The information in this report is required by 14 CRF 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)*** *(Require by 14 CRF 108.17, 14 CRF 129.26)*	FIELD TEST SERIAL NO. 11-7 T	Form Approved OMB No. 2120-0098

AA	1.1 Name and Address of Facility and Specific Location of X-ray System	Name of Facility *(18.80)*: Pittsburgh International Airport	FDA Region: PA	BB St. No. R.R. or Airline/Airport *(10.80)*: 1000 Airport Blvd	
CC		City *(10.73)*: Pittsburgh		State Code: PA	Zip Code: 15231
DD		Room No. or Other Location of System *(10.32)*: Main Checkpoint Lane #2	Person Interview *(33-54)*: [redacted]	Telephone No. [redacted]	
		Certification Label Present: yes	Instruments: *(type and serial number)* Inovision	Model: 451 P	Serial No. 0000000471
01	1.2 Manufacture And Product ID	A. Manufacture *(Responsible Firm)*: Rapiscan Systems	B. OH446	C. System Model No. and/or Name: TRX 522B	
		D. 115 VAC Unique I.D. 60Hz	E. System Serial No. 7012806		
		F. Date of Manufacture Mo. July Yr. 2001	1.4 Operator Instructions Available: yes	1.5 Maintenance Schedule Available: N/A	
	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	
02		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 Inter-Locks	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: 04	7.1 Scatter Block Description: Inovision Pelican Case		
05	7.2 Technical Factures	135 kVp	.700 mA		

7.3 Location Exposure Levels	Non-Continuously Activated Systems Only Number of Exposures Initiated	06 Location Exposure Levels	Non-Continuously Activated Systems Only Number of Exposures Initiated
.113 mR/hr	Exp	.068 mR/hr	exp
.087 mR/hr	Exp	.068 mR/hr	exp
.080 mR/hr	exp	.066 mR/hr	exp
.078 mR/hr	exp	.055 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		
	8.1 162 uR		
09	8.2		
10	8.3		
11	8.4		
12	8.5		
13	Surveyor Information: [redacted]	Date of Survey: 3/15/11	Surveying Agency Code

Remarks: MWO# 3727697

FAA Form 165-17 (6-81)

FAA HQ

SIEMENS

Siemens Government Services, Inc.

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

WO#: 3727697

Location: Main Checkpoint Lane 2 Background Reading: 12 **µR/hr** Date: 3/15/11

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 µA = 0.100 mA**);
   e. Transfer the **Observed Voltage and Converted Anode Current** readings to **Box 05, Section 7.2** (Technical Factures) of DOEO-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)
☐ Smiths Heimann **5030s**	s/n_____	+_____kV, -_____kV,_____ µA	_____mA
☐ Smiths Heimann **6040i**	s/n_____	+_____kV, -_____kV,_____ µA	_____mA
☐ Smiths Heimann **7555i**	s/n_____	+_____kV, -_____kV,_____ µA	_____mA
☐ Rapiscan **519**	s/n_____	_____kV, _____ µA	_____mA
☐ Rapiscan **520B**	s/n_____	_____kV, _____ µA	_____mA
☒ Rapiscan **522B**	s/n 701 2806	135 kV, 700 µA	.700 mA
☐ Other _____	s/n_____	_____kV, _____ µA	_____mA

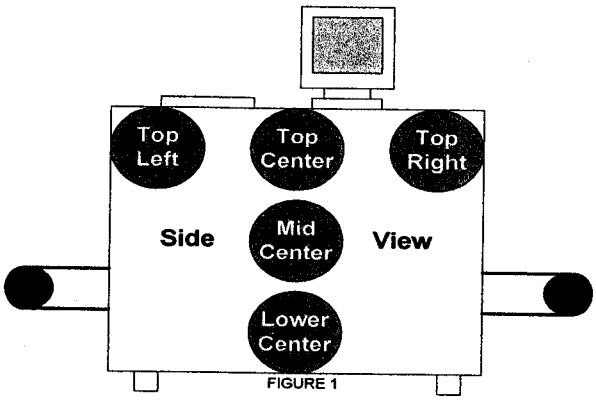

FIGURE 1

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 **µR/hr**. Meter readings in µR/hr must be converted to mR/hr for this form and DOEO-0014 FAA Form 165-17.
   Conversion: 100 µR/hr = 0.100 mR/hr.

FRONT		BACK	
TOP LEFT	.021 mR/hr	TOP LEFT	.025 mR/hr
TOP CENTER	.026 mR/hr	TOP CENTER	.038 mR/hr
TOP RIGHT	.019 mR/hr	TOP RIGHT	.025 mR/hr
MID CENTER	.021 mR/hr	MID CENTER	.049 mR/hr
LOWER CENTER	.024 mR/hr	LOWER CENTER	.019 mR/hr

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SIEMENS

Siemens Government Services, Inc.

WO#: 3727697

X-Ray Serial #: 7012806

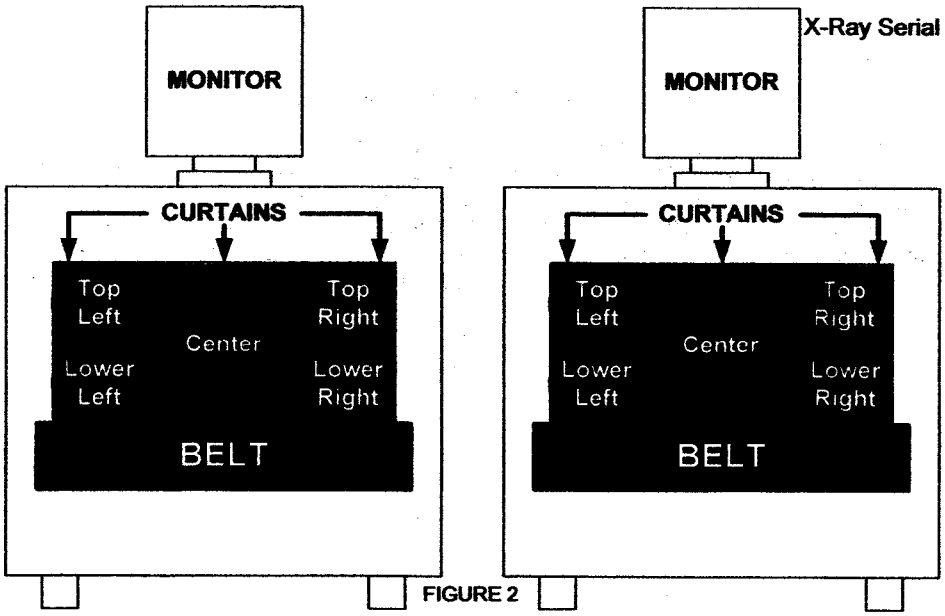

FIGURE 2

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):

ENTRANCE			EXIT		
TOP LEFT	.066	mR/hr	TOP LEFT	.054	mR/hr
TOP RIGHT	.068	mR/hr	TOP RIGHT	.068	mR/hr
LOWER LEFT	.087	mR/hr	LOWER LEFT	.051	mR/hr
LOWER RIGHT	.078	mR/hr	LOWER RIGHT	.055	mR/hr
CENTER	.113	mR/hr	CENTER	.080	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:**
   a. Push the MODE button once on the Inovision 451P;
   b. Verify that the meter's scale changes from **µR/h** to **µR** (Cumulative Mode);
   c. Place the meter on the belt and run through the X-Ray beam 10 times in Cumulative Mode. **Record total here:** 1.62 mR
   d. Divide the cumulative exposure value by 10 to obtain the **Dosage per Inspection;**
   e. Record this result in Section 8.1 (Additional Information) of DOEO-0014 FAA Form 165-17.

Survey Performed By (print your name): [redacted]

Signature: [redacted] **Date:** 3/15/11

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

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