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): George Bush Intercontinental	FDA Region: TX	RR	St. No. R.R. or Airline/Airport (10.80): Terminal D
CC		City (10.73): Houston		State Code: TX	Zip Code: 77032
DD		Room No. or Other Location of System (10.32): Terminal D Flight Crew Lane	Person Interview (33-54): [redacted]	Telephone No.	
		Certification Label Present: Yes	Instrument (type and serial number): Invoision	Model: 451P	Serial No. 0616
01	1.2 Manufacture And Product ID	A. Manufacture (Responsible Firm): Rapiscan Systems	B. OHU46	C. System Model No. and/or Name: 520B TRX	
		D. 115Vac Unique I.D. 60Hz	E. System Serial No. 7052611		
		F. Date of Manufacture Mo. 6 Yr. 2005	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 Interlocks	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: Scatter Block	7.1 Scatter Block Description: Pelican case 1400		
	7.2 Technical Features	140 kVp	.7 mA		

05	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
	.040 mR/hr	Exp		.029 mR/hr	exp
	.035 mR/hr	Exp		.028 mR/hr	exp
	.032 mR/hr	exp		.027 mR/hr	exp
	.034 mR/hr	exp		.024 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 81μR Dosage Per Inspection		
09	8.2		
10	8.3		
11	8.4		
12	8.5		
13	Surveyor Information [redacted]	Date of Survey 3/25/11	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#: 3771442

Location: T-D Flight Crew Lane Background Reading: .002 µR/hr Date: 3/25/11

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 5030a	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 7052611	140 kV, 700 µA	.7 mA
☐ Rapiscan 522B	s/n	___ kV, ___ µA	___ mA
☐ Other ___	s/n	___ kV, ___ µA	___ mA

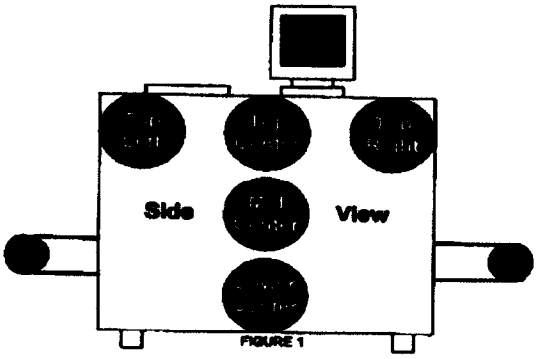

FIGURE 1

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	.013 mR/hr	TOP LEFT	.010 mR/hr
TOP CENTER	.010 mR/hr	TOP CENTER	.012 mR/hr
TOP RIGHT	.014 mR/hr	TOP RIGHT	.009 mR/hr
MID CENTER	.009 mR/hr	MID CENTER	.005 mR/hr
LOWER CENTER	.009 mR/hr	LOWER CENTER	.005 mR/hr

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

SIEMENS

Siemens Government Services, Inc.

WO#: 3771442

X-Ray Serial #: 7052611

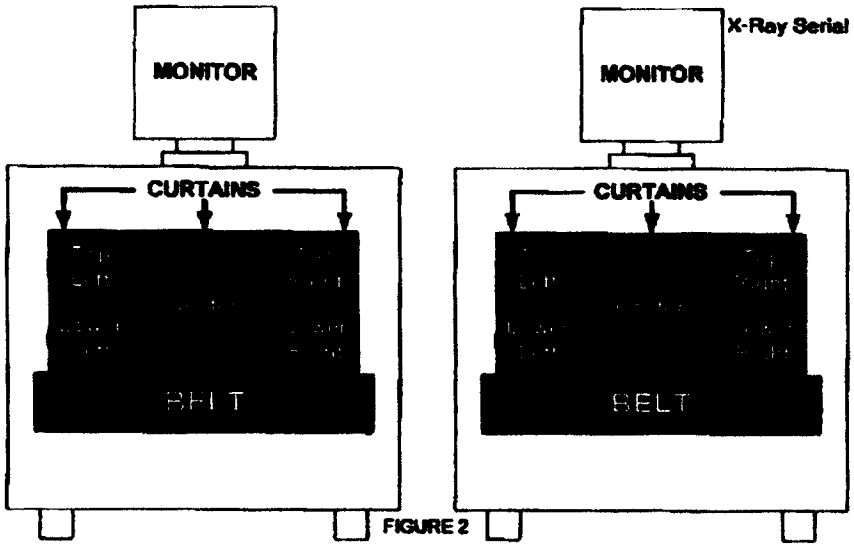

FIGURE 2

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	.024	mR/hr	TOP LEFT	.028	mR/hr
TOP RIGHT	.024	mR/hr	TOP RIGHT	.032	mR/hr
LOWER LEFT	.029	mR/hr	LOWER LEFT	.034	mR/hr
LOWER RIGHT	.023	mR/hr	LOWER RIGHT	.027	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: 810uR
   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: 3/25/11

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

[redacted]

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