

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(Corrected Copy)

NO.: NR420D102U

DATE: September 18, 1968

PAGE 1 OF 2

DEVICE TYPE: Rotational Teletherapy Unit

MODEL: Keleket-Barnes Spheray (refer to NR-426-D-106-U)

MANUFACTURER/DISTRIBUTOR: LFE Corporation
1601 Trapelo Road
Waltham, MA 02154

MANUFACTURER/DISTRIBUTOR:

SEALED SOURCE MODEL DESIGNATION:

ISOTOPE: Cobalt-60

MAXIMUM ACTIVITY: 4000 curies

LEAK TEST FREQUENCY:

PRINCIPAL USE: Medical Teletherapy

CUSTOM DEVICE: ☐ YES ☒ NO

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
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DESCRIPTION:

The information given for the Flexaray unit is generally applicable to the Spheray unit with the following exceptions:

The Keleket-Barnes Spheray is a rotational unit with dual cobalt-60 source heads mounted on a large steel ring. The unit can be obtained with an optional provision to vary the angulation of the supporting ring. The brochure on this unit states that the source to the center of rotation distance is variable. It does not state what the limits of the parameter are. A source to center of rotation distance of 60 cm could be assumed, if it is similar to the Rotaray unit.

The heads do not swivel nor tilt. It is estimated that the steel ring can be varied through an angle of plus or minus 15° - 30° about the vertical.

REFERENCE:

For information on Flexaray unit see registration sheet NR420D106U.

ISSUING AGENCY:

U.S. Atomic Energy Commission

William R. Prendergast
LFE Industrial Systems Corporation
55 Green Street
Clinton, MA 01510

Dear Mr. Prendergast:

This letter is in reference to your letter dated August 6, 1991, which requested that we transfer the registration certificates listed in column 1 of Enclosure 1 to inactive status. The certificates have been transferred to inactive status as you have requested. Please note that transfer of the registration certificates to inactive status means the sources or devices included on the certificates may no longer be commercially distributed.

The registration numbers for the certificates have been changed. Enclosure 1 specifies the old registration number, the new registration number, and the model numbers. Please note that some old certificates have been combined into one new inactive certificate. In addition, two registration certificates have been deleted from the system since they were duplicates of other certificates.

Please review the registration certificates (copies enclosed) in their entirety and notify us immediately if there are any errors or omissions.

If you have any questions, please call me at (301) 415-7868 or Mr. Steven Baggett at (301) 415-7273.

Sincerely,

13/

John W. Lubinski, Mechanical Engineer
Sealed Source Safety Section
Source Containment and
Devices Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
And Safeguards

Enclosures: As stated

cc: S. Kimberley, LFDCB

Distribution:

SCDB r/f SSD-91-86 NE01
SSD Files listed in column 1 of enclosure 1 of this letter

DOCUMENT NAME: C:\FILES\SSDS\LFE\LFE.CMP

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

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NAME	JLubinski/jl								
DATE	09/29/95								

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ENCLOSURE 1

Old Reg. Number	New Reg. Number	Model Number(s)
NR-420-D-101-U	NR-420-D-801-S	Keleket-Barnes Rotary
NR-420-D-102-U	NR-420-D-802-S	Keleket-Barnes Shperay
NR-420-D-103-U	NR-420-D-803-S	Keleket-Barnes Ceiling Mounted Unit
NR-420-S-104-S	NR-420-S-804-S	S-10
NR-420-D-106-U	NR-420-D-805-S	Keleket-Barnes Flexaray
NR-420-S-107-U	NR-420-S-806-S	RXA, RXB, RXC, RXL, RXM, RXN
NR-420-D-108-U	NR-420-D-807-B	SCL-1D
NR-420-D-109-B	NR-420-D-808-B certificates were combined	BGL-7C
NR-420-D-110-G		BGL-7
NR-420-D-111-B		BGL-1C
NR-420-D-112-B	NR-420-D-809-B	BGL-1
NR-420-D-113-B	NR-420-D-810-B certificates were combined	SO-7D, SO-7E
NR-420-D-114-B		SO-7A, SO-7B, SO-7C
NR-420-D-115-B	NR-420-D-811-B	SO-1A, SO-1B, SO-1C
NR-420-D-116-B	NR-420-D-812-B certificates were combined	SN-7D, SN-7E
NR-420-D-117-B		SN-7A, SN-7B, SN-7C
NR-420-D-118-B	NR-420-D-813-B	SN-1A, SN-1B, SN-1C, SN-1D, SN-1E, SN-1F
NR-420-D-119-B	NR-420-D-814-B	SC-7D, SC-7E
NR-420-D-120-B	NR-420-D-815-B	SC-7A, SC-7B, SC-7C
NR-420-D-121-B	NR-420-D-816-B	SC-1A, SC-1B, SC-1C, SC-1D, SC-1E, SC-1F
NR-420-D-122-B	NR-420-D-817-B	SN-P7B
NR-420-D-124-B	NR-420-D-818-B	SCL-1A and SCL-1B
NR-420-D-125-G	NR-420-D-819-B	SN-P7A4
NR-420-D-126-U	NR-420-D-820-B	HSB-76 and HSB-77
NR-420-D-127-G	NR-420-D-821-G	HSB-76A and HSB-77A

ENCLOSURE 1

Old Reg. Number	New Reg. Number	Model Number(s)
NR-420-D-128-G	NR-420-D-822-G	BGL-7A
NR-420-D-132-G	NR-420-D-823-G	SNF-18
NR-420-D-133-G	NR-420-D-824-G	SSL-3
NR-420-S-137-U	NR-420-S-826-S	R-30, R-31
NR-420-S-138-U	NR-420-S-827-S	CD-1
NR-420-D-139-U	NR-420-D-828-S	SC-11
NR-420-D-140-U	NR-420-D-829-B	DH-75
NR-420-S-141-U	NR-420-S-830-S	S-75
NR-420-D-142-U	NR-420-D-831-S	AX-4
NR-420-D-143-U	NR-420-D-832-S	BG-107
NR-420-D-144-U	NR-420-D-833-S	BG-105
NR-420-D-145-U	NR-420-D-834-S	BG-7
NR-420-D-146-U	NR-420-D-835-S	BG-5
NR-420-D-147-U	NR-420-D-836-S	BG-2/5
NR-420-D-151-B	deleted from system - same as old registration NR-420-D-117-B	
NR-420-D-152-U	NR-420-D-840-B	SC-9C
NR-420-S-154-U	NR-420-S-842-S	S-9
NR-420-S-155-U	NR-420-S-843-S	R-58, R-59
NR-420-S-156-U	NR-420-S-844-S	CS-15
NR-420-S-157-U	NR-420-S-845-S	CD-15
NR-420-S-158-U	deleted from system - same as old registration NR-420-S-156-U	
NR-420-D-159-U	NR-420-D-846-S	SC-11A
NR-420-D-160-U	NR-420-D-847-S	Clathrate Gas Detector
NR-420-S-163-U	NR-420-S-849-S	CD-11
NR-420-D-164-B	NR-420-D-850-B	SN-P1B

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR-420-D-802-S

DATE: September 8, 1995

PAGE 1 OF 3

DEVICE TYPE: Rotational Teletherapy Unit

MODEL: Keleket-Barnes Spheray

MANUFACTURER/DISTRIBUTOR:

LFE Industrial Systems Corporation
55 Green Street
Clinton, MA 01510

ISOTOPE:

Cobalt-60

MAXIMUM ACTIVITY:

4000 curies (138 TBq)

LEAK TEST FREQUENCY: 6 Months

PRINCIPAL USE: (C) Medical Teletherapy

CUSTOM DEVICE: _____ YES _____ X _____ NO

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

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DESCRIPTION:

The information given for the Flexaray unit is generally applicable to the Spheray unit with the following exceptions:

The Keleket-Barnes Spheray is a rotational unit with dual cobalt-60 source heads mounted on a large steel ring. The unit can be obtained with an optional provision to vary the angulation of the supporting ring. The brochure on this unit states that the source to the center of rotation distance is variable. It does not state what the limits of the parameter are.

The heads do not swivel nor tilt. It is estimated that the steel ring can be varied through an angle of plus or minus 15° - 30° about the vertical.

LIMITATIONS AND/OR OTHER CONSIDERATIONS OF USE:

- The device may be used by persons specifically licensed by the NRC or an Agreement State.
- Handling, storage, use, transfer, and disposal: To be determined by the licensing authority.
- The device shall be leak tested at intervals not to exceed 6 months using techniques capable of detecting 0.005 microcurie (185 Bq) of removable contamination.
- This registration sheet and the information contained within the references shall not be changed without the written consent of the NRC.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR-420-D-802-S

DATE: September 8, 1995

PAGE 3 OF 3

DEVICE TYPE: Rotational Teletherapy Unit

SAFETY ANALYSIS SUMMARY:

LFE originally registered this device with the intent to commercially distribute it. NRC concluded that the device was acceptable for licensing purposes. However, the devices were never distributed from LFE and, therefore, LFE has no information on the number of devices distributed. LFE does not intend to distribute the device in the future.

REFERENCES:

The following supporting documents for the Model Keleket-Barnes Spheray are hereby incorporated by reference and are made a part of this registry document.

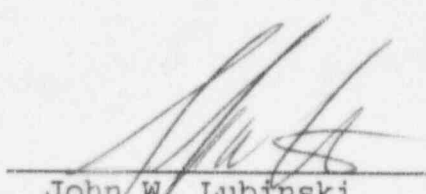
- LFE's letters dated July 7, 1995, September 16, 1991, and August 6, 1991, with enclosures thereto.

ISSUING AGENCY:

U.S. Nuclear Regulatory Commission

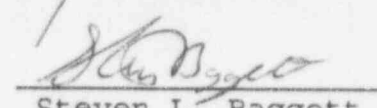
Date: September 8, 1995

Reviewer:


John W. Lubinski

Date: September 8, 1995

Concurrence:


Steven L. Baggett

July 7, 1995

Mr. John W. Lubinski, Mechanical Engineer
Sealed Source Safety Section
Source Containment and Devices Branch
Division of Industrial and Medical Nuclear Safety
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Mr. Lubinski:

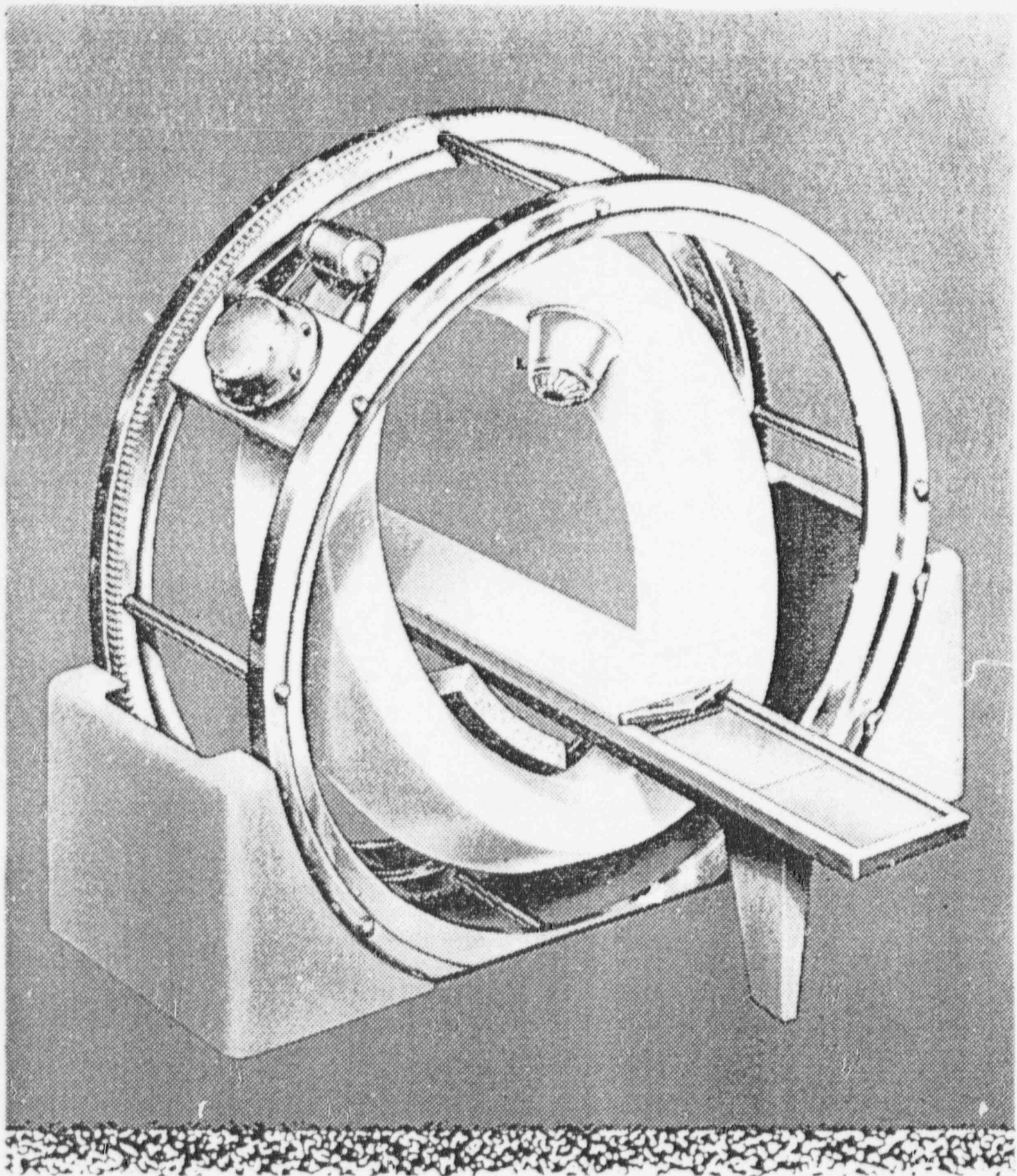
I am pleased to enclose the Group 1 registrations listed in your letter of April 13, 1995.
Enclosed also are two illustrations of Keleket-Barnes devices copied from the LFE (then
Tracerlab) annual report for the year 1953.

Very truly yours,

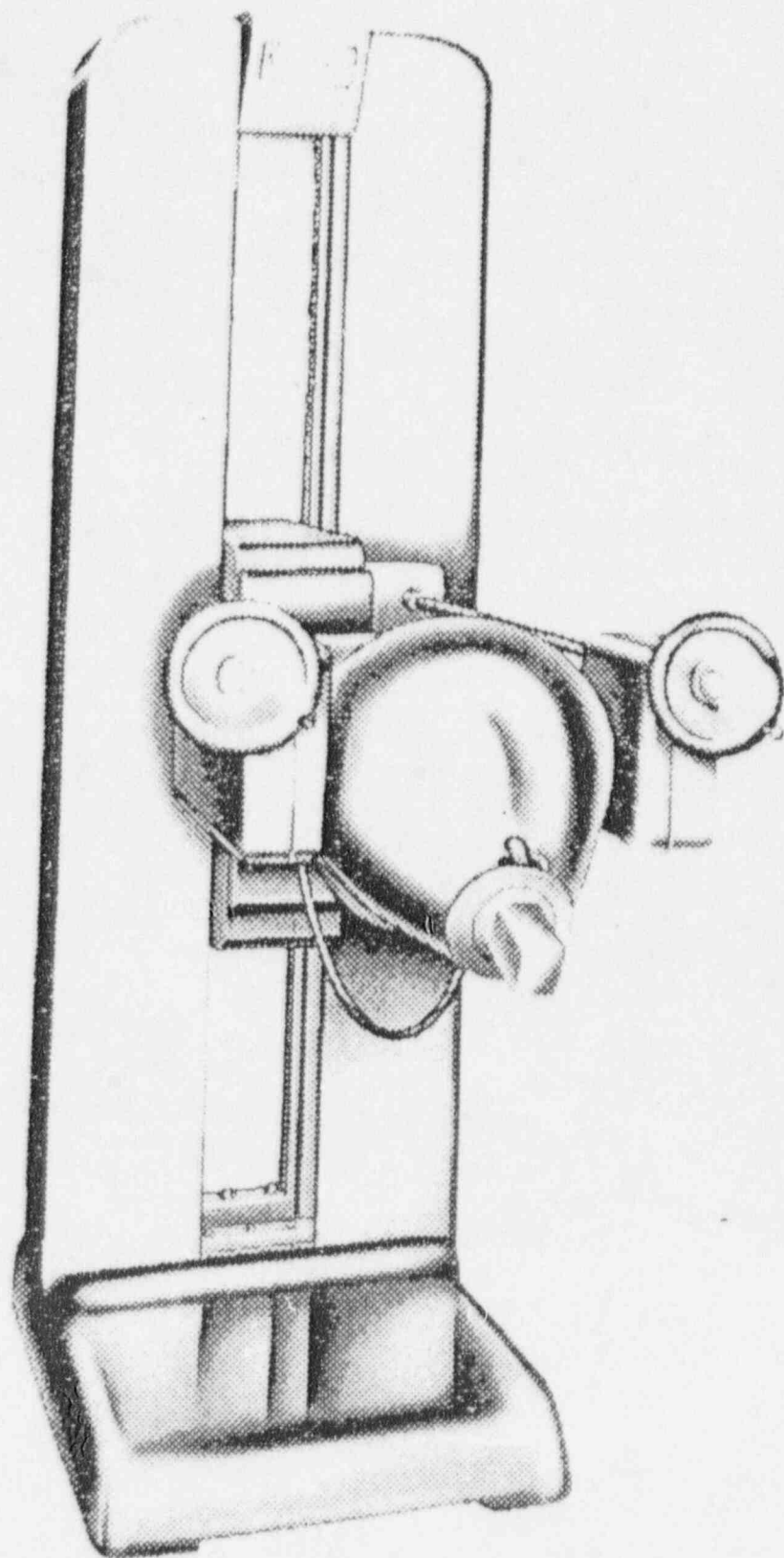


William R. Prendergast
Radiation Safety Officer
LFE Industrial Systems Corporation

WRP/ddl
Enclosure



*Keleket-Barnes new Cobalt-60
Rotational Teletherapy Unit*



*Keleket-Barnes Cobalt-60
Cancer Teletherapy Unit*

Registrations

NR-420-D-801-S
NR-420-D-802-S
NR-420-D-803-S
NR-420-D-805-S

Keleket was a manufacturer of medical x-ray devices and was acquired by Tracerlab in 1951. In 1952, Keleket negotiated a sales and service agreement with W. F. and John Barnes Company to market a series of radiation therapy devices utilizing Cobalt-60. The devices were manufactured at the Barnes facility in Rockford, Illinois and were distributed from the Barnes facility. Keleket was sold to CGR Medical, a French company, in the early 1970's and was moved to Baltimore, MD. The 1995 edition of Thomas Register has the following listing:

John S. Barnes Corporation
2222 15th Street
Rockford, IL 61125

800-572-7867

William R. Prendergast

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