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)*: JOHN F. KENNEDY INTERNATIONAL AIRPORT	FDA Region: NEW YORK	BB	St. No. R.R. or Airline/Airport *(10.80)*: TERMINAL 3 FIS C LN 2
CC		City *(10.73)*: JAMAICA	State Code: NY		Zip Code: 11430
DD		Room No. or Other Location of System *(10.32)*: TERMINAL 3 FIS C LN 2	Person Interview *(33-54)*: [redacted]		Telephone No: [redacted]
		Certification Label Present: YES	Instruments: *(type and serial number)* INOVISION	Model: 451P-RYR	Serial No. 586
01	1.2 Manufacture And Product ID	A. Manufacture *(Responsible Firm)*: RAPISCAN SECURITY PRODUCT	B. OHU46	C. System Model No. and/or Name: 520B TRX	
		D. Unique I.D.: 115VAC 60Hz	E. System Serial No. 7075003		
		F. Date of Manufacture Mo. 12 Yr. 2007	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	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 METER 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
.028 mR/hr	Exp	.022 mR/hr	exp
.028 mR/hr	Exp	.021 mR/hr	exp
.027 mR/hr	exp	.019 mR/hr	exp
.023 mR/hr	exp	.018 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		
09	8.2 CENTER BEAM STRENGTH = 101 μR		
10	8.3		
11	8.4		
12	8.5		
13	Surveyor Information	Surveyor Name (10-72) (Print: L. F. MI) [redacted]	Date of Survey 3/14/2011 — Surveying Agency Code [redacted]

Remarks: N/A

FAA Form 165-17 (6-81)

FAA HQ

SIEMENS
Government Services, Inc.

Form

Cabinet X-Ray Unit Radiation Survey Form

WO#: 3724826

Location: T3 FIS C Ln 2 Background Reading: 1 **µR/hr** Date: 3/14/2011

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 7075003	140 kV, 700 µA	.700 mA
☐ Rapiscan **522B**	s/n_____	_____kV, _____ µA	_____mA
☐ Other _____	s/n_____	_____kV, _____ µA	_____mA

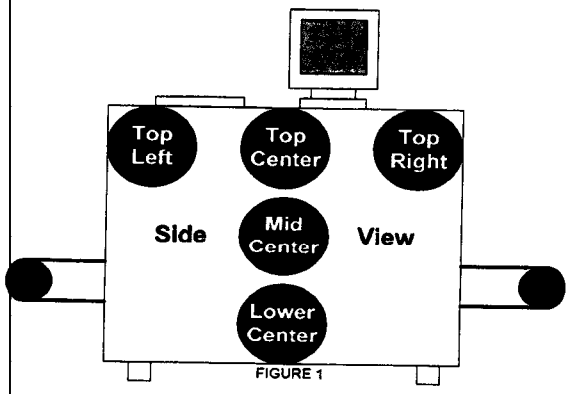

FIGURE 1

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	.010	mR/hr	TOP LEFT	.005	mR/hr
TOP CENTER	.009	mR/hr	TOP CENTER	.009	mR/hr
TOP RIGHT	.016	mR/hr	TOP RIGHT	.021	mR/hr
MID CENTER	.011	mR/hr	MID CENTER	.015	mR/hr
LOWER CENTER	.022	mR/hr	LOWER CENTER	.019	mR/hr

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Form

WO#: 3724826

X-Ray Serial #: 7075003

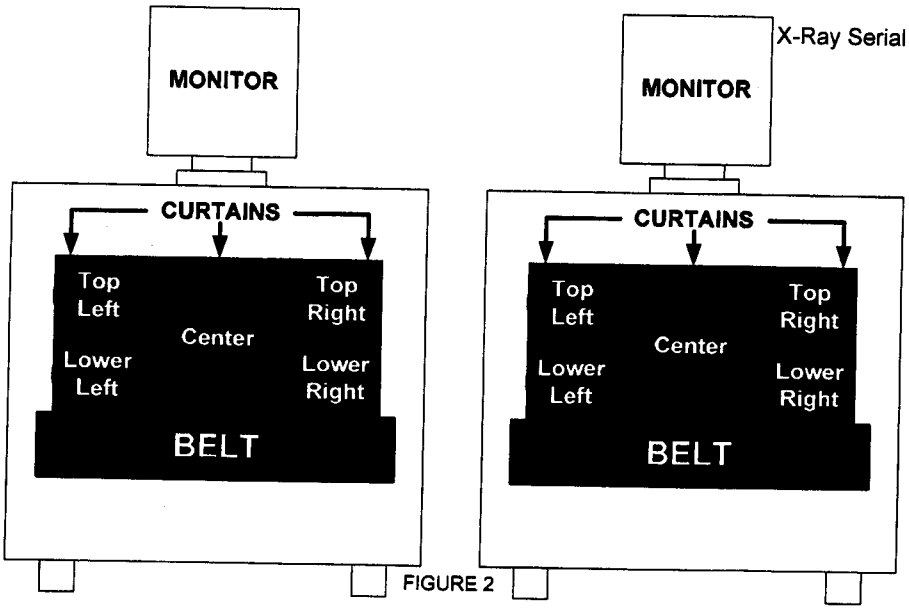

FIGURE 2

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	.028	mR/hr	TOP LEFT	.010	mR/hr
TOP RIGHT	.016	mR/hr	TOP RIGHT	.011	mR/hr
LOWER LEFT	.023	mR/hr	LOWER LEFT	.018	mR/hr
LOWER RIGHT	.027	mR/hr	LOWER RIGHT	.014	mR/hr
CENTER	.028	mR/hr	CENTER	.017	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:** 1.01 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:** 3/14/2011

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Tektronix
Service Solutions

CALIBRATION CERTIFICATE

Certificate Number: 5300193756 Rev -
CUSTOMER # 530951-0001

REPRINT

SIEMENS GOVERNMENT SERVICES, INC

1010 E. ARAPAHO ROAD
SUITE 300
RICHARDSON, TX 75081
[redacted]

Manufacturer: INOVISION
Model: 451P
Description: PRESSURIZED ION CHAMBER SURVEY METER
Size / Range:
Serial Number: 586
Asset Number: 40182
Department:
Accessories: PELICAN CASE

Calibration Date: 12/22/2010
Recommended Due: 12/22/2011
As Received: See Attached
As Returned: See Attached
Procedure: See Attached
Environment: See Attached
P.O. / Release: A10-08394
SSO ID #: SS-40182
Barcode ID: SS-40182
Location: [redacted]

This instrument has been processed and calibrated in accordance with the Tektronix Service Solutions Quality Assurance Manual and is traceable to the National Institute of Standards and Technology (NIST). The Tektronix Service Solutions quality system is registered to ISO 9001:2008 and compliant with ISO 10012, ISO/IEC 17025-2005, ANSI/NCSL Z540-1-1994, 10 CFR 50 App. B, 10 CFR 21, NQA-1, and MIL-STD-45662A. This report may not be reproduced, except in full, without the written approval of Tektronix Service Solutions. Unless stated otherwise; the expanded measurement uncertainty of the measurement process does not exceed 25% of the tolerance allowed for the individual characteristics measured, the measurement uncertainties for this calibration are based upon 95% (2 sigma) confidence limits, no sampling plan or other process was used for this calibration, the results reported herein apply only to the calibration of the item described above, and no limitations of use apply to the calibrated unit. Although the item calibrated meets the specifications and performance at the time of calibration, due to any number of factors, the recommended due date of the item calibrated does not imply continuing conformance to specifications during the recommended interval.

Calibration Accuracy MANUFACTURER'S SPECIFICATIONS

Conditions/Analysis
DUE CALIBRATION.
CALIBRATED BY AN APPROVED VENDOR. SEE ATTACHED.

Subcontracted to an approved vendor. Please see attached.

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Access your Calibration Records Online at https://Calweb.Tek.com

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QA 47-60 (10/10)

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