

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		<b>X-RAY SYSTEM RADIATION LEAKAGE REPORT (BAGGAGE INSPECTION)</b> <i>(Require by 14 CFR 108.17, 14 CFR 129.26)</i>		FIELD TEST SERIAL NO. 11-7 <b>T</b>	Form Approved OMB No. 2120-0098	
<b>AA</b>	1.1 Name and Address of Facility	Name of Facility (18.80) <b>Boise Airport Gowen Field</b>	FDA Region <b>ID</b>	St. No. R.R. or Airline/Airport (10.80) <b>BB</b> <b>3201 Airport Way</b>		
<b>CC</b>	Address of Facility	City (10.73) <b>Boise</b>	State Code <b>ID</b>	Zip Code <b>83705</b>		
<b>DD</b>	and Specific Location of X-ray System	Room No. or Other Location of System (10.32) <b>Check Point Lane 3</b>	Person Interviewed (23.54) [REDACTED]	Telephone No. [REDACTED]		
<b>01</b>	1.2 Manufacture And Product ID	A. Manufacture (Responsible Firm) <b>Rapiscan Security Products Inc.</b>	B. Mfr. Code <b>0HU46</b>	C. System Model No. and/or Name <b>TRX 520B</b>		
		D. Unique I.D. <b>115 VAC 60 Hz</b>	E. System Serial No. <b>7024510</b>			
		F. Date of Manufacture <b>illegible</b>	1.4 Operator Instructions Available <b>YES</b>	1.5 Maintenance Schedule Available <b>N/A</b>		
	2.0 Warning Labels indicators	2.1 Warning Label Present at Controls Stating: "Caution: X-Rays Produced When Energized" <b>YES</b>	2.2 Warning Labels Present at Ports Stating: "Caution: Do Not Insert Any Part of the Body When System is Energized, X-Ray Hazard" <b>YES</b>	2.3 Two Indicators Labeled "X-Ray On" Present at Controls (One May Be Labeled "mA Meter") <b>YES</b>		
<b>02</b>	3.2 Door Safety Interlocks	2.4 At Least One Indicator, X-Ray Marked "X-Ray On", Visible from Each Port, Door, And Access Panel <b>YES</b>	3.0 Interlocks <b>YES</b>	3.1 "Captured Key" Control <b>YES</b>		
		A. Minimum Number of Interlocks Visible At Any One Door <b>N/A</b>	3.3 Prevention of X-Radiation By Interlocks	A. All Doors and Access Panels That Were Tested Prevent Generation of X-Radiation <b>N/A</b>		
		B. At Least One Interlock Dependent on No Moving Part Except Door <b>N/A</b>		B. Use of X-Ray Control Necessary to Resume Operation Following Interruption <b>N/A</b>		
	4.0 Ports and/or Apertures	4.1 Some Part of the Body Can Be Inserted Through a Port Into The Primary Beam <b>NO</b>		4.2 Some Part of the Body Can Be Inserted into the Aperture <b>NO</b>		
	6.0 Baggage Inspection Systems	6.1 Means Provided to Ensure Operator Presence at the Control Area <b>YES</b>		6.2 Means Provided to Operator for Terminating Exposures of Greater than One-Half Second and Preventing <b>YES</b>		
<b>03</b>	7.0 Leakage Radiation	Specific Test Procedure Used <b>04</b>	7.1 Scatter Block Description <b>Pelican 1400 Case for the Inovision 451P Meter</b>			
<b>05</b>	7.2 Technical Factors	<b>140 kVp</b>		<b>.700 mA</b>		
	7.3 Location	Exposure Levels	Non-Continuously Activated Systems Only Number of Exposures Initiated	Location	Exposure Levels	
		<b>.005 mR/hr</b>	Exp	<b>06</b>	<b>.050 mR/hr</b>	Exp
		<b>.007 mR/hr</b>	Exp		<b>.072 mR/hr</b>	Exp
		<b>.006 mR/hr</b>	Exp		<b>.028 mR/hr</b>	Exp
		<b>.007 mR/hr</b>	Exp		<b>.048 mR/hr</b>	Exp
<b>07</b>	Reasonable Number of Exposures That May Be Initiated in One Hour	OR		Duty Cycle of System Indicated As a Percentage of One Hour	<b>100%</b>	
<b>08</b>	8.0 Additional Information	8.1 Dosage per inspection = <b>.114 mR/hr</b> <i>3/15/11 UR</i>				
<b>09</b>	8.2					
<b>10</b>	8.3					
<b>11</b>	8.4					
<b>12</b>	8.5					
<b>13</b>	Surveyor Information	Surveyor Name (10-72) (Print: L, F, MI) [REDACTED]		Date of Survey <b>3/7/11</b>	Surveying Agency Code <b>SGS</b>	
Remarks: <b>Siemens Government Services</b>						

WO# 3768152  
RLS ADHOC - TSA  
BOE

**Cabinet X-Ray Unit Radiation Survey Form**

WO#: 3768152

Location: ROR LWS

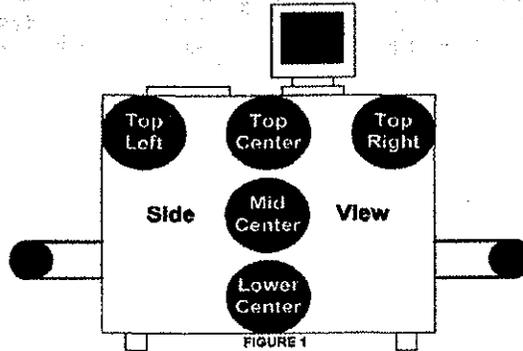
Background Reading: 3  $\mu$ R/hr

Date: 3/7/11

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 ( $\mu$ A) Readings;
  - d. Convert Anode Current readings from  $\mu$ A to mA by dividing the  $\mu$ A value by 1000 (example: 100  $\mu$ A = 0.100 mA);
  - e. Transfer the Observed Voltage and Converted Anode Current readings to Box 05, Section 7.2 (Technical Factures) of DOE0-0014 FAA Form 185-17.

Make / Model	Serial Number	Observed Voltage and Anode Current	Convert Anode Current to mA for FAA form (divide $\mu$ A by 1000)
<input type="checkbox"/> Smiths Heimann 5030s	s/n _____	+ _____ kV, - _____ kV, _____ $\mu$ A	_____ mA
<input type="checkbox"/> Smiths Heimann 6040I	s/n _____	+ _____ kV, - _____ kV, _____ $\mu$ A	_____ mA
<input type="checkbox"/> Smiths Heimann 7555I	s/n _____	+ _____ kV, - _____ kV, _____ $\mu$ A	_____ mA
<input type="checkbox"/> Rapiscan 519	s/n _____	_____ kV, _____ $\mu$ A	_____ mA
<input checked="" type="checkbox"/> Rapiscan 520B	s/n <u>7024510</u>	<u>140</u> kV, <u>700</u> $\mu$ A	<u>0.700</u> mA
<input type="checkbox"/> Rapiscan 522B	s/n _____	_____ kV, _____ $\mu$ A	_____ mA
<input type="checkbox"/> Other _____	s/n _____	_____ kV, _____ $\mu$ A	_____ mA

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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  $\mu$ R/hr. Meter readings in  $\mu$ R/hr must be converted to mR/hr for this form and DOE0-0014 FAA Form 185-17.  
Conversion: 100  $\mu$ R/hr = 0.100 mR/hr.

	FRONT	BACK
TOP LEFT	<u>1003</u> mR/hr	<u>1007</u> mR/hr
TOP CENTER	<u>1005</u> mR/hr	<u>1005</u> mR/hr
TOP RIGHT	<u>1007</u> mR/hr	<u>1003</u> mR/hr
MID CENTER	<u>1003</u> mR/hr	<u>1007</u> mR/hr
LOWER CENTER	<u>1007</u> mR/hr	<u>1006</u> mR/hr

WO#: 376852

X-Ray Serial #: 7024510

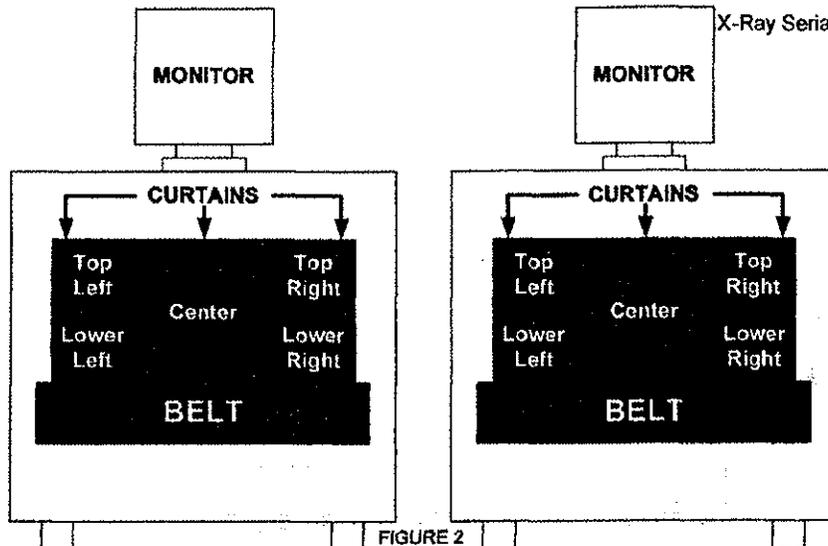


FIGURE 2

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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):

ENTRANCE		EXIT	
TOP LEFT	<u>.028</u> mR/hr	TOP LEFT	<u>.025</u> mR/hr
TOP RIGHT	<u>.030</u> mR/hr	TOP RIGHT	<u>.028</u> mR/hr
LOWER LEFT	<u>.041</u> mR/hr	LOWER LEFT	<u>.025</u> mR/hr
LOWER RIGHT	<u>.072</u> mR/hr	LOWER RIGHT	<u>.028</u> mR/hr
CENTER	<u>.050</u> mR/hr	CENTER	<u>.048</u> mR/hr

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

**Note:** On all X-Ray equipment, any reading of 0.5 mR/h (= 500 µR/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 µR/h to µR (Cumulative Mode);
  - Place the meter on the belt and run through the X-Ray beam 10 times in Cumulative Mode. **Record total here:** 1.142
  - Divide the cumulative exposure value by 10 to obtain the **Dosage per Inspection;**
  - Record this result in Section 8.1 (Additional Information) of DOEO-0014 FAA Form 165-17.

Survey Performed By (print your name): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: 3/7/11