wo 3/5 6128

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): Piedmont Triad Intl.
FDA Region: NC
BB St. No. R.R. or Airline/Airport (10.80): GSO
CC City (10.75): Greensboro
State Code: NC
Zip Code: 27409
DD Room No. or Other Location of System (10.82): North Chpt. Lane 3
Person Interview (53-54): [redacted]
Telephone No.: [redacted]
Certification Label Present: Yes
Instrument: Thermo
Model: Rad Eye
Serial No.: 301

01 1.2 Manufacture And Product ID
A. Manufacture (Responsible Firm): Rapiscan
B. OHU46
C. System Model No. and/or Name: 520 B
D. 120V Unique I.D. 60HZ
E. System Serial No.: 7021501
F. Date of Manufacture Mo. Apr Yr. 2002
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
B. At Least One Interlock Dependent on No Moving Part Except Door: N/A
3.3 Prevention of X-Radiation By Inter-locks
A. All Doors and Access Panels That Were Tested Prevent Generation of X-Radiation: 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
5.0 Baggage Inspection Systems
5.1 Means Provided to Ensure Operator Presence at the Control Area: Yes
5.2 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 Beam Block Description: Pelican Case

7.2 Technical Factors: 140 kVp .7 mA

05

7.3 Location Exposure Levels	Non-Continuously Actuated Systems Only Number of Exposures Initiated	**06** Location Exposure Levels	Non-Continuously Actuated Systems Only Number of Exposures Initiated
.057 mR/hr	Exp	.102 mR/hr	exp
.040 mR/hr	Exp	.041 mR/hr	exp
.059 mR/hr	exp	.047 mR/hr	exp
.087 mR/hr	exp	.057 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 90uR per exposure
09 8.2
10 8.3
11 8.4
12 8.5

13 Surveyor Information
Surveyor Name (10-73 (Print) 1 of 10): [redacted]
Surveyor Signature: [redacted]
Date of Survey: 3/26/11
Surveying Agency Code:

Remarks:

FAA Form 165-17 (6-81)

FAA HQ

SIEMENS

Siemens Government Services, Inc.

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

WO#: 3756128

Location: 650 North chpt Background Reading: 5 µR/hr Date: 3/26/11

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 7021501	140 kV, 700 µA	.7 mA
☐ Rapiscan **522B**	s/n_____	_____kV, _____ µA	_____mA
☐ Other _____	s/n_____	_____kV, _____ µA	_____mA

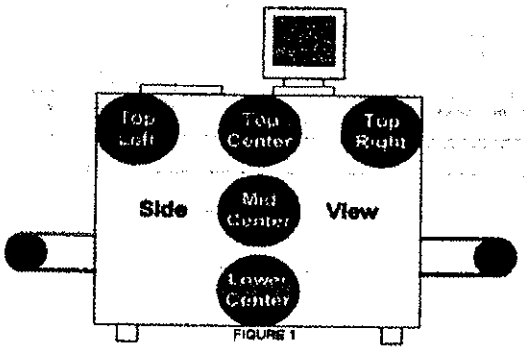

FIGURE 1

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	.004 mR/hr	TOP LEFT	.003 mR/hr
TOP CENTER	.006 mR/hr	TOP CENTER	.003 mR/hr
TOP RIGHT	.005 mR/hr	TOP RIGHT	.003 mR/hr
MID CENTER	.009 mR/hr	MID CENTER	.005 mR/hr
LOWER CENTER	.004 mR/hr	LOWER CENTER	.005 mR/hr

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SIEMENS

Siemens Government Services, Inc.

WO#: 3256128

X-Ray Serial #: 7021501

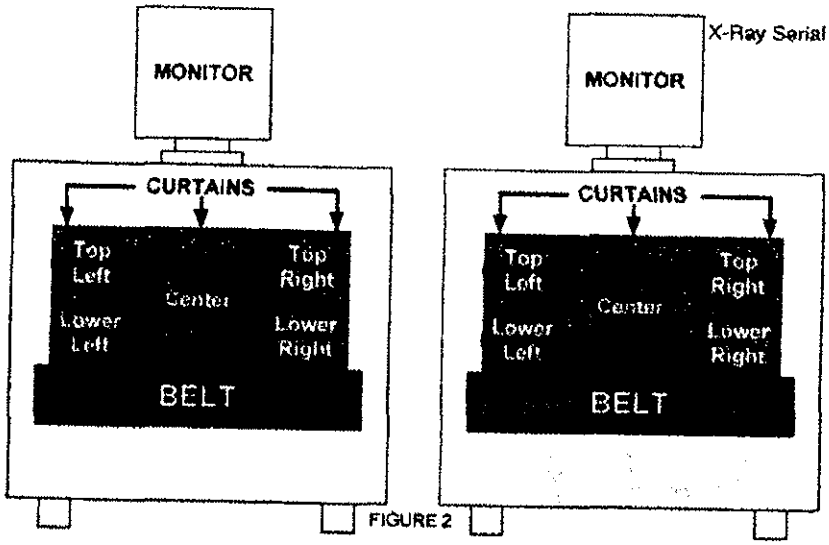

FIGURE 2

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	.052 mR/hr	TOP LEFT	.032 mR/hr
TOP RIGHT	.040 mR/hr	TOP RIGHT	.041 mR/hr
LOWER LEFT	.059 mR/hr	LOWER LEFT	.047 mR/hr
LOWER RIGHT	.087 mR/hr	LOWER RIGHT	.033 mR/hr
CENTER	.102 mR/hr	CENTER	.052 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:** 900uR
   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:** 3/26/11

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