From: Vivian Campbell
To: brey@athena.physics.isu.edu
Date: 12/14/2007 7:13:01 AM
Subject: RE: NIH LSAII shipment

Dr. Brey

In our telephone conversation of Tuesday, December 12, we discussed Department of Transportation (DOT) regulations applicable to your receipt of an exclusive-use shipment. It is our understanding that the University received a D-ring that was shipped by an exclusive-use carrier from the National Institutes of Health (NIH). The carrier delivered the D-ring to Idaho State University and subsequently left the premises. Individuals at Idaho State University, other than the graduate students employed at the Technical Safety Office, performed the survey of the package containing the D-ring. The survey documented there was no measurable contamination.

Since the survey of the package did not indicate any removable contamination, the package did not qualify for the provisions of paragraph 49 CFR 173.443(b) - which allows packages transported by exclusive-use carrier to have removable contamination up to ten times the regulatory limit during transport. Since the exclusive-use shipment did not meet the provisions of paragraph 49 CFR 173.443(b), the survey requirement in 49 CFR 173.443(c) does not apply.

However, there are additional carrier requirements contained in 49 CFR 177 "Carriage by Public Highway." Under 49 CFR 177.800(b), the carrier is responsible for compliance with the Part 177 requirements. The survey requirements in 49 CFR 177.843 are therefore required by the carrier and are required for each motor vehicle used for transporting Class 7 (radioactive) material under exclusive-use condition in accordance with Sec 173.427(b)(3) or (c) [there is a typographical error in the regulations such that this reference should be (b)(4) or (c)] or Sec. 173.443(c). Strictly following the regulations, the carrier should have performed a survey for an exclusive-use shipment, prior to returning the vehicle to service. However, with VERY limited exception, U.S. carriers do not carry survey instruments or train drivers to perform radiation surveys or swipes. Typically, the offeror (shipper) who is shipping under exclusive-use provisions of 10 CFR 173.443(b) or 173.427 (for LSA or SCO) will provide guidance in their exclusive-use instructions to ensure the carrier is aware that the vehicle should be surveyed. This ensures that all regulatory requirements are met before the vehicle is returned to service.

Based on NRC's understanding of the event, there may have been a violation of 49 CFR 173.403, in that the exclusive-use instructions provided by NIH may have been inadequate. There also appears to have been a violation of 49 CFR 177.843, assuming the D-rings were shipped as exclusive-use package under 49 CFR 173.427, in that the vehicle was not surveyed prior to returning it to service. Neither of these potential violations would be assessed against Idaho State University, but rather would be assessed against the carrier and NIH. Considering that the survey performed by the University documented the D-ring package was not contaminated, it could be inferred that the vehicle was also not contaminated as a result of the package. In this case, we think it is unlikely that DOT would take enforcement action against the carrier or the shipper.

The NRC appreciates your concern regarding this event and your commitment to conducting your program with strict adherence to the regulations. We do not discourage individuals or licensees from taking the initiative and making reports which they deem prudent. As part of our review of the regulations and the circumstances surrounding this event, the NRC reviewed your commitments in your license for material receipt and accountability. Section 10.3 of your license renewal application dated July 1999 describes the procedure for material receipt and accountability and requires that the Technical Support Office should be notified within 3 hours so that it may perform the receipt survey. We would encourage you to discuss this event at your next Radiation Safety Committee meeting as it appears that the Technical Support Office was not present during the delivery of the D-ring and were not the individuals who performed the required receipt survey of the package, as required by your procedures.

The NRC allows greater responsibilities for the Radiation Safety Officer and the Radiation Safety

Committee under an NRC Broad Scope license. The Radiation Safety Officer is the individual named on the license who has the responsibility for the radioactive materials authorized under the license and the broad scope program. It is important that the Radiation Safety Committee, the principle investigators and the radiation safety office communicate effectively in order to implement an effective broad scope program.

We appreciate your willingness to ask pertinent questions to ensure that your radiation safety program continues to meet the expectations that the agency has for a Broad Scope licensee.

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From:	Vivian Campbell
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