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4241 Allenport Drive
Cincinnati, Ohio 45209

March 28, 1966

Isotopes Branch, ✓
Division of Materials Licensing
U.S. Atomic Energy Commission
Washington, D.C., 20545

Gentlemen:

The material enclosed covers the renewal and revision of our
License GL-127.

If additional information is required, please contact me.

Sincerely,

THE OHMART CORPORATION

H.L. Cook, Jr.
Vice President

HLC/pat

Enclosures: Form AEC-313
Ohmart Radiation Sources
Specifications for Model PR Gage
Specifications for Model EGOC Gage



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SPECIFICATION SHEET OHMART MODEL PR BETA GAGE

GENERAL GAGE FEATURES

The Ohmart Model PR profiler beta gage is used for off-machine measurement of the thickness or basic weight of strips of paper or plastic films. Photographs of the console and the source holder/detector assembly are shown on pages 16 and 17 of Ohmart Bulletin No. BB-1.

The gage is normally used in a laboratory where the environmental conditions are not severe. However, it may, at times, be used in a Production area, close to the machine where the paper or plastic is produced. Even in these situations the environment is moderate - not severe. The ambient temperature range does not exceed that which would be comfortable for continuous presence of personnel. Vibration will not be severe.

SOURCE HOLDER

An assembly view of the source holder is shown in Ohmart Form Drawing D-3092. Note that this source holder is identical with the design used on other models of Ohmart beta gages.

The open or closed position of the source holder is indicated by red and green lights on the front of the console.

SEALED SOURCES

At the present time, the Model PR-1G Profiler beta gage will be distributed to General Licensees only with an Ohmart A-4829 or A-4834 Kr-86 source with a maximum content of 600 MC.

RADIATION PROFILE

The source holder, detector housing, and air gap setting have been designed to limit the radiation field intensity (combined beta and gamma) to about 3 MR/HR on the surface of the console. Thus, for normal circumstances of operation for this type of device, no person could receive a radiation exposure to a major portion of his body in excess of 0.5 rem per year.

Drawing A-4189 shows the radiation field intensities associated with this device.

RADIATION LABELS

The standard Ohmart radiation label listing the type of radioactive material, millicurie content, model number, date of manufacture, and conditions of the General License will be attached to the front of the console. (Note that the label shown in the photograph on Pg 17 is used for distribution to Specific Licensees).

In addition, the standard Ohmart label advising "Keep Hands Out of Air Gap" will be attached to the detector housing. (See photograph on Pg 16).

SAFETY INSTRUCTIONS

The standard Ohmart Safety instructions for General Licensees will be included in the composite instruction manual for the gage. This includes a copy of 10 CFR.31, and other material concerning radiation safety. A radiation profile, made at the time of installation of the gage, will be sent to the user of the gage upon completion of the installation.

QUALITY CONTROL PROCEDURES

All sealed sources are wipe tested prior to installation in the source holder.

All source holder shutters are tested for proper operation during normal check out and then cycled at least 50 times over a period of several hours.

A radiation survey (combined beta and gamma) will be made prior to shipment to assure that the gage meets the specifications stated in this license application.

SERVICES PROVIDED BY OHMART

Qualified Ohmart Corp. personnel, or personnel specifically licensed to handle Ohmart equipment, will supervise the installation of the gage.

At the time of installation, the gage will be wipe tested, tested for proper operation of the shutter and off-on indicating lights, and a radiation profile determined.

THE OHMART CORPORATION
March 28, 1966

ATTACHMENTS: Ohmart Bulletin BB-1
Ohmart Drawings D-3092, A-4189

SPECIFICATION SHEET
(OHMART MODEL BGOC BETA GAGE)

(Modified 3-28-66 for Distribution to General Licensees)

GENERAL GAGE FEATURES

The Ohmart Model BGOC Beta Gage is designed to measure the weight/area of a wide web of sheet material. An assembly view of the gage, for a 215 inch web width, is shown in Dwg. C-6944. (Both the detector and source holder are supported by I beams). Gages for narrower or wider web widths will be essentially of the same design but with lighter or heavier I beams to suit the web width.

Both the source holder and detector are moved along the I beams by a stainless steel cable which is wound and unwound from a motor driven drum mounted in the end-frame.

The attached photographs show an overall view of the gage and a close-up of the source holder/detector assembly.

The gage is normally used in a factory environment but the environment is usually not severe because of the nature of the product.

SOURCE HOLDER

There are four types of source holders used with the Model BGOC gage: 1) round source with shutter actuated by a solenoid; 2) round source with shutter actuated by a cam which extends the length of the gage frame; 3) rectangular source with shutter actuated by a solenoid; 4) rectangular source with shutter actuated by a cam which extends the length of the gage frame. The source holder bodies and source holder shutters are, basically, identical for all four of these configurations.

Drawing D-8113 shows the configuration using a round source and a solenoid operated shutter. An electrical switch, actuated by the shutter, energizes red and green lights on the gage frame and the electronics console to indicate the open and closed portions of the source holder.

Drawings C-7132, C-7133, C-7303 and C-7122 shows the configuration using a rectangular source and a cam operated shutter. Note that the cam is actuated by a pneumatic cylinder. The roller, shown in Dwg. C-7132, rides on the cam which extends the length of the gage. When the cam is rotated to the vertical position, the source holder is open; when the cam is horizontal the source holder is closed. An electrical switch, actuated by the cam, energizes red and green lights on the gage frame and the electronics console to indicate the open and closed positions of the source holder.



SEALED SOURCES

For the round source configuration, the following sealed sources will be used.

<u>MODEL</u>	<u>ISOTOPE</u>	<u>MAX. MC</u>	<u>OHMART SOURCES</u>
BGOC-1G	Kr-85	600	A-4829, A-4834
BGOC-2G	Sr-90	300	A-5840, A-4830
BGOC-3G	Sr-90 (Frem)	1000	A-4832, A-4831, A-5800

For the rectangular source configuration, the following sealed source will be used.

<u>MODEL</u>	<u>ISOTOPE</u>	<u>MAX. MC</u>	<u>OHMART SOURCE</u>
BGOC-4G	Kr-85	1000	B-6815

RADIATION PROFILE

The source holders, detector housing, and air gap setting have been designed to limit the radiation field intensity (combined beta and gamma) to 5 MR/HR at a distance of 12 inches from the surface of the source holder. Thus, for normal circumstances of operation for this type of device, no person could receive a radiation exposure to a major portion of his body in excess of 0.5 rem per year.

Drawing C-8847 shows the radiation field intensities associated with the round source configuration.

Drawing C-8846 shows the radiation field intensities associated with the rectangular source configuration.

RADIATION LABELS

The standard Ohmart radiation label listing the type of radioactive material, millicurie content, model number, date of manufacture, and conditions of the General License will be attached to the gage frame.

In addition, the standard Ohmart label advising "Keep Hands Out of Air Gap" will be attached to the detector housing.

SAFETY INSTRUCTIONS

The standard Ohmart Safety instructions for General Licensees will be included in the composite instruction manual for the gage. This includes a copy of 10 CFR.31, and other material concerning radiation safety. A radiation profile, made at the time of installation of the gage, will be sent to the user of the gage upon completion of the installation.

QUALITY CONTROL PROCEDURES

All sealed sources are wipe tested prior to installation in the source holder.

All source holder shutters are tested for proper operation during normal check out and then cycled at least 50 times over a period of several hours.

A radiation survey (combined beta and gamma) will be made prior to shipment to assure that the gage meets the specifications stated in this license application.

SERVICES PROVIDED BY OHMART

Qualified Ohmart Corp. personnel, or personnel specifically licensed to handle Ohmart equipment, will supervise the installation of the gage.

At the time of installation, the gage will be wipe tested, tested for proper operation of the shutter and off-on indicating lights, and a radiation profile determined.

THE OHMART CORPORATION
March 23, 1966

ATTACHMENTS: Photographs (2)
Ohmart Drawings C-6944, D-8113, C-7132,
C-7138, C-7303, C-7122,
C-8846, C-8847

