

Rapiscan Systems		BAGGAGE/PARCEL CABINET X-RAY SYSTEM RADIATION LEAKAGE REPORT		FIELD SERVICE ENGINEERS		Form R-0588-3 9/9/09	
				45. RSI W.O.# <u>3773351</u>		Deferred W.O.#	
1. Name of Facility <u>Pittsburgh International Airport</u>		2. Region <u>PA</u>		3. Street Address <u>1000 Airport Blvd.</u>			
4. City <u>Pittsburgh</u>		5. State or Province Code <u>PA</u>		6. Zip Code <u>15231</u>			
7. Room No. or Other Physical Location of System <u>Main Checkpoint Lane #5</u>		8. Person Interviewed [Redacted]		9. Telephone Number [Redacted]		10. Fax Number [Redacted]	
11. Manufacture Information & Certification Label Present: <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail		12. Radiation Measuring Instrument: Model: <u>INCISION 451P</u> Serial No. <u>471</u> Calibration Due Date: <u>8-19-2011</u>		FSE Shall Attach Copy of Calibration Certificate to This Form			
Manufacturer: <u>Rapiscan Systems Inc.</u>		13. System Model No. <u>690DVAT</u>		14. Single Source <input type="checkbox"/> Other <input type="checkbox"/> Describe: Dual Source <input checked="" type="checkbox"/>		15. System Serial No. <u>7083204</u>	
16. Date of Manufacture Mo. Yr. <u>Aug 0008</u>		18. Facility Owner Has been notified of responsibility for "Application for Registration" with their State Radiation Control Agency <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		19. Customer has been notified of their responsibility for posting their State "Notice to Employees" Document and Posted in Several Conspicuous Locations so Employees Can View <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
17. X-ray Tube Serial Number(s) <u>PA993</u> <u>P4961</u>		20. Operator Instructions Available <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail		21. Maintenance Schedule Available <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail			
22. Warning Label Present at Controls Stating: "Caution: X-Rays Produced When Energized" <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail		23. Warning Labels Present at Ports Stating: "Caution: Do Not Insert Any Part of the Body When System is Energized, X-Ray Hazard" <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail		24. Two Indicators Labeled "X-Ray On" Present at Controls (including software user interface) <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail			
25. At Least One Indicator, Marked "X-Ray On" is Visible from Each Port <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail		26. Captured Key: The Key for the Key Actuated Control Cannot be Removed in Any Mode that Allows X-Ray Generation <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail		27. Some Part of the Body Can be Inserted Through a Port into the Primary Beam <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
27. All Doors and Access Panels To the X-Ray Beam Prevent Generation of X-Radiation <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail		29. Use of X-Ray Control Necessary to Resume Operation Following Interruption <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		30. Means Provided to Ensure Operator Presence at the Control Area X-ray located in a public access area <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail Or X-ray located in a non-public access area <input type="checkbox"/> Not Required			
Rapiscan Systems Test Procedure Used: <u>Rapiscan Systems WI-0023.4</u>		31. Scatter Block Description: <input checked="" type="checkbox"/> Two (2) Reams Copy Paper <input type="checkbox"/> Other, Describe:		32. Means Provided to Operator for Terminating Exposures of Greater than One-Half Second and Preventing X-rays (E-Stop Test) <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail			
33. X-Ray Generator Settings <u>160.8 kVp</u> <u>992 mA</u>		Note: All Survey Measurements Shall be Obtained at 5 cm from All External Surfaces and at 5 cm from the Plane of All Access Port Openings or Shroud Extension Openings. Scatter Block shall be Stacked and Positioned Centerline of Primary Beam.					
34.1. Background Radiation: <u>9</u> uR/hr				Maximum External Surface Dose Rate Not to Exceed 600 uR/hr at 5 cm from all external surfaces.			
34.3 Record All Readings in uR/hr Unless Otherwise Noted							
<i>Please see model specific diagram (attached)</i>							
36. Overall Condition of Lead Drapes: <input checked="" type="checkbox"/> SAT - Pass <input type="checkbox"/> UNSAT - Fail Description:		37. Overall Condition of Machine: <input checked="" type="checkbox"/> SAT - Pass <input type="checkbox"/> UNSAT - Fail		38. Comments, Corrective Action and/or Recommendations:			
39. Surveyor Name (Print: L, F, MI) [Redacted]		40. Surveyor Signature [Redacted]		41. Date of Survey <u>MARCH 9, 2011</u>		42. Time of Survey: <u>15:00</u>	
The Surveyor has inspected, tested and certified this x-ray machine is in compliance with U.S. FDA 21 CFR 1020.40 and equivalent international radiation emission leakage standards.		43. I, [Redacted], have received a copy of this Radiation Survey Report and understand the responsibility to read this report for State inspection. Signature: [Redacted] Date: <u>3/16/11</u>					

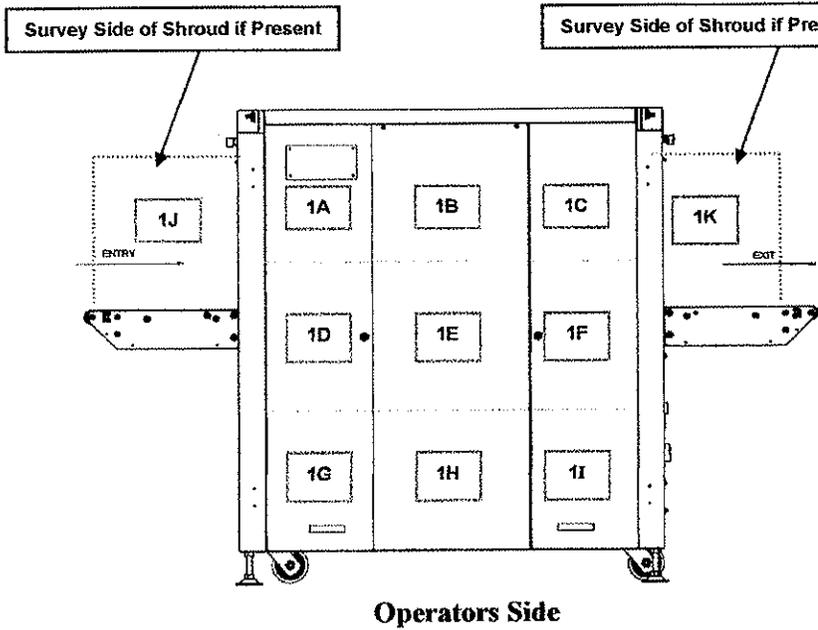
This report is to certify this x-ray unit has been surveyed for radiation leakage emissions and found to be within the regulatory radiation emission limit. The safety features, controls and indicators incorporated in the x-ray unit have been satisfactorily tested and/or inspected. The owner of this x-ray unit is responsible for State Radiation Control Agency compliance (not applicable for facilities exclusively operated by the Federal Government) and for the safe use and routine inspection, general maintenance and cleanliness of this x-ray unit. Only trained and qualified individuals should operate this equipment.

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FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY

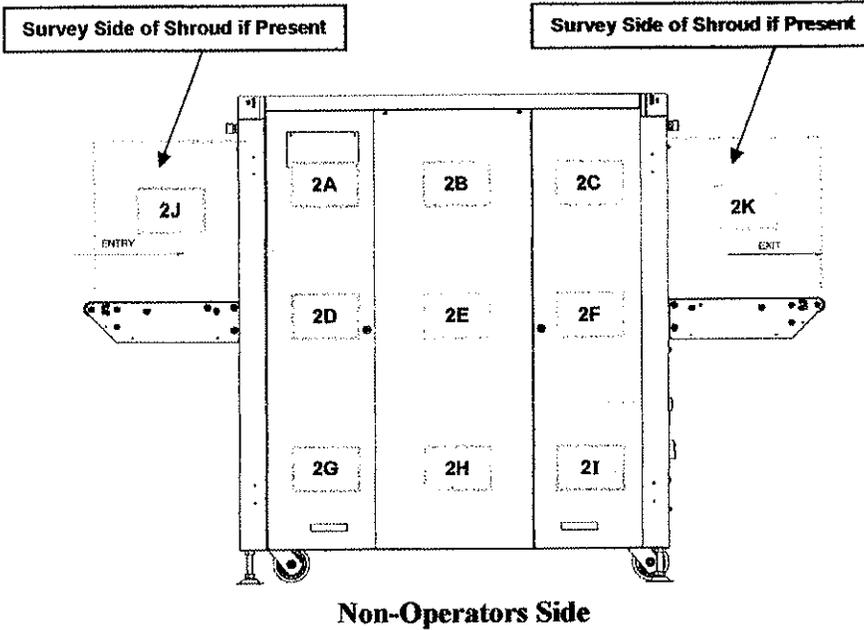
United States and Canada External Surface Radiation Leakage Limit is 5.0 uSv/hr at 5 cm (500 uR/hr)
Global External Surface Radiation Leakage Limit is 1.0 uSv/hr at 5 cm (100 uR/hr at 5 cm)

Date: <u>3.9.11</u>	Location Manufactured: (Check One) Malaysia <input type="checkbox"/> UK <input type="checkbox"/> <input checked="" type="checkbox"/> US	Instrument Model No: <u>INOVISION 451P</u>
Time: <u>15:00</u>	Date of Mfg: <u>Aug 2008</u>	Instrument Serial No: <u>000000471</u>
Background: uSv/hr (<u>9</u> uR/hr)	Serial No: <u>7083204</u>	Instrument Calibration Due: <u>8.19.2011</u>
All Measurements Recorded In: <input type="checkbox"/> uSv/hr <input checked="" type="checkbox"/> uR/hr (Check One)	Settings: <u>160.8 kVp .992 mA</u> Settings: <u>160.8 kVp .992 mA</u>	Description of Scatter Body: (Check One) <input checked="" type="checkbox"/> Paper (2 Reams, 500 sheets each) <input type="checkbox"/> Wood Block (4" x 4" x 12" L) <input type="checkbox"/> Other

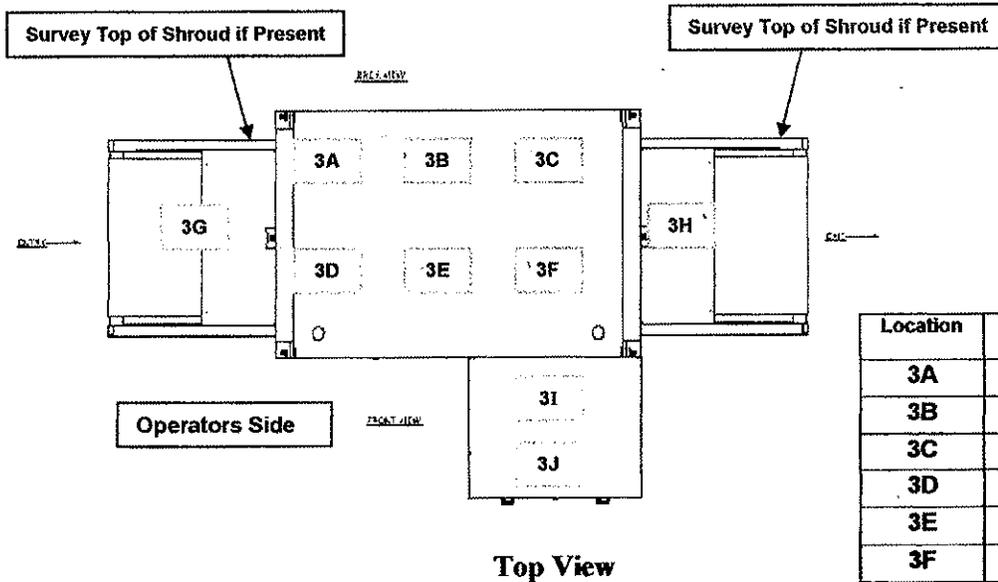


Location	Results NO Scatter Body	Results WITH Scatter Body
1A	15	29
1B	23	28
1C	16	23
1D	22	25
1E	26	36
1F	17	27
1G	15	31
1H	18	22
1I	17	17
1J	53	163
1K	70	86

FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY



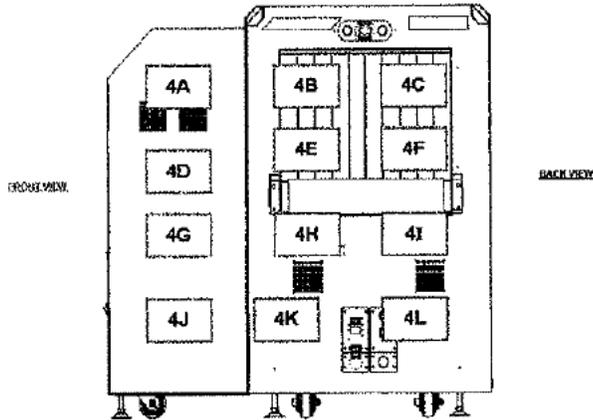
Location	Results NO Scatter Body	Results WITH Scatter Body
2A	18	11
2B	24	21
2C	28	30
2D	24	18
2E	26	28
2F	18	23
2G	19	13
2H	19	19
2I	19	17
2J	32	48
2K	26	47



Location	Results NO Scatter Body	Results WITH Scatter Body
3A	20	17
3B	26	23
3C	24	22
3D	21	18
3E	22	30
3F	15	18
3G	98	140
3H	47	95
3I	16	27
3J	13	14

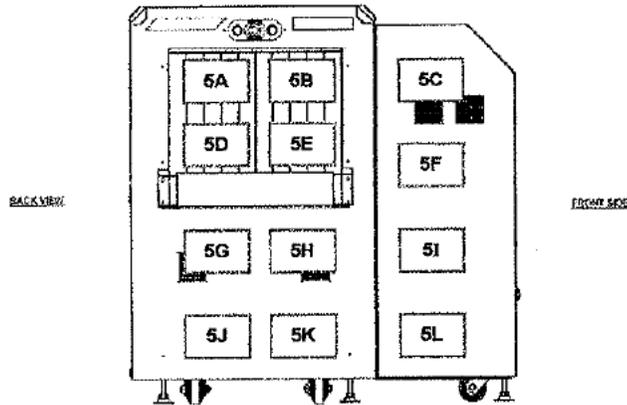
FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY

EXIT TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
4A	21	27
4B	39	51
4C	42	78
4D	30	30
4E	37	79
4F	45	95
4G	18	27
4H	19	58
4I	24	42
4J	16	37
4K	18	35
4L	28	30

ENTRANCE TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
5A	31	54
5B	34	64
5C	23	24
5D	42	59
5E	43	68
5F	33	30
5G	20	29
5H	16	25
5I	23	27
5J	19	26
5K	18	29
5L	18	17

Instructions:

- If shrouds are NOT installed, radiation measurements shall be taken 5 cm from the lead drapes.
- If shrouds are installed, radiation measurements shall be taken at the imaginary plane of the shroud opening.
- Lead Drapes should touch the conveyor. If they do not, check to verify x-ray radiation is not traveling down the conveyor where the gap exists between the lead drapes and the conveyor surface.
- Survey below the conveyor up against the cabinet near any gaps, mating surfaces, and photo sensor cut-outs.

SURVEY PERFORMED BY: _____

DATE: MARCH 9, 2011