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 #4 | Person Interview *(33-54)*: [redacted] | Telephone No.

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. 115VAC Unique I.D. 60Hz | E. System Serial No. 7012807

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

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

02 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: 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
.075	mR/hr	Exp	06	.048	mR/hr	exp
.056	mR/hr	Exp		.047	mR/hr	exp
.053	mR/hr	exp		.046	mR/hr	exp
.052	mR/hr	exp		.043	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

8.1 120 uR

09 8.2

10 8.3

11 8.4

12 8.5

13 Surveyor Information | Surveyor Name (10-72) (Print: L. F. MI) [redacted] | Surveyor Signature | Date of Surrey: 3/15/11 | Surveying Agency Code

Remarks: MWO# 3727689

FAA Form 165-17 (6-81)

FAA HQ

SIEMENS

Siemens Government Services, Inc.

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

WO#: 3727689

Location: Main Checkpoint Lane 4 Background Reading: 9 **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 7012807	140 kV, 700 µA	.700 mA
☐ Other _____	s/n_____	_____kV, _____ µA	_____mA

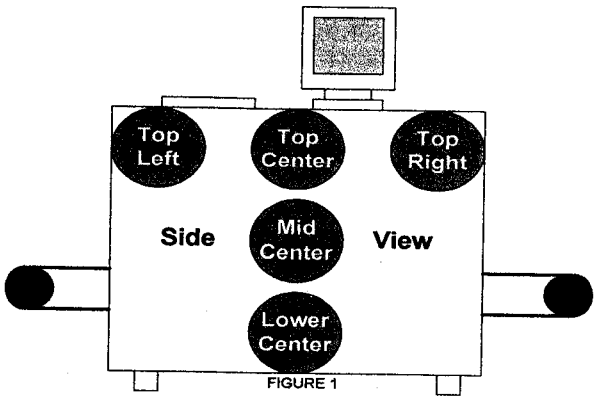

FIGURE 1

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	.016 mR/hr	TOP LEFT	.015 mR/hr
TOP CENTER	.020 mR/hr	TOP CENTER	.022 mR/hr
TOP RIGHT	.021 mR/hr	TOP RIGHT	.017 mR/hr
MID CENTER	.024 mR/hr	MID CENTER	.020 mR/hr
LOWER CENTER	.023 mR/hr	LOWER CENTER	.017 mR/hr

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[redacted]

SIEMENS

Siemens Government Services, Inc.

WO#: 3727689

X-Ray Serial #: 7012867

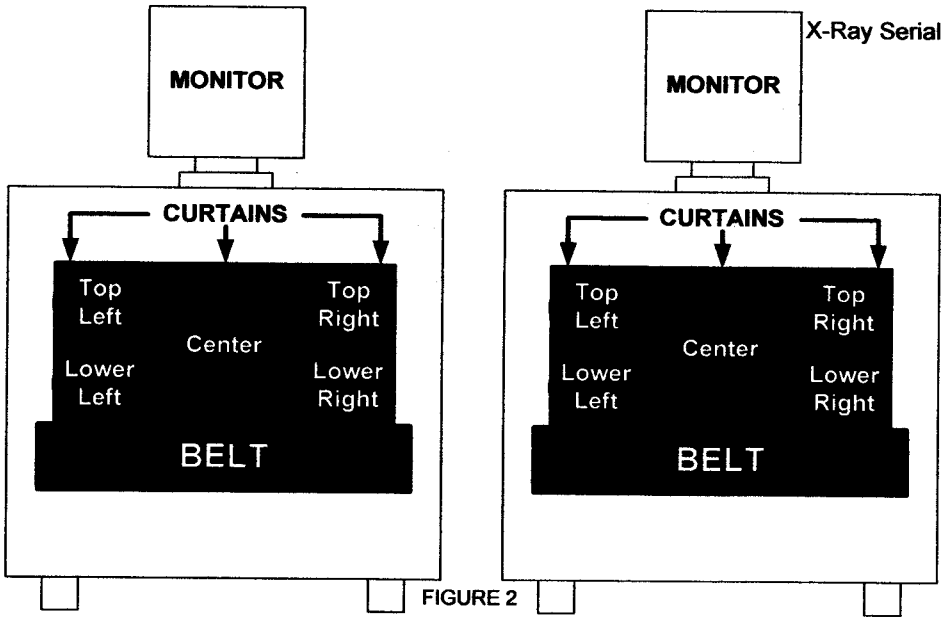

FIGURE 2

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	.035	mR/hr	TOP LEFT	.056	mR/hr
TOP RIGHT	.043	mR/hr	TOP RIGHT	.048	mR/hr
LOWER LEFT	.046	mR/hr	LOWER LEFT	.053	mR/hr
LOWER RIGHT	.043	mR/hr	LOWER RIGHT	.047	mR/hr
CENTER	.052	mR/hr	CENTER	.075	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:** 1.20 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

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