

POGUE INDUSTRIES INCORPORATED

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Radiation Safety and Control Program

10.3.G

Source Changing Procedure

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REG3 LIC30
24-24541-01 PDR

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CONTROL NO. 7 936 8

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SOURCE CHANGING PROCEDURE

1.0 OBJECTIVE

- 1.1 This procedure has been developed to assure a safe operation during source changing.

2.0 APPLICATION

- 2.1 Only PII Personnel specifically trained in source changing by the RSO or Assistant Radiation Safety Officer may perform source exchanges. As a minimum, personnel performing source exchange shall be certified as a radiographer.

3.0 GENERAL

- 3.1 Only sources listed with source changers in PII by product material licence may be changed by PII Personnel. All other sources shall be changed by the source supplier.
- 3.2 Only source models aproved by PII byproducts material license for use in capatable exposure devices shall be used.
- 3.3 Upon receipt of a new source in a source changer, PII Radiation Safety and Control Program Procedure 10.3.F source shipping/receiving/transfer/disposal Paragraph 8.0 shall be followed.

4.0 REMOVING OLD SOURCE

- 4.1 Always have a properly operating survey meter at hand when changing sources.
- 4.2. Survey shipping container upon receipt with a meter. Surface reading should not exceed 200 MR/HR.
- 4.3 Attach one end of the source guide tube in the usual manner. Remove dust cap and disconnect the other end of the source guide tube to the empty side of the source changer. Position the equipment in such a manner to permit free travel of the source assembly in the tube.
- 4.4 Unlock empty side source changer.
- 4.5 Crank the source out of the camera and into the source changer.

4.6 Survey the changer to verify the source is in the safe position and lock changer.

4.7 Disconnect source guide tube and drive cable to source pigtail. Replace dust cap.

5.0 INSTALLING NEW SOURCE

5.1 Remove dust cap on the source changer lock body with the new source tag.

5.2 Align the isotope camera and source guide tube with source changer. Drive cable should protude from end of source guide tube about ½ inch.

5.3 Connect new source to drive cable.

5.4 Connect source guide tube to the source changer.

5.5 Unlock the source changer and retract the new source into the exposure device.

5.6 Survey the exposure device to assure source is in the safe position, lock the exposure device, disconnect source guide tube and drive accessories.

5.7 Mount new source identification plate on exposure device.

6.0 LEAK TESTING

6.1 Upon completion of the source changer perform a leak test. The leak test shall be accomplished by wiping the port of the changer which contained the new source. Leak testing shall be performed in accordance with PII Radiation Safety and Control Program Procedure 10.5.A leak testing.