



Overlook Hospital

Summit, New Jersey 07901

Telephone 201-522-2000

RECEIVED

August 16, 1985 ⁸⁵ SEP -5 P1:31

U.S. N.R.C.
LIC. FEE MON. BRANCH

U.S. Nuclear Regulatory Commission, Region I
Office of Inspection and Enforcement
634 Park Avenue
King of Prussia, Pa. 19406

Re: License No. 29-03308-03

Dear Sir:

Our AECL Gammacell 1000 Cesium Irradiator was recently relocated to a new area in the hospital.

The results of the area survey and leak test performed after the relocation are enclosed.

Sincerely,

Joan Seibert

Joan Seibert, M.S.
Radiation Safety Officer

JS:as
Encl.

Sept 1 I
Check No. *077363*
Amount, Fee Category *(3E) \$120*
Type of Fee *AMD*
Date Check Rec'd *7/27/85*
Received By *Jackson*

"OFFICIAL RECORD COPY"

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REG1 LIC30
29-03308-03 PDR

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A MAJOR TEACHING AFFILIATE OF
The Columbia University College of Physicians and Surgeons

Radiation And Environmental Health Services, Inc.

P.O. BOX 261, PEARL RIVER, N.Y. 10965

(914) 735-7717

Date : August 8, 1985

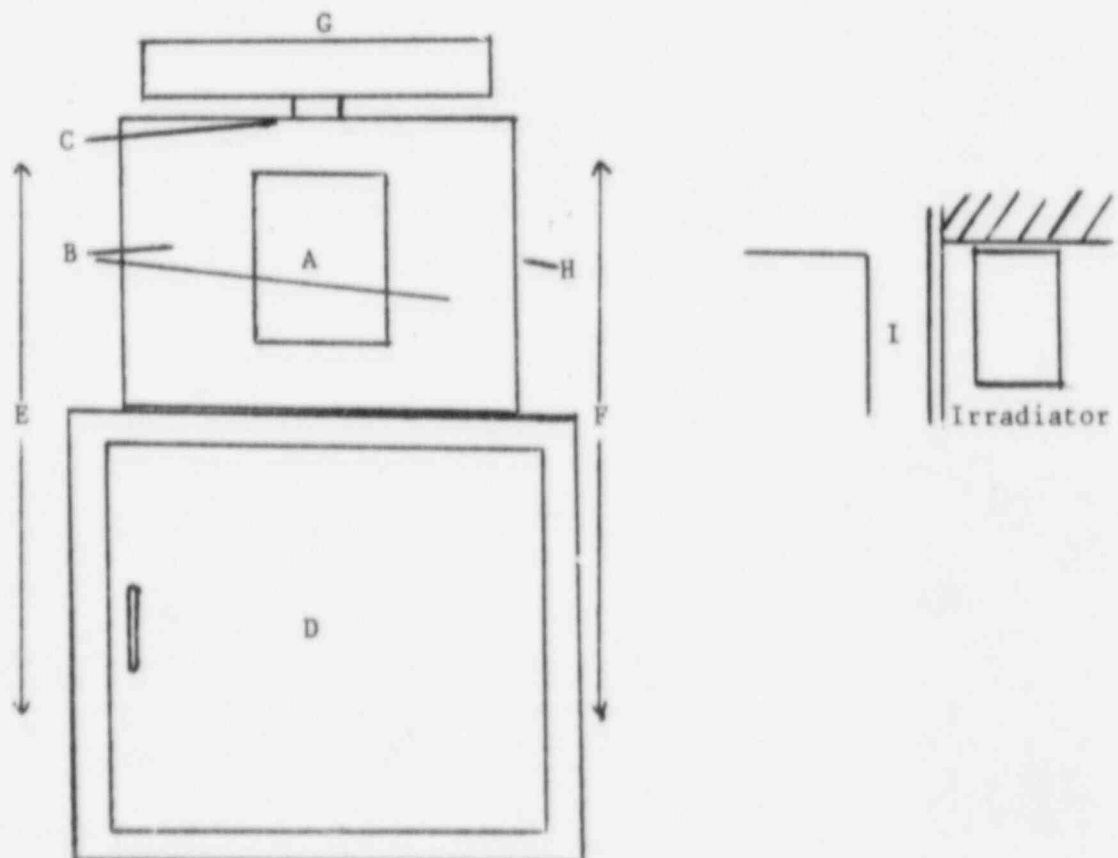
To : Joan B. Seibert, MS, Radiation Safety Officer
Overlook Hospital

From : James R. Donlan, Health Physicist
Radiation and Environmental Health Services, Inc.

James R. Donlan

Subject: Area survey for Gamma-cell-1000 Irradiator

An area survey of the Gamma-cell-1000 Irradiator was performed on July 29, 1985. The irradiator contains a Cesium-137 source of approximately 638 curies and is used for blood irradiations. This survey was completed after the relocation of the irradiator to the new Blood Bank area on the third floor. The survey results are as follows:



See survey results reported on the following page

<u>Locations</u>	<u>Survey Results(mR/hr)</u> (activated and deactivated)	
A. Irradiator door	0.10	Bgqd : 0.02 mR/hr
B. Front	0.02	
C. Cell holder drive mechanism	0.15	
D. Cabinet door (front)	0.2	
E. Left side	0.02	
F. Right side	0.02	
G. Top	3.0	
H. Back	0.10	
I. Work area, behind irradiator and partition	less than 0.05	

All measurements were performed during activated and deactivated modes of operation. A significant change was not observed in the exposure rates in either mode of operation. The exposure rates above represent the maximum exposure rate found at any location.

The instrumentation used was a GM survey instrument, Eberline Model E-520, serial number 3770, with an energy compensated probe. The GM instrument was calibrated against a Cesium-137 source on July 10, 1985.

A leak test of the sealed source was performed. The results are enclosed.

Radiation And Environmental Health Services, Inc.

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SEALED SOURCE LEAK TEST

Hospital: Overlook Hospital, Summit, NJ Date: July 29, 1985

Source: Cs-137 Activity: 638 Ci on 9/29/82

Serial No.: 82-Cs-44 Manufacturer: AECL

Storage Location: Blood Bank, Third Floor

Person Responsible: Joan Seibert, RSO

Leak Test Procedure:

Wipe collected using: Alcohol wipe

Instrumentation: Ludlum spectrometer, Model 261, with NaI well detector

Instrument settings: LL: 50 kev UF: open

Instrument Efficiency:

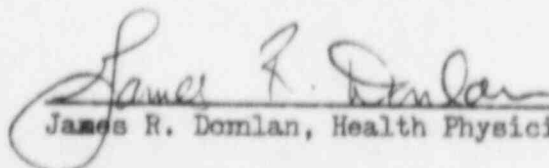
Standard used:	<u>Cs-137</u>
DPM of standard:	<u>2.42 x 10⁶</u>
Background of counter (cpm):	<u>516</u>
CPM (-bkgd) obtained for standard:	<u>867,119</u>
CPM/DPM for instrument:	<u>0.36</u>
Efficiency (CPM/DPM x 100%):	<u>36%</u>

Counting Data:

Wipe test count:	<u>582</u>	cpm
Background:	<u>516</u>	cpm
Removable activity:	<u>66</u>	cpm, <u>0.00008</u> uCi

Comments:

Less than 0.005 uCi removable activity


James R. Domlan, Health Physicist