



NRC EQUIPMENT CORPORATION

A SUBSIDIARY OF NATIONAL RESEARCH CORPORATION

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JH Raeder
Gilbert

December 19, 1962

617-12

Mr. Richard Gilbert
Division of Compliance
U.S. Atomic Energy Commission
376 Hudson Street
New York 14, New York

Dear Mr. Gilbert:

On December 13, 1962 you called our company and spoke to Mr. F. H. Greene, Jr. regarding the labeling of our commercial shipments of Alphanon^R vacuum gauges containing both Radium 226 and Tritium foils. Mr. Greene has asked me to reply to your questions since I am concerned with this problem here at NRC Equipment Corporation.

We no longer sell any device containing tritium foil either commercially as a catalogue item or on a special contract basis. In May 1961, it was discovered that the tritium foils used in our Model 0716 Alphanon Pressure Transducer were leaking tritium gas at a rate in excess of the allowable AEC limits for sealed sources. We immediately reported this incident to the AEC and to the manufacturer of these sources. We further sent out a letter to all customers who had purchased this instrument, informing them of the problem and of their obligations as AEC licensed recipients of this device. All sales of these gauges were stopped and no further shipments of tritium were made in any form. A survey of our premises was also made by Industrial Hygiene Associates, to evaluate any potential hazard to our personnel. No hazard was found. Since this time we have not considered these foils safe enough for our purposes and have disposed of all inventory of sources in accordance with AEC regulations.

At the present time we are complying with all existing ICC regulations regarding the labeling and shipment of radioactive material (Radium 226) for our commercial Alphanons. The outer box is labelled with the standard ICC label for Group I or II "D" (Radioactive) poison. Copies of these labels are enclosed.

ITEM # 6

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This label notes the type, amount and intensity of gamma radiation in units (mrhm) emanating from the package. These limits are well within levels set by the ICC. For instance, the intensity of a gamma radiation for our most "active" Alphatron (in ICC units) is less than 0.8.

Our instruction literature also includes a section on the operation of the gauge for maximum safety and references the possible registration requirements of the various states. The outside labelling of the radioactive section of the gauge is clearly labelled in accordance with AEC requirements.

We hope this information will answer your questions. If you have any further questions please do not hesitate to contact me.

Very truly yours,

NRC EQUIPMENT CORPORATION

F. L. Torney, Jr.

F. L. Torney, Jr.
Radiation Safety Officer - NRCEC

Cambridge
Eff 4-5400

FLT/ld
cc/FHG
HAS

Enc.



HANDLE CAREFULLY
RADIOACTIVE MATERIAL
CLASS D POISON **Group I or II**

530

NO PERSON SHALL REMAIN WITHIN THREE FEET OF THIS CONTAINER UNNECESSARILY.
 DO NOT PLACE UNDEVELOPED FILM WITHIN 15 FEET OF THIS CONTAINER.

Principal radioactive content Radium 226
 Activity of contents less than 1.5 microcuries
 Number of radiation units from package less than 0.1

Not more than 40 units shall be loaded in one car or one motor vehicle or held at one location.

This is to certify that the contents of this package are properly described by name and are packed and marked and are in proper condition for transportation according to the Regulations prescribed by the Interstate Commerce Commission.

NRC Equip
 Shipper's name required hereon for shipments by EXPRESS



HANDLE CAREFULLY
RADIOACTIVE MATERIAL
CLASS D POISON **Group I or II**

520

NO PERSON SHALL REMAIN WITHIN THREE FEET OF THIS CONTAINER UNNECESSARILY.
 DO NOT PLACE UNDEVELOPED FILM WITHIN 15 FEET OF THIS CONTAINER.

Principal radioactive content Radium ²²⁶ microcuries
 Activity of contents less than 500
 Number of radiation units from package less than 6.08

Not more than 40 units shall be loaded in one car or one motor vehicle or held at one location.

This is to certify that the contents of this package are properly described by name and are packed and marked and are in proper condition for transportation according to the Regulations prescribed by the Interstate Commerce Commission.

NRC Equip
 Shipper's name required hereon for shipments by EXPRESS