Prairie Lakes Health Care Center

Located at
Prairie Lakes Hospital West
400 10th Avenue Northwest
Watertown, South Dakota 57201 1599
605 886-8491

August 11, 1988

Chuck Cain
US NRC Region 4
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

Dear Mr. Cain,

Pursuant to our phone conversation Prairie Lakes Health Care System, Inc. Nuclear Medicine Department License No: 40-16775-01, Docket 030-11624 requests a license amendment to include the following:

A) Decontamination close out survey report at 420 4th St NW, Watertown, South Dakota.
The survey report is a continuation of control No. 461957. The decontamination survey was prepared observing the instructions in the July, 1982 guide entitled "Guidelines for Decontamination of Facilities and Equipment Prior to Lease For Unrestricted Use or Determination of Licenses for Bi-Product, Source, or Special Nuclear Material". (See Attachments A)
A copy of this survey report has been filed with the Division of Fuel, Cycle and Material Safety USNRC, Washington DC 20555.

B) Dr. S. Steska to be added to Prairie Lakes Health Care Center license effective September 1, 1988 in all categories that he is currently listed on at:

St. Francis Hospital
Maryville, Missouri
License No 24-18153-01
Docket No 030-14575
February 13, 1987

St. Anthony Hospital
Alton, Illinois
License No 12-12189-01
Docket No 030-01548
June 7, 1985

Sincerely,

Tom Beaudry

Tom Beaudry, RTR
Manager of Radiology/Nuclear Medicine

TB:ep
Attachments

MIDWEST RADIATION PHYSICISTS, INC.

Vaughn C. Moore, Ph.D.
3601 Evergreen Rd.
Fargo, ND 58102
Home: 701-235-5194
Office: 701-293-0655
(Certified by the American Board of Radiology)

July 28, 1988

Nuclear Medicine Department
Prairie Lakes Health Care Center
Watertown, SD 57201

Subject: Close-out Survey of Old Nuclear Medicine Laboratory on June 18, 1988

Reference: "Guide for the Preparation of Applications for Medical Use Programs" USNRC August, 1987

1. Wipe tests of several surfaces of work areas located in the old Nuclear Medicine lab in Prairie Lakes West were counted in a Ludlum Model 220C Well-Type Scintillation Counter. The resulting activity in each case was less than the minimum detectable activity for 99mTc and 99Mo. The results are given in the following table:

Sample Number	Location of Wipe Test	Resulting Activity dpm/100 sq cm
Hot Lab		
A	Floor at storage for old generators	93
B	Floor at waste disposal basket	93
C	Floor to right of generator	93
D	Floor at generator	93
E	Floor at hot plate area	93
F	Floor at dose calibrator	93
G	Floor at far right corner of room	93
H	Floor at far left corner of room	93
I	Floor at near left corner of room	93
J	Floor in center of room	93

Scanning Room

K	Sink	93
L	Counter top next to sink	93
M	Floor in front of sink	93
N	Floor at camera	93
O	Scanning table	93

These results are acceptable since they represent insignificant removable radioactivity.

2. In addition to wipe tests, a radiation hazard survey was performed using a GM survey meter suspended a few inches from the floor. Every square foot of the floors and counter space of the hot lab and scanning rooms were surveyed. No activity above background was detected anywhere.

3. The old nuclear medicine laboratory does not present a radiation hazard to the general public and may be occupied without restriction.

Sincerely,

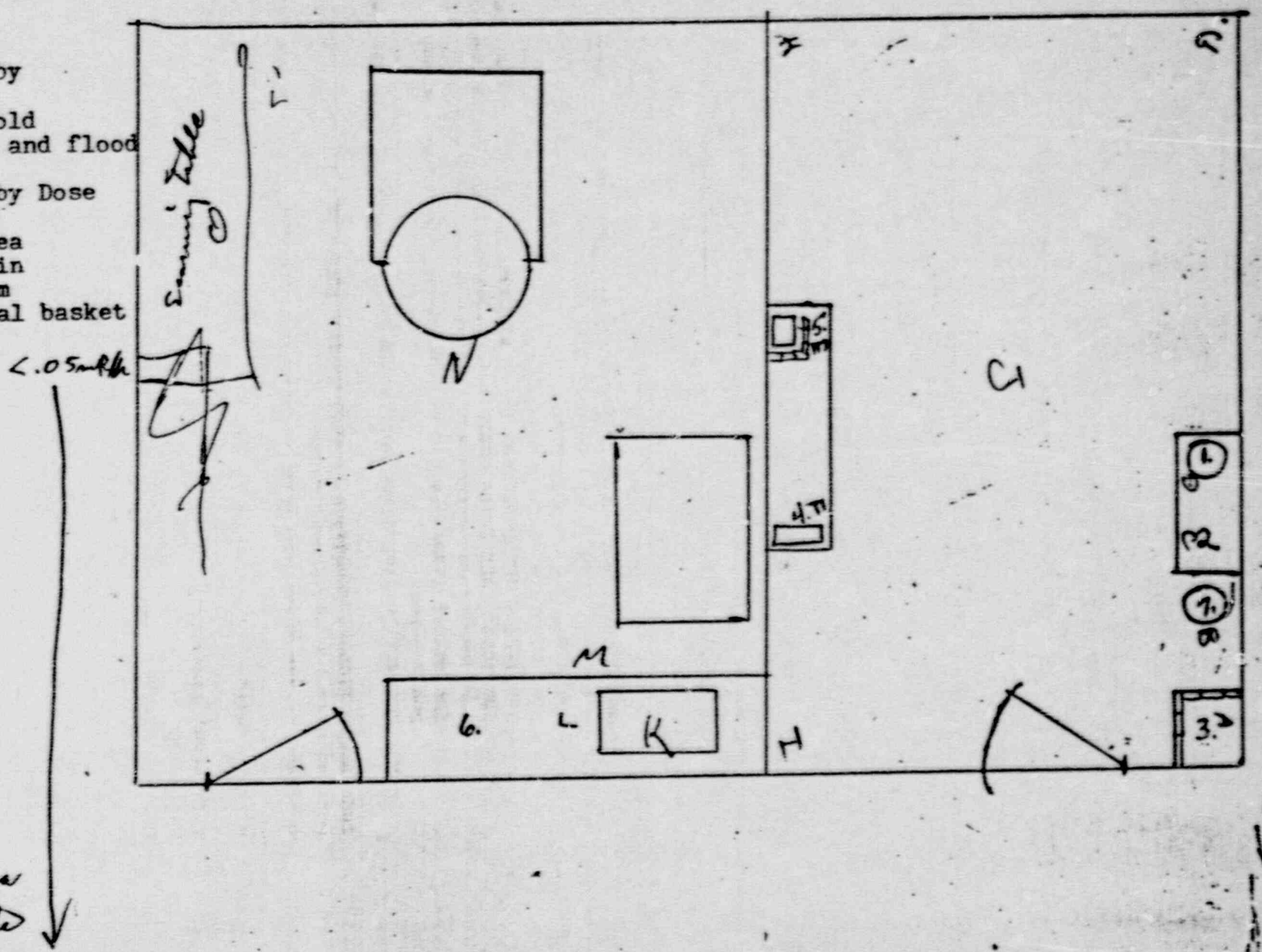
Vaughn C. Moore, Ph.D.

Vaughn C. Moore, Ph. D.

North Dakota State Department of Health
Radioactive Material Licensee
Lic. No. 33-09908-01

Prairie Lakes East.

1. Generator
2. Counter-top by Generator
3. Storage for old Generators and flood field
4. Counter-top by Dose Calibrator
5. Hot Plate area
6. Counter-top in Dyna 4 Room
7. Waste disposal basket



Model Program for Maintaining Occupational
Radiation Exposures at Medical Institutions ALARA

Memorial Medical Center
(Licensee's Name)

9-16-80
(Date)

I. Management Commitment

a. We, the management of this (medical facility, hospital, etc.) are committed to the program described in this paper for keeping exposures (individual and collective) as low as reasonably achievable (ALARA). In accord with this commitment, we hereby describe an administrative organization for radiation safety and will develop the necessary written policy, procedures and instructions to foster the ALARA concept within our institution. The organization will include a Radiation Safety Committee (RSC)[1] and a Radiation Safety Officer (RSO).

b. We will perform a formal annual review of the radiation safety program including ALARA considerations. This shall include reviews of operating procedures and past exposure records, inspections, etc., and consultations with the radiation protection staff or outside consultants.

c. Modification to operating and maintenance procedures and to equipment and facilities will be made where they will reduce exposures unless the cost, in our judgement, is considered to be unjustified. We will be able to demonstrate, if necessary, that improvements have been sought, that modifications have been considered, and that they have been implemented where reasonable. Where modifications have been recommended but not implemented, we will be prepared to describe the reasons for not implementing them.

d. In addition to maintaining doses to individuals as far below the limits as is reasonably achievable, 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.

[1] Private practice physician licenses do not include a RSC.

II. Radiation Safety Committee (RSC)

a. Review of Proposed Users and Uses

1. The RSC will thoroughly review the qualifications of each applicant with respect to the types and quantities of materials and uses for which he has applied to assure that the applicant will be able to take appropriate measures to maintain exposure ALARA.

2. When considering a new use of byproduct material, the RSC will review the efforts of the applicant to maintain exposure ALARA. The user should have systematized procedures to ensure ALARA, and shall have incorporated the use of special equipment such as syringe shields, rubber gloves, etc., in his proposed use.

3. The RSC will ensure that the user justifies his procedures and that dose will be ALARA (individual and collective).

b. Delegation of Authority

(The judicious delegation of RSC authority is essential to the enforcement of an ALARA program.)

1. The RSC will delegate authority to the RSO for enforcement of the ALARA concept.

2. The RSC will support the RSO in those instances where it is necessary for the RSO to assert his authority. Where the RSO has been overruled, the Committee will record the basis for its action in the minutes of the Committee's quarterly meeting.

c. Review of ALARA Program

1. The RSC will encourage all users to review current procedures and develop new procedures as appropriate to implement the ALARA concept.

2. The RSC will perform a quarterly review of occupational radiation exposure with particular attention to instances where Investigational Levels in Table I below are exceeded. The principle purpose of this review is to assess trends in occupational exposure as an index of the ALARA program quality and to decide if action is warranted when Investigational Levels are exceeded (see paragraph VI).[3]

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[2]The RSO on private practice physician licenses will assume the responsibilities of the RSC under Section II

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[3]The NRC has emphasized that the Investigational Levels in this program are not new dose limits but, as noted in ICRP Report 26, "Recommendations of the International Commission on Radiological Protection", serve as check points above which the results are considered sufficiently important to justify further investigations.

3. The RSC will evaluate our institution's overall efforts for maintaining exposures ALARA on an annual basis. This review will include the efforts of the RSO, authorized users, and workers as well as those of management.

III. Radiation Safety Officer (RSO)

a. Annual and Quarterly Review

1. Annual review of the Radiation Safety Program. The RSO will perform an annual review of the Radiation Safety Program for adherence to ALARA concepts. Reviews of specific procedures may be conducted on a more frequent basis.

2. Quarterly review of Occupational Exposures. The RSO will review at least quarterly the external radiation exposures of authorized users and workers to determine that their exposures are ALARA in accordance with the provisions of paragraph VI of this program.

3. Quarterly review of records of Radiation Level Surveys. The RSO will review radiation levels in unrestricted and restricted areas to determine that they were at ALARA levels during the previous quarter.

b. Education Responsibilities for an ALARA Program

1. The RSO will schedule briefings and educational sessions to inform workers of ALARA program efforts.

2. The RSO will assure 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 RSC and the RSO are committed to implementing the ALARA concept.

c. Cooperative Efforts for Development of ALARA Procedures

Radiation workers will be given opportunities to participate in formulation of the procedures that they will be required to follow.

1. The RSO will be in close contact with all users and workers in order to develop ALARA procedures for working with radioactive materials.

2. The RSO will establish procedures for receiving and evaluating the suggestions of individual workers for improving health physics practices and encourage the use of those procedures.

d. Reviewing Instances of Deviation from Good ALARA Practices

The RSO will investigate all known instances of deviation from good ALARA practices; and, if possible, determine the causes. When the cause is known, the RSO will require changes in the program to maintain exposures ALARA.

IV. Authorized Users

a. New Procedures Involving Potential Radiation Exposures

1. The authorized user will consult with, and receive the approval of, the RSO and/or RSC during the planning stage before using radioactive materials for a new procedure.

2. The authorized user will evaluate all procedures before using radioactive materials to ensure that exposures will be kept ALARA. This may be enhanced through the application of trial runs.

b. Responsibility of the Authorized User to Those He Supervises

1. The authorized user will explain the ALARA concept and his commitment to maintain exposures ALARA to all of those he supervises.

2. The authorized user will ensure that those under his supervision who are subject to occupational radiation exposure are trained and educated in good health physics practices and in maintaining exposures ALARA.

V. Persons Who Receive Occupational Radiation Exposure

a. The worker will be instructed in the ALARA concept and its relationship to his working procedures and work conditions.

b. The worker will know what recourses are available if he feels that ALARA is not being promoted on the job.

VI. Establishment of Investigational Levels In Order to Monitor Individual Occupational External Radiation Exposures

This institution (or private practice) hereby establishes Investigational Levels for occupational external radiation exposure which, when exceeded, will initiate review or investigation by the Radiation Safety Committee and/or the Radiation Safety Officer. The Investigational Levels that we have adopted are listed in Table 1 below. These levels apply to the exposure of individual workers.

Table 1

		Investigational Levels - (mrems per calendar 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 normally applicable to nuclear medicine operations except those using significant quantities of beta emitting isotopes.

The Radiation Safety Officer will review and record on Form NRC-5, Current Occupational External Radiation Exposures, or an equivalent form (e.g. dosimeter processor's report), results of personnel monitoring, not less than once in any calendar quarter, as is required by 10 CFR 20, §20.401. The following actions will be taken at the Investigational Levels as stated in Table 1:

a. Quarterly exposure of individuals to less than Investigational Level I.

Except when deemed appropriate by the RSO, no further action will be taken in those cases where an individual's exposure is less than Table I values for the Investigational Level I.

b. Personnel exposures equal to or greater than Investigational Level I, but less than Investigational Level II.

The RSO will review the exposure of each individual whose quarterly exposures equal or exceed Investigational Level I. He will report the results of his reviews at the first RSC meeting following the quarter when the exposure was recorded. If the exposure does not equal or exceed Investigational Level II, no action related specifically to the exposure is required unless deemed appropriate by the Committee. The Committee will, however, consider each such exposure in comparison with those of others performing similar tasks as an index of ALARA program quality and will record the review in the Committee minutes.

c. Exposure equal to or greater than Investigational Level II.

The RSO will investigate in a timely manner the cause(s) of all personnel exposures equaling or exceeding Investigational Level II and, if warranted, take action. A report of the investigation, actions taken, if any, and a copy of the individual's Form NRC-5 or its equivalent will be presented to the RSC at the first RSC meeting following completion of the investigation. The details of these reports will be recorded in the Committee minutes. Committee minutes will be sent to the management of this institution for review. The minutes, containing details of the investigation, will be made available to NRC inspectors for review at the time of the next inspection.

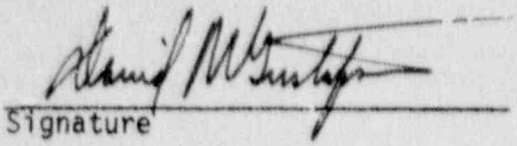
d. Re-establishment of an individual occupational worker's Investigational Level II Above That Listed In Table I.

In cases where a worker's or a group of worker's exposures need to exceed Investigational Level II, a new, higher Investigational Level II may be established on the basis that it is consistent with good ALARA practices for that individual or group. Justification for a new Investigational Level II will be documented.

The Radiation Safety Committee will review the justification for, and will approve, all revisions of Investigational Levels II. In such cases, when the exposure equals or exceeds the newly established Investigational Level II, those actions listed in paragraph c above will be followed.

VII. Signature of Certifying Official[4]

I hereby certify that this institution (or private practice), has implemented the ALARA Program set forth above.



Signature

Mr David Gustafson
Name (print or type)

Hospital Administrator
Title

Institution (or Private Practice) Name and Address:

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[4] The individual who is authorized to make commitments for the administration of the institution (e.g., hospital administrator, etc.) or, in the case of a private practice, the licensed physician.