

DED/DCB

Assistant Chancellor
For Administrative Affairs



November 29, 1990

William H. Schultz, Chief
Nuclear Materials Safety
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

RE: License No. 48-09944-01
Docket No. 030-01160

Dear Mr. Schultz:

I have received your letter of October 29, 1990 indicating the results of the routine safety inspection conducted by Messrs. W. Slawinski and J. Cameron on September 24-25, 1990 regarding the above referenced NRC License. The University of Wisconsin - Milwaukee is committed to achieving and maintaining compliance with all provisions of its license, therefore, the campus has taken the specific actions listed below to correct the four violations and address the two items of concern listed in your letter:

A. Response to NRC Notice of Violation.

ITEM 1: Failure to have thyroid counts taken as required.

The UW-Milwaukee NRC license indicates that the terms and conditions of Regulatory Guide 8.20 will be followed with regard to thyroid bioassays after radioiodinations are performed. The UW-Milwaukee "Guide to the Safe Use of Radionuclides" amplifies this point by stating that a "... thyroid count is required within ten days of the date of receipt [of the radioiodine by the laboratory] unless previous arrangements have been made...".

The repeat violations cited here refer to documents maintained in radiation safety program files and focus on a period of time during which a researcher did not fully understand the terms and conditions UW-Milwaukee NRC license or agree with the Radiation Safety Officer's interpretation of them. The researcher was also critical of the minimum level of personalized services provided by Radiation Safety. The repeat violations occurred during the interval that radiation safety and administrative personnel strove to improve this level of

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understanding. Since the researcher had brought up some valid concerns regarding the operation of the radiation safety program, the Radiation Safety Officer and the campus administration felt it would be counterproductive to simply withdraw the researchers authorization (the most prompt and effective correction action available at the time). Rather, the more difficult task of negotiating and building confidence was undertaken. The result was that the researcher agreed to arrive "on time" for thyroid scans. Since the NRC inspection the researcher, his Dean, the Assistant Chancellor and the Radiation Safety Officer have further agreed that the deadline for thyroid scans will be determined in advance of each iodination. In other words, consistent with the language of the UW-Milwaukee "Guide to the Safe Use of Radionuclides" and Regulatory Guide 8.20, arrangements will be made prior to each iodination that thyroid scans will be taken within ten days after each iodination and that the date of each iodination will be determined at the time the radioiodine is received by the laboratory.

ITEM 2: Failure of Authorized Users to perform and document required contamination control surveys.

The requirement to perform and document contamination control surveys was included in the license issued to the University on October 29, 1989. Previously the requirement for laboratories to routinely perform and document monitoring activities was accomplished by inference only. All Authorized Users were informed of this additional written requirement in November, 1989. Moreover, radiation safety staff held meetings with each laboratory group to discuss this requirement and outline ways to implement an appropriate monitoring program within their labs. In some cases the implementation of this new program was met with resistance. However, Radiation Safety felt that timely progress was being made toward the implementation of survey programs within each individual laboratory.

All Authorized Users have been notified of this violation in writing and the users and lab groups have been reminded of the monitoring and adequate documentation requirements. Radiation Safety will conduct increased announced and unannounced visits to radionuclide laboratories on campus. During these visits particular attention will be paid to the lab's documentation of their contamination control surveys. Radiation Safety will report instances of missed or inadequate surveys to the Authorized Users following the "Enforcement of NRC Regulations" procedures described in the UWM NRC license.

ITEM 3: Inadequate shielding provided for high energy beta emitting radionuclides.

The requirement for adequate shielding of high level beta and gamma emitting isotopes is discussed in the UW-Milwaukee's "Guide to the Safe Use of Radionuclides" which is provided to all Authorized Users and their laboratories. The primary radionuclide (P-32) work area in Lapham 520 utilizes Lucite sheets for shielding on the lab bench and Lucite sheets for shielding of the waste storage area. Due to an increased number of graduate students working in this lab the radionuclide work area had been expanded to a second laboratory bench. Additional shielding had not been provided for the waste generated at the second work area.

The Authorized User has been informed of this violation and he has replied that additional shielding has already been put in place and the remaining shielding needed has been ordered. Radiation Safety will increase the frequency of its audits of this laboratory, pay specific attention to radiation exposure levels in the work areas and verify that shielding is provided. Inadequacies detected will be reported to the Authorized User and the "Enforcement of NRC Regulations" procedures described in the UWM NRC license will be followed.

ITEM 4: Unsecured sources of radioactive material.

The requirement to maintain all sources of radioactive material in a secure location is outlined in the University's "Guide to the Safe Use of Radionuclides". Security is usually maintained by storing sources of material in a locked freezer or cabinet when not in use or by locking the room in which the materials are stored and used when no one is present. When the Authorized User responsible for Chemistry 414 and 540 was informed of this violation he stated that his staff routinely locks the lab doors when leaving. However, on the day of the inspection someone in a hurry to attend a meeting forgot to lock the door.

The staff working in that laboratory have been reminded of the need to secure all sources of radioactive material from unauthorized removal. The Authorized User has informed us that special attention is being paid to ensure that the laboratory area is locked whenever the lab is left empty. Additionally, Radiation Safety will increase the frequency of its audits of these laboratories to ensure that radioactive materials are maintained in secure locations. Problems

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encountered will be corrected following the "Enforcement of NRC Regulations" procedures described in the UWM NRC license.

B. Response to NRC Items of Concern.

ITEM 1: Repeated bioassay violations.

This item of concern refers to documents maintained in radiation safety program files and focuses on a single authorized user. The repeat violations occurred when the Radiation Safety Officer (in agreement with the campus administration) temporarily suspended the "Enforcement of NRC Regulations" procedures (described in detail in the UW-Milwaukee NRC license) against this user. The procedures were suspended primarily because it appeared that the researcher did not fully understand the terms and conditions of the UW-Milwaukee NRC license and it was agreed that additional training rather than punitive action was the best solution to this problem.

In retrospect, suspending the "Notice of Violation" procedures in this case resulted in communication difficulties and extended the period of time it took to resolve the problem.

In the future, the UW-Milwaukee "Notice of Violation" procedures will be followed completely and without exception.

ITEM 2: Adequate documentation of training and experience for Authorized Users

The records referred to here are largely for principal investigators whose research performance and qualifications to use radionuclides were well known to the radiation safety staff but which were not completely documented.

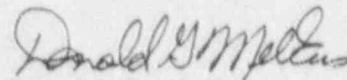
Radiation Safety will ensure that the written records of all authorized users of radioactive material will be fully updated and maintained as required by the UWM NRC license.

I trust these responses adequately address the violations and items of concern mentioned in your letter. Should you have any further questions or require any additional documentation, please do not

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hesitate to contact me or Dr. John Krezoski, Radiation Safety Officer.

Sincerely,



Donald G. Melkus
Assistant Chancellor
Administrative Affairs

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