calibrated				
	Strength				
	Calibration Source Decay Factor				
	Calculated Activity				
Background					
MEASURED ACTIVITY	Test 1 Net Activity				
	Test 2 Net Activity				
	Test 3 Net Activity				
	Average Net Measured Activity				
PERCENT DIFFERENCE (Calcul. vs. Meas.) *					

\* %Difference of  $> \pm 5\%$  indicates need for instrument repair or adjustment

Reference: Appendix D, Section 2, NRC Regulatory Guide 10.8