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PHYSICS CONSULTATION IN:
DIAGNOSTIC X-RAY
RADIATION THERAPY
NUCLEAR MEDICINE
RADIOGRAPHY
INSTRUMENTATION

LEAK TESTING
SHIELDING DESIGN
RADIATION SAFETY
PERSONNEL MONITORING
NRC LICENSE APPLICATIONS
STATE AND FEDERAL COMPLIANCE

October 28, 1994

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Dear Sirs:

Thank you for your letter of October 3, 1994, citing certain notices of violation regarding an unannounced inspection of my activities under byproduct material license 35-13797-01. In response to your letter, I would like to supply the information given below.

- Item 1a. The use of radioactive materials not in my presence was not a routine practice under license #35-13797-01. Mr. Guerra had a statement from an individual at one of my contract hospitals that stated someone many years ago had calibrated a survey instrument using my sources without my physical presence. I can not attest either to the accuracy or inaccuracy of this statement. I pointed out that if it occurred it would have involved a lady who then worked with me, Ms. Laura O'Neill. Ms. O'Neill was properly trained in the use of sealed sources and at the time would have been a student in a master's degree medical physics program. If the described event occurred, it occurred due to my inaccurate understanding of the license. I thought "under the supervision" carried the same meaning as was usually attributed to a medical license. Mr. Guerra pointed out that this was not the case.
- Item 1b. Corrective steps included a proper understanding of the license (no one will use the source(s) unless done physically in my presence).
- Item 1c. In the future, no one will use the source unless physically in my presence.
- Item 1d. Full compliance was achieved on August 22, 1994.

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Item 2. I neither admit nor deny the lack of compliance described in item 2. I was using the documentation requested by the previous NRC inspector. If lack of compliance existed here it was out of an incorrect understanding of 49 CFR. I have taken steps to correct any problems with compliance. These include the use of shipping papers that carry the proper shipping name, the hazard class, the identification number and the total quantity. The letters "RQ" entered either before or after the base of description of the hazardous substance and the physical and chemical form are also included. A category label is applied to the package which contains the transport index and a yellow radioactive yellow to label. Compliance was achieved August 22, 1994.

Proper Shipping Name: Radiological Material (RQ)
Special Form
(Sealed Source)

Hazard Class: 7

Identification: Cs-137
Special Form
(Sealed Source)
Approx: 90 mCi

Category Label: Yellow II

Shipping Container: Type 7A
Performance Testing by Best Industries
Dr. Indravadan Patel
Dr. K.R. Das
11/19/87

Item 3: A 7A type package is used to transport material. This has always been the case. I maintained on file that this was a standard 7A shipping package used by Best Industries. I have now taken steps to receive the actual documentation of tests showing compliance with 49 CFR 178.350.

DOT specification (7A) certification include the following:

■ COMMON NAME OF CONTAINER

Metal drum manufactured by Van Leer Containers, Inc., Greenville, OH. Model No. 24-3½-87 DOT 37A-80 STC.

■ AUTHORIZED CONTENTS

Type A quantities (sealed sources).

■ DESCRIPTION OF CONTAINER

The container tested was Model No. 24-3½-87 DOT 37A-80 STC metal drum at the dimensions of 11.5" diameter by 10" high. Shock resistance material was placed surrounding the lead container with radioactive material.

■ TEST RESULTS

- Heat - Direct sunlight at ambient temperature of 130 degrees F in still air.
Passed. No loss of contents. No decrease in package effectiveness. The cushioning material provided an excellent insulating barrier.
- Cold - An ambient temperature of -40 degrees F in still air.
Passed. Same comments apply as in heat.
- Reduced Pressure - Not applicable since this package is not airtight.
- Vibration - Vibration normally incident to transport.
Passed.
- Water Spray - Not applicable.
- Free Drop - A free drop through a distance of 4 feet on to a flat essentially unyielding horizontal surface, striking the surface in a position for which maximum damage is expected.
Passed. The drum was dropped on to the false side corner. The latches were still locked. No loss of contents.
- Corner Drop - Not applicable.
- Penetration - Impact of the hemispherical end of a vertical steel cylinder 1¼" diameter and weighing 13 pounds, dropped from a height of 40 inches on to the exposed surface of the package which is expected to be most vulnerable to puncture. The long axis of the cylinder shall be perpendicular to the package surface.
Passed.

- Compression - A compression load equal to five times the weight of the package applied during a period of 24 hours uniformly against the top and bottom of the package in the position in which the package is normally transported.

Passed.

■ ADDITIONAL TESTS REQUIRED

Not applicable.

■ TESTS CONDUCTED BY: Dr. Indravadan Patel
Radiation Safety & Research Consultant

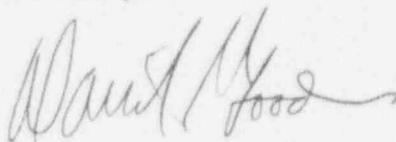
Dr. K. R. Das
Radiation Safety & Research Fellow

Date: 11/19/87

Corrective steps include maintaining this documentation on file for at least one year after the last shipping of radioactive materials. Full compliance was achieved on August 22, 1994.

Thank you for your attention in this matter.

Sincerely,



David S. Gooden, Ph.D., J.D.
Director, Biomedical Physics
Radiological Physicist

DSG/jml

xc: Regional Administrator, Region IV
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