NOV 8 1982

Clarinda Municipal Hospital
ATTN: Mr. E. P. Butler
Administrator
17th and Wells
Clarinda, IA 51632

License No. 14-18869-01

30-19572

Gentlemen:

This is to acknowledge receipt of your letter dated October 11, 1982, in response to our letter dated September 21, 1982.

Paragraph two of your letter dated October 11, 1982, states that your corrective actions for items 1 through 4 and item 6 in the Notice of Violation would consist of issuing a list of the required activities to the nuclear medicine technologists (see the enclosed list). Please note, your list of required activities did not include corrective actions for items 1, 2, 3, and 6. Your list failed to include:

1. Your actions to ensure that shipping containers are surveyed before they are disposed of as normal trash.

2. Your actions to ensure that radioactive material labels on empty uncontaminated containers are removed or defaced before disposal.

3. Your actions to ensure that the accuracy checks of the dose calibrator are performed using all three reference standards (cesium-137, cobalt-57, and barium-133).

4. Your actions to ensure that wipe tests are analyzed using a system capable of detecting 100 disintegrations per minute.

Paragraph two also states that to ensure continued compliance, you will perform monthly audits for the next six months. Please describe your actions to ensure continued compliance after the initial six month audit program is completed.

Submit your response within thirty days of the date of this letter.

OFFICE ▶						
SURNAME ▶						
DATE ▶						DMB:IE07

Paragraph four of your letter states that precalibrated unit doses should not be considered packages. It is not clear if you are referring to the individual lead shields for the unit doses or the attache case used to transport the lead shields and unit doses. Using the definitions for "package" and "packaging" in 10 CFR 71.4(k), 10 CFR 71.4(i), and 49 CFR 171.8, the attache case and the lead shielding are packaging. When radioactive material (contents) is put into the attache case (packaging), the two items combined (contents and packaging) form a package.

License Condition No. 17 referencing your license application dated October 30, 1979, states that the procedures described in Appendix F of NUREG-0338, Revision 1, shall be followed for opening packages containing radioactive materials. Some of the requirements include the following:

1. Measuring the exposure rate at 3 feet from the package surface.

2. Measuring the exposure rate at the surface of the package.

3. A wipe test of the external surface of the final source container.

Please ensure that your technologists are aware of all of the requirements described in Appendix F (copy enclosed).

Sincerely,

Original Signed by J. R. Miller

J. R. Miller, Chief
Technical Inspection Branch

Enclosures:
1. Frequency of Required Activities
2. Appendix F

cc w/encls and ltr dtd 10/11/82:
DMB/Document Control Desk (RIDS)

Original Signed by J.R.M

OFFICE	RIII	RIII	RIII	RIII		
SURNAME	Reichhold:rr MR	Madera for	Wiedeman	Miller		
DATE	11/1/82					

NRC FORM 318 (10-80) NRCM 0240 OFFICIAL RECORD COPY

FREQUENCY OF REQUIRED ACTIVITES

	FREQUENCY	ACTIVITY
A.	Daily	*1. Constancy check on the low level survey instrument.
		*2. Constancy check on the dose calibrator.
		*3. Area survey with low level survey instrument around generators, isotope preparation areas and injection areas.
		*4. Personal survey of hands and clothes before leaving area where radioactive materials are used.
		*5. Obtain flood field with Co-57 disk source and evaluate for field uniformity.
B.	Weekly	*1. Check gamma camera resolution with bar phantom.
		*2. Wipe samples of all areas. Procedure must be sensitive enough to detect 100 dpm.
		*3. Area surveys of all areas not covered in A.3 using survey instrument capable of measuring 0.1 m R/hr. Includes both restricted and unrestricted areas.
C.	Quarterly	1. Review radiation exposures by RSO to see if they exceed Investigational Levels I or II (ALARA Program).
		2. Medical Isotope Committee Meeting.
		*3. Inventory all sealed sources.
		4. Facility inspection to determine compliance with rules and regulations, including radiation levels in restricted and unrestricted areas.
		*5. Determine Linearity of dose calibrators.

D. Semi-Annually

*1. Test sealed sources for removable contamination

E. Annually

1. MIC will perform review of radiation safety program.

*2. Arrange for all survey instruments to be calibrated.

*3. Determine accuracy of dose calibrator readings.

*4. Inservice education for clinical, nursing, housekeeping and security personnel on radiation safety practices.

5. Refresher course on radiation safety practices for Nuclear Medicine Technologists.

F. Ad-Hoc

1. Nuclear medicine technologists must be instructed in radiation safety practices prior to beginning employment.

*2. Hospital staff seminars on radiation safety directed toward nursing, housekeeping and security personnel should be given prior to initiating any work in a new hospital.

*3. Tests for linearity, accuracy, constancy and geometrical response should be completed before any dose calibrator is put into service.

*4. After each instrument repair, dose calibrators should be checked for linearity, accuracy and constancy.

6. Any individual handling liquid I-131 shall have a bioassay performed not less than 6 hours and not more than 48 hours later. The preferred time is 24 hours.

APPENDIX F

PROCEDURES FOR OPENING PACKAGES CONTAINING RADIOACTIVE MATERIAL

1. Visually inspect package for any sign of damage (e.g., wetness, crushed). If damage is noted stop procedure and notify Radiation Safety Officer.

2. Measure exposure rate at 3 feet from package surface--record. If >10 mR/hr--stop procedure and notify Radiation Safety Offier.

3. Measure surface exposure rate and record. If >200 mR/hr--stop procedure and notify Radiation Safety Officer.

4. Put on gloves.

5. Open the outer package (following manufacturer's directions, if supplied) and remove packing slip. Open inner package to verify contents (compare requisition, packing slips, and label on bottle) check integrity of final source container (inspect for breakage of seals or vials, loss of liquid, discoloration of packing material). Check also that shipment does not exceed possession limits.

Item No. 14
Date: _____

6. Wipe external surface of final source container with moistened cotton swab or filter paper held with forceps, assay and record.

7. Monitor the packing material and packages for contamination before discarding:

   a. if contaminated, treat as radioactive waste.

   b. if not, obliterate radiation labels before discarding in regular trash.