

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) John F Kennedy Airport	FDA Region NY	St. No. R.R. or Airline/Airport (10.80) Terminal 3		
CC		City (10.73) Jamaica		State Code NY	Zip Code 11430	
DD	and Specific Location of X-ray System	Room No. or Other Location of System (10.32) Terminal 3		Telephone No. [REDACTED]		
		Certification Label Present Yes	Instruments (type and serial number) INAVISION Model: 451P Serial No. 552			
01	1.2 Manufacture And Product ID	A. Manufacture (Responsible Firm) Kapiscan	B. System Model No. and/or Name OH046	C. System Model No. and/or Name 520B		
		D. Unique I.D. 115V4C 60HZ	E. System Serial No. 7014103			
	F. Date of Manufacture Mo. 10 Yr. 01	1.4 Operator Instructions Available Yes	1.5 Maintenance Schedule Available N/A			
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			
02	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		
	3.2 Door Safety Interlocks	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 94	7.1 Scatter Block Description meter 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	Non-Continuously Activated Systems Only Number of Exposures Initiated
		.121 mR/hr	Exp	06	.1097 mR/hr	exp
		.113 mR/hr	Exp		.1094 mR/hr	exp
		.101 mR/hr	exp		.1089 mR/hr	exp
.098 mR/hr	exp	.079 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	Center Beam 1974K				
10	8.2					
11	8.3					
11	8.4	Lead Curtains Replaced			3780220	
12	8.5					
13	Surveyor Information	[REDACTED]	[REDACTED]	Date of Survey 3/28/11	Surveying Agency Code H12	
Remarks:						

Cabinet X-Ray Unit Radiation Survey Form

WO#: 3780220

Location: Terminal 3

Background Reading: 2.0 μ R/hr

Date: 3/28/11

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.

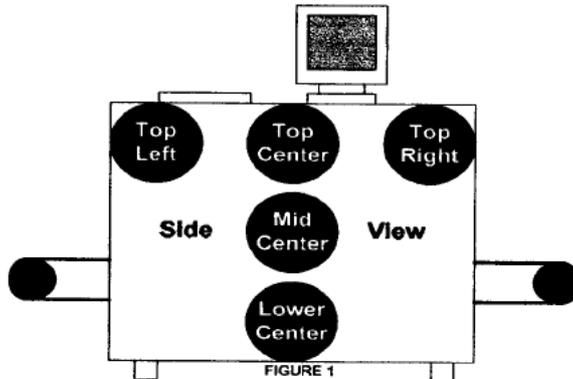
Make / Model

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>7014103</u>	<u>140</u> kV, <u>700</u> μ A	<u>0.700</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

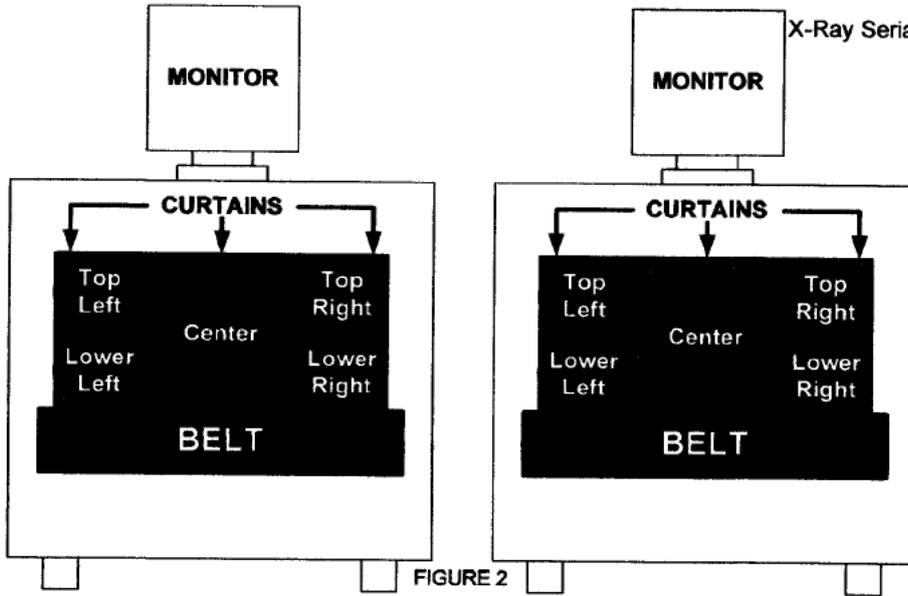
BACK

TOP LEFT	<u>.011</u> mR/hr	TOP LEFT	<u>.013</u> mR/hr
TOP CENTER	<u>.009</u> mR/hr	TOP CENTER	<u>.007</u> mR/hr
TOP RIGHT	<u>.013</u> mR/hr	TOP RIGHT	<u>.011</u> mR/hr
MID CENTER	<u>.017</u> mR/hr	MID CENTER	<u>.015</u> mR/hr
LOWER CENTER	<u>.021</u> mR/hr	LOWER CENTER	<u>.024</u> mR/hr

Cabinet X-Ray Unit Radiation Survey Form	Version: 5	Effective Date: Oct 12, 2007	Document No.: F-ALL-049	Page: 1 of 2
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WO#: 3780220
X-Ray Serial #: 7014103



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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>.094</u> mR/hr	TOP LEFT	<u>.097</u> mR/hr
TOP RIGHT	<u>.089</u> mR/hr	TOP RIGHT	<u>.113</u> mR/hr
LOWER LEFT	<u>.076</u> mR/hr	LOWER LEFT	<u>.121</u> mR/hr
LOWER RIGHT	<u>.079</u> mR/hr	LOWER RIGHT	<u>.098</u> mR/hr
CENTER	<u>.061</u> mR/hr	CENTER	<u>.101</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 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:** 1.97 mR
 - Divide the cumulative exposure value by 10 to obtain the **Dosage per Inspection**;
 - Record this result in Section 8.1 of FAA Form 165-17.

Survey Performed by: [Redacted]
Signature: [Redacted] Date: 3/28/11

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