

PROCEDURE FOR REMOVAL, RELOCATION, AND
REINSTALLATION OF NUCLEAR DEVICES

BETA RAY GAUGES

By definition, "removal of nuclear devices" containing radioactive materials means the physical removal of the "source holder", containing the radioactive source, from its locked fixed position in the lower support member of the "C" frame of the Beta Ray Gauge; "relocation of the nuclear devices" containing radioactive material means the replacement of a "source holder", containing the radioactive source, into another Beta Ray Gauge (same model) at the same installation for the same application; "re-installation of nuclear devices" containing radioactive materials means returning the "source holder", containing the radioactive source back into the same Beta Ray Gauge as previously installed. (See enclosed Figure 3 - Beta-Ray Thickness Gauge, and Figure 4 - Source Holder for Beta-Ray Thickness Gauge).

Removal, relocation, and reinstallation of nuclear devices will be conducted only by authorized Jones & Laughlin Steel Corporation personnel, under the supervision of the designated Radiation Protection Officer at such time as necessary for maintenance or repair of other equipment in that area, for repair to the support members, electronics, etc. of the Beta Ray Gauges, for shipment of the source holder back to the supplier in case of damage to the source holder (or source), or for purposes of leak testing of the source, or to transfer to another licensee who is authorized to possess the specific quantity and form being transferred, or to transfer to a licensed waste disposal firm.

Repairs to the source device (holder) (and/or source) is never to be made by Jones & Laughlin Steel Corporation personnel.

Relocation of Beta Ray Gauges to a different process line, department, or new application must receive prior approval from the Corporate Manager - Industrial Health Engineering for assurance of compliance with all regulatory and corporate radiation safety requirements.

PROCEDURES TO BE FOLLOWED:

1. The designated Radiation Protection Officer (RPO) or his authorized representative will first conduct a radiation survey to assure that acceptable radiation levels exist at the installation, as compared to the acceptable initial radiation surveys or subsequent surveys.
2. If the radiation levels are "acceptable", the "on-off" mechanism of the nuclear device will be placed in the "off", locked position. The R.P.O. or his authorized representative will verify that the "on-off" mechanism is in the "off" position by conducting a radiation survey.
3. The source holder, containing the radioactive source, with legible proper caution labels, may be removed from its position in the support member of the Beta Ray Gauge and placed into the shielded individual shipping case. This case should then be locked and then placed in the secure storage area under the control of the Radiation Protection Officer. Keys for the locks on the source holders, while installed in the Beta Ray Gauges, and for locks on the shipping cases are to be under the control of the Radiation Protection Officer.

C/36

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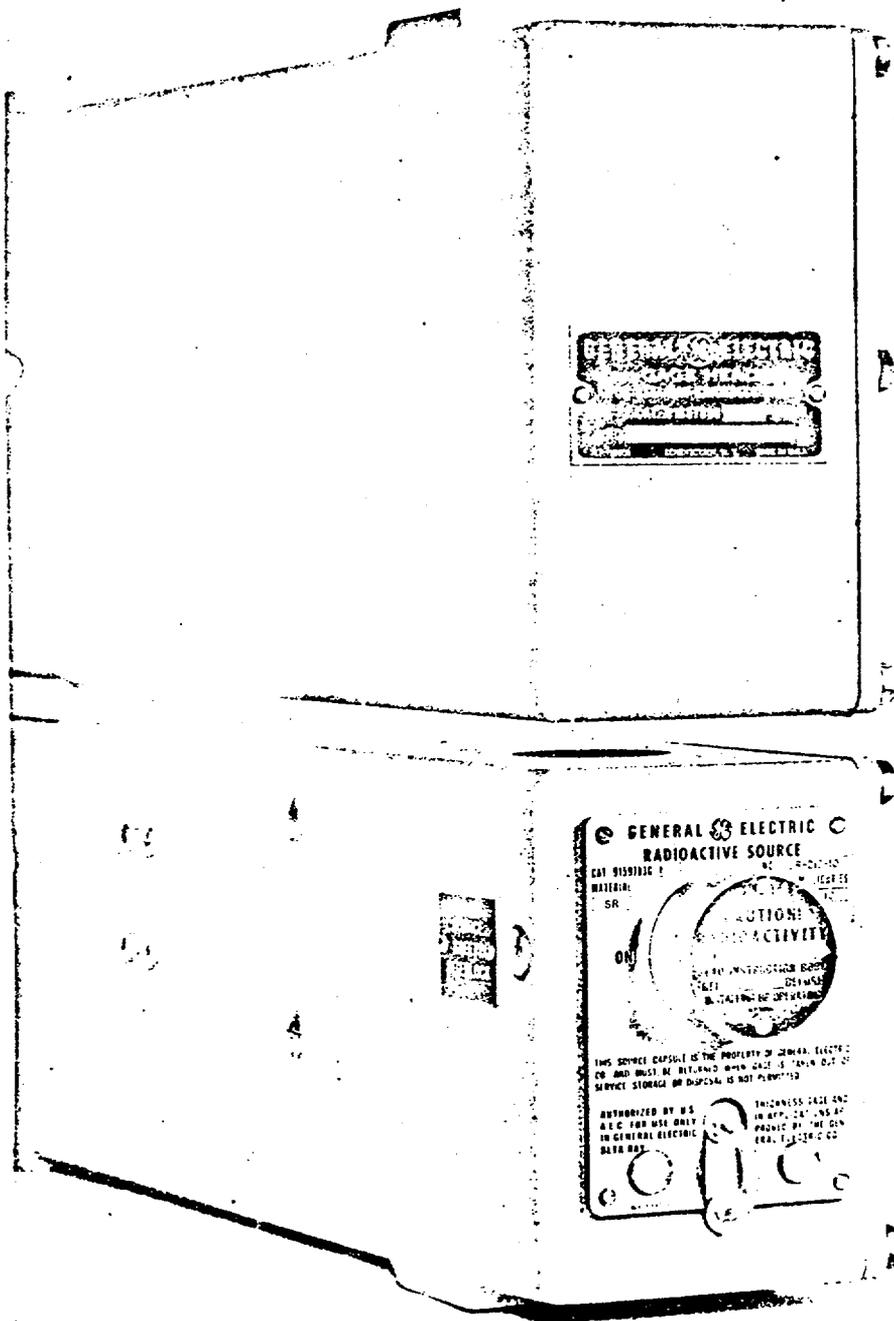
PROCEDURES TO BE FOLLOWED (CONTINUED):

3. Continued

The "on-off" mechanism will remain in the "off" position at all times, until the source holder is returned to its fixed position in the support member of the gauge, due to the interlocking safety devices.

4. Upon receipt of a replacement source holder (and source) from the supplier or the return of the same source holder from the supplier, the shipping case will be inspected and surveyed to assure that no damage has occurred to the source holder (one source) during shipment. The locked shipping case containing the source holder will be placed in the secure storage area until it can be placed inside the Beta Ray Gauge.
5. At the time of replacement and/or reinstallation of the source holder (and source) into the Beta Ray Gauge, the shipping case containing the source holder (and source) will be transported to the site of the permanently installed Beta Ray Gauge. The currently installed source holder will be removed from the gauge, following the above described procedures, and the replacement source holder installed into the gauge, or the source holder will be reinstalled into a gauge that has no existing source holder. Similar storage and security procedures will be followed as described above.
6. A radiation survey will be performed again by the R.P.O. or his authorized representative together with a test of the "on-off" mechanism to assure that the radiation levels are acceptable, and the 'on-off' mechanism is functioning properly as previously determined prior to removal of the source holder.
7. A permanent record will be maintained of all radiation surveys and tests of the "on-off" mechanism.
8. All personnel handling source devices are to wear their personnel monitoring devices (film badges) at all times.
9. At such times when the process line, on which the Beta Ray Gauges are installed, is not operating for an extended time, the "on-off" mechanism will be placed in the "off" position until start-up of the process line.

94349



94349 GAGE HEAD FOR G-E BETA-RAY THICKNESS GAGE. VIEW FROM SOURCE END, SHOWING RADIOACTIVE SOURCE.

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REV. 1-55

Fig. 3 BETA-RAY THICKNESS GAUGE 94349
 JONES & LAUGHLIN STEEL CORP.

94349

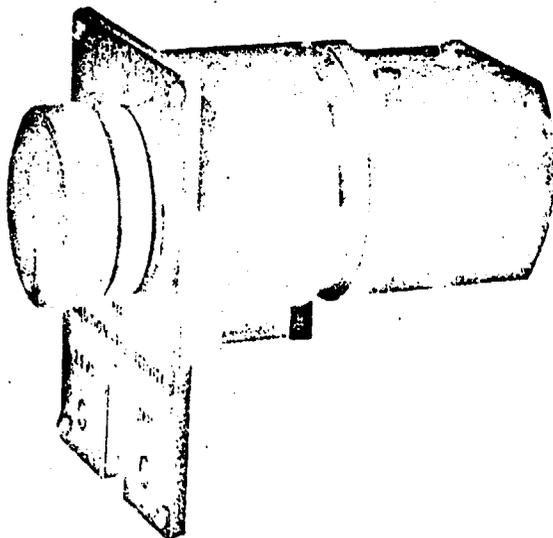


Fig. 4

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RADIOACTIVE SOURCE (CAPSULE) FOR G-E BETA-RAY THICKNESS GAGE.
HOLDER

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