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 — Name of Facility (18.90): Brownsville - S Padre Island — FDA Region: TX — BB St. No., R.R., or Airline/Airport (10.90): 700 S Minnesota

CC City (10.73): Brownsville — State Code: TX — Zip Code: 78521

DD and Specific Location of X-ray System — Room No. or Other Location of System (10.32): CK Pt — Person Interview (22.50): [redacted] — Telephone No. [redacted]

Certification Label Present: YES — Instrument: [redacted] — Model: 451P — Serial No. 519

01 1.2 Manufacture And Product ID — A. Manufacture (Responsible Firm): Rapiscan Systems — B: 04046 — C. System Model No. and/or Name: 522B

D: 115 Vac Unique I.D. 60 Hz — E. System Serial No. 7034013

F. Date of Manufacture Mo. Yr. 2005 — 1.4 Operator Instructions Available: YES — 1.5 Maintenance Schedule Available: N/A

02 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

3.2 Door Safety Interlocks — 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 Interlocks — 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

03 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

7.0 Leakage Radiation — Specific Test Procedure Used: Scatter Block — 7.4 Scatter Block Description: Pelican 1400 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
.040 mR/hr	Exp	.034 mR/hr	exp
.036 mR/hr	Exp	.032 mR/hr	exp
.035 mR/hr	exp	.031 mR/hr	exp
.034 mR/hr	exp	.031 mR/hr	exp

06

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: 155 mR - Dosage per Inspection

09 8.2

10 8.3

11 8.4

12 8.5

13 Surveyor Information: [redacted] — Date of Survey: 3/9/11 — Surveying Agency Code

Remarks:

FAA Form 165-17 (6-81) [redacted] 51692 3715059 FAA HQ

SIEMENS
Government Services, Inc.

Form

Cabinet X-Ray Unit Radiation Survey Form

WO#: 3715059

Location: CK 7b Background Reading: 8 µR/hr Date: 3/9/11

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 7034013	140 kV, 700 µA	.700 mA
☐ Other _____	s/n_____	_____kV, _____ µA	_____mA

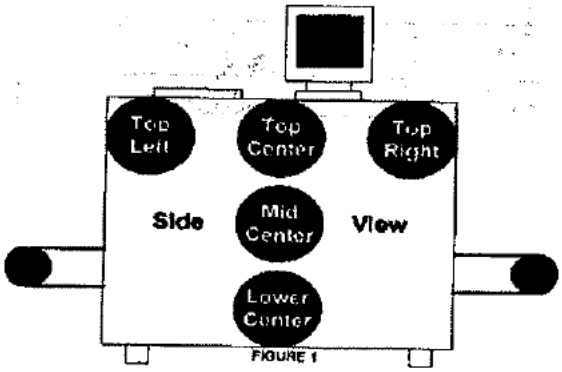

FIGURE 1

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	.013 mR/hr	TOP LEFT	.019 mR/hr
TOP CENTER	.020 mR/hr	TOP CENTER	.016 mR/hr
TOP RIGHT	.015 mR/hr	TOP RIGHT	.018 mR/hr
MID CENTER	.019 mR/hr	MID CENTER	.026 mR/hr
LOWER CENTER	.014 mR/hr	LOWER CENTER	.020 mR/hr

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[redacted]

SIEMENS
Government Services, Inc.

Form

WO#: 3715059

X-Ray Serial #: 7034013

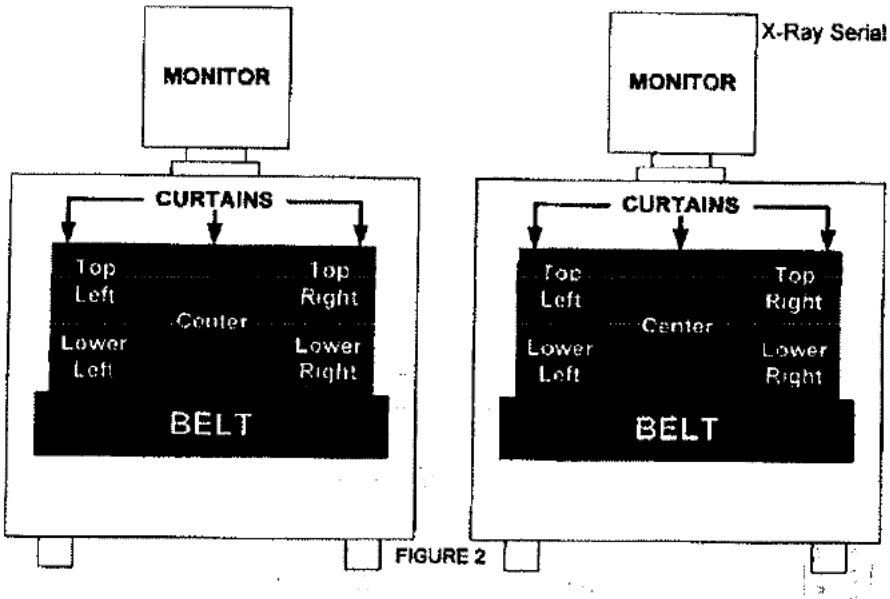

FIGURE 2

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	.034 mR/hr	TOP LEFT	.031 mR/hr
TOP RIGHT	.028 mR/hr	TOP RIGHT	.034 mR/hr
LOWER LEFT	.031 mR/hr	LOWER LEFT	.032 mR/hr
LOWER RIGHT	.029 mR/hr	LOWER RIGHT	.036 mR/hr
CENTER	.035 mR/hr	CENTER	.040 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:** 1.55 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]

Date: 3/9/11

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

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