

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)

W10 3666922

| Department of Transportation Federal Aviation Administration | | X-RAY SYSTEM RADIATION LEAKAGE REPORT (BAGGAGE INSPECTION) <small>(Require by 14 CFR 108.17, 14 CFR 129.26)</small> | | 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) Palm Beach International Airport | | FDA Region Florida | St. No. R.R. or Airline/Airport (10.80) 1000 James L. Turnage Blvd |
| CC | Address of Facility | City (10.73) West Palm Beach | | State Code Florida | Zip Code 33406 |
| DD | and Specific Location of X-ray System | Room No. or Other Location of System (10.32) Ckpt A/B, Lane 3B | Person Interview (33.54) | Telephone No. | |
| | | Certification Label Present Yes | Instruments (type and serial number) Inovision Model: 451P-RYR Serial No. 0558 | | |
| 01 | 1.2 Manufacture And Product ID | A. Manufacture (Responsible Firm) Rapiscan | B. OHU46 | C. System Model No. and/or Name 520B TRX | |
| | | D. 115 VAC Unique I.D. 60HZ | E. System Serial No. 7022010 | | |
| | | F. Date of Manufacture Mo. May Yr. 2002 | 1.4 Operator Instructions Available Yes | 1.5 Maintenance Schedule Available NA | |
| 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 | |
| | | 2.3 Two Indicators Labeled "X-Ray On" Present at Controls (One May Be Labeled "mA Meter") Yes | | 3.0 Interlocks | |
| | | 2.4 At Least One Indicator, X-Ray Marked "X-Ray On", Visible from Each Port, Door, and Access Panel Yes | | 3.1 "Captured Key" Control Yes | |
| | | 3.2 Door Safety Interlocks A. Minimum Number of Interlocks Visible At Any One Door NA B. At Least One Interlock Dependent on No Moving Part Except Door NA | | 3.3 Prevention of X-Radiation By Interlocks A. All Doors and Access Panels That Were Tested Prevent Generation of X-Radiation NA B. Use of X-Ray Control Necessary to Resume Operation Following Interruption NA | |
| 03 | 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 | |
| | 7.0 Leakage Radiation | Specific Test Procedure Used 04 | 7.1 Scatter Block Description Pelican 1100 Case | | |
| 05 | 7.2 Technical Factors 110 kVp 0.7 mA | | | | |
| | 7.3 Location Exposure Levels | | 7.3 Location Exposure Levels | | |
| | Non-Continuously Activated Systems Only Number of Exposures Initiated | | Non-Continuously Activated Systems Only Number of Exposures Initiated | | |
| | 0.250 mR/hr | Exp | 06 | 0.079 mR/hr | exp |
| | 0.160 mR/hr | Exp | | 0.071 mR/hr | exp |
| 0.099 mR/hr | exp | 0.063 mR/hr | | exp | |
| 0.098 mR/hr | exp | 0.060 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 0.15 mR | | | | |
| 09 | 8.2 | | | | |
| 10 | 8.3 | | | | |
| 11 | 8.4 | | | | |
| 12 | 8.5 | | | | |
| 13 | Surveyor Information | Date of Survey | | Surveying Agency Code | |
| | | 2/10/11 | | | |
| Remarks: | | | | | |

Siemens Government Services, Inc.

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

WO#: 3666922

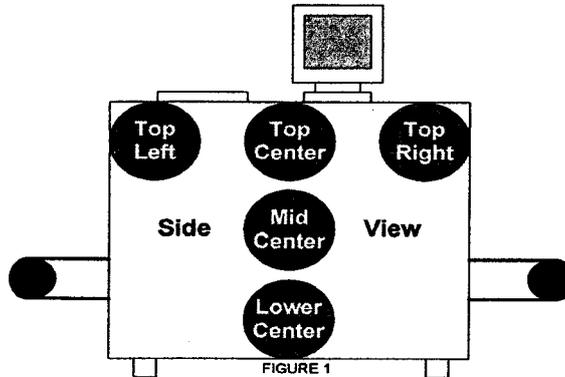
Location: CKPT. A/B Ln. 3B

Background Reading: 7 $\mu\text{R/hr}$

Date: 2/10/11

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 (μA) Readings;
 - d. Convert Anode Current readings from μA to mA by dividing the μA value by 1000 (example: $100 \mu\text{A} = 0.100 \text{ mA}$);
 - e. Transfer the **Observed Voltage and Converted Anode Current** readings to Box 05, Section 7.2 (Technical Factures) of DOE0-0014 FAA Form 165-17.

| Make / Model | Serial Number | Observed Voltage and Anode Current | Convert Anode Current to mA for FAA form (divide μA by 1000) |
|---|--------------------|---|---|
| <input type="checkbox"/> Smiths Heimann 5030s | s/n _____ | + _____ kV, - _____ kV, _____ μA | _____ mA |
| <input type="checkbox"/> Smiths Heimann 6040I | s/n _____ | + _____ kV, - _____ kV, _____ μA | _____ mA |
| <input type="checkbox"/> Smiths Heimann 7555I | s/n _____ | + _____ kV, - _____ kV, _____ μA | _____ mA |
| <input type="checkbox"/> Rapiscan 519 | s/n _____ | _____ kV, _____ μA | _____ mA |
| <input checked="" type="checkbox"/> Rapiscan 520B | s/n <u>7022010</u> | <u>110</u> kV, <u>700</u> μA | <u>0.7</u> mA |
| <input type="checkbox"/> Rapiscan 522B | s/n _____ | _____ kV, _____ μA | _____ mA |
| <input type="checkbox"/> Other _____ | s/n _____ | _____ kV, _____ μA | _____ 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 Inovision 451P Radiation Meter has a default range setting of $\mu\text{R/hr}$. Meter readings in $\mu\text{R/hr}$ must be converted to mR/hr for this form and DOE0-0014 FAA Form 165-17.
 Conversion: $100 \mu\text{R/hr} = 0.100 \text{ mR/hr}$.

| <u>FRONT</u> | | <u>BACK</u> | |
|--------------|--------------------|--------------|--------------------|
| TOP LEFT | <u>0.012</u> mR/hr | TOP LEFT | <u>0.019</u> mR/hr |
| TOP CENTER | <u>0.014</u> mR/hr | TOP CENTER | <u>0.024</u> mR/hr |
| TOP RIGHT | <u>0.009</u> mR/hr | TOP RIGHT | <u>0.011</u> mR/hr |
| MID CENTER | <u>0.011</u> mR/hr | MID CENTER | <u>0.025</u> mR/hr |
| LOWER CENTER | <u>0.010</u> mR/hr | LOWER CENTER | <u>0.011</u> mR/hr |

| | | | | |
|---|------------|-----------------------------|-------------------------|--------------|
| Cabinet X-Ray Unit Radiation Survey Form (non-AT) | Version: 6 | Effective Date: Apr 2, 2010 | Document No.: F-ALL-049 | Page: 1 of 2 |
|---|------------|-----------------------------|-------------------------|--------------|

Printed copies of this document must be verified against the Document Server or Intranet for correct revision level before being used.

WO#: 3666922
 X-Ray Serial #: 7022010

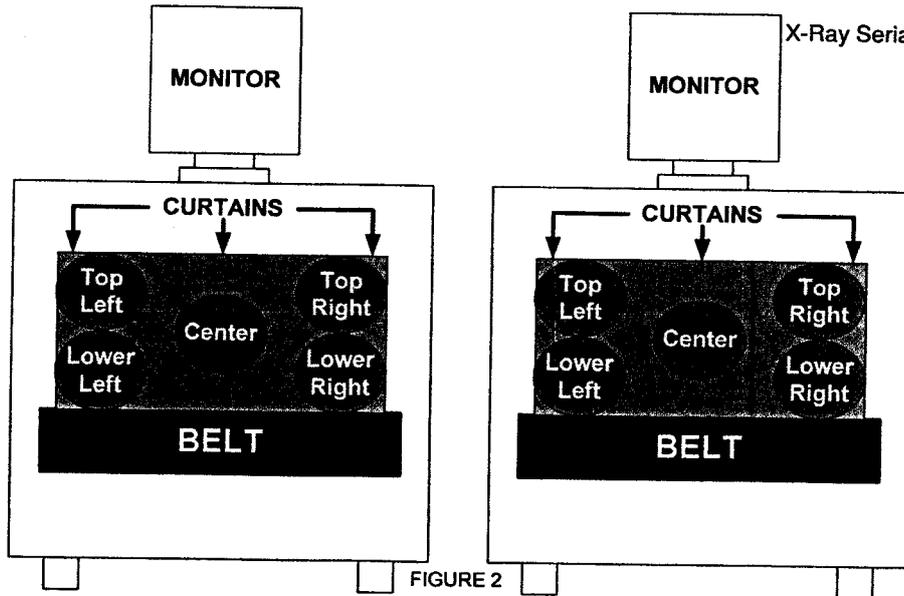


FIGURE 2

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>0.056</u> mR/hr | TOP LEFT | <u>0.099</u> mR/hr |
| TOP RIGHT | <u>0.063</u> mR/hr | TOP RIGHT | <u>0.060</u> mR/hr |
| LOWER LEFT | <u>0.057</u> mR/hr | LOWER LEFT | <u>0.098</u> mR/hr |
| LOWER RIGHT | <u>0.160</u> mR/hr | LOWER RIGHT | <u>0.071</u> mR/hr |
| CENTER | <u>0.079</u> mR/hr | CENTER | <u>0.250</u> mR/hr |

4. Transfer the **8 highest** readings (out of all 20 readings) to **Box 05, Section 7.3** (Exposure Levels) of DOE-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 Inovision 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: 1.53 mR
 - Divide the cumulative exposure value by 10 to obtain the Dosage per Inspection; 0.15 mR
 - Record this result in Section 8.1 (Additional Information) of DOE-0014 FAA Form 165-17.

Survey Performed By (print your name): _____

Signature: _____

Date: 2/10/11

| | | | | |
|--|---------------|--------------------------------|----------------------------|-----------------|
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