

CancerCare Manitoba

Radiation Therapy Photographs

2006-01-19

This document contains a number of old photographs that were kept by the Medical Devices and Nuclear Electronics sections of CancerCare Manitoba. Also included are photos of current equipment. In addition, there are a large number of images included with the soft version of this report. Keep in mind that the quality of these photographs varied a great deal and a number of them had suffered water damage. However, they still tell an interesting story.

These photographs may be used freely in presentations and reports. However, state the source of the photographs as "CancerCare Manitoba".

Prepared by:
Daniel W. Rickey, Ph.D., MCCPM
Imaging Physics, ON2118
CancerCare Manitoba
675 McDermot Ave
Winnipeg, Manitoba
R3L 1E7 CANADA
daniel.rickey@cancercare.mb.ca
204-787-1764

With thanks to Richard Shabaga, David Viggars, and others who took the time to photograph these machines.



This is the north side our original modern building, which opened in 1964. In 1981, it was doubled in length by adding to its south side. It was expanded again in 2003.



In 1999, we changed our name from *Manitoba Cancer Treatment and Research Foundation* to *CancerCare Manitoba*. We got a new logo to go with the name.



Located in the basement was the large P.A. MacDonald physics laboratory in 1964. Back of the photo is the electronics lab.



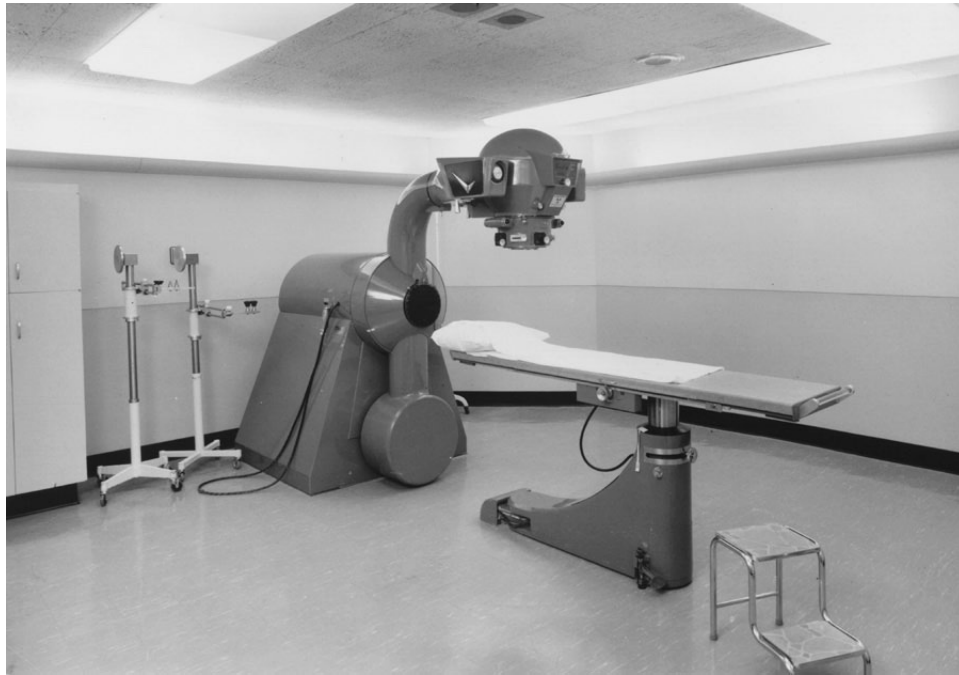
Also located in the basement next to the physics lab was a machine shop. The shop was moved to the opposite end of the basement when the building was expanded in 1981. The machinist is Ray Gallent.



Mould room in the 1960's.



Early Eldorado Cobalt 60 Therapy Unit installed at Winnipeg General Hospital. This is the first commercial cobalt unit. It operated from 1955 until it was decommissioned in the early 1970's. Also shown is the head of electronics: Ernie Cartwright.



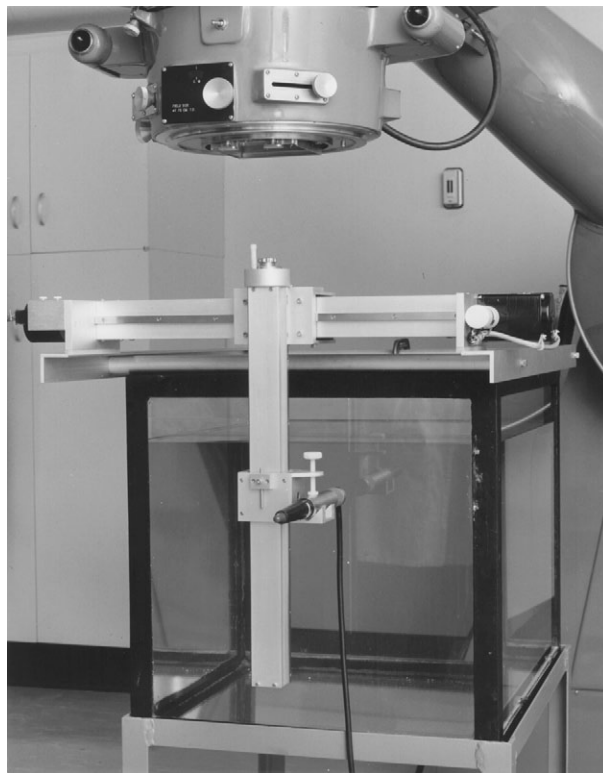
Early Cobalt 60 radiation treatment machine. Theratron "F" Teletherapy Unit serial #22 by the Atomic Energy of Canada Limited. It arrived on February 12, 1963 and treated its first patient April 15, 1963. This machine was in operation for 30 years and was replaced only when a new cobalt source could not be obtained.



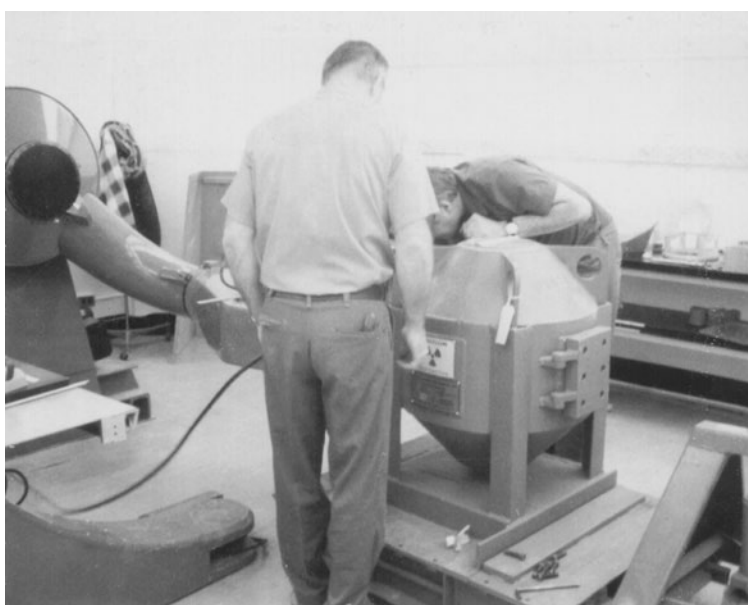
Control panel of the Theratron "F". Physicist with a piece of calibration equipment.



The Cobalt 60 unit's patient table has been replaced by one made by our Medical Devices section. It was designed for breast treatments.



Physicists would calibrate the output of the Theratron using a large tank of water.



Theratron F Cobalt Unit at MCTRF. A Cobalt 60 source is being loaded from the container (known as a "pig") on the right. The source was changed every five years.



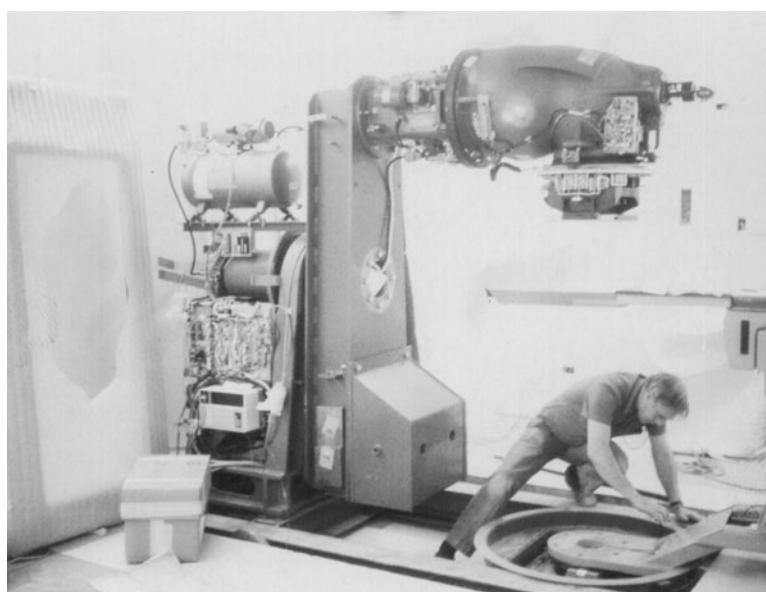
Brown Boveri Betatron used for electron treatments installed mid-1960's and used until the mid-1980's. The unit is supported from above and all of the electronics and motion control for the massive magnets are contained in a room above the unit.



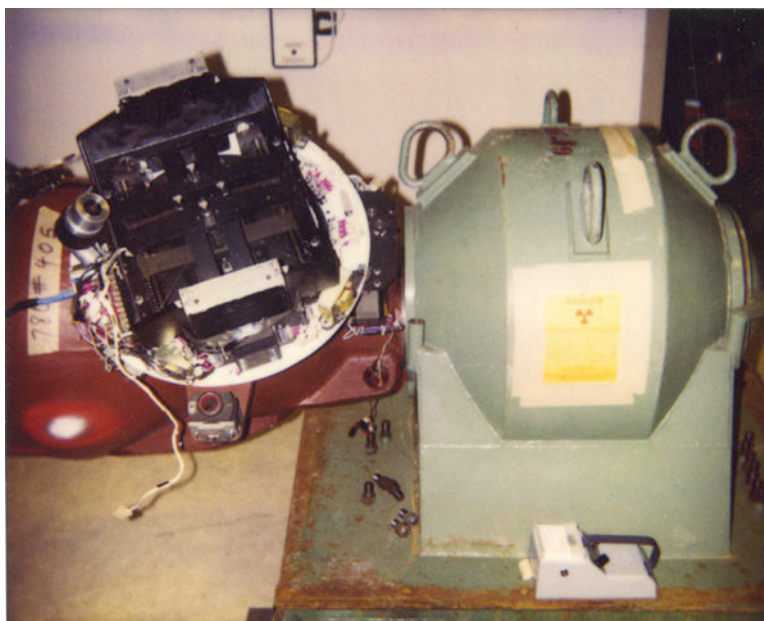
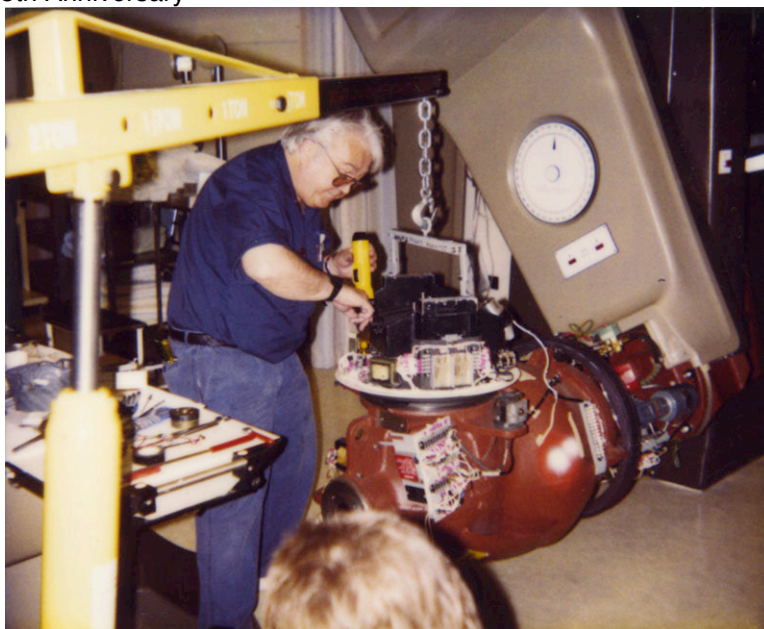
Original Picker cobalt 60 unit (SN 109 and 111) located at the Saint Boniface Hospital. It was in operation from 1956 until 1980.



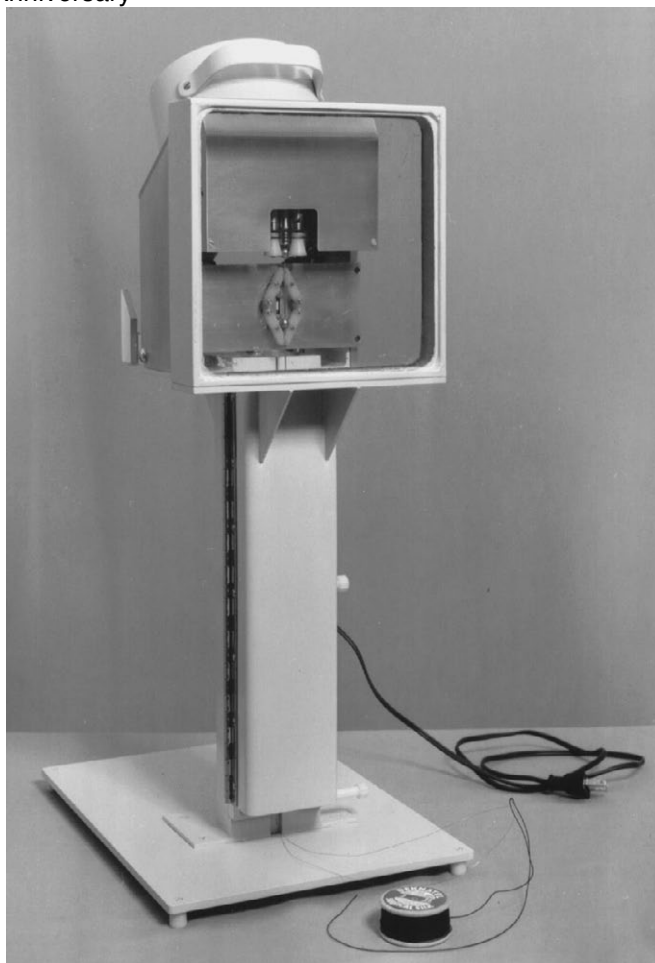
Removal of the original Cobalt 60 unit from Saint Boniface Hospital.



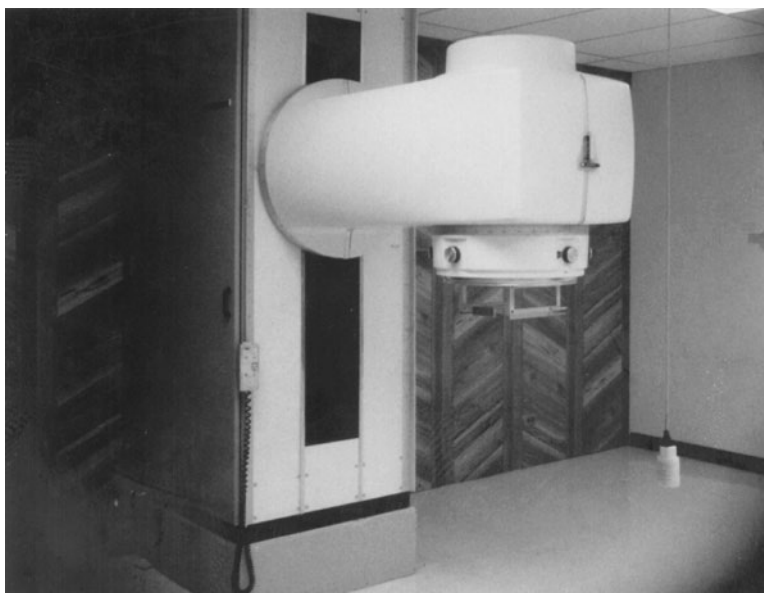
Installation of a new Theratron 780 cobalt unit at Saint Boniface Hospital. It was affectionately referred to as the “Bonitron”.



Loading the Cobalt 60 source into a new treatment machine. The source was shipped in the large green container on the right.



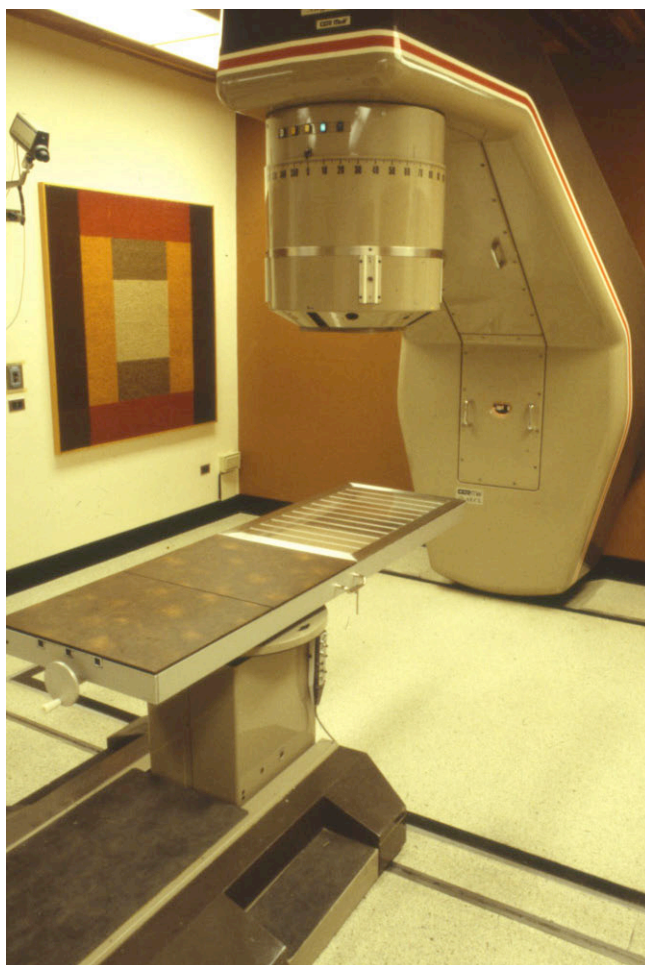
This is a “bead threader” that was built in-house by Medical Devices in 1965. It was used in the preparation of Cobalt 60 beads for treatment of the endometrial cavity.



SHM Nuclear Therapi 4 accelerator, SN 8683 was installed December 1974. The first patient was treated January 7, 1975 and it was in service until 1989.



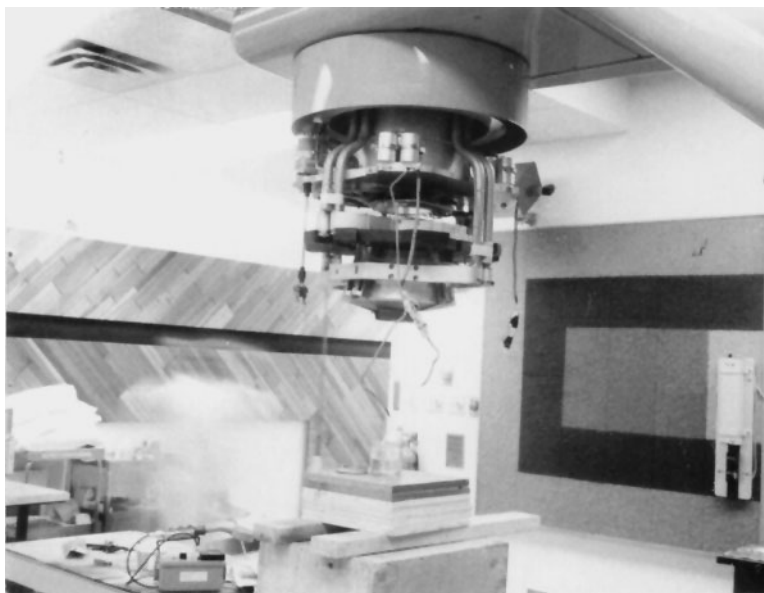
Breast treatment couch on the AECL Therasim 750.



Thomas CGR Sagittaire first used November 14, 1977. It remained in service until 1993.



Accelerators are shipped in very large boxes. This is the klystron cabinet.



The Sagittaire during installation.



Demonstrating how to trace a contour of a patient onto paper. Photo taken in 1983.



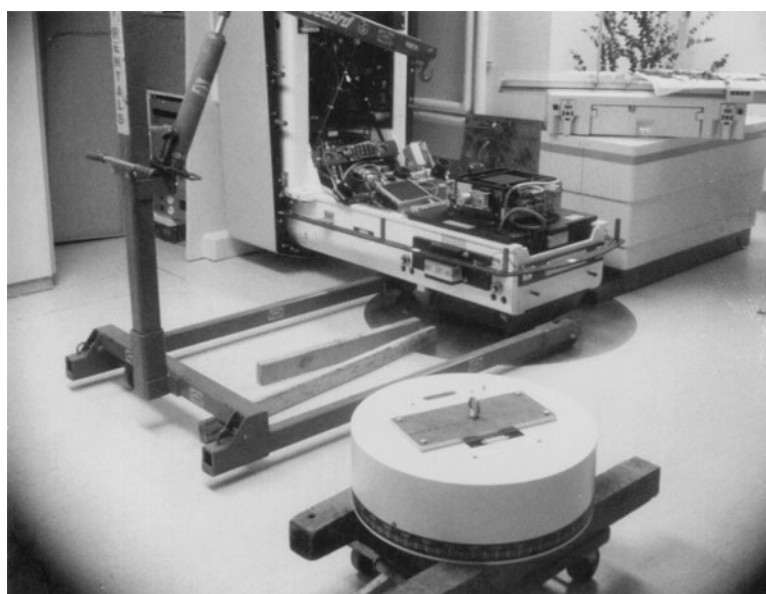
Demonstrating the tracing a contour of a patient onto paper in 1983. Also shown mounted on the wall on the right is an orthovoltage x-ray unit used to treat superficial tumours.



Installation of the Siemens MD2 accelerator at Saint Boniface in 1992. The name MD2 means: M = magnetron based; D = dual energy; and, 2 = digital.



Nucletron high-dose-rate brachytherapy first installed in 1994. The treatment room was moved in 2002 when the building was expanded.



Installation of the KD2 linear accelerator at CancerCare.



Siemens Somatom 4 computed tomography simulator installed in 1998.



Therapax 3 orthovoltage x-ray unit in 2003.



Siemens KD2-B linear accelerator installed at MCTRF in 1996. Here the “K” in the name means it is klystron based.



Siemens MD2-g linear accelerator installed at CCMB in April 2000.



Varian Clinac 2100 installed in 2002.



Elekta Gamma Knife installed summer 2003 at the HSC.



Siemens Biograph combination PET and CT scanner installed 2005 at the U of M.
The physicist is Rose Lawrence.

SIEMENS
SIEMENS-REINIGER-WERKE
 AKTIENGESellschaft

AB 835010/49903
 AB 835010/91960

Leergut deklariert als
 „Gebr. Packmittel“. „Die
 hiermit zuletzt verpackten
 Güter sind auf der Eisen-
 bahn befördert worden.“
 Zurückzusenden an Siemens-
 Reiniger-Werke AG, Erlangen

Postanschrift
 Siemens-Reiniger-Werke AG ⑬ Erlangen, Postfach

The Manitoba Cancer Relief
 and Research Institute
 442, William Avenue
 Winnipeg, Man./Canada

Pendulum

We sent to Messrs. Hölzer & Co., Bremen, for shipment,
 cif Montreal and delivery to your address :

Versandanzeige

Unsere Auftrags-Nr. und Zeichen

⑬a Erlangen
 Luitpoldstr. 45-47
 den
 Oct. 28, 1954

Bei Rückfragen Angabe der Auftrags-Nr. erbitten.

63 0075

Unsere Reichsbetriebs-Nr.
 0/0951/9024

Ihre Bestellung

Export-Contract EK 54 04 4423
 Order no. 1064 of April 1, 1954

S. R. W.	Pos.	
STB W. G. H. 19041 Winnipeg, Man. Canada via Montreal	1	1 X-Ray Apparatus "Stabilipan" no. 558/1054 comprising : 1 case: Gr.w. 268.- N.w. 170.- Nn.w. 170.-kgs Dim: 121 x 79 x 149 cm 1 mobile control table with filter indi- cation panel 50/12 mounted rubber connecting cables ✓ to 1 2 control buttons ✓ 1 switch button ✓ 40 1 operating instruction, English ✓ 2 1 intermediate transformer R.tr. 438 a 1.no. 480 018 19042 1 case: Gr.w. 140.- N.w. 63.- Nn.w. 59.-kgs Dim: 150 x 98 x 58 cm to 1 1 set of component parts for control table 1 desk (extensible) with ✓ 1 desk plate (Plexiglas) ✓ 1 kV-Meter 0-250 with 2 screws ✓ 1 mA-Meter 0-30 with ✓ 2 screws 1 treatment timer 0-15 with frame ✓ 1 tube EL 12 V 5 ✓ 4 tubes 85 A 1 ✓ 1 tube V 2 STV 150/20 ✓ 1 tube V 1 AZ-41 ✓ 5 fuses, small ✓ 5 fuse plugs ✓ 7 cathode drop arrester on rail, mounted ✓

p.t.o.

Beanstandungen können nur berücksichtigt werden, wenn sie innerhalb 10 Tagen nach Erhalt der Sendung erfolgen.

Fernsprecher 751
 Fernschreiber
 06 2150 u. 06 2182

Telegrammadresse
 Sirewa Erlangen

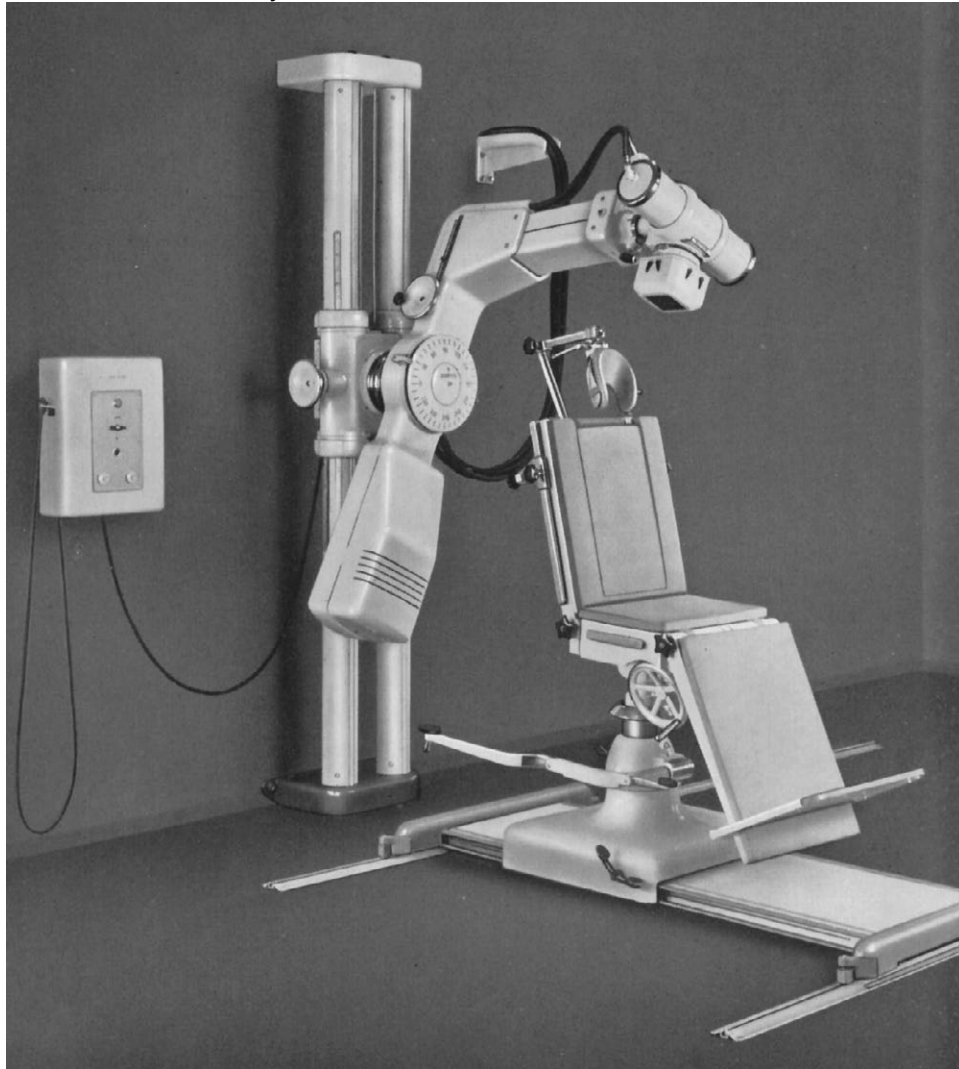
Bayerische Staatsbank Erlangen, Erlangen, Kto. 21357
 Bayerische Vereinsbank, Erlangen Kto. 1818
 Stadt- u. Kreissparkasse, Erlangen Kto. 1610

Landeszentralbank von Bayern, Erlangen
 Girokonto 643/8661
 Postscheckamt Nürnberg Kto. Nr. 6202

Wir bitten die Verpackung genau durchzusehen.

VA 050/15

Packing slip from 1954 for a Stabilipan othovoltage x-ray unit. This unit was installed at Saint Boniface Hospital and used until 1978.



This is the Stabilipan "pendulum" unit listed in the previous 1954 packing slip. Drawing taken from the Siemens Stabilipan manual.

There was also an orthovoltage unit installed at Winnipeg General Hospital in 1954 (type 16A-XRC, SN 851-152). A Siemens convergent beam orthovoltage unit was installed at Winnipeg General Hospital in 1957 and was used until 1977.

*File
+ pay service - Remittance
St. Bon. Hoff*

SIEMENS
SIEMENS-REINIGER-WERKE AKTIENGESELLSCHAFT.

M. C. I.
NOV 5 1956

Einschreiben
Recommandé

The Manitoba Cancer Relief
and Research Institute
442, William Avenue
Winnipeg 2, Manitoba
Canada

Ihre Zeichen
—

Ihre Nachricht vom
—

Unsere Zeichen
VEK/Df.

ERLANGEN
(Deutschland)
29th Oct., 1956

Betrifft
Re.: Your Purchase Order No. 3261 dated 28th September, 1956
our EK 56 10 13174

Dear Sirs,

Please find enclosed for the above mentioned shipment
commercial invoice No. 63/0665
dated 22nd October, 1956 on
US-\$ 7,35, 6-fold.

We kindly ask you to remit the above mentioned amount
of US-\$ 7,35 by check on New York.

Hoping that the greafe- and conserving agents listed in this
invoice will arrive promptly and in good order, we remain,

Yours very truly
SIEMENS-REINIGER-WERKE
AKTIENGESELLSCHAFT
i.V. i.A.
(Knösel) *(Niendorf)*

Encls.

Invoice from Siemens in 1956. The amount is \$7.35.

A Canadian Pacific C.D. 1R

TELEGRAM

WORLD WIDE COMMUNICATIONS

"The filing time shown in the date line is STANDARD TIME at place of origin. Time of receipt is STANDARD TIME at place of destination"

RNA382 14 AIR 1959 JUL 23 PM 2 19

FD TORONTO ONT 23 233P

CAMPBELL, CANCER CLINIC 438

442 WILLIAM AVE WPG PHONED TO BY TIME

CABLES OUT ON TCA FLIGHT FIFTEEN TODAY MARKED FOR PICK UP AT

EXPRESS OFFICE

XRAY AND RADIUM INDUSTRIES

There was no Fax or email in 1959. Business was done with Telex and Telegram. Notice that this Telegram was addressed to the "Campbell Cancer Clinic".



X-RAY AND RADIUM LIMITED

Cable Address "X-RAD"

1400 DON MILLS ROAD

DON MILLS, ONTARIO

June 14, 1962

Radiation Laboratories & Physics Dept.,
Manitoba Cancer Treatment & Research Foundation,
700 Bannatyne Avenue,
Winnipeg 3, Manitoba.

Attention: Mr. E. Cartwright

Dear Mr. Cartwright:

Further to our letter of May 24th we have
now received prices from the factory as requested.

- 1 Anode High Tension Cable
similar to 984948, but 32
feet overall length.....\$304.00
- 1 Cathode High Tension
Cable similar to 984947,
but 32 feet overall length..\$304.00
- 2 Oil Cooler Hoses, similar
to 984796, but 36 feet long.
One end complete with fittings
and gaskets for fastening to
the X-Ray tubehead.....\$91.00 each

Delivery is estimated at three weeks and
every effort would be made to reduce this if at all possible.

Many thanks for your enquiry and you can be
sure that your requirements will have our careful attention.

Yours very truly,
X-RAY AND RADIUM LIMITED,

WS:SL

W. Seyers.

Quote for x-ray parts in 1962. They cost a lot more today.

This table lists our radiation equipment used for treatment of cancer over the years.

make	model	type	Local	installed	removed
Siemens	Stabilipan pendulum	Orthovoltage	SBGH	1954	1978
Mattern	MDT-250	Orthovoltage	WGH	1954	?
Siemens	Stabilipan convergent beam	Orthovoltage	WGH	1957	1977
Eldorado	?	Cobalt 60	WGH	1955	1970s
Chaul	?	orthovoltage	WGH	Dec 1955	1976
Picker	?	Cobalt 60	SBGH	1956	1980
GE	KX10	orthovoltage		1957	?
AECL	Theratron F	Cobalt 60	MCTRF	1963	1993
GE	Maximar 100	orthovoltage	SBGH	April 1963	1973
AECL	Theratron 780	Cobalt 60	SBGH	~1980	Dec 15 2000
Siemens	KD2-A	linac	MCTRF	Aug 1989	2003
Brown Boveri	Betatron	electrons	MCTRF	late 1960's	~1980
SHM Nuclear	Therapi 4	linac	MCTRF	1975	1989
Siemens	Stabilipan	orthovoltage	MCTRF	1978?	2002?
Picker	?	simulator	MCTRF	Dec 1971	~1985
AECL	Therasim 750*	simulator	MCTRF	March 1982	June 25 1999
AECL	Therasim 750**	simulator	SBGH	1984/1985	1993
Thomas CGR	Sagittaire	linac	MCTRF	Nov 14, 1977	1993
Siemens	MX2-E	linac	MCTRF	1990	2004
Siemens	MD2	linac	SBGH	March 1992	March 2005
Pantak	Therapax DXT-300	orthovoltage	MCTRF	1993	-
Nucletron	HDR	brachytherapy	MCTRF	1994	-
AECL	Theratron 780C	Cobalt 60	MCTRF	1995	-
Varian	Ximatron	simulator	SBGH	1995	2005
Siemens	KD2-B	linac	MCTRF	1996	-
Siemens	Somatom 4	CT simulator	MCTRF	1998	-
Siemens	MX2-F	linac	CCMB	2000	-
Siemens	MD2-G	linac	CCMB	April 2000	-
Varian	Clinac 2100 C/D	linac	CCMB	2002	-
Elekta	Gamma Knife C	Cobalt	HSC	2004	-
Varian	Clinac 2100 C/D -a	linac	CCMB	2004	-
Siemens	Biograph 16	PET/CT	U of M	July 2005	-
Varian	Clinac 2100 EX-D	linac	CCMB	2005	-
Varian	Clinac 2100 iX	linac	CCMB	2006	-

SBH Saint Boniface General Hospital

WGH Winnipeg General Hospital

MCTRF Manitoba Cancer Treatment and Research Foundation

CCMB CancerCare Manitoba, formerly MCTRF

HSC Health Sciences Centre, formerly WGH

U of M University of Manitoba

* Picker imaging chain.

** Used, from Edmonton & rebuilt at mctrf. Also had a Picker imaging chain.

A dash “-“ in the removed column indicates equipment is still in service.

A question mark “?” indicates that the name or date is unknown.