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Monday, May 12, 1997

Mr. Roy J. Caniano, Acting Director
Division of Nuclear Materials Safety
U. S. Nuclear Regulatory Commission, Region III
801 Warrenville Road
Lisle, IL 60532-4351

REPLY TO A NOTICE OF VIOLATION

Reference: License number 24-21362-01
Docket number 030-20567

Dear Mr. Caniano:

This is in response to your letter dated April 17, 1997, in which you identified possible violations of NRC requirements. The possible violations are repeated below followed by our response.

1. Condition 23 A. of License No. 24-21362-01 requires that licensed material be possessed and used in accordance with statements, representations and procedures contained in an application dated October 1, 1992.
 - A. Section 4.2.1.5 of the Radiation Protection Program Manual submitted with the application states that the permissible level of contamination on the surfaces exterior to ventilated enclosures in restricted areas is 11,000 dpm/100 cm² for tritium and 2,200 dpm/100 cm² for other beta emitting radionuclides and in unrestricted areas is 1,100 dpm/100 cm² for tritium and 220 dpm/100 cm² for other beta emitting radionuclides.

Contrary to the above, independent surveys conducted by the inspectors on the loading dock of building 100, unrestricted area, revealed removable 3 carbon-14 contamination at levels of 1,000,000 dpm/100 cm².

This is a Severity Level IV violation (Supplement IV).

Response

During the NRC inspection, a technician transferred a polyethylene bag containing radioactive silica gel waste from building 300 to building 100 for compaction. He placed the bag down on the loading dock to open the rear door. Apparently the bag had a hole or tear in the bottom which allowed a small amount of silica gel to spill out onto the loading dock. The inspectors noticed the silica gel spot, surveyed it and found it to be radioactive. Immediately following the inspection, the protocol for moving bags containing radioactive waste was revised. A secondary leak-tight container, such as a plastic waste can or tub, was required to be used for transfer of radioactive waste from one building to another. This corrective action should prevent a recurrence.

- B. Standard operating procedure (SOP) 01 Dry Solid Radioactive Waste Compaction Program, submitted with application, requires individuals using the waste compactor to be provided training in its operation and associated radiation protection principles which includes using the compactor which is contained within an enclosure connected to an air exhaust system to prevent spread of contamination within the facility.

Contrary to the above, the licensee failed to provide appropriate training to an individual using a waste compactor located in building 100. Specifically, because of inadequate training, the compactor used for compacting solid radioactive waste was not located within an enclosure connected to an air exhaust system as required by the SOP.

This is a Severity Level IV violation (Supplement VI).

Response

Without the approval of the individual who was then the Radiation Safety Officer, the HP technician who had been compacting waste for several years decided to move a spare backup compactor into building 100 and began using both for radioactive waste compaction. The original compactor was contained within an enclosure connected to an air exhaust system. The second compactor was not. The HP technician then provided on-the-job training for a new technician who also used both compactors thus perpetuating the problem.

Subsequently, the RSO resigned and his duties were transferred to the Radiation Safety Director. When the RSD/RSO performed a walk-through of building 100 in February, 1997, during the NRC inspection of the facilities, he noticed the second compactor, immediately took it out of service and instructed all individuals involved in the compaction operation to use only the compactor contained within the enclosure. The second compactor was removed from building 100 and placed in standby as a backup unit. Any new individuals who will use the compactor will be instructed to use the compactor only within the enclosure provided.

2. 10 CFR 71.5 (a) requires that a licensee who transports licensed material outside of the confines of its plant or other place of use, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 170 through 189.

- A. 49 CFR 173.448 (a) requires that each shipment of radioactive materials be secured in order to prevent shifting during normal transportation conditions.

Contrary to the above, on numerous occasions, the licensee transported (outside the confines of its plant) packages containing material which was not properly secured to prevent shifting during transport.

Specifically, on unspecified occasions packages containing licensed material were transported by ARC employees and the packages were not properly secured to prevent shifting during transport.

This is a Severity Level IV violation (Supplement V).

- B. 49 CFR 177.817(e) requires, in part, that the driver of a motor vehicle containing hazardous material ensure that the shipping paper is readily available to, and recognizable by, authorities in the event of accident or inspection. Specifically, (i) when the driver is at the vehicle's controls, the shipping paper shall be: (A) within his immediate reach while he is restrained by the lap belt; and (B) either readily visible to a person entering the driver's

compartment or in a holder which is mounted to the inside of the door on the driver's side of the vehicle; (ii) when the driver is not at the vehicle's controls, the shipping paper shall be: (A) in a holder which is mounted to the side of the door on the driver's side of the vehicle; or (B) on the driver's seat in the vehicle.

Pursuant to 49 CFR 172.101, radioactive material is classified as a hazardous material.

Contrary to the above, on numerous occasions, the licensee transported licensed material outside the confines of its plant and the driver of the vehicle did not ensure that the shipping paper was readily available in the driver's compartment, as required. Specifically, the shipping papers were affixed to the packages in the back seat or trunk of the automobile and not accessible to the driver.

This is a Severity Level IV violation (Supplement V).

- C. 49 CFR 172.702(a) requires, that a hazmat employer shall ensure that each of its hazmat employees are trained in accordance with the requirements of Subpart H (Training) of 49 CFR 172. The required training includes in part, the following: (1) General awareness/ familiarization training with the requirements of Subchapter H, and to enable the employee to recognize and identify hazardous materials consistent with the hazard communication standards. (2) Function specific training, (3) Safety training concerning emergency response information required by subpart G of part 172, and measures to protect the employee from the hazards associated with hazardous materials to which they may be exposed in the work place, including specific measures the hazmat employer has implemented to protect employees from exposure. (4) Methods and procedures for avoiding accidents.

Contrary to the above, on numerous occasions, the licensee required employees to transport packages containing radioactive material with activities greater than limited quantity, in a private automobile, from the offices of American Radiolabeled Chemicals to the St. Louis Airport for delivery to freight handlers and did not provide the required HazMat training.

This is a Severity Level IV violation (Supplement V).

Response

Most ARC products for delivery nationally and internationally are picked up by common carriers at the ARC facility. Exceptions are products destined for Greece, Spain and Israel. These must be delivered to the St. Louis Airport by certain times in order to make specific international flights. These few packages were and are taken to the airport by ARC personnel. Before ARC began making these deliveries, the RSO reviewed DOT regulations to determine what steps, if any, needed to be taken. Initially, only limited quantities of radioactive materials were offered for transportation. On that basis, the RSO determined that no additional steps needed to be taken. Most recently, we also delivered excepted packages to a local licensee on 3 to 4 occasions.

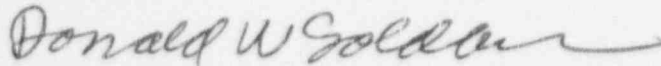
During the NRC inspection, one of the inspectors told the RSD/RSO that certain DOT regulations may have been violated. A records check was made of products shipped to Greece, Spain and Israel. It was found that all products shipped to Greece and Spain were in limited quantities. However, a few of the many products shipped to Israel were found to exceed a limited quantity.

The RSD/RSO immediately wrote a new standard operating procedure, SOP-24, *Transportation of RAM Using Private Vehicles*. He also prepared another ARC document, *Emergency Instructions and Procedures Manual*. Both the SOP and manual were given to the NRC inspectors before the conclusion of the inspection. The SOP addresses the apparent violations in 2 A and 2 B above.

In addition to radiation safety training, individuals involved in making deliveries to the St. Louis Airport will be trained using the new standard operating procedure and the emergency manual. We believe this will provide the HazMat training required in 2 C above.

Sincerely,

AMERICAN RADIOLABELED CHEMICALS, INC.



Donald W. Soldan
Radiation Safety Director

cc: Radiation Safety Committee

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