

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	Name of Facility (10.80) Boise Airport Gowen Field		FDA Region ID	BB St. No. R.R. or Airline/Airport (10.80) 3201 Airport Way	
CC	Address of Facility	City (10.73) Boise		State Code	ID Zip Code 83705	
DD	and Specific Location of X-ray System	Room No. or Other Location of System (10.32) Check Point Lane 5	Person Interview (23.54)	Telephone No.		
		Certification Label Present Yes	Instruments: (type and serial number) Inovision Model: 451P-RYR Serial No. 516			
01	1.2 Manufacture And Product ID	A. Manufacture (Responsible Firm) Rapiscan Security Products Inc.		B. Mfr. Code 0HU46	C. System Model No. and/or Name TRX 520B	
		D. Unique I.D. 115 VAC 60 Hz	E. System Serial No. 70425N10			
		F. Date of Manufacture Oct 2003	1.4 Operator Instructions Available YES		1.5 Maintenance Schedule Available NIA	
02	2.0 Warning Labels Indicators	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		
03	3.2 Door Safety Inter-Locks	A. Minimum Number of Interlocks Visible At Any One Door NIA		3.3 Prevention of X-Radiation By Interlocks		
		B. At Least One Interlock Dependent on No Moving Part Except Door NIA		A. All Doors and Access Panels That Were Tested Prevent Generation of X-Radiation NIA		
				B. Use of X-Ray Control Necessary to Resume Operation Following Interruption NIA		
04	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		
05	7.0 Leakage Radiation	Specific Test Procedure Used 04		7.1 Scatter Block Description Pelican 1400 Case for the Inovision 451P Meter		
		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
06	06	.017 mR/hr Exp		.029 mR/hr Exp		
		.013 mR/hr Exp		.041 mR/hr Exp		
		.012 mR/hr Exp		.025 mR/hr Exp		
		.009 mR/hr Exp		.034 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					
09	8.1 Dosage per inspection = .076 mR/hr <i>UR 3/15/11</i>					
10	8.2					
11	8.3					
12	8.4					
13	8.5					
13	Surveyor Information	Surveyor Name (10-72) (Print: L, F, M) [Redacted]		Surveyor Signature [Redacted]	Date of Survey 3/7/11	
Remarks: Siemens Government Services						

*WO# 376806
RLS APHC-TSA
BOJ*

Cabinet X-Ray Unit Radiation Survey Form

WO#: 3748016

Location: Boz LN 5

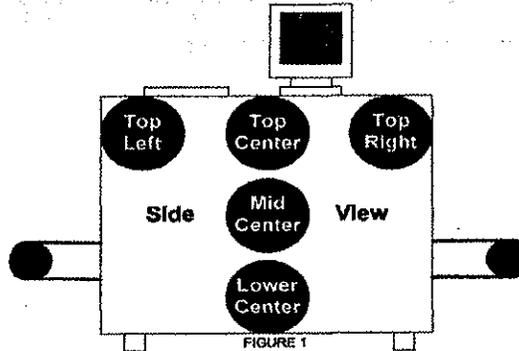
Background Reading: 13 μ R/hr

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 (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>7042520</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

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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 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>1007</u> mR/hr
TOP CENTER	<u>90,011</u> mR/hr	TOP CENTER	<u>1007</u> mR/hr
TOP RIGHT	<u>1011</u> mR/hr	TOP RIGHT	<u>1012</u> mR/hr
MID CENTER	<u>1017</u> mR/hr	MID CENTER	<u>1008</u> mR/hr
LOWER CENTER	<u>1013</u> mR/hr	LOWER CENTER	<u>1009</u> mR/hr

WO#: 3768016
X-Ray Serial #: 70425210

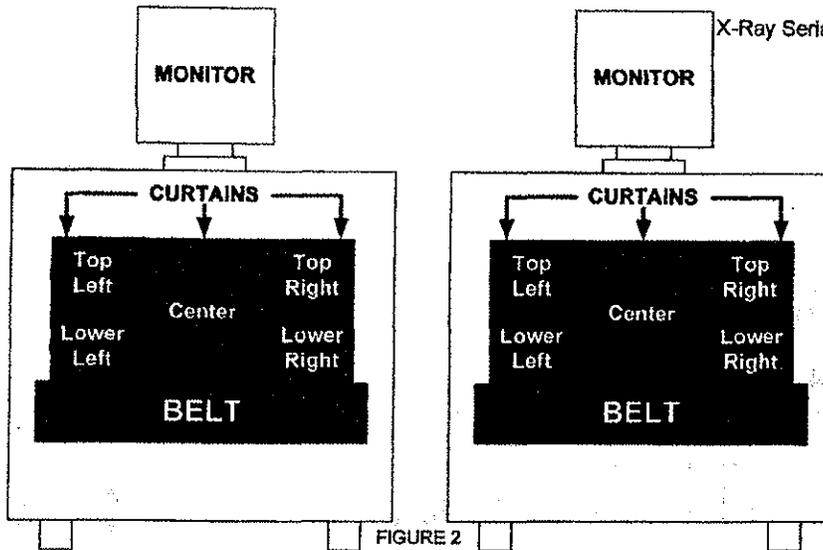


FIGURE 2

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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):

<u>ENTRANCE</u>		<u>EXIT</u>	
TOP LEFT	<u>1024</u> mR/hr	TOP LEFT	<u>1022</u> mR/hr
TOP RIGHT	<u>1021</u> mR/hr	TOP RIGHT	<u>1033</u> mR/hr
LOWER LEFT	<u>1027</u> mR/hr	LOWER LEFT	<u>1025</u> mR/hr
LOWER RIGHT	<u>1029</u> mR/hr	LOWER RIGHT	<u>1023</u> mR/hr
CENTER	<u>1041</u> mR/hr	CENTER	<u>1034</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 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 Inovision 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:** 760 µR
 - 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): _____

Signature: _____ Date: 3/7/11

Cabinet X-Ray Unit Radiation Survey Form	Version: 5	Effective Date: Oct 12, 2007	Document No.: F-ALL-049	Page: 2 of 2
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