



RIVERSIDE
MEDICAL PHYSICS

FACSIMILE FACE SHEET

To:

Dr. J. Parker

From:

Harold Prussia, B.S., R.T.(R,Q.M.)

Fax Number:

757-594-3134

Pages:

4

Change for Page 13 and

Survey meter calibration service information

500 I. Clyde Morris Blvd
Newport News VA 23601
(757) 594-2757

May 3, 2001

U.S. Nuclear Regulatory Commission, Region II
Atlanta Federal Center
61 Forsyth Street, S.W., Suite 25785
Atlanta GA 30303-3415

RE: RENEWAL OF NRC LICENSE NO. 45-09901-01

To Brian Parker

In reference to our HDR procedure on paragraph C of page 13 of our application, we would like to make the following change to our application. The first paragraph below shows the original application wording. The second paragraph below shows the new wording for our application.

We currently have three physician-users and two physicist-users authorized to attend treatments involving the high dose rate Brachytherapy Remote Afterloader (BRAL) device. Our offices, clinics, laboratory, and reading area are less than forty-five steps from the control console. All rooms are interconnected by intercoms. Intervening walls are thin gypsum. At present, all treatments are attended by one BRAL operator, one nurse, one physicist and one physician. To permit better service to our patients without compromising safety, we request for any treatment attended by one nurse and two physicists, that the physician be permitted to be either in his office or in the patient examining area for the Cancer Treatment Center. By loud voice or by intercom the physician could be summoned to the console within seconds. We further request that in the absence of physicians due to simultaneous sickness and vacation, that treatments be permitted with either one physician and the radiation safety officer or with two physicians before in attendance.

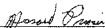
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the absence of physicists due to simultaneous sickness and vacation, that treatments be permitted with one physician and the radiation safety officer in attendance.

Thank you very much for your assistance in the renewal.

Yours very truly,


Harold P. Smith, B.S. _____ (date)
Radiation Safety Officer

**Standards
Laboratory
Report**

Amersham Corporation

40 North Avenue
Burlington, Massachusetts 01803

GAMMA RAY SOURCE CALIBRATION

<u>Isotope</u>	<u>Test No.</u>	<u>Date Measured</u>
Cs-137	5652	9-17-90
<u>Source Identification</u>	<u>Milli Roentgens/hr. at 1 Meter</u>	<u>Milli Curies</u>
S-725	45.1	141.0

Source decay correction factors

Age in:	Cobalt-60		Iridium-192		Cesium-137
	years	mos	weeks	days	years
0	1.000	1.000	1.000	1.000	1.000
1	.877	.889	.937	.991	.977
2	.769	.778	.877	.941	.955
3	.674	.687	.821	.972	.933
4	.590	.607	.769	.963	.912
5	.518	.548	.721	.964	.892
6	.454	.508	.678	.945	.871
7	.398	.485	.632	.927	.852
8	.349	.416	.592		.832
9	.308	.385	.554		.813
10	.268	.366	.519		.795
11	.235	.336	.486		.777
12	.206	.317	.455		.759
$T_{1/2}$	5.26y		74.0d		30.2y
Bhm/Ci	1.30		0.56		0.32

Source exposure conditions:

In Calibration Device, Model 773, SR 403

The gamma-ray emission of the sealed source herein described was measured with a Radcal Corp. Model 20X5-180 Ion Chamber whose relative response to cobalt-60, cesium 137, and 200 keV_{eff} X rays had been determined by a National Bureau of Standards — approved calibration laboratory. Sensitivity of the ion chamber is monitored by reference to an NBS-calibrated cobalt-60 source. Readings were corrected for atmospheric temperature and pressure and for ambient air scattering and absorption. The source was measured with its axis of symmetry perpendicular to the line joining source and chamber center. The reported output represents the intensity expected in the absence of air and surrounding objects and is believed to be accurate within +1.5%, made up of the stated $\pm 0.9\%$ uncertainty of the NBS source calibration and the +1% estimated precision of intercomparison.

Signed Donald F. Kinsbury

**THIS SOURCE WAS TESTED FOR
EXTERNAL CONTAMINATION OR LEAKAGE**

Calibration performed for:

Nuclear Associates
Division Of Victoreen
100 Voice Road

Date _____ Microcuries _____ By _____

Date _____ Microcuries _____ By _____

Cable Place, NY 11514

PAR NO. 757543134

P.04

PAR-03-01 THU 15:03