

DEPARTMENT OF RADIATION ONCOLOGY

CAMDEN-CLARK MEMORIAL HOSPITAL
800 GARFIELD AVENUE
P.O. BOX 718
PARKERSBURG, WEST VIRGINIA 26102
TELEPHONE 304/424-2744

CHANDRA S. SEKAR, M.D.
Radiation Oncologist

SRINI VASAN, M.D.
Radiation Oncologist

MUKUND K. KARTHA, Ph.D.
Medical Physicist

April 23, 1985

Ms. Carol A. Connell
Radiation Specialist
Nuclear Materials Safety Section
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Atlanta, Georgia 30303

Dear Ms. Connell;

Ref. 50448; 030-00529

I finally got all the information you have requested and hope this will allow the speedy processing of our teletherapy license renewal.

Copies of the teletherapy room radiation survey and Atom Therapy Service license are enclosed.

Please note that the teletherapy room has the following area surrounding it (refer to the floor plan mailed 3/14/85):

- North - Radiology office and superficial therapy room. The superficial therapy room is currently converted into a radiation oncology office.
- East - Radiation Therapy corridor, with controlled access.
- South - Radiation Therapy corridor, with controlled access.
- West - Telecobalt control area and radiation oncology examination room.

A copy of detailed floor plan is attached.

The survey was conducted with a Victoreen PANORAMIC, Model 470A ionization survey meter, Serial No. 2234, which is always available in the Radiation Oncology Department for use. This survey meter is calibrated annually by myself using a Tech/Ops. Model 773 Instrument Calibration Device. The calibration procedure has been filed with your office re: License number 47-09772-02, Amendment No.16, in accordance with application (letter) dated January 17, 1984.

8505290685 850508
REG2 LIC30
47-09772-03 PDR

Official Copy

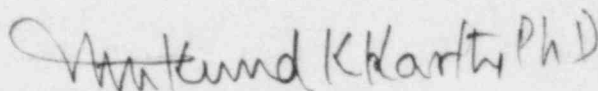
Official Copy

The teletherapy room is continuously monitored for scatter/stray radiation with a Nuclear Associates PRIMALERT 10; Model 05-433 with PRIMAPAK, Model 05-440. The performance of this area radiation monitor is monitored daily and checked with a standard source monthly. A complete performance test by comparing its response to an ionization chamber monitoring the primary beam is conducted by myself at the time of each full calibration of the teletherapy unit.

We are sorry about the misunderstanding on the teletherapy room survey, and the delay in performing the survey and sending you the report.

Should you have any additional quirrries contact me Mondays through Thursdays.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mukund K. Kartha Ph.D.", written in a cursive style.

Mukund K. Kartha, Ph.D.
Radiation Safety Officer

MKK/lw

Enclosures: Copy of survey report
Copy of Atom Therapy license

DEPARTMENT OF RADIATION ONCOLOGY

CAMDEN-CLARK MEMORIAL HOSPITAL
800 GARFIELD AVENUE
P.O. BOX 718
PARKERSBURG, WEST VIRGINIA 26102
TELEPHONE 304/424-2744

CHANDRA S. SEKAR, M.D.
Radiation Oncologist

SRINI VASAN, M.D.
Radiation Oncologist

MUKUND K. KARTHA, Ph.D.
Medical Physicist

PICKER C-9 TELECOBALT RADIATION SURVEY

The orientation of the telecobalt unit is shown in the attached floor plan of the Radiation Oncology Department.

When the telecobalt head is vertically down the C-arm, head (angulation and tilt) are at "zero degrees". The C-arm (or gantry) rotates clockwise through 360° degrees without any limitation, either mechanical or electrical.

At C-arm angle 0°, the head tilts 40° out and 20° in with beam on capability. At any other C-arm angle, limits are 6° out and 8° in.

Head angulation limits are 6° in and out with the largest field size of 36cm.x36cm., which projects into 72cm.x72cm. at the primary beam shield. This primary beam shield is 96cm.x88cm. and covers primary beam in all directions except for the in and out tilted head positions at 0° C-arm angle.

SURVEY DATE: April 10, 1985

SURVEY INSTRUMENT: Victoreen Panoramic Ionization Survey Meter, Model 470A, Ser. No.2234, last calibrated at Camden-Clark Memorial Hospital on November 27, 1984.

SURVEY CONDUCTED BY: Mukund K. Kartha, Ph.D.

SURVEY RESULTS

(next page)

RESULTS OF RADIATION SURVEY
TELECOBALT ROOM, CAMDEN-CLARK MEMORIAL HOSPITAL
PARKERSBURG,

MEASURED: April 10, 1985

Background: 0.02mR/hr

LOCATION	C-ARM ANGLE Degrees	HEAD ANGLE Degrees	TILT ANGLE Degrees	EXPOSURE RATE mR/hr.
Control	0	0	0	Background
Station	0	0	40 out	"
(WEST)		0	20 in	"
		6 up	0	"
		6 down	0	"
	45	0	0	Background
	45	0	6 out	"
	45	0	8 in	"
		6 up	0	"
		8 down	0	"
	90	0	0	Background
	90	0	6 out	"
		0	8 in	"
		6 up	0	"
		8 down	0	"
	135	0	0	Background
	225	0	6 out	"
		0	8 in	"
		6 up	0	"
		8 down	0	"
	180	0	0	Background
	270	0	6 out	"
		0	8 in	"
		6 up	0	"
		8 down	0	"
	225	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	270	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"

W. Karthe

LOCATION	C-ARM ANGLE Degrees	HEAD ANGLE Degrees	TILT ANGLE Degrees	EXPOSURE RATE mR/hr.
Control Station (continued)	315	0 0 0 6 up 6 down	0 6 out 8 in 0 0	Background " " " "
Examination Room (WEST)	0	0 0 6 up 6 down	0 40 out 0 0	Background " " "
	45	0 0 0 6 up 6 down	0 6 out 8 in 0 0	Background " " " "
	90	0 0 0 6 up 6 down	0 6 out 8 in 0 0	Background " " " "
	135	0 0 0 6 up 6 down	0 6 out 8 in 0 0	Background " " " "
	180	0 0 0 6 up 6 down	0 6 out 8 in 0 0	Background " " " "
	225	0 0 0 6 up 6 down	0 6 out 8 in 0 0	Background " " " "

M. Karly

LOCATION	C-ARM ANGLE Degrees	HEAD ANGLE Degrees	TILT ANGLE Degrees	EXPOSURE RATE mR/hr.
Examination Room (continued)	270	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	315	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
South Corridor	0	0	0	Background
		0	40 out	"
		0	20 in	"
		6 up	0	"
		6 down	0	"
	45	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		8 down	0	"
	90	0	0	Background
		0	6 out	0.4
		0	8 in	0.2
		6 up	0	Background
		6 down	0	"
	135	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	180	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"

M Karler

LOCATION	C-ARM ANGLE Degrees	HEAD ANGLE Degrees	TILT ANGLE Degrees	EXPOSURE RATE mR/hr.
South Corridor (continued)	225	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	270	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	315	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
East Corridor	0	0	0	Background
		0	40 out	"
		0	20 in	"
		6 up	0	"
		6 down	0	"
	45	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	90	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	135	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"

JK Karlin

LOCATION	C-ARM ANGLE Degrees	HEAD ANGLE Degrees	TILT ANGLE Degrees	EXPOSURE RATE mR/hr.
East Corridor (continued)	180	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	225	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	270	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	315	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
Superficial x-ray room (Now Rad. Onc. office) (NORTH)	0	0	0	Background
		0	40 out	"
		0	20 in	"
		6 up	0	"
		6 down	0	"
	45	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	90	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"

W. Karlier

LOCATION	C-ARM ANGLE Degrees	HEAD ANGLE Degrees	TILT ANGLE Degrees	EXPOSURE RATE mR/hr.
Rad. Onc. Office North (continued)	135	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	180	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	225	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	270	0	0	Background
		0	6 out	0.9
		0	8 in	Background
		6 up	0	"
		6 down	0	"
	315	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
Radiology Office (NORTHWEST)	0	0	0	Background
		0	40 out	"
		0	20 in	"
		6 up	0	"
		6 down	0	"
	45	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"

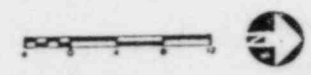
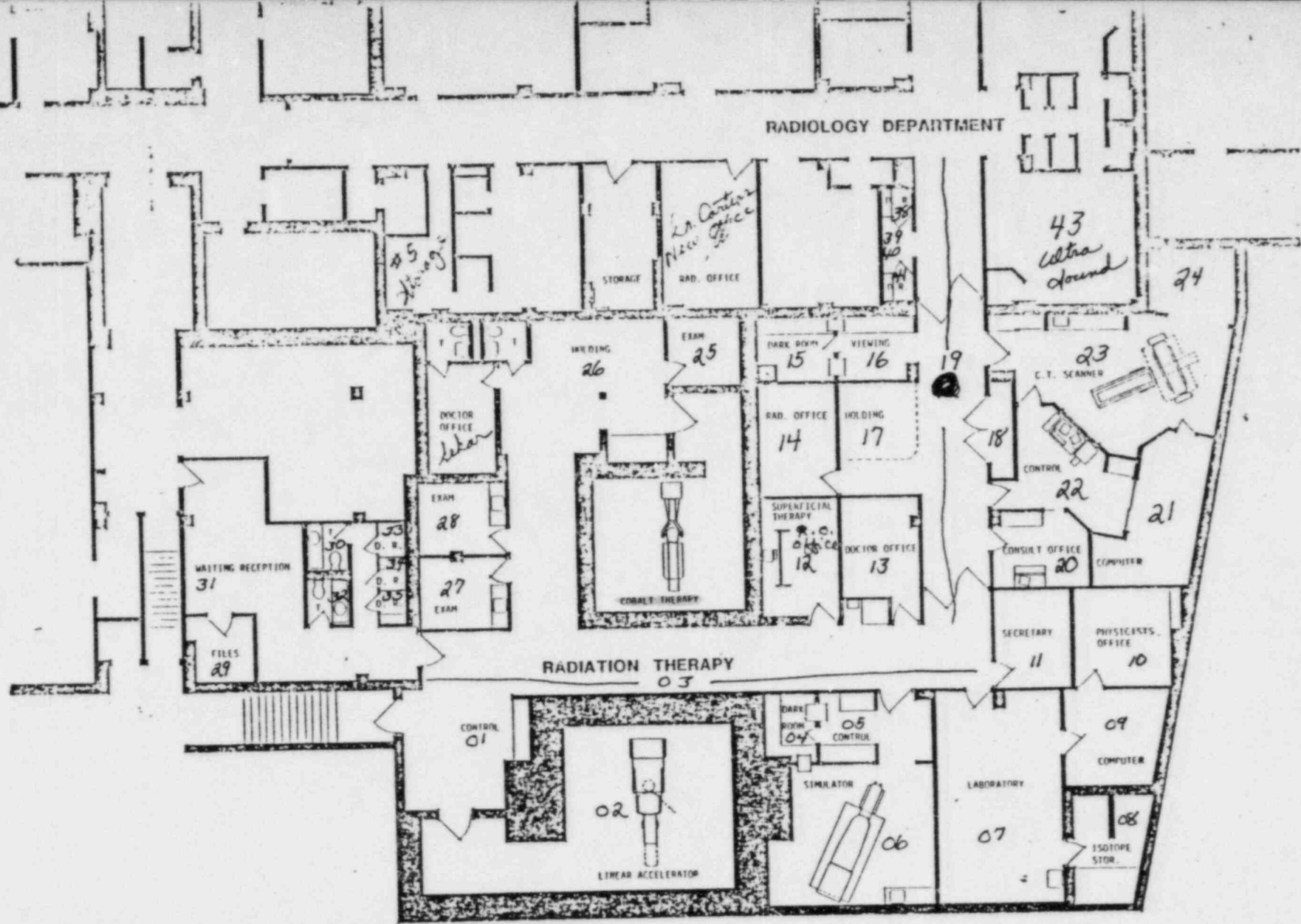
M. Karlw

LOCATION	C-ARM ANGLE Degrees	HEAD ANGLE Degrees	TILT ANGLE Degrees	EXPOSURE RATE mR/hr.
Radiology Office NORTHWEST (continued)	90	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	135	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	180	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	225	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	270	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	315	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
Ceiling	0°	0	0	Background
		0	40 out	"
		0	20 in	"
		6 up	0	"
		6 down	0	"

M. Karthe

LOCATION	C-ARM ANGLE Degrees	HEAD ANGLE Degrees	TILT ANGLE Degrees	EXPOSURE RATE mR/hr.
Ceiling (continued)	45°	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"
	90°	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	0.05
		6 down	0	0.02
	135°	0	0	Background
		0	6 out	0.2
		0	8 in	0.1
		6 up	0	0.07
		6 down	0	0.05
	180°	0	0	Background
		0	6 out	0.5
		0	8 in	0.3
		6 up	0	0.1
		6 down	0	0.06
	225°	0	0	Background
		0	6 out	0.15
		0	8 in	0.1
		6 up	0	0.06
		6 down	0	0.04
	270°	0	0	Background
		0	6 out	0.08
		0	8 in	0.06
		6 up	0	0.03
		6 down	0	0.03
	315°	0	0	Background
		0	6 out	"
		0	8 in	"
		6 up	0	"
		6 down	0	"

Winkend K Karthi PhD



Camden-Clark Memorial Hospital
CANCER MANAGEMENT PROGRAM PHASE ONE
 800 Garfield Avenue
 Parkersburg, West Virginia

William H. Collins, Architect
 2729 Prospect Ave.
 Cleveland, Ohio 44115
 (216) 621-4610