

The information in this report is required by 14 CFR 108.17 & 129.26. Failure to report may result in a civil penalty not to exceed \$1000.00 for each such violation. (Federal Aviation Act of 1958, Section 901)

| Department of Transportation Federal Aviation Administration | | X-RAY SYSTEM RADIATION LEAKAGE REPORT (BAGGAGE INSPECTION) <i>(Require by 14 CFR 108.17, 14 CFR 129.26)</i> | | FIELD TEST SERIAL NO. 11-7 T | Form Approved OMB No. 2120-0098 | |
|---|--|--|--|---|--|-----------------------|
| AA | 1.1 Name and Address of Facility | Name of Facility (18.80) Killeen - Fort Hood Regional Airport | | FDA Region TX | St. No. R.R. or Airline/Airport (10.80) 8101 Clear Creek Rd | |
| CC | Address of Facility | City (10.73) Killeen | | State Code TX | Zip Code 76549 | |
| DD | and Specific Location of X-ray System | Room No. or Other Location of System (10.32) Check Point 4 | | Region-Interview (23.54) | Telephone No. | |
| | | Certification Label Present Yes | Instruments: (type and serial number) Model: RadEye Serial No. 0286 | | | |
| 01 | 1.2 Manufacture And Product ID | A. Manufacture (Responsible Firm) Rapiscan | | B. CHU46 | C. System Model No. and/or Name 520B | |
| | | D. 115VAC 60Hz Unique I.D. | E. System Serial No. 7024208 | | | |
| | | F. Date of Manufacture Mo. 10 Yr. 2002 | 1.4 Operator Instructions Available Yes | 1.5 Maintenance Schedule Available Yes N/A | | |
| 02 | 2.0 Warning Labels | 2.1 Warning Label Present at Controls Stating: "Caution: X-Rays Produced When Energized" Yes | | 2.2 Warning Labels Present at Ports Stating: "Caution: Do Not Insert Any Part of the Body When System is Energized, X-Ray Hazard" Yes | | |
| | Indicators | 2.4 At Least One Indicator, X-Ray Marked "X-Ray On", Visible from Each Port, Door, And Access Panel Yes | | 3.0 Interlocks | 3.1 "Captured Key" Control Yes | |
| 02 | 3.2 Door Safety Inter-Locks | A. Minimum Number of Interlocks Visible At Any One Door N/A | | 3.3 Prevention of X-Radiation By Interlocks | A. All Doors and Access Panels That Were Tested Prevent Generation of X-Radiation N/A | |
| | | B. At Least One Interlock Dependent on No Moving Part Except Door N/A | | | B. Use of X-Ray Control Necessary to Resume Operation Following Interruption N/A | |
| | 4.0 Ports and/or Apertures | 4.1 Some Part of the Body Can Be Inserted Through a Port Into The Primary Beam NO | | 4.2 Some Part of the Body Can Be Inserted into the Aperture NO | | |
| | 6.0 Baggage Inspection Systems | 6.1 Means Provided to Ensure Operator Presence at the Control Area Yes | | 6.2 Means Provided to Operator for Terminating Exposures of Greater than One-Half Second and Preventing Yes | | |
| 03 | 7.0 Leakage Radiation | Specific Test Procedure Used 04 | | 7.1 Scatter Block Description Tool Case | | |
| 05 | 7.2 Technical Factors 140 kVp .700 mA | | | | | |
| | 7.3 Location Exposure Levels | | Non-Continuously Activated Systems Only Number of Exposures Initiated | | Location Exposure Levels | |
| | .101 mR/hr | | Exp | | .096 mR/hr exp | |
| | .100 mR/hr | | Exp | | .074 mR/hr exp | |
| | .090 mR/hr | | exp | | .069 mR/hr exp | |
| .081 mR/hr | | exp | | .066 mR/hr exp | | |
| 07 | Reasonable Number of Exposures That May Be Initiated in One Hour | | OR | | Duty Cycle of System Indicated As a Percentage of One Hour 100% | |
| 08 | 8.0 Additional Information | | | | | |
| | 8.1 Dosage Per Inspection 1586 mR/h 3-28-11 58.6 µR | | | | | |
| 09 | 8.2 | | | | | |
| 10 | 8.3 | | | | | |
| 11 | 8.4 | | | | | |
| 12 | 8.5 | | | | | |
| 13 | Surveyor Information | [Redacted], (F, M) | | Supervisor Signature | Date of Survey 3/11/11 | Surveying Agency Code |
| Remarks: | | | | | | |

Siemens Government Services, Inc.

Cabinet X-Ray Unit Radiation Survey Form (non-AT)

WO#: 3713557

Location: CP2 Lane 1

Background Reading: 1 μ R/hr

Date: 3/9/11

1. Identify Cabinet X-ray Unit and X-ray Generator information:
 - a. Check appropriate Make/Model box below (if 'Other', record Make and Model on the line provided);
 - b. Record the X-ray Unit's serial number next to the Make/Model;
 - c. With the X-rays turned "ON", record the X-ray Generator Voltage (kV) and Anode Current (μ A) Readings;
 - d. Convert Anode Current readings from μ A to mA by dividing the μ A value by 1000 (example: 100 μ A = 0.100 mA);
 - e. Transfer the Observed Voltage and Converted Anode Current readings to Box 05, Section 7.2 (Technical Factures) of DOE-0014 FAA Form 165-17.

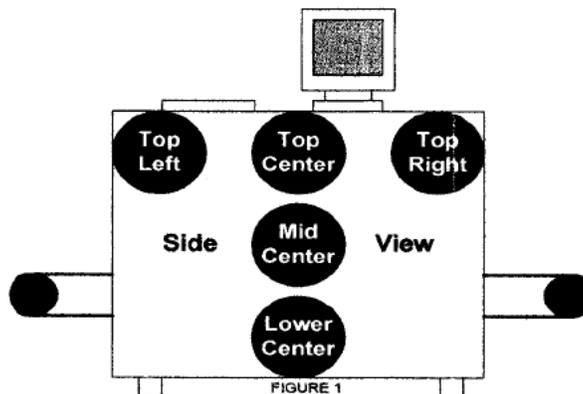
Make / Model

Serial Number

Observed Voltage and Anode Current

Convert Anode Current to mA for FAA form (divide μ A by 1000)

| | | | |
|---|--------------------|---------------------------------------|----------------|
| <input type="checkbox"/> Smiths Heimann 5030s | s/n _____ | + _____ kV, - _____ kV, _____ μ A | _____ mA |
| <input type="checkbox"/> Smiths Heimann 6040i | s/n _____ | + _____ kV, - _____ kV, _____ μ A | _____ mA |
| <input type="checkbox"/> Smiths Heimann 7555i | s/n _____ | + _____ kV, - _____ kV, _____ μ A | _____ mA |
| <input type="checkbox"/> Rapiscan 519 | s/n _____ | _____ kV, _____ μ A | _____ mA |
| <input checked="" type="checkbox"/> Rapiscan 520B | s/n <u>7024208</u> | <u>140</u> kV, <u>700</u> μ A | <u>.700</u> mA |
| <input type="checkbox"/> Rapiscan 522B | s/n _____ | _____ kV, _____ μ A | _____ mA |
| <input type="checkbox"/> Other _____ | s/n _____ | _____ kV, _____ μ A | _____ mA |



2. While holding the meter 5 centimeters (about 2 inches) from the surface, take readings in the area of the circles shown (Figure 1 above) on **BOTH** sides (Left and Right) of the X-ray machine (total of 10 readings):

Note: The Invision 451P Radiation Meter has a default range setting of μ R/hr. Meter readings in μ R/hr must be converted to mR/hr for this form and DOE-0014 FAA Form 165-17.

Conversion: 100 μ R/hr = 0.100 mR/hr.

FRONT

BACK

| | | | |
|--------------|-------------------|--------------|-------------------|
| TOP LEFT | <u>.009</u> mR/hr | TOP LEFT | <u>.007</u> mR/hr |
| TOP CENTER | <u>.008</u> mR/hr | TOP CENTER | <u>.046</u> mR/hr |
| TOP RIGHT | <u>.006</u> mR/hr | TOP RIGHT | <u>.008</u> mR/hr |
| MID CENTER | <u>.010</u> mR/hr | MID CENTER | <u>.007</u> mR/hr |
| LOWER CENTER | <u>.002</u> mR/hr | LOWER CENTER | <u>.004</u> mR/hr |

WO#: 3713557

X-Ray Serial #: 7024208

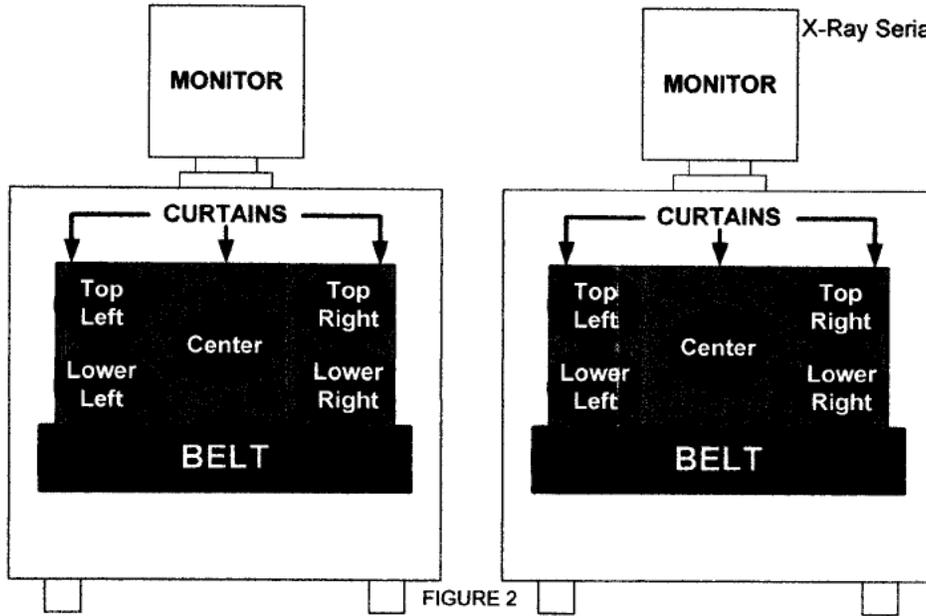


FIGURE 2

3. While holding the meter 5 centimeters (about 2 inches) from the surface, take readings in the area of the circles shown (Figure 2 above) on **BOTH** sides (ENTRANCE and EXIT) of the X-ray machine (total of 10 readings):

| <u>ENTRANCE</u> | | <u>EXIT</u> | |
|-----------------|-------------------|-------------|-------------------|
| TOP LEFT | <u>.090</u> mR/hr | TOP LEFT | <u>.050</u> mR/hr |
| TOP RIGHT | <u>.081</u> mR/hr | TOP RIGHT | <u>.074</u> mR/hr |
| LOWER LEFT | <u>.101</u> mR/hr | LOWER LEFT | <u>.069</u> mR/hr |
| LOWER RIGHT | <u>.063</u> mR/hr | LOWER RIGHT | <u>.066</u> mR/hr |
| CENTER | <u>.100</u> mR/hr | CENTER | <u>.086</u> mR/hr |

4. Transfer the **8 highest** readings (out of all 20 readings) to **Box 05, Section 7.3 (Exposure Levels)** of DOE0-0014 FAA Form 165-17. Be sure to enter values in mR/hr!! (100 μ R/hr = 0.100 mR/hr).

Note: On all X-Ray equipment, any reading of 0.5 mR/h (= 500 μ R/h) or higher is considered a failure of the Radiation Leak Survey.

5. Perform **Cumulative Exposure Test**:
- Push the MODE button once on the Invision 451P;
 - Verify that the meter's scale changes from μ R/h to μ R (Cumulative Mode);
 - Place the meter on the belt and run through the X-Ray beam 10 times in Cumulative Mode. **Record total here:** 5.86mR
 - Divide the cumulative exposure value by 10 to obtain the **Dosage per Inspection**;
 - Record this result in Section 8.1 (Additional Information) of DOE0-0014 FAA Form 165-17.

Survey Performed By (print your name): [Redacted]

Signature: [Redacted] Date: 3/9/11

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