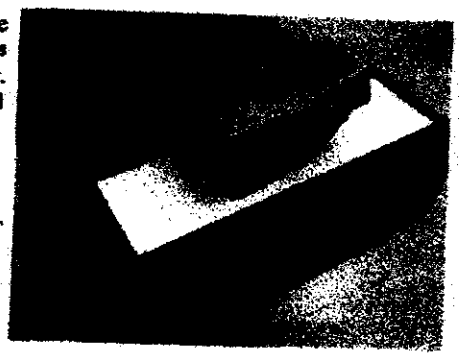
SPECTRUM SAN DIEGO, INC.
10907 Technology Place, San Diego, CA 92127

CastScope Radiation Survey

Instruments required: Victoreen 451P Radiation Survey Meter, Calibrated with Cs-137

Do not substitute this survey meter! The radiation produced by CastScope is more difficult to measure than for other x-ray equipment. It is produced from a lower KV, uses a sweeping pencil beam, and is more than 500 times lower than equivalent medical examinations. In particular, meters that operate with *pulse counting* or in a *dose rate* mode will provide highly incorrect readings. The pass/fail values for this test are based on the energy response characteristics of the Victoreen 451P when calibrated with Cs-137. Other ion chambers may produce different results, depending on their energy response and calibration source. An ion chamber reading in µR is not the same as µRem of effective dose for CastScope. Contact Spectrum San Diego for additional information before using other measurement devices.

1. Procedure for Direct Beam Measurement:
Set the survey meter to the integration mode, not the dose rate mode (µR, not µR/hour). Place the meter on the face of the CastScope, as shown in the photograph. Record the initial reading on the meter. Conduct ten scans. Subtract the initial meter reading from the final meter reading and divide by ten. Record the result.



2. Procedure for Leakage Measurement:
Set the survey meter to the dose rate mode (i.e., µR/hour or mR/hour). Record the background measurement. Hold the meter on the back[1] of the imaging enclosure and conduct a scan. Repeat with the meter placed on all four sides[2] of the imaging enclosure. Subtract the background reading from the maximum reading. Record the result.

Date: 3/22/11 CastScope s/n 08060001 Location: ISNIE PSP LAB

Meter s/n: 0500 Meter calibration date: 1/11/12

1. Direct Beam Measurement: 31 µR (PASS) FAIL
(circle PASS if reading is less than 40 µR, otherwise circle FAIL)

2. Leakage Measurement (Maximum-background): 0.12 mR/hour (PASS) FAIL
(circle PASS if reading is less than 0.25 mR/hour (250 µR/hour), otherwise circle FAIL)

Survey conducted by: Organization: Siemens

Printed name: Jim LeGrow

Signature: [redacted]

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[1] The back side of the scan head is opposite the white direct beam exit surface

[2] The four sides referred to here are the 4 ones surrounding the white direct beam exit surface. Each of these sides is 90 degrees in orientation to the white direct beam surface. To more easily measure the side facing the unit, be sure to tilt the scan head so this side faces up (otherwise the meter will be in the direct beam).