



Office of the Executive Vice Chancellor

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December 20, 2004

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

Reply to a Notice of Violation.

References: Docket 50-326. License R-116 UC Irvine Nuclear Reactor Facility  
NRC Inspection Report 50-326/2004-201 Notice of Violation

1. Discussion of Violation

As noted in our prior response to a similar violation in October, 2002, we regret that our documentation was incomplete and/or incorrect. The short half-lives of the major isotope in this shipment of samples (manganese 56, 2.3 hours) and the physical and chemical form (solid meteorite and rock fragments) fortunately precluded there being a significant safety hazard. The shipment would be below TI of Yellow II, even if the numbers present on the sheet were correct, by the time it entered main highways. Unfortunately the individual responsible for this shipment has since retired from the University, and the addressee has apparently retained no records from this shipment, so we are unable to reconstruct the actual course of events.

2. Corrective Steps Taken

We have instituted a checklist (copy attached) for radioactive shipments from the facility that requires review of all items needed. Further, a requirement is in place for a second knowledgeable individual (not an authorized shipper) to review the paperwork before the shipment is permitted to leave. Staff have been trained in the use of this checklist.

3. Further Corrective Steps

We are confident that the checklist use will establish fully correct shipping procedures for Yellow II shipments (True Yellow III are very rare from this facility). The checklist will be incorporated into Standard Operating Procedures (SOP) for the facility and appropriate training conducted at intervals not to exceed two years. A separate checklist will be created to address yellow III issues, and appropriate training conducted.

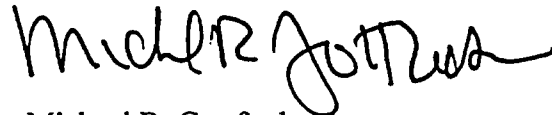
4. Full Compliance

As indicated, full compliance with proper shipping procedures (49CFR 171-177) is already in place. The additional steps will help maintain compliance.

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We appreciate the opportunity to respond to the referenced Notice of Violation, and also appreciate that all other aspects of facility operations that were inspected during the visit were found to be in compliance.

Sincerely

A handwritten signature in black ink that reads "Michael R. Gottfredson". The signature is written in a cursive style with a large, stylized "M" and "G".

Michael R. Gottfredson  
Executive Vice-Chancellor

Cc: Mr. Craig Bassett, NRC Office of Nuclear Reactor Regulation  
Dean Ron Stern, UCI School of Physical Sciences  
Members, UCI Reactor Operations Committee

UCI Radioactive Sample Shipping Checklist.

To be filed with shipping papers AT UCI.

Note: This is NOT a substitute for official shipping documents.

Date \_\_\_\_\_ Shipment to \_\_\_\_\_

<b>BEFORE PACKAGING YELLOW II FOR SHIPMENT.</b>	
1.	Estimation of ISOTOPE (main) content in Bq (or MBq, etc) AND in Ci units. (previous similar shipments can be used for this).
<b>USERS LICENSE INSPECTED</b>	
2.	Isotope quantities and ID are OK.
3.	verified expiry date beyond today's date
<b>DURING OR AFTER PACKAGING FOR SHIPMENT as YELLOW II*.</b>	
Package Measurements	
4.	SURFACE LEVEL ON PACKAGE is measured, recorded and is LESS THAN 50 mr/hr.
5.	1 meter from surface of PACKAGE is MEASURED AND RECORDED and is LESS THAN 1 mr/hr.
<b>AUTHORIZATION</b>	
6.	<u>Second</u> person (usually Reactor SRO) has verified that these numbers have been recorded and meet the above criteria. RSO signs below to verify this.
7.	Official Shipping paper finalized. Document has: <ul style="list-style-type: none"> <li>• identities of main isotopes,</li> <li>• quantities in Bq (kBq,MBq, etc),</li> <li>• physical <u>and</u> chemical form of isotopes,</li> <li>• Transport Index (TI) Value</li> <li>• Signature of K. Harkness ONLY is authorized.</li> <li>• Emergency Telephone Number</li> </ul>
8.	Copies properly placed in vehicle.

\*Yellow I or Yellow III shipments follow similar but rare practices.

Filled out by \_\_\_\_\_

Signed as checked by: \_\_\_\_\_