WO# 3724796

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 (18.80): Portland Int'l Airport	FDA Region: OR	BB St. No. R.R. or Airline/Airport (10.80): 7000 NE Airport Way	
CC		City (10.73): Portland		State Code: OR	Zip Code: 97218
DD	and Specific Location of X-ray System	Room No. or Other Location of System (10.32): FIS Lane 3	Person interview (33-54): [redacted]	Telephone No.: [redacted]	
		Certification Label Present: Yes	Instruments: (type and serial number): Inovision	Model: 451P-RAR	Serial No. 498
01	1.2 Manufacture And Product ID	A. Manufacture (Responsible Firm): Rapscan	B. OHV 46	C. System Model No. and/or Name: TRX 520B	
		D. Unique I.D.: 115VAC 60Hz	E. System Serial No.: 7031002		
		F. Date of Manufacture Mo. 3 Yr. 2003	1.4 Operator Instructions Available: Yes	1.5 Maintenance Schedule Available: Yes	
	2.0 Warning Labels	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	Indicators	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 Shutter Block Description: Pelican Case for Inovision 451P meter		
	7.2 Technical Factures	140 kVp	1.692 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
	.080 mR/hr	Exp		.047 mR/hr	exp
	.058 mR/hr	Exp		.046 mR/hr	exp
	.056 mR/hr	exp		.037 mR/hr	exp
	.051 mR/hr	exp		.037 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 Dosage per inspection = 136 μR		
09	8.2		
10	8.3		
11	8.4		
12	8.5		
13	Surveyor Information: [redacted]	[redacted]	Date of Survey: 3/11/11 — Surveying Agency Code

Remarks:

[redacted]

FAA Form 165-17 (6-81)

FAA HQ

SIEMENS
Government Services, Inc.

Form

Cabinet X-Ray Unit Radiation Survey Form

WO#: 3724796

Location: PDX FIS Lane 3 Background Reading: .003 3 µR/hr Date: 5/11/11

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 7031002	140 kV, 692 µA	.692 mA
☐ Rapiscan **522B**	s/n_____	_____kV, _____µA	_____mA
☐ Other _____	s/n_____	_____kV, _____µA	_____mA

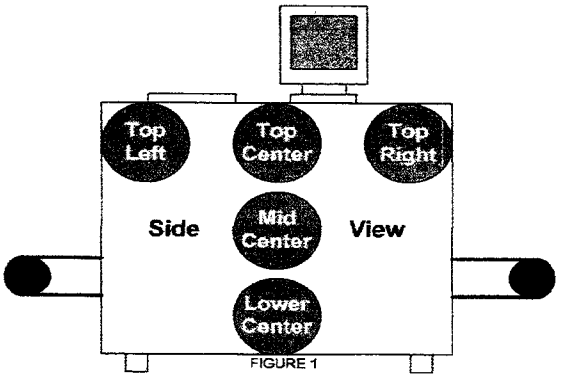

FIGURE 1

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	.012 mR/hr	TOP LEFT	.004 mR/hr
TOP CENTER	.007 mR/hr	TOP CENTER	.006 mR/hr
TOP RIGHT	.007 mR/hr	TOP RIGHT	.005 mR/hr
MID CENTER	.016 mR/hr	MID CENTER	.006 mR/hr
LOWER CENTER	.008 mR/hr	LOWER CENTER	.005 mR/hr

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SIEMENS
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Form

WO#: 3724796

X-Ray Serial #: 7031002

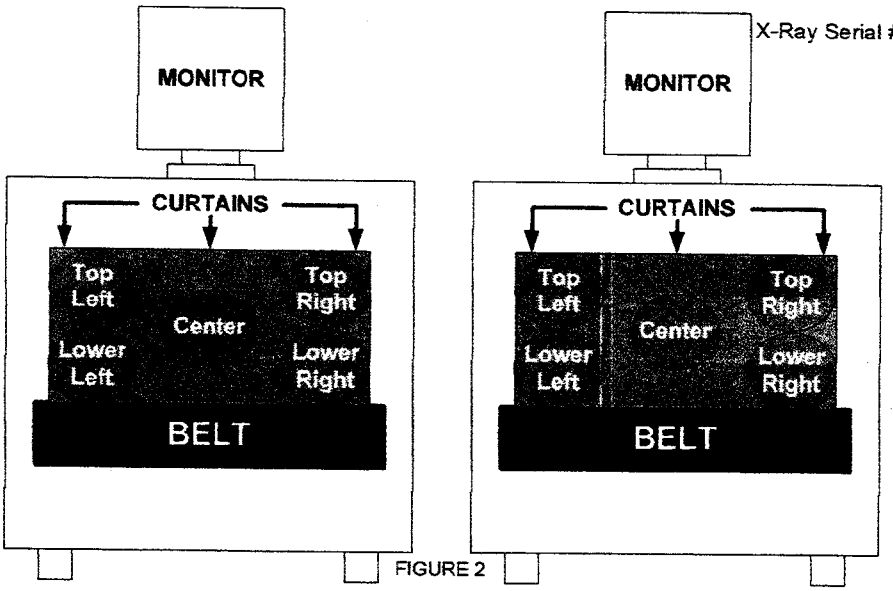

FIGURE 2

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	.037	mR/hr	TOP LEFT	.047	mR/hr
TOP RIGHT	.035	mR/hr	TOP RIGHT	.037	mR/hr
LOWER LEFT	.031	mR/hr	LOWER LEFT	.051	mR/hr
LOWER RIGHT	.058	mR/hr	LOWER RIGHT	.046	mR/hr
CENTER	.056	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:** 1.36 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:** 3/4/4

Cabinet X-Ray Unit Radiation Survey	Version:	Effective Date:	Document No.:	Page:
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