DCD

April 28, 1997

John Torphy
Vice Chancellor for Administration
University of Wisconsin-Madison
Administration, Room 110
Bascom Hall
Madison, WI 53706

SUBJECT: REVIEW OF CONTESTED NOTICE OF VIOLATION
DATED FEBRUARY 28, 1997

Dear Mr. Torphy:

This acknowledges receipt of your letter dated March 17, 1997, in response to our letter dated February 28, 1997, transmitting a Notice of Violation (Notice). Your letter indicated that you do not entirely concur with the violation that pertains to an individual that used a nuclear gauge and was not approved by the University Radiation Safety Committee (URSC). Your reason for disputing the apparent violation was based upon the fact that the Radiation Safety Office took over responsibility for training gauge users in May 1996, because it identified deficiencies in the training program and supervision of gauge users.

Based on an independent review of the information you provided, we have concluded that the disputed violation is valid. Our basis is as follows: (1) the individual that used the gauge was not specifically approved by the URSC in accordance with License Condition No. 12.A. and (2) the URSC did not specifically approve the Radiation Safety Office to grant authorization to users of gauges and be responsible for all gauge use under the university broad scope license.

Your letter dated March 17, 1997, also states that your staff completed the additional training which was recommended by the NRC inspectors during the exit meeting with you and your staff. Based upon our April 9, 1997 telephone conversation with Mr. Ronald Bresell, we understand that our inspectors did not actually make this recommendation, rather, the inspectors discussed the NRC's policy regarding licensee training programs you could consider to address a concern about your nuclear gauge user training program.

Your letter also clarified an issue addressed in item 3 of the Notice. Specifically, you indicated that the employee in question only transported the gauge in the back seat of his car and not in the front seat. Thank you for clarifying this matter.

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We reviewed your corrective actions for the apparent violations, which appear adequate and have no further questions at this time. These corrective actions will be examined during a future inspection.

We appreciate your comments and will gladly discuss any further questions you may have.

Sincerely,

Original Signed by Roy J. Caniano

Roy J. Caniano, Acting Director
Division of Nuclear Materials Safety

Docket No. 030-03465
License No. 48-09843-18

cc: R. Bresell, RSO

bcc w/ltr dtd 03/17/97: T. Simmons, EICS
PUBLIC IE07

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UNIVERSITY OF
WISCONSIN
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March 17, 1997

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

RE: Response to Inspection, Docket No. 030-03465 / 030-07109

Dear Sirs:

Reference Region III inspection results letter of 28 February, 1997. Attached is our reply to the violations noted.

If you have any questions pertaining to this information, please contact me or Ronald Bresell, the UW RSO.

Sincerely,

John Torphy
Vice Chancellor for Administration

xc
U.S. Nuclear Regulatory Commission, Region III
ATTN: Ms. Cynthia D. Pederson, Director
Division of Nuclear Materials Safety
801 Warrenville Rd.
Lisle, Illinois 60532

MAR 21 1997

Safety Department

University of Wisconsin–Madison 30 North Murray Street Madison, Wisconsin 53715-2609
608/262-8769 FAX: 608/262-6767

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Reply to a Notice of Violation

License No. 48-09843-18

1. License Condition No. 12.A. requires that licensed material for non-human use shall be used by, or under the supervision of individuals designated by the University Radiation Safety Committee (URSC).

   Contrary to this requirement, during numerous occasions in 1996 to the day of the inspection, an individual was using a Campbell Pacific Nuclear gauge, Model 503 hydroprobe containing 50 millicuries (1.8 GBq) of americium-241 to perform moisture measurements at temporary job site locations and this individual was not approved by the URSC or working under the supervision of an individual designated by the URSC.

   Reason for the violation: We do not entirely concur with this violation finding.

   The Radiation Safety Office is responsible for several types of training under several NRC licenses. For example, the training program for persons who desire to utilize close-beam irradiators (e.g., J.L. Shepherd Mark 1) consists of two phases: (1) the worker must first become a radiation worker UP BML 48-09843-18 and (2) the worker must attend an irradiator training class (see Chapter 9, Radiation Safety for Radiation Workers). Successful completion of these requirements allows the worker to use one of the UW's three irradiators unsupervised. The Radiation Safety Office is responsible for the maintenance and safe use of these systems.

   In May, 1996, the Radiation Safety Office implemented a similar program for moisture gages. This was done for several reasons:

   (1) There has been increased NRC scrutiny of gage users because of several incidents/accidents.
   (2) Training users on compliance with Federal (NRC/DOT) requirements should be the responsibility of Radiation Safety and not of a faculty member who is primarily interested in the data obtained from use of the probe.
   (3) One of the students using a gage received a 250 mrem exposure because of improper use.

   While the third event was the actual precipitating factor in implementing the training program, the Radiation Safety Office apprised the URSC of it's intention during the 6 May, 1996 committee meeting (attached). Specifically, the committee was made aware that, "To reduce the risk of such exposures occurring again and to insure compliance, Safety implemented a training program for soil moisture prob users. Just as with irradiators, Safety will train any person using these devices for research, enabling professors and faculty advisors to focus on the students research results."

   Therefore, just as with close-beam irradiators, this program is managed by the Radiation Safety Office "as designated by URSC" which maintains tight control on the sources and access to the sources.

   Corrective steps that have been taken and results achieved: All of Radiation Safety's programs are approved by the URSC. As recommended during the outbrief, in February several Radiation Safety personnel attended a density gage training course offered by Troxler. Using the information presented at this course, we revised our gage users training course which had previously been approved by the URSC. Our trainer then reviewed the requirements with this gage user to correct

any deficiencies and after some minor retraining (see #2 and #3, below), this person was issued a certificate and accorded the role of gage user per this program.

Corrective steps that will be taken to avoid further violations: The gage health physicist will contact all nuclear gage users (both users authorized by the URSC and those using under Radiation Safety) to correct any deficiencies. Radiation Safety will be named an Authorized User and will detail training programs which it conducts over-and-above the routine radiation safety training required for all radiation workers.

Date of full compliance: Corrective action will be completed at the next (May, 97) URSC meeting.

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.

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 lab 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.

Contrary to this requirement, during numerous occasions in 1996 to the day of the inspection, shipping papers were routinely carried inside a locked transport case with the Campbell Pacific Hyroprobe and not within the immediate reach of the driver while restrained by his lap belt.

Reason for the violation: At one time, the worker involved in this violation had been using this hydroprobe to gather research for his MS under the supervision of a faculty advisor. A 250 mrem exposure was experienced by one of the two students supervised by this faculty member and, upon investigation, Safety found that the faculty member was not on campus. At that point, the Safety Department implemented a training program to insure all new gage users were properly trained. Because this gage worker had been using the gage without incident for over one year and had used a similar gage at another school in the UW System, the "new" training requirement was not made retroactive; rather the worker was provided with a training packet, informed that it included new requirements for transportation, and to read and implement. Periodically Safety personnel would check on such items as the shipping log, etc., however, the specifics of transport were not audited.

Corrective steps that have been taken and results achieved: The day after the NRC outbrief, Radiation Safety personnel removed the gage from this worker's possession and required that he complete the training program implemented for portable gage users. That requirement was satisfied on 7 March.

Corrective steps that will be taken to avoid further violations: All new nuclear gage users will initially receive specific training in the use and transportation of nuclear gages before first use. All current gage users will be informed of Radiation Safety's gage program, this violation and the University's corrective action. Periodically (but at least annually if the worker is using the gage over several seasons) Safety will audit the gage user and the worker's use of the gage to insure compliance.

Date of full compliance: 7 March, 1997.

3. 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, during 1996 to the day of the inspection, the licensee transported outside the confines of its facility a package containing 50 millicuries (1.8 GBq) of americium-241 inside a Campbell Pacific hydroprobe gauge which was not properly secured inside the vehicle to prevent shifting during transport. Specifically, the gauge case was transported in the front and back seat of the vehicle without any restraining straps or cords to keep the case from shifting during normal transportation conditions.

Reason for the violation: Violation # 2 and Violation # 3 pertain to the same use and user. Responses are similar. Regardless, when we discussed this violation with the the individual involved, he asserts that he never transported the gage in the front seat of a vehicle. Rather when he left the truck parked and was away from it, he would leave the case in the front seat for security.

Corrective steps that have been taken and results achieved: The day of the outbrief, Safety personnel removed the gage from this worker's possession and required that he complete the training program implemented for portable gage users. That requirement was satisfied on 7 March.

Corrective steps that will be taken to avoid further violations: All new nuclear gage users will initially receive specific training in the use and transportation of nuclear gages before first use. All current gage users will be informed of Radiation Safety's gage program, this violation and the University's corrective action. Periodically (but at least annually if the worker is using the gage over several seasons) Safety will audit the gage user and the worker's use of the gage to insure compliance.

Date of full compliance: 7 March, 1997