U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 030-02764/89001(DRSS)

Docket No. 030-02764

License No. 34-06903-05 Category G(1) Priority 1

Licensee: University of Cincinnati
234 Goodman Street
Cincinnati, OH 45267

Management Conference Conducted: November 1, 1989

At: U. S. Nuclear Regulatory Commission
Region III Office
799 Roosevelt Road
Glen Ellyn, IL 60127

Inspection Conducted: September 19 through November 1, 1989

Inspectors: W. J. Slawinski D J Sreniawski for 11/24/89
Senior Radiation Specialist Date

T. L. Simmons T. L. Simmons 11/20/89
Radiation Specialist Date

Reviewed By: D. J. Sreniawski, Chief D J Sreniawski 11/24/89
Nuclear Materials Safety Section 1 Date

Approved By: Bruce S. Mallett, Ph.D., Chief Bruce S. Mallett 11/24/89
Nuclear Materials Safety Branch Date

Meeting Summary

Management Conference on November 1, 1989 (Report No. 030-02764-89001(DRSS))
Areas Discussed: The licensee presented a summary of events since August 1989, an overview of the revised functions of the Radiation Safety Committee, a review of findings and corrective actions and a current radiation safety program status update.

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DETAILS

1. Conference Attendees

University of Cincinnati

D. C. Harrison, M.D., Sr. V.P./Provost for Health Affairs
C. W. Kupferberg, Associate Sr. V.P. for Medical Center
J. F. Wiot, M.D., Chief, Radiation Safety
H. R. Elson, Ph.D., Radiation Safety Officer
J. E. Wesner, General Counsel
Francisco Trejo, Director, NES (Consultant)

U. S. Nuclear Regulatory Commission

A. B. Davis, Regional Administrator
C. J. Paperiello, Ph.D., Deputy Regional Administrator
C. E. Norelius, Director, Division of Radiation Safety and Safeguards
B. S. Mallett, Ph.D., Chief, Nuclear Materials Safety Branch
D. J. Sreniawiski, Chief, Nuclear Materials Safety Section 1
G. M. McCann, Chief, Materials Licensing Section
J. A. Grobe, Director of Enforcement
W. J. Slawinski, Sr. Radiation Specialist
T. L. Simmons, Radiation Specialist
K. J. Lambert, Radiation Specialist

2. Management Conference

A management conference was held in the NRC Region III office on November 1, 1989. The purpose of this conference was to discuss the following four issues:

1. The extent to which university officials notified NRC of the university's finding that the Radiation Safety Officer may have removed records to prevent them from being reviewed by an NRC inspector.

2. The extent of the Radiation Safety Committee's oversight and audit of the radiation safety program in the past and present.

3. The effectiveness of the Radiation Safety Committee in performing its normal function in the past and present, including whether membership, fragmentation and/or availability of members have had any affect on this function.

4. The findings and status of corrective actions implemented as a result of the ongoing review of the radiation safety program at the University, including the items specified in our August 30, 1989 Confirmatory Action Letter.

University representatives responded to the above issues by presenting an overview of the events which led to this conference and by describing, defining and clarifying specific plans and goals designed to bring the radiation safety program into compliance. Actions already taken to achieve these goals include: (a) major revisions in the membership of the radiation safety committee to more accurately reflect all licensed program areas, (b) the development of a charter which specifies committee responsibilities and functions and (c) management commitment to take a significant oversight role to ensure the safe operation of the licensed program.

NRC representatives agreed in principle with the program revisions and changes but cautioned that the success of the program depends upon the implementation by the incumbent Radiation Safety Officer and management's continued commitment and oversight. The NRC discussed the NRC enforcement policy and informed the licensee that it would be notified in writing of any proposed enforcement actions in this matter.

3. Confirmatory Action Letter (CAL) Status

During the early phases of the consultant's audit of the licensee's program, contamination problems were identified in Crosley Building Laboratories No. 300 and 309. The problems appeared to stem from inadequate laboratory contamination control and survey practices, lab worker training and operating protocol weaknesses and unavailability of principal investigators to supervise research activities. A CAL was issued on August 30, 1989, directing the licensee to take certain specific actions to correct the immediate laboratory contamination problem and certain other actions to identify the extent of similar problems in other research laboratories and implement corrective actions. The actions taken by the licensee in response to the CAL are described below.

CAL Item (a): Decontaminate Crosley Building Laboratories No. 300 and 309.

Licensee Action: Research activities in Crosley Building Laboratories No. 300 and 309 were suspended and the labs decontaminated. NRC inspectors toured the labs on October 5, 1989 and were informed that decontamination was complete with the exception of laboratory fume hood and sink drains. According to the licensee, these remaining areas were decontaminated to acceptable levels (<220 dpm/100cm^2 smearable) by October 16, 1989.

CAL Item (b): Develop a new technetium-99 operating protocol for activities conducted in laboratories No. 300 and 309 and have it approved by your Radiation Safety Committee.

Licensee Action: Active protocols were reviewed and approved by October 30, 1989. Relief for review of dormant (inactive) protocols is described in CAL Item No. 3 below.

CAL Item (c): Approve a principal investigator(s) that is routinely available to supervise the research activities in laboratories No. 300 and 309.

Licensee Action: Technetium-99 research activities in Laboratories No. 300 and 309 were suspended and not reactivated. Refer to CAL Item No. 1 below for generic actions with respect to this item.

CAL Item (d): Provide radiation safety training to involved laboratory workers.

Licensee Action: A new training program for laboratory workers, researchers, and ancillary staff was developed as described in licensee letters dated October 2, 13, and 30, 1989. The newly developed radiation protection training course was initially offered to laboratory workers and researchers in early October 1989. Applicable ancillary staff were also recently provided training commensurate with 10 CFR 19 requirements.

CAL Item (1): Provide a written notice to all users by close of business on September 1, 1989 detailing:

a. Your recent radiation safety program organizational changes including the identification of current program contacts.

b. A description of the recent technetium-99 contamination incident and its apparent cause(s).

c. User responsibility to adhere to approved operating protocols including contamination control and survey requirements.

Licensee Action: The requirements for written notification to users was satisfied in a September 1, 1989 memorandum from the Radiation Safety Committee Chairman to all researchers. This memorandum also addressed CAL item (c) above, regarding availability of principal investigators for Crosley Building Laboratories No. 300 and 309.

CAL Item (2): Within two weeks (i.e., September 14, 1989), require each principal investigator to assure that existing protocols are adequate for current operations.

Licensee Action: This item was addressed in the aforementioned September 1, 1989 memorandum.

CAL Item (3): Prohibit further purchasing of NRC-licensed material for non-human use until affected protocols are reexamined by the Radiation Safety Officer to ensure that proper facilities, equipment, contamination and disposal controls and ALARA considerations are in place. These protocols are also to be reviewed by a quorum of the Radiation Safety Committee no later than two weeks after they are submitted. All remaining protocols will be reviewed by October 30, 1989. A quorum will consist of

the Chairman of the Radiation Safety Committee, the Radiation Safety Officer or his assistant and two other members of the committee.

Licensee Action: No further purchases of NRC-licensed material for non-human use were allowed until affected protocols were reexamined and approved. Active protocols were reviewed/approved as required by October 30, 1989.

The licensee, however, requested relief from this item with respect to review of all dormant protocols by October 30, 1989. The licensee's proposal, as described in their October 13, 1989 letter, was reviewed and found acceptable. Consequently, the NRC will allow the review of dormant protocols to be postponed until a purchase requisition for licensed material is made under the protocol or the licensee's newly revised protocol and isotope use approval system is inaugurated in early 1990. Review of all protocols, including dormant protocols, will be completed in accordance with the revised system during the first quarter of 1990.

CAL Item (4): Continue laboratory surveys/audits, prioritizing high volume and suspected problem laboratories. All survey audits will be completed and the results and planned corrective actions submitted to the Commission (Region III) by October 30, 1989.

Licensee Action: Licensee efforts to satisfy this item were significant and involved field audits of nearly 700 research laboratories and use areas. The licensee's laboratory audit findings are described in their letter to Region III dated October 30, 1989.

CAL Item (5): Provide radiation safety refresher training to all laboratory researchers, technologists, and assistants by October 30, 1989.

Licensee Action: Refer to CAL Item (d) above.

In summary, the licensee has satisfactorily met all CAL requirements.