

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 <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>Tulsa International Airport</b>		FDA Region <b>OK</b>	St. No. R.R. or Airline/Airport (10.80) <b>7777 E. Apache Rd.</b>	
<b>CC</b>	Address of Facility	City (10.73) <b>Tulsa</b>		State Code <b>OK</b>	Zip Code <b>74115</b>	
<b>DD</b>	and Specific Location of X-ray System	Room No. or Other Location of System (10.32) <b>Main Lane 3</b>	Person Interview (33-54) [REDACTED]	Telephone No. [REDACTED]		
		Certification Label Present <b>Yes</b>	Instruments: (type and serial number) <b>RadEye</b>	Model: <b>PRD-ER</b>	Serial No. <b>0331</b>	
<b>01</b>	1.2 Manufacture And Product ID	A. Manufacture (Responsible Firm) <b>Smiths Detection</b>		B. HS <b>HS</b>	C. System Model No. and/or Name <b>6040i</b>	
		D. Unique I.D. <b>115 VAC 60 HZ</b>	E. System Serial No. <b>40030</b>			
		F. Date of Manufacture Mo. <b>Mar</b> Yr. <b>2002</b>	1.4 Operator Instructions Available <b>Yes</b>	1.5 Maintenance Schedule Available <b>N/A</b>		
	2.0 Warning Labels	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>	Indicators	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	3.1 "Captured Key" Control <b>Yes</b>	
	3.2 Door Safety Interlocks	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>Two Paper Reams</b>			
<b>05</b>	7.2 Technical Factors <b>137</b> kVp <b>.393</b> mA					
	7.3 Location	Exposure Levels	Non-Continuously Activated Systems Only Number of Exposures Initiated	Location	Exposure Levels	
		<b>.080</b> mR/hr	Exp	<b>06</b>	<b>.048</b> mR/hr	exp
		<b>.074</b> mR/hr	Exp		<b>.004</b> mR/hr	exp
		<b>.061</b> mR/hr	exp		<b>.004</b> mR/hr	exp
	<b>.049</b> mR/hr	exp	<b>.004</b> mR/hr		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 <b>87.3 uR Dosage Per Inspection</b>					
<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]	Surveyor Signature [REDACTED]	Date of Survey <b>15 Mar 2011</b>	Surveying Agency Code	
Remarks:						

Siemens Government Services, Inc.

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

WO#: 3768176

Location: Tul Main Lane 3

Background Reading: .002  $\mu\text{R/hr}$

Date: 15 Mar 2011

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 ( $\mu\text{A}$ ) Readings;
  - d. Convert Anode Current readings from  $\mu\text{A}$  to mA by dividing the  $\mu\text{A}$  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.

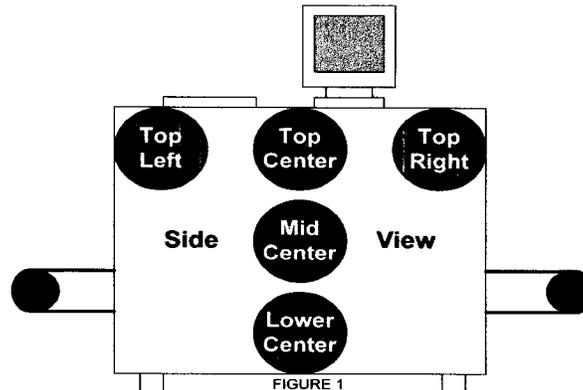
**Make / Model**

**Serial Number**

**Observed Voltage and Anode Current**

**Convert Anode Current to mA for FAA form (divide  $\mu\text{A}$  by 1000)**

<input type="checkbox"/> Smiths Heimann 5030s	s/n _____	+ _____ kV, - _____ kV, _____ $\mu\text{A}$	_____ mA
<input checked="" type="checkbox"/> Smiths Heimann 6040i	s/n 40030	+ 68.67 kV, - 68.21 kV, 393 $\mu\text{A}$	.393 mA
<input type="checkbox"/> Smiths Heimann 7555i	s/n _____	+ _____ kV, - _____ kV, _____ $\mu\text{A}$	_____ mA
<input type="checkbox"/> Rapiscan 519	s/n _____	_____ kV, _____ $\mu\text{A}$	_____ mA
<input type="checkbox"/> Rapiscan 520B	s/n _____	_____ kV, _____ $\mu\text{A}$	_____ mA
<input type="checkbox"/> Rapiscan 522B	s/n _____	_____ kV, _____ $\mu\text{A}$	_____ mA
<input type="checkbox"/> Other _____	s/n _____	_____ kV, _____ $\mu\text{A}$	_____ 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  $\mu\text{R/hr}$ . Meter readings in  $\mu\text{R/hr}$  must be converted to mR/hr for this form and DOE0-0014 FAA Form 165-17.

**Conversion:**  $100 \mu\text{R/hr} = 0.100 \text{ mR/hr}$ .

**FRONT**

**BACK**

TOP LEFT	<u>.002</u> mR/hr	TOP LEFT	<u>.004</u> mR/hr
TOP CENTER	<u>.002</u> mR/hr	TOP CENTER	<u>.004</u> mR/hr
TOP RIGHT	<u>.002</u> mR/hr	TOP RIGHT	<u>.004</u> mR/hr
MID CENTER	<u>.003</u> mR/hr	MID CENTER	<u>.004</u> mR/hr
LOWER CENTER	<u>.003</u> mR/hr	LOWER CENTER	<u>.004</u> mR/hr

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

WO#: 3768176

X-Ray Serial #: 40030

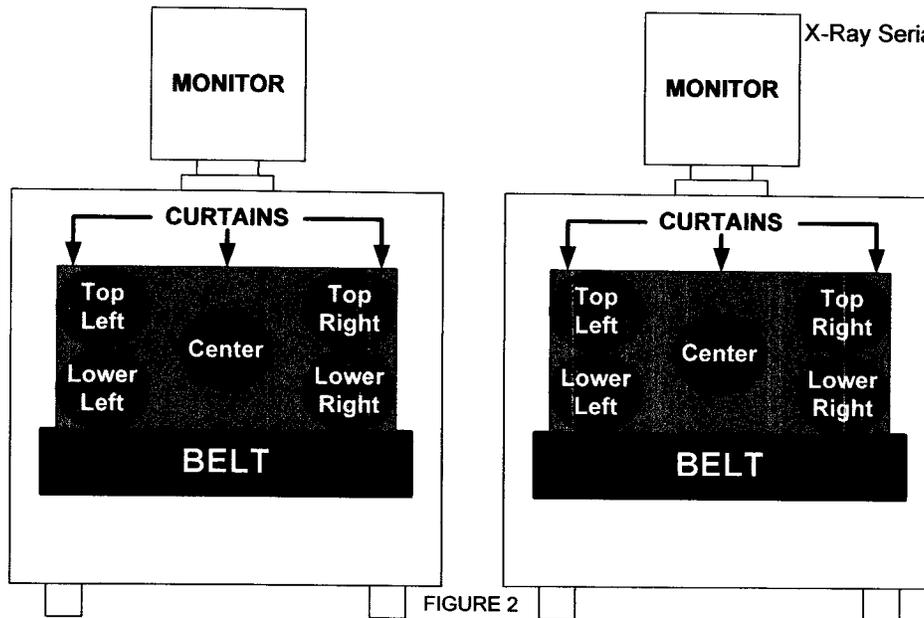


FIGURE 2

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

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>.004</u> mR/hr	TOP LEFT	<u>.048</u> mR/hr
TOP RIGHT	<u>.009</u> mR/hr	TOP RIGHT	<u>.074</u> mR/hr
LOWER LEFT	<u>.004</u> mR/hr	LOWER LEFT	<u>.061</u> mR/hr
LOWER RIGHT	<u>.008</u> mR/hr	LOWER RIGHT	<u>.049</u> mR/hr
CENTER	<u>.011</u> mR/hr	CENTER	<u>.080</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 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:** 873 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): [REDACTED]

Signature: [REDACTED]

Date: 15 Mar 2011

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

