

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF SEALED SOURCE

NO.: TX333S117U

DATE: April 1975

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SEALED SOURCE TYPE: Moisture/Density Gauges

MODEL : AMC-1

MANUFACTURER/DISTRIBUTOR: Gulf Nuclear, Inc.
202 Medical Center Blvd.
Webster, TX 77598

MANUFACTURER/DISTRIBUTOR:

ISOTOPE: Americium-241-Be
Cesium-137
Radium-226-Be

MAXIMUM ACTIVITY: 1 curie
100 millicuries
20 millicuries

LEAK TEST FREQUENCY:

PRINCIPAL USE: Portable Moisture Density Gauges

CUSTOM SOURCE: YES X NO

A/9

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DESCRIPTION:

This source is doubly encapsulated in stainless steel and both capsules are heliarc welded. It may consist of radium chloride or bromide powder mixed with beryllium powder and pressed into a pellet or it may contain both cesium-137 and americium-241. The cesium is contained in a ceramic wafer that is placed in the bottom of the inner capsule. The americium is mixed with beryllium powder and pressed into a pellet which is inserted before the capsule is welded. The inner capsule has a wall thickness of 0.030 inch and the outer capsule has a wall thickness of 0.030 inch. The outer capsule is from 0.572 to 0.625 inches long and is from 0.356 to 0.500 inches in diameter. It can be ordered with a threaded fitting on one end that extends out about 0.6 inches.

LABELING:

The source is labeled with the model number and the serial number. A metal tag is affixed to the source when shipped stating "Caution-Radioactive Material-Do Not Handle-Notify Civil Authorities if Found".

PROTOTYPE TESTING:

The manufacturer states the source has a C-22222 USASI classification. The inner capsule is bubble tested for leakage and the outer capsule vacuum tested and wipe tested.

ISSUING AGENCY:

Texas State Department of Health