

29-12649

**Radiation Machinery Corporation**

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April 16, 1969

*C. L. L. St. J.**HP*

Director  
Division of Materials Licensing  
U.S. Atomic Energy Commission  
Washington, D.C. 20545

Dear Sir:

Enclosed are three samples of Radiation Machinery Corporation's Model GK Leak Test Kit, instructions for its use and analysis and certificate of results. We intend to offer a leak test service based on the Kit to users of our Model B and M Gammators. The user would perform the leak testing, return the samples by mail, and RMC would analyze them and report the results to the user.

Since many of our customers have expressed interest in the Kit, I would appreciate your prompt review of it and approval if you find it acceptable. I will be pleased to answer any questions that you may have about the Kit.

Sincerely yours,

RADIATION MACHINERY CORP.

*Peter Loysen*  
Peter Loysen  
Radiation Counsel

PL/cm

Enclosures

INSTRUCTIONS FOR USING RMC MODEL GK LEAK TEST KIT

Materials Included

3 Sterile Swabs in Tubes  
1 Vial of Detergent  
1 Identification Sheet  
1 Return Mailing Label

1. Add water to the vial of detergent.
2. Dip each swab into the detergent solution.
3. Wipe the following areas of the Gammator, using one wet swab for each area:
  - a. Inside of the sample chamber.
  - b. On and around the welded plug on top of the Gammator shell.
  - c. In and around the drain holes on the bottom of the Gammator shell. Note that for the Model M Gammators, the base cabinet door must be opened to gain access to the bottom of the shell.
4. Replace the swabs in the tubes.
5. Pack the tubes and the completed identification sheet in the mailing carton.
6. Survey the carton with a Gamma Radiation-Sensitive Survey Meter. If the reading is less than 0.5 mr/hr, attach the mailing label to the carton and send to Radiation Machinery Corporation.

If the reading is greater than 0.5 mr/hr, contact Radiation Machinery Corporation for further instructions.

IDENTIFICATION SHEET FOR RMC MODEL IGK LEAK TEST KIT

Name of User \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Equipment Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Isotope \_\_\_\_\_

Leak test samples were taken according to instructions included  
in the RMC Model IGK Leak Test Kit.

Date \_\_\_\_\_ Signature \_\_\_\_\_

CERTIFICATE OF LEAK TEST RESULTS USING RMC MODEL GK  
LEAK TEST KIT

Name of User \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Equipment Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Isotope \_\_\_\_\_

Date of Test \_\_\_\_\_

TEST RESULTS

<u>Sample</u>	<u>CPM (Net)</u>	<u>DPM</u>	<u>μCi</u>
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
S	_____	_____	_____

Results of this test do, do not indicate the presence of less than 0.005 microcuries of removable radioactivity and do, do not meet present standards for source integrity.

Date \_\_\_\_\_

RADIATION MACHINERY CORPORATION

Another Leak Test should be performed on the equipment on or before \_\_\_\_\_.

INSTRUCTIONS FOR PROCESSING RMC MODEL GK1 LEAK TEST  
KIT SAMPLES

1. Unpack Leak Test Kit in counting room.
2. Count each swab using Radiometric counting equipment sensitive to Beta Radiation and which is calibrated against Cesium-137 standards of comparable magnitude to the permissible limits and of similar geometry to the sample.

Background, calibration, and sample counting times are selected to give an overall counting rate error of no more than  $\pm 20\%$  at the 95% confidence level.

3. Record counting results on Certificate of Leak Test Results.
4. Complete Certificate and send to user. If any result exceeds 0.005 microcuries, inform user by telegram immediately.