

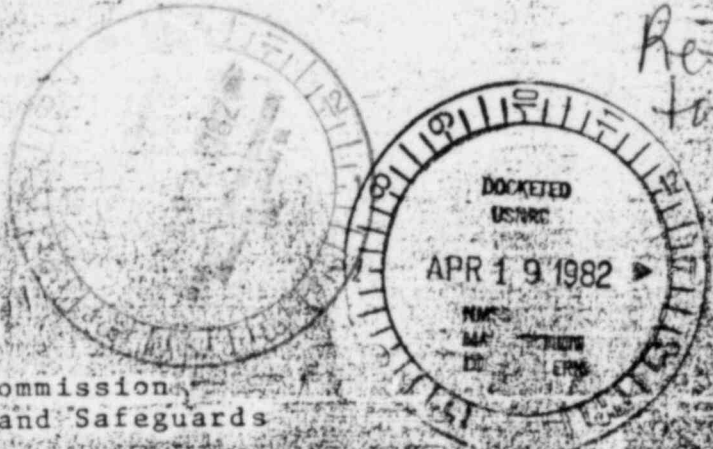


GULF NUCLEAR, INC.

202 MEDICAL CENTER BLVD. WEBSTER, TEXAS 77598 (713) 332-3581

71-9161
PDR

March 2, 1982



Return to 39165

Mr. Charles McDonald
U.S. Nuclear Regulatory Commission
Nuclear Radiation Safety and Safeguards
Washington, D.C. 20555

Dear Mr. McDonald:

Pursuant to a conversation with Mr. Wendell Carriker of U.S. Department of Transportation, this is to advise you that we have sent, under separate cover, application for approval on our type B quantities shipping containers, Models, GNG-20, GNM-20 and 20-VS and 40-VS to his office. Mr. Carriker will be forwarding you eight copies of each package evaluation books on the afore mentioned containers.

If any additional information is needed or you have any questions, please advise.

Thanking you in advance for your prompt attention to this request.

Very truly yours,

Ann E. Payne
Safety Services

/aep



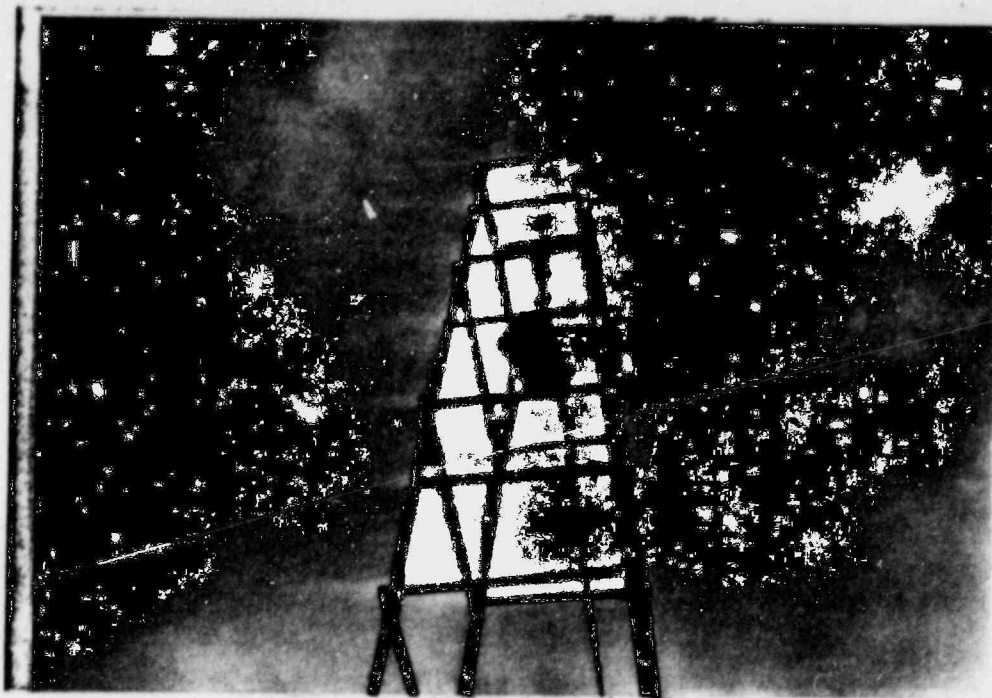
U.S. NUCLEAR REG. COMMISSION
MAIL SECTION

1982-MAR 5 PM 3 47

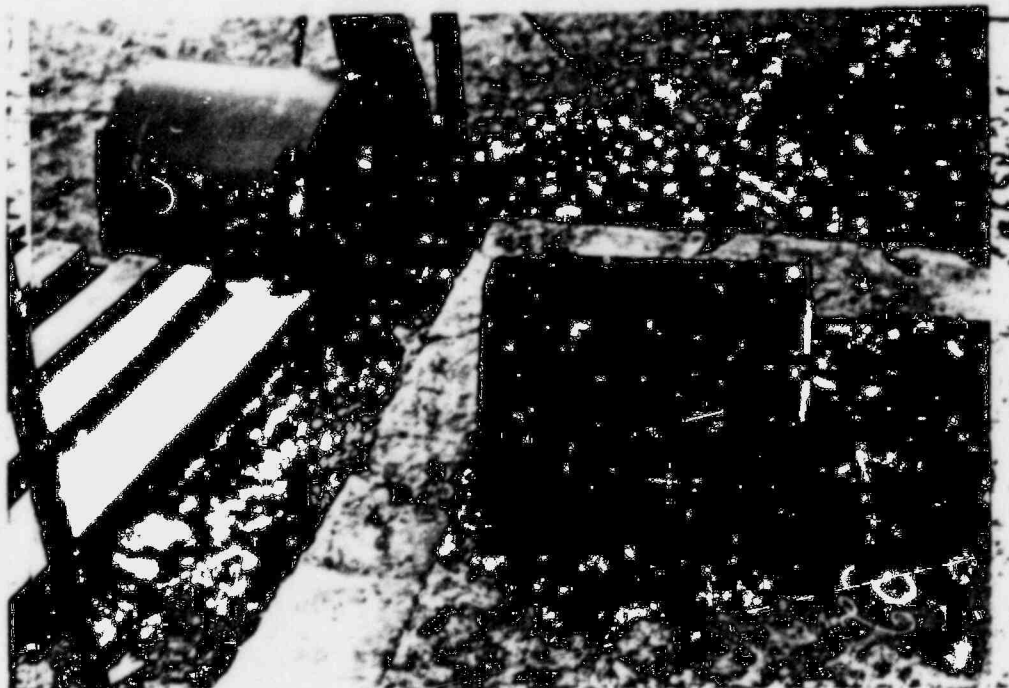
RECEIVED

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APPENDIX 2
FREE DROP TEST



Model R container ready to drop



Model R container after drop

APPENDIX 3

PUNCTURE TEST



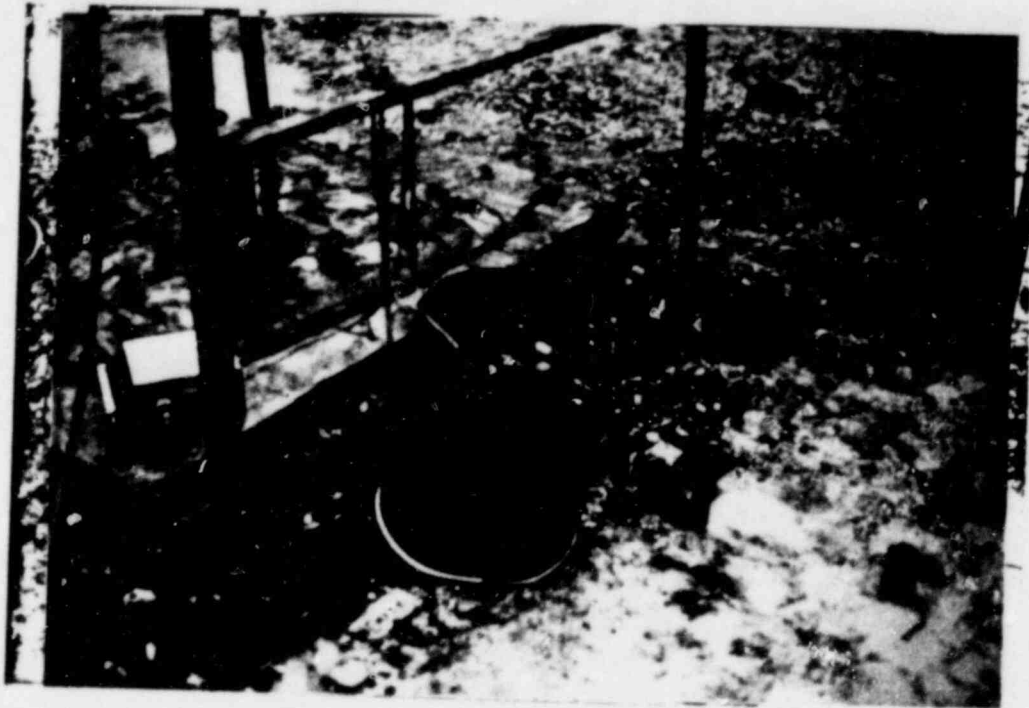
Model R container ready for puncture test



Model R container just before striking pin

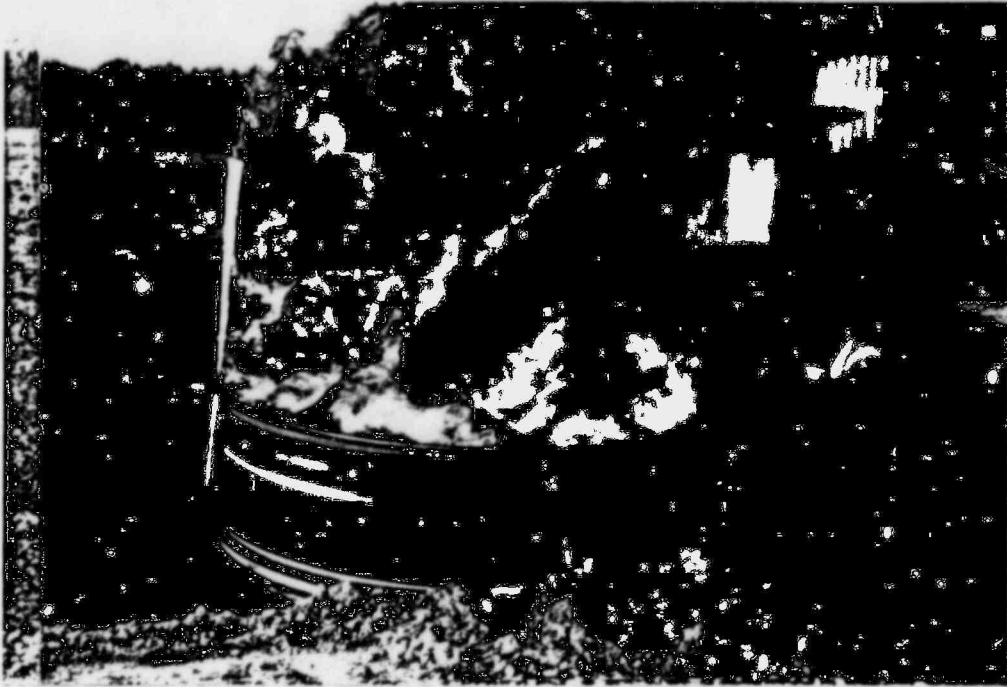
APPENDIX 3 (Con't)

PUNCTURE TEST



Model R container after striking pin

APPENDIX 4
THERMAL TEST



Model R container during fire test



Model R container after fire test (Note charred foam)

APPENDIX 4 (Con't)

THERMAL TEST



Model R container after fire test - Note that
20V exposure device is undamaged.

MANUFACTURER & DISTRIBUTOR:

Gulf Nuclear, Inc.
P.O. Box 58866,
Houston, Texas 77058

MODEL:

20 V

ISOTOPE:

Iridium 192 (Nominal 100 curies)

USE:

Panoramic radiographic
exposure device

DESCRIPTION:

This device consists of a 30 pound depleted uranium shield mounted in epoxy around a sircalloy "S" tube and enclosed in a rectangular aluminum case with overall dimensions of about 6" x 5" x 10". The device is a crank out type of device which drives the source to and from the shielded position. The drive cable connector, exposure tube connector, and the crank assembly are made of stainless steel. The exposure tube is plastic with brass fittings and is 22 feet long.

The camera uses the manufacturer's Model RG-13 or RGSA-13 source and is compatible with either the NEEI RC-6C or NEEI U-110 source changer. If the RGSA-13 source is used, a longer dust cover is provided to cover the disconnect than is provided with the RG-13 source.

LABELING:

The device bears the manufacturer's name, model, number, serial number, radiation symbol, isotope, number of curies, date, "CAUTION RADIOACTIVE MATERIAL", and specifies the device contains 30 pounds of uranium. Source data is contained on a removable label which is provided with each new source.

RADIATION LEVELS:

The highest radiation level about the device at a distance of six inches from the surface was measured to be 32 millirem per hour for a 100 curie source.

SERVICING & INSTRUCTIONS:

The manufacturer provides an instruction manual of operation for the device and states that all repairs of the device are to be performed by the manufacturer.

Texas Department of Health

January 1979

O F F I C I A L U S E O N L Y

This replaces sheet dated September 1974

O F F I C I A L U S E O N L YDEVICEMANUFACTURER & DISTRIBUTOR:

Gulf Nuclear, Inc. (formerly Nuclear
Environmental Engineering, Inc.)
P. O. Box 58866
Houston, Texas 77058

MODEL:

40V

ISOTOPE:

Iridium 192 (up to 200 Ci)

USE:Industrial radiography
exposure deviceDESCRIPTION:

This exposure device is identical to the manufacturer's Model 20V exposure device, but it has additional internal uranium shielding totaling 34 pounds. The overall dimensions are about 6" x 5" x 10" and the shape is rectangular. It has a Teleflex drive cable 35 feet in length with a source tube of 14 feet. The total weight is 45 pounds.

The source used is the same as for Model 20V device, i.e. the manufacturer's Model RG-13 source. Also, the manufacturer's U-110 Source Changer may be used for source exchange.

LABELING:

The device bears labels with the manufacturer's name, model number, serial number, radiation symbol, isotope, number of curies, date, "CAUTION RADIOACTIVE MATERIAL", and specifies 34 pounds of depleted uranium is contained therein.

RADIATION LEVELS:

The maximum radiation level six inches from the surface of the device when fully loaded is 35 mR/hr and at three feet is less than 2 mR/hr.

INSTRUCTIONS:

The manufacturer provides an instruction manual and advises that collimators should be used to reduce personnel exposures. The manual also advises that all repairs of the device should be performed by the manufacturer.

Texas Department of Health Resources

O F F I C I A L U S E O N L Y

March 1977

O F F I C I A L U S E O N L Y

DEVICE

MANUFACTURER & DISTRIBUTOR:

Nuclear Environmental Engineering, Inc.
Webster, Texas

MODEL:

U-110

ISOTOPE:

Iridium 192 (Nominal 100 curies)

USE:

Industrial Radiography
Source Changer.

DESCRIPTION:

This source changer is designed for use only with the Nuclear Environmental Engineering, Inc. Models RG-13, RT-14, RC-16, RAG-17, and RB-1 sources and the sources for which these sources are replacements. The shielding consists of about 26 pounds of uranium which is contained in a heavy aluminum casing. The exchanger is normally shipped in a DOT-6C shipping drum which has a Radioactive III label. The manufacturer supplies operating instructions.

This sheet replaces sheet dated April 1974.

Texas State Department of Health

O F F I C I A L U S E O N L Y

July 1975

OFFICIAL USE ONLYDEVICEMANUFACTURER & DISTRIBUTOR:

Gulf Nuclear, Inc.
 P. O. Box 58866
 Houston, Texas 77058

MODEL

U-110A
 J-110B
 U-110C

ISOTOPE:

Iridium 192
 (Up to 200 Ci nominal)

USE

Industrial Radiography
 Source Changer

DESCRIPTION:

These source changers are all identical except for the length of the lock box. They all consist of an "S" tube in a 26 pound uranium shield which is held in a heavy aluminum casing. The center of the "S" tube has a stop to prevent sources passing through the device. The exchanger is shipped in a DOT-6C shipping drum labeled with a Radioactive III level. The manufacturer supplies operating instructions for source exchange.

The manufacturer's sources as listed below (and the sources they replace) are authorized to be shipped in the device models as shown.

| | |
|--------|-------------------------------------|
| U-110A | RG-13, RGSA-13, RT-14, RC-16, RB-1A |
| U-110B | RT-15 |
| U-110C | RB-1, RB-4, RS-12 |

(These models with different types of disconnect are also authorized)

The highest radiation level on the surface of the device with a 100 Curie source is 140 mR/hr. This reduces to about 6 mR/hour at 12 inches from the surface. Hence, when shipped in the DOT-6C drum, the radiation levels for a 200 Curie source are within DOT requirements.

The device is labeled with the conventional symbol, the isotope, activity, date, serial number, and manufacturer's name.

Texas Department of Health Resources

August 1977

OFFICIAL USE ONLY

APPENDIX 6

The hypothetical accidents, free drop test, puncture test and thermal test, were witnessed by the following individuals.

C. P. Hopcraft
C. P. Hopcraft
Vice-President-Production

Elick H. Acree
Elick H. Acree
Vice-President-Research and
Development