



DEPARTMENT OF VETERANS AFFAIRS
Medical Center
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Tacoma WA 98493

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October 4, 1990

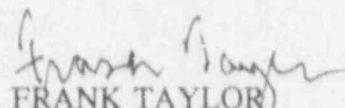
Robert J. Pate, Chief
Nuclear Materials and Fuel Fabrication Branch
U.S. Nuclear Regulatory Commission, Region V
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596

In Reply Refer To: 505/151

Docket No. 030-18926
License No. 46-1958-01

SUBJECT: Additional response to Enforcement Conference of September 18, 1990

1. The enforcement conference to discuss apparent violations emphasized the necessity of management involvement in and oversight of the radiation safety program at this medical center.
2. A medical center memorandum has been drafted that explicitly states the roles of management in the radiation safety program, the involvement of the Radiation Safety Committee in oversight of the program, establishment of a clear line of authority between the Radiation Safety Officer and senior management, and the responsibilities of the Radiation Safety Officer in keeping the Radiation Safety Committee and senior management informed of the status of the radiation safety program. A draft of the memorandum has been enclosed for your review.
3. We have sent you this memorandum as evidence of the serious manner with which we view the radiation safety program at this medical center and our desire to provide significant management review of the program.


FRANK TAYLOR
Medical Center
Director

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RADIATION SAFETY COMMITTEE AND RADIATION SAFETY OFFICER

1. PURPOSE:

To comply with Nuclear Regulatory Commission (NRC) and Department of Veterans Affairs regulations governing the use of radioactive materials. This memorandum establishes a Radiation Safety Committee and defines the committee's functions, responsibilities, and membership. The responsibilities and duties of the Radiation Safety Officer are defined and the authority delegated to this individual by the medical center director is stated.

2. POLICY:

It is the policy of this medical center to establish an As Low As Reasonably Achievable (ALARA) radioisotope usage program that is consistent with NRC regulations. The committee will establish this program and oversee its implementation by the Radiation Safety Officer.

3. RESPONSIBILITIES:

a. Medical Center Director: Shall have overall responsibility for the radiation safety program, appoint a Radiation Safety Officer and members of the Radiation Safety Committee, and review annually the implementation of the radiation safety program.

b. Radiation Safety Committee: Shall:

1. Be familiar with all pertinent NRC regulations, the license, and amendments.
2. Review the training and experience of any proposed authorized users and the Radiation Safety Officer to determine that their qualifications are sufficient to enable these individuals to perform their duties safely and are in accordance with NRC regulations and the license.
3. Review all requests to use radioactive material within the medical center. Approval or denial of a request shall be based upon NRC regulations, conditions of the license, experience of the user, and general adherence to an ALARA philosophy. As a condition of use, the committee may require special conditions be followed.
4. Review at each committee meeting the Radiation Safety Officer's report of occupational radiation exposure records, wipe tests and surveys of areas in which radioactive materials are used or stored, and all incidents involving radioactive material with respect to cause and subsequent actions taken.
5. Oversee the training program implemented by the Radiation Safety Officer for all individuals whose duties may require them to work in or frequent areas where radioactive materials are used. Services with employees requiring training

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include Radiology, Storage and Distribution section of Acquisition and Material Management, Research, GRECC, Building Management, Maintenance and Fire Department sections of Engineering, Nursing, and Police.

6. Review at least annually the Radiation Safety Officer's summary report of the entire radiation safety program to determine that all activities are conducted in accordance with NRC regulations, the conditions of the license, and the ALARA philosophy.

7. Recommend to the Radiation Safety Officer, clinical or administrative executive boards or medical center management remedial actions to correct any deficiencies identified in the radiation safety program.

8. Maintain written minutes of all committee meetings.

9. Ensure that the license is amended as required prior to changes in facilities, equipment, policies, procedures, and personnel.

10. Ensure compliance with the standards of the Joint Commission on Accreditation of Health Organizations.

11. Ensure compliance with regulations of the Department of Veterans Affairs of the use and storage of radioactive materials not regulated by the NRC.

12. Review occupational radiation exposure records for individuals in Radiology and Dental Services.

c. Radiation Safety Officer: To implement and oversee of the radiation safety program the Radiation Safety Officer shall:

1. Enforce NRC regulations and terms and conditions of the license.

2. Investigate incidents, take necessary corrective actions, and report as necessary to the NRC, Radiation Safety Committee, and medical center management.

3. Document and implement policy and procedures for:

(a) Authorizing the purchase of radioactive materials.

(b) Receiving and opening packages of radioactive materials.

(c) Storing radioactive materials.

(d) Keeping inventory records of radioactive materials.

(e) Using radioactive materials safely.

(f) Taking appropriate actions if radioactive materials are lost.

(g) Performing periodic ambient dose rate surveys and removable contamination surveys.

(h) Perform checks of survey instruments and other safety equipment.

(i) Disposing of radioactive material.

(j) Training personnel who work in or frequent areas where radioactive materials are used or stored.

4. Keep a copy of all records and reports required by the NRC, a copy of NRC regulations, a copy of each request for use of radioactive materials, a copy of the license, and a copy of written policies and procedures.

5. Provide an annual management briefing.

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6. Establish investigational levels for occupational exposure, ambient dose rate surveys, and removable contamination surveys that will initiate an investigation.

7. Assist the Radiation Safety Committee in the performance of its duties.

4. **PROCEDURES:**

a. Radiation Safety Committee:

(1) Membership shall include:

Chairman:	Chief, Radiology Service
Members:	Radiation Safety Officer
	Associate Director
	Authorized user, Nuclear Medicine section, Radiology Service
	Authorized user, Research Service
	Representative, Nursing Service
Ex Officio:	Quality Assurance Coordinator (non-voting)

(2) Composition of the Radiation Safety Committee may be changed upon recommendation of the committee and approval of the Medical Center Director.

(3) The Radiation Safety Committee shall meet as often as necessary to conduct its business, but not less than once in each calendar quarter. If a member cannot attend a meeting, he/she may designate an alternate familiar with the member's service. A quorum shall consist of one-half the committee's membership, including the Radiation Safety Officer and management representative.

(4) Items to be discussed at Radiation Safety Committee meetings will be listed in an agenda to be distributed to members prior to the meeting. The Chairman shall contact each member for agenda items. To ensure appropriate review of any of these items, the committee may require a written summary or explanation of any issue brought before it.

(5) The minutes of each Radiation Safety Committee meeting should include:

- (a) Date of the meeting.
- (b) Members present.
- (c) Members absent.
- (d) Summary of deliberations and discussions.
- (e) Actions taken.
- (f) Reviews of the radiation safety program.

The minutes will be reviewed and approved by the Medical Center Director. Copies of these minutes will be distributed to each committee member, four copies to the CEB, and two copies to the Quality Assurance Coordinator.

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- b. Radiation Safety Officer:
 - (1) The Radiation Safety Officer shall report to the Chief of Staff.
 - (2) An Assistant Radiation Safety Officer shall be appointed by the Radiation Safety Committee to monitor the radiation safety program in the absence of the Radiation Safety Officer.
 - (3) Quarterly reports of occupational exposures, ambient dose rate surveys and removable contamination surveys shall be submitted to and reviewed by the Radiation Safety Committee.
 - (4) The annual review of the entire radiation safety program should include an examination of records, summary of quarterly reports from the Radiation Safety Officer, results of NRC inspections, status of written safety procedures, and an analysis of the adequacy of the management control system.

5. **DELEGATION OF AUTHORITY**

The medical center director shall delegate sufficient authority to the Radiation Safety Officer to meet the responsibilities required by the NRC to:

- a. Identify radiation safety problems.
- b. Initiate, recommend or provide corrective actions
- c. Verify implementation of corrective actions

6. **REFERENCES:**

Nuclear Regulatory Commission, Title 10, Chapter 1, CFR-Energy, Part 35, Sections 35.20, 35.22, and 35.23

DM&S Circular 10-87-26, dated April 3, 1987.

6. **RESCISSION:** Medical Center Memorandum No. 114-1, dated May 18, 1990.

7. **FOLLOW-UP RESPONSIBILITY:** Radiation Safety Officer.

FRANK TAYLOR
Medical Center
Director

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All Service Chiefs
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DEPARTMENT OF VETERANS AFFAIRS
Medical Center
American Lake
Tacoma WA 98493

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NOV -1 PM 12-28

October 22, 1990

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

In Reply Refer To: (505/151)

License No. 46-19584-01
Docket No. 030-18926

SUBJECT: Reply to a Notice of Violation

Gentlemen:

The specific response to each violation listed in the notice is detailed in the accompanying enclosure. All violations have been corrected as of this date and we believe we are in full compliance with NRC regulations and the conditions of our byproduct license. Two broader issues, the amount of time the Radiation Safety Officer, Dr. Birnbaum, is able to devote to his duties and inadequate management control, require additional discussion.

Dr. Birnbaum originally agreed to act as Radiation Safety Officer at a time when it appeared that the responsibilities were minimal. In retrospect, this was an incorrect assumption that was based primarily on the activities of the previous Radiation Safety Officer. Moreover, the NRC inspection 3 years ago did not find any serious deficiencies in the program and there was no escalated enforcement action. Dr. Birnbaum's qualifications as Radiation Safety Officer were simply that he was an authorized user under our license. He had no specific training in this capacity. Dr. Birnbaum's principal function at this medical center is as a Research Chemist in the Research Service. Since his salary is derived from a grant from the Dept. of Veterans Affairs, his overriding concern is to perform the research necessary to ensure renewal of his grant. As a consequence, other activities are of secondary importance to him.

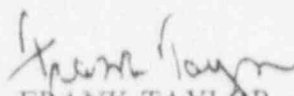
Management oversight of the program was weak in part due to Dr. Birnbaum's lack of training. He did not keep management as well informed of its responsibilities and of the program's problems. Senior management has also undergone changes in the recent past, including my assuming the position of director, a new associate director, and relatively frequent turnover of the Chief of Staff position. There has not been the continuity in management necessary to provide sufficient control in the program.

Dr. Birnbaum will continue as Radiation Safety Officer. This medical center will provide appropriate research support to allow him to fully attend to his duties as Radiation Safety Officer. In addition, Dr. Birnbaum has recently completed a training course for Radiation Safety Officers that was sponsored by the Dept. of Veterans Affairs.

To strengthen management control, Dr. Birnbaum has rewritten the Medical Center Memorandum that defines the Radiation Safety Committee and the responsibilities of the committee and the Radiation Safety Officer. While not deviating much from the model charter in Regulatory Guide 10.8, it explicitly states the responsibilities of management, the committee, and RSO. Before it goes into effect, it will be reviewed by me, the associate director, Chief of Staff, and by the Chiefs of all services with workers who are exposed to radioactive materials. The ALARA program has also been rewritten and after review by the NRC, will be sent to all

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appropriate services. This revision differs from the model program in the regulatory guide by explicitly requiring reports to the Radiation Safety Committee not only of occupational exposures, but instrument and contamination surveys, thyroid bioassays, and staff training. The document also explicitly requires any proposed change in the use of radioactive materials to be reported to the Radiation Safety Officer well before the authorized user intends to implement them. This is to assure that Dr. Birnbaum, who still fulfills his role as Radiation Safety Officer on a part-time basis, will be kept informed of changes in our program. The ALARA program document has also been reviewed by myself, the associate director, and Chief of Staff. Since these two documents define the responsibilities and duties of management, the Radiation Safety Committee, and Radiation Safety Officer, we, in effect, have performed a review of our radiation safety program. Both documents will be sent to members of the Radiation Safety Committee prior to the next meeting. Copies of both documents are enclosed.


FRANK TAYLOR
Medical Center
Director

Enclosure

cc: Regional Administrator, Region V

- A. **Failure to secure license material in an unrestricted area.** The iodination or isotope room, Rm. 110 of Building 18 is part of the research laboratory area. The entire building is off-limits to unauthorized personnel. The only door that remains unlocked during normal business hours is clearly marked "Authorized personnel only." This was considered sufficient to deter unauthorized entry.

To correct this violation, Rm. 110 is now locked except when used. Within days of the inspection, a sign had been placed on the door indicating that the room is to remain locked except when in use. Individuals who use the room were instructed that they should lock the door when they were finished. No further corrective actions are considered necessary.

- B. **Failure to include an authorized user from nuclear medicine as a member of the Radiation Safety Committee.** The only nuclear medicine authorized users at this medical center are several contract radiologists. It was the Radiation Safety Officer's belief that these individuals would not be interested in participating in the Radiation Safety Committee. If they had any comments or problems with the nuclear medicine or radiation safety programs, they were most likely to convey them to the Chief, Radiology Service, or at the very least, the nuclear medicine technician whose supervisor was the Chief, Radiology Service.

To correct this violation, the Radiation Safety Committee, at its September 12, 1990, meeting, nominated Dr. John Flood, an authorized user under our license and a member of the Diagnostic Imaging NW group, as a member of the committee. This appointment was approved by the medical center director. No further corrective actions are considered necessary.

- C1. **Failure to provide training for housekeeping and supply personnel.** As described in greater detail in the accompanying letter, Dr. Birnbaum is primarily a scientist whose first priority is his research program. Accordingly, he neglected certain of his responsibilities as Radiation Safety Officer.

To correct the violation, Dr. Birnbaum has held training sessions for warehouse and housekeeping employees on October 3 and 10, 1990, respectively. Signs have been posted in the warehouse and the housekeeping foreman's office summarizing the most important aspects of the training as it pertains to these individuals. The written ALARA program has been revised to require that the Radiation Safety Officer report on training activities at each Radiation Safety Committee. No additional specific corrective actions are being considered at this time.

- C2. **Failure to hold Radiation Safety Committee meetings at required intervals.** These were instances in which Dr. Birnbaum was preoccupied with his research duties and the necessity to hold Radiation Safety Committee meetings was forgotten.

To correct this violation, Radiation Safety Committee meetings have been scheduled for a particular day of each calendar quarter. In addition, Dr. Birnbaum has relinquished the chairmanship of the committee and Dr. T.N. Allan, Chief, Radiology Service, and newly appointed member of the committee, has been appointed chairman.

Mr. Peter Beaty, Associate Medical Center Director, has also been appointed to the committee and the meeting dates have been noted in his appointment calendar. No additional specific corrective actions are being considered at this time.

- C3. **Failure to perform monthly wipe or radiation surveys.** Failure to perform wipe surveys was again the result of Dr. Birnbaum's activities as a scientist. He was unaware of the requirement to perform instrument surveys since they had never been conducted prior to his appointment as Radiation Safety Officer and he had not been cited during the 1987 inspection.

To correct this violation Dr. Birnbaum has scheduled monthly wipe and instrument surveys in his electronic appointment calendar. The calendar is designed so that unless an entry is specifically marked as completed, it will continue to appear on days succeeding the original entry. The written ALARA program has been revised to ensure that Dr. Birnbaum will report to the Radiation Safety Committee at its quarterly meeting the results of the wipe and instrument surveys. Wipe survey forms have also been revised to include contamination levels in absolute units.

- C4. **Failure to monitor thyroids of individuals working with iodine-125.** This is another instance in which Dr. Birnbaum neglected his responsibilities as Radiation Safety Officer because of his research duties.

To correct the violation, Dr. Birnbaum has scheduled thyroid bioassays in his electronic appointment calendar. In addition, the written ALARA program has been revised to require that Dr. Birnbaum report to the Radiation Safety Committee at its quarterly meetings, the results of thyroid bioassays. No additional specific corrective actions are being considered at this time.

- C5. **Failure of the Radiation Safety Committee and Radiation Safety Officer to perform quarterly reviews of occupational radiation exposures.** Since Radiation Safety Committee meetings were not held for the two quarters noted, no review of occupational exposures was performed. With respect to reviews of the nuclear medicine technician's occupational exposure, Dr. Birnbaum had been receiving copies of the dosimeter readings until the company responsible for providing the reports was changed. The Radiology Service secretary discontinued forwarding reports at that time. Dr. Birnbaum, because he did not keep a log of reports did not notice this change until the NRC inspection.

To correct this violation, copies of the Radiology Service dosimeter reports are again being sent to the Radiation Safety Officer. The vendor who supplies the dosimeter reports was recently changed. Since the contract for these services is negotiated by Seattle VA Medical Center on behalf of several VA medical centers in this region, we have not been able to redirect Radiology Service dosimeter reports directly to Dr. Birnbaum. Once the new contract is in effect, this medical center will request that Dr. Birnbaum receive both Radiology and Research Service dosimeter reports directly. Dr. Birnbaum has also initiated a log of incoming reports. No additional specific corrective actions are anticipated at this time.

RADIATION SAFETY PROGRAM

This bulletin describes the American Lake VA Medical Center radiation safety program as required by 10 CFR, Part 35, Section 35.20. Medical Center Memorandum 11-7, dated October 7, 1990, establishes a Radiation Safety Committee to oversee the use of radioactive materials and a Radiation Safety Officer to implement the radiation safety program. A Medical Center bulletin delegates sufficient authority to the Radiation Safety Officer to assure that the program is conducted in accordance with Nuclear Regulatory Commission regulations to establish an **As Low as Reasonably Achievable (ALARA)** program. The Radiation Safety Committee and Radiation Safety Officer will develop the necessary written policy and procedures to foster the ALARA concept at this medical center.

1. Medical center commitment

a. This medical center is committed to a radiation safety program that minimizes exposure of all employees working directly with or whose responsibilities require them to be in areas in which radioactive materials are used. Policies and procedures will be developed to minimize exposure for both individual and cumulative exposures to radioactive materials.

b. The office of the director will perform a formal annual audit of the radiation safety program that stresses ALARA considerations. This audit will include reviews of operating procedures and past exposure records, Nuclear Regulatory Commission inspections, etc., and consultations or interviews with staff exposed to radioactive materials. A health physicist or Radiation Safety Officer from outside this medical center may be asked to review the program in together with individuals from the director's office.

c. Modifications to operating and maintenance procedures and to equipment and facilities will be made if they will reduce exposures unless the cost is considered to be unjustified. Improvements will be sought or modifications considered and implemented when reasonable. If modifications have been recommended, the reasons will be documented.

d. The sum of the doses received by **all** exposed individuals will also be maintained at the lowest practicable level. It would not be desirable, for example, to hold the highest doses to individuals to some fraction of the applicable limit if this involved exposing additional people and significantly increasing the sum of radiation doses received by all involved individuals.

2. Establishment of investigational levels to monitor individual occupational external radiation doses

a. Investigational levels are established for occupational external radiation doses

(based upon film badge and ring dosimeter readings) for individual workers which, when exceeded, will initiate review or investigation by the Radiation Safety Committee and/or the Radiation Safety Officer (Table 1).

Table 1. Levels of Occupational Exposure Necessitating Radiation Safety Officer and Radiation Safety Committee Investigation.

	Investigation Levels (mrems per quarter)	
	Level I	Level II
1. Whole body; head and trunk; active blood-forming organs, lens of eyes or gonads	125	375
2. Hands and forearms; feet and ankles	1875	5625
3. Skin of whole body*	750	2250

*Not currently applicable to this medical center.

b. Badges and rings will be changed on a monthly basis. The Radiation Safety Officer will review the monthly reports and take appropriate actions if investigational levels have been exceeded or if there appears to be a trend that will result in a level being exceeded.

c. Actions to be taken

(1) For a dose less than Investigational Level I, no further action will be taken.

(2) For a dose equal to or greater than Investigational Level I, but less than Investigational Level II, the Radiation Safety Officer will review with the individual the possible bases for the exposure, initiate corrective actions as appropriate, and report the results at the next Radiation Safety Committee meeting. Review by the Committee will take into account exposure readings of other individuals performing similar tasks. No specific action by the Committee is required.

(3) For a dose equal to or greater than Investigational Level II, the Radiation Safety Officer will investigate in a timely manner the causes and, if warranted, take action. A report of the investigation, any actions taken, and a copy of dosimeter report will be presented to the Radiation Safety Committee at its first meeting following completion of the investigation. The details of these reports will be included in the Radiation Safety Committee minutes.

d. Investigational levels above those listed in Table I may be established by the Radiation Safety Committee for an individual or group on the basis that it is consistent with good ALARA practices. Justification for new investigational levels will be documented.

3. Radiation Safety Committee

a. Review of proposed users and uses

(1) The Committee will thoroughly review the training and experience of each nuclear medicine physician, radiologist or research investigator who wishes to use radioactive materials. Criteria for approval as an authorized user will include the types and quantities of radioactive materials and methods of use that each applicant has used and wishes to use at this medical center. The committee will attempt to ensure that the applicant will be able to take appropriate measures to maintain exposure ALARA.

(2) When considering a new use of radioactive material by an authorized user, the Radiation Safety Committee will review the training and experience of the individual and protocols that will be established to maintain exposure ALARA.

(3) The Radiation Safety Committee will ensure that the users justify their procedures and that individual and collective doses will be ALARA.

b. The Radiation Safety Committee will support the Radiation Safety Officer when it is necessary for the Radiation Safety Officer to assert authority. If the Radiation Safety Committee has overruled the Radiation Safety Officer, it will record the basis for its action in the minutes of the quarterly meeting.

c. Review of ALARA program

(1) The Radiation Safety Committee will encourage all users to review current procedures and develop new procedures as appropriate to implement the ALARA concept.

(2) The Radiation Safety Committee will perform a quarterly review of occupational radiation exposure with particular attention to instances in which the investigational levels in Table 1 are exceeded. The principal purpose of this review is to assess trends in occupational exposure as an index of the quality of the ALARA quality and to decide if action is warranted when investigational levels are exceeded.

(3) The Radiation Safety Committee will evaluate this medical center's overall efforts for maintaining doses ALARA on an annual basis. This review will include the efforts of the Radiation Safety Officer, authorized users, and workers as well as those of management.

4. Radiation safety officer

a. Quarterly and annual reviews

(1) The Radiation Safety Officer will review at least monthly the external radiation doses of authorized users and workers to determine that their doses are

ALARA in accordance with the provisions of Section 2 of this program and will prepare a summary report for the Radiation Safety Committee.

(2) The Radiation Safety Officer will review radiation and contamination surveys in unrestricted and restricted areas to determine that dose rates and amounts of contamination were at ALARA levels during the previous quarter and will prepare a summary report for the Radiation Safety Committee.

(3) The Radiation Safety Officer will review thyroid bioassays during the previous quarter and prepare a summary report for the Radiation Safety Committee.

(4) The Radiation Safety Officer will perform an annual review of the radiation safety program for adherence to ALARA concepts. The results of this review will be presented at the Radiation Safety Committee that occurs during the first calendar quarter of the year. The Radiation Safety Officer will also review the program at a Management Briefing during the first calendar quarter of the year.

(5) Reviews of specific methods of use may be conducted on a more frequent basis.

b. Training program

(1) The Radiation Safety Officer will schedule briefings and educational sessions to inform workers of ALARA program efforts.

(2) The Radiation Safety Officer will ensure that authorized users, workers, and ancillary personnel who may be exposed to radiation will be instructed in the ALARA philosophy and informed that management, the Radiation Safety Committee, and Radiation Safety Officer are committed to implementing the ALARA concept.

(3) The Radiation Safety Officer will report to the Radiation Safety Committee at each quarterly meeting the training sessions conducted. The report will include the services involved in the training, the topics covered, and any difficulties involved in achieving cooperation from a service for ensuring that their employees receive appropriate training.

c. Cooperative efforts for development of ALARA procedures

(1) The Radiation Safety Officer will be in close contact with all users and workers and will encourage their participation in formulating the procedures that they will be required to follow.

(2) The Radiation Safety Officer will establish procedures for receiving and evaluating the suggestions of individual workers.

d. The Radiation Safety Officer will investigate all instances of deviation from good ALARA practices to determine the causes. The Radiation Safety Officer will implement changes in the program, subject to confirmation by the Radiation Safety Committee.

5. Authorized users

a. New applications of radioactive materials

(1) Each authorized user must inform the Radiation Safety Officer of any

proposed change in their use of radioactive materials. Such changes could include, but are not limited to, the use of radioisotopes for which they are not currently authorized, new uses for isotopes for which they are approved, rooms or laboratories that have not previously been designated for use with radioactive materials, rooms or laboratories that cease to be areas in which radioactive materials are used, and changes in personnel working with or in the vicinity of radioactive materials.

(2) The authorized user will consult with the Radiation Safety Officer and/or Radiation Safety Committee during the planning stages of any proposed change. Sufficient time must be allowed for the Radiation Safety Officer to research pertinent regulations governing new uses, to consult with individuals already employing these procedures, and to have necessary license amendments approved by the Nuclear Regulatory Commission.

(3) The authorized user will review each planned use of radioactive materials to ensure that doses will be kept ALARA.

c. Responsibility to supervised individuals

(1) The Authorized user will explain the ALARA concept and the need to maintain exposures ALARA to all supervised individuals.

(2) The authorized user will ensure that supervised individuals who are subject to occupational radiation exposure are trained and educated in good health physics practices and in maintaining exposures ALARA.

(3) The authorized user will instruct supervised individuals in the safe handling of the specific radioactive materials used.

(4) The authorized user, on request of the Radiation Safety Officer or Radiation Safety Committee, should be able to document that Parts 1-3 above have been satisfied.

6. Individuals who receive occupational radiation doses

a. Workers will be instructed in the ALARA concept and its relationship to work procedures and work conditions.

b. Workers will be instructed in recourses available if they feel that ALARA is not being promoted on the job.

FRANK TAYLOR
Medical Center
Director

Dist:

RADIATION SAFETY COMMITTEE AND RADIATION SAFETY OFFICER

1. PURPOSE:

To comply with Nuclear Regulatory Commission (NRC) and Department of Veterans Affairs regulations governing the use of radioactive materials. This memorandum establishes a Radiation Safety Committee and defines the committee's functions, responsibilities, and membership. The responsibilities and duties of the Radiation Safety Officer are defined and the authority delegated to this individual by the medical center director is stated.

2. POLICY:

It is the policy of this medical center to establish an As Low As Reasonably Achievable (ALARA) radioisotope use program that is consistent with NRC regulations. The committee will establish this program and oversee its implementation by the Radiation Safety Officer.

3. RESPONSIBILITIES:

a. Medical Center Director: Shall have overall responsibility for the radiation safety program, appoint a Radiation Safety Officer and members of the Radiation Safety Committee, and review annually the implementation of the radiation safety program.

b. Radiation Safety Committee: Shall:

1. Be familiar with all pertinent NRC regulations, the license, and amendments.
2. Review the training and experience of any proposed authorized users and the Radiation Safety Officer to determine that their qualifications are sufficient to enable these individuals to perform their duties safely and are in accordance with NRC regulations and the license.
3. Review all requests to use radioactive material within the medical center. Approval or denial of a request shall be based upon NRC regulations, conditions of the license, experience of the user, and general adherence to an ALARA philosophy. As a condition of use, the committee may require special conditions be followed.
4. Review at each committee meeting the Radiation Safety Officer's report of occupational radiation exposure records, wipe tests and surveys of areas in which radioactive materials are used or stored, and all incidents involving radioactive material with respect to cause and subsequent actions taken.
5. Oversee the training program implemented by the Radiation Safety Officer for all individuals whose duties may require them to work in or frequent areas where radioactive materials are used. Services with employees requiring training

October 4, 1990

include Radiology, Storage and Distribution section of Acquisition and Material Management, Research, GRECC, Building Management, Maintenance and Fire Department sections of Engineering, Nursing, and Police.

6. Review at least annually the Radiation Safety Officer's summary report of the entire radiation safety program to determine that all activities are conducted in accordance with NRC regulations, the conditions of the license, and the ALARA philosophy.
7. Recommend to the Radiation Safety Officer, clinical or administrative executive boards or medical center management remedial actions to correct any deficiencies identified in the radiation safety program.
8. Maintain written minutes of all committee meetings.
9. Ensure that the license is amended as required prior to changes in facilities, equipment, policies, procedures, and personnel.
10. Ensure compliance with the standards of the Joint Commission on Accreditation of Health Organizations.
11. Ensure compliance with regulations of the Department of Veterans Affairs of the use and storage of radioactive materials not regulated by the NRC.
12. Review occupational radiation exposure records for individuals in Radiology and Dental Services.

c. Radiation Safety Officer: To implement and oversee of the radiation safety program the Radiation Safety Officer shall:

1. Enforce NRC regulations and terms and conditions of the license.
2. Investigate incidents, take necessary corrective actions, and report as necessary to the NRC, Radiation Safety Committee, and medical center management.
3. Document and implement policy and procedures for:
 - (a) Authorizing the purchase of radioactive materials.
 - (b) Receiving and opening packages of radioactive materials.
 - (c) Storing radioactive materials.
 - (d) Keeping inventory records of radioactive materials.
 - (e) Using radioactive materials safely.
 - (f) Taking appropriate actions if radioactive materials are lost.
 - (g) Performing periodic ambient dose rate surveys and removable contamination surveys.
 - (h) Perform checks of survey instruments and other safety equipment.
 - (i) Disposing of radioactive material.
 - (j) Training personnel who work in or frequent areas where radioactive materials are used or stored.
4. Keep a copy of all records and reports required by the NRC, a copy of NRC regulations, a copy of each request for use of radioactive materials, a copy of the license, and a copy of written policies and procedures.
5. Provide an annual management briefing.

October 4, 1990

6. Establish investigational levels for occupational exposure, ambient dose rate surveys, and removable contamination surveys that will initiate an investigation.
7. Assist the Radiation Safety Committee in the performance of its duties.

4. PROCEDURES:

a. Radiation Safety Committee:

(1) Membership shall include:

Chairman:	Chief, Radiology Service
Members:	Radiation Safety Officer
	Associate Director
	Authorized user, Nuclear Medicine section, Radiology Service
	Authorized user, Research Service
	Representative, Nursing Service
Ex Officio:	Quality Assurance Coordinator (non-voting)

(2) Composition of the Radiation Safety Committee may be changed upon recommendation of the committee and approval of the Medical Center Director.

(3) The Radiation Safety Committee shall meet as often as necessary to conduct its business, but not less than once in each calendar quarter. If a member cannot attend a meeting, he/she may designate an alternate familiar with the member's service. A quorum shall consist of one-half the committee's membership, including the Radiation Safety Officer and management representative.

(4) Items to be discussed at Radiation Safety Committee meetings will be listed in an agenda to be distributed to members prior to the meeting. The Chairman shall contact each member for agenda items. To ensure appropriate review of any of these items, the committee may require a written summary or explanation of any issue brought before it.

(5) The minutes of each Radiation Safety Committee meeting should include:

- (a) Date of the meeting.
- (b) Members present.
- (c) Members absent.
- (d) Summary of deliberations and discussions.
- (e) Actions taken.
- (f) Reviews of the radiation safety program.

The minutes will be reviewed and approved by the Medical Center Director. Copies of these minutes will be distributed to each committee member, four copies to the CEB, and two copies to the Quality Assurance Coordinator.

October 4, 1990

- b. Radiation Safety Officer:
- (1) The Radiation Safety Officer shall report to the Chief of Staff.
 - (2) An Assistant Radiation Safety Officer shall be appointed by the Radiation Safety Committee to monitor the radiation safety program in the absence of the Radiation Safety Officer.
 - (3) Quarterly reports of occupational exposures, ambient dose rate surveys and removable contamination surveys shall be submitted to and reviewed by the Radiation Safety Committee.
 - (4) The annual review of the entire radiation safety program should include an examination of records, summary of quarterly reports from the Radiation Safety Officer, results of NRC inspections, status of written safety procedures, and an analysis of the adequacy of the management control system.

5. DELEGATION OF AUTHORITY

The medical center director shall delegate sufficient authority to the Radiation Safety Officer to meet the responsibilities required by the NRC to:

- a. Identify radiation safety problems.
- b. Initiate, recommend or provide corrective actions
- c. Verify implementation of corrective actions

6. REFERENCES:

Nuclear Regulatory Commission, Title 10, Chapter 1, CFR-Energy, Part 35, Sections 35.20, 35.22, and 35.23

DM&S Circular 10-87-26, dated April 3, 1987.

6. RESCISSION: Medical Center Memorandum No. 114-1, dated May 18, 1990.

7. FOLLOW-UP RESPONSIBILITY: Radiation Safety Officer.

FRANK TAYLOR
Medical Center
Director

DIST: 00
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All Service Chiefs
AFGE