

Rapiscan systems An OSI Systems Company		BAGGAGE/PARCEL CABINET X-RAY SYSTEM RADIATION LEAKAGE REPORT		FIELD SERVICE ENGINEERS		Form R-0588-3 9/9/09	
1. Name of Facility <i>O'hare Int'l Airport</i>		2. Region <i>IL</i>		3. Street Address <i>T3 Basement Maintenance Room</i>		45. RSI W.O.# <i>3814505</i> Deferred W.O.#	
4. City <i>Chicago</i>		5. State or Province Code <i>IL</i>		6. Zip Code <i>60666</i>		10. Fax Number	
7. Room No. or Other Physical Location of System <i>T3 CPT LNB</i>		8. Device Identification		9. Serial No.		10. Fax Number	
11. Manufacturer Information & Certification Label Present <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail		Model: <i>RaEPC PRO-ER</i>		Serial No. <i>303</i>		FSE Shall Attach Copy of Calibration Certificate to This Form Calibration Due Date: <i>28 SEP 2011</i>	
Manufacturer <i>Rapiscan Systems Inc.</i>		13. System Model No. <i>6200V</i>		14. Single Source <input checked="" type="checkbox"/> Dual Source <input type="checkbox"/>		Other <input type="checkbox"/> Describe: <i>7084905</i>	
16. Date of Manufacture Mo. <i>Dec.</i> Yr. <i>2008</i>		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		21. Maintenance Schedule Available <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail	
17. X-ray Tube Serial Number(s) <i>PA 1006 / PS489</i>		20. Operator Instructions Available <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	
22. Warning Label Present at Controls Stating: "Caution: X-Rays Produced When Energized" <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. 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		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	
Rapiscan Systems Test Procedure Used: <i>Rapiscan Systems WL-0023-4</i>		31. Scatter Block Description: <input checked="" type="checkbox"/> Two (2) Reams Copy Paper <input type="checkbox"/> Other, Describe:		33. X-Ray Generator Settings <i>60.8 kVp / 1.007 mA</i> <i>160.8 1.007</i>		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: <i>3</i> uR/hr		34.2. Background Radiation: <i>3</i> uR/hr		34.3. Record All Readings in uR/hr Unless Otherwise Noted <i>Please see model specific diagram (attached)</i>		Maximum External Surface Dose Rate Not to Exceed 500 uR/hr at 5 cm from all external surfaces.	
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 Active Actions and/or Recommendations:		39. Surveyor Name (Print: L, F, MI) [Redacted]	
40. [Redacted]		41. Date of Survey <i>3-28-2011</i>		42. Time of Survey: <i>1400</i>		43. I, [Redacted] have received a copy of this Radiation Survey Report and understand this report for State inspection. Signature: [Redacted] Date: <i>3/28/11</i>	
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 this report for State inspection. Signature: [Redacted] Date: <i>3/28/11</i>		43. I, [Redacted] have received a copy of this Radiation Survey Report and understand this report for State inspection. Signature: [Redacted] Date: <i>3/28/11</i>		43. I, [Redacted] have received a copy of this Radiation Survey Report and understand this report for State inspection. Signature: [Redacted] Date: <i>3/28/11</i>	

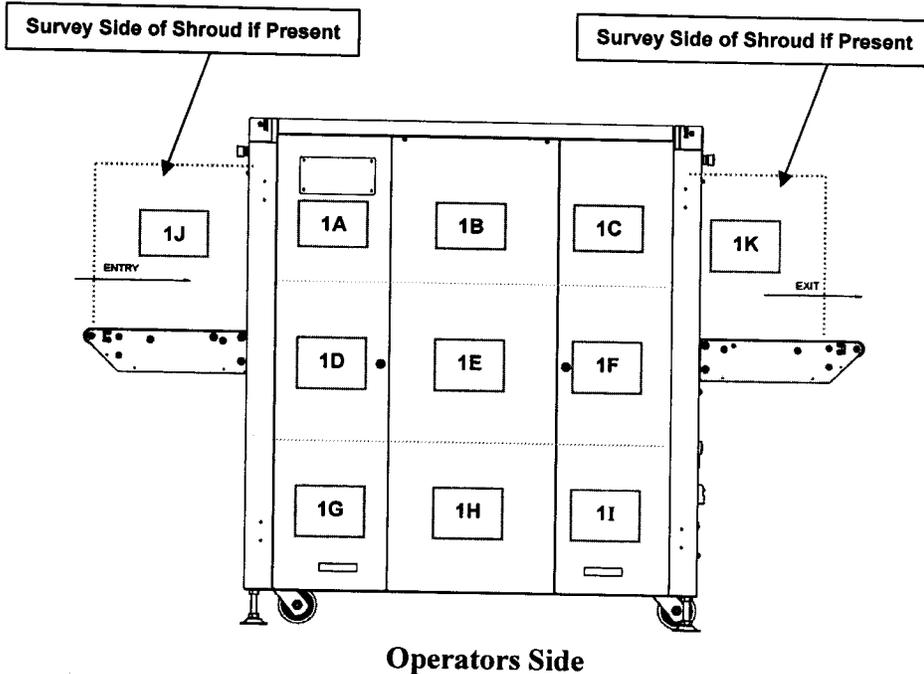
This report is to certify this x-ray unit has been surveyed for radiation leakage emissions and found to be within the regulatory radiation emission limit. The safety features, controls and indicators incorporated in the x-ray unit have been satisfactorily tested and/or inspected. The owner of this x-ray 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.

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)

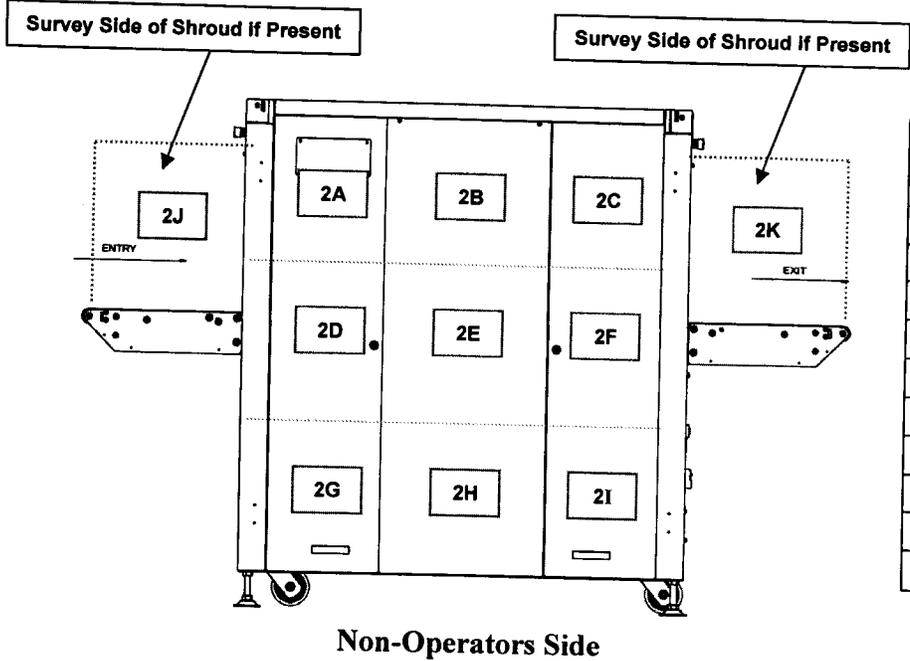
Global External Surface Radiation Leakage Limit is 1.0 uSv/hr at 5 cm (100 uR/hr at 5 cm)

Date: <u>3-28-2011</u>	Location Manufactured: (Check One) Malaysia <input type="checkbox"/> UK <input type="checkbox"/> US <input checked="" type="checkbox"/>	Instrument Model No: <u>Rad Eye PRO-ER</u>
Time: <u>1400</u>	Date of Mfg: <u>Dec. 2008</u>	Instrument Serial No: <u>303</u>
Background: uSv/hr (<u>3</u> uR/hr)	Serial No: <u>7084965</u>	Instrument Calibration Due: <u>28 Sep. 2011</u>
All Measurements Recorded In: uSv/hr <input checked="" type="checkbox"/> uR/hr <input type="checkbox"/> (Check One)	Settings: <u>160.8</u> kVp <u>1.007</u> mA Settings: <u>160.8</u> kVp <u>1.007</u> mA	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



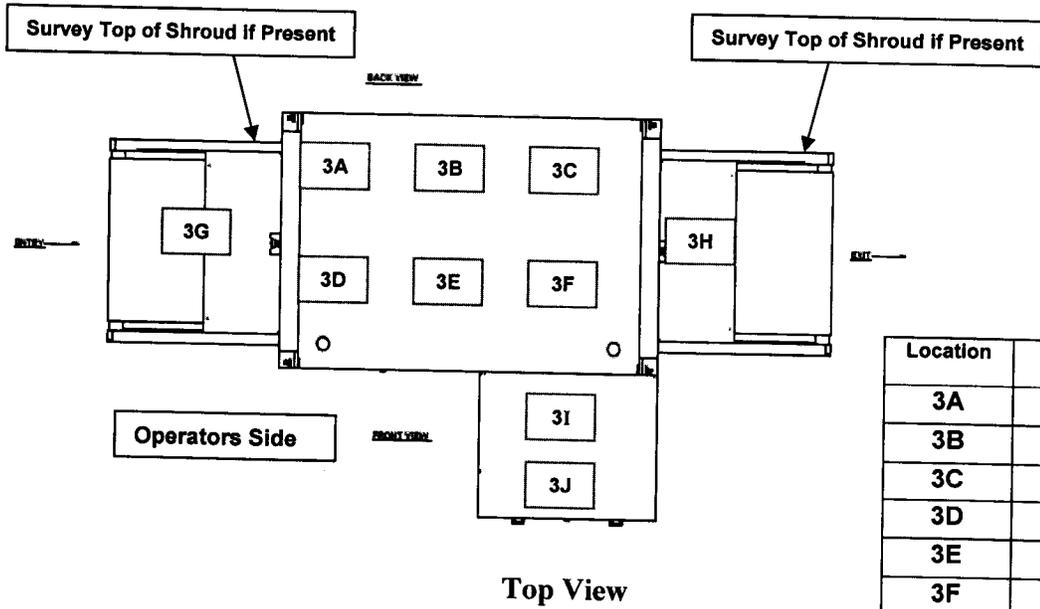
Location	Results NO Scatter Body	Results WITH Scatter Body
1A	6	7
1B	18	17
1C	2	3
1D	13	16
1E	15	33
1F	3	3
1G	3	5
1H	5	7
1I	3	9
1J	55	66
1K	46	55

FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY



Location	Results NO Scatter Body	Results WITH Scatter Body
2A	5	15
2B	7	12
2C	9	6
2D	9	14
2E	7	9
2F	8	10
2G	4	9
2H	7	3
2I	4	4
2J	151	124
2K	86	207

Non-Operators Side

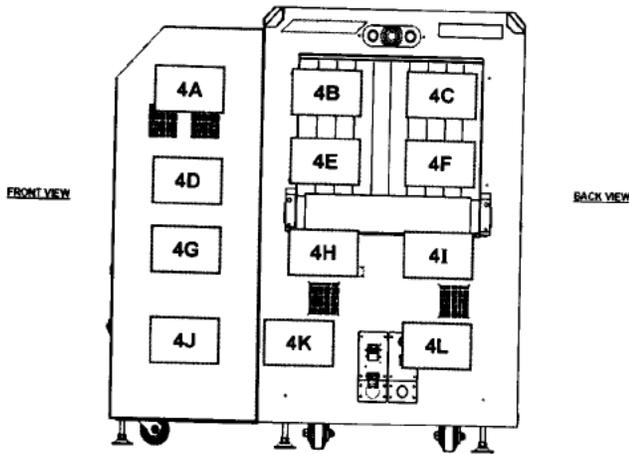


Location	Results NO Scatter Body	Results WITH Scatter Body
3A	8	9
3B	6	8
3C	8	7
3D	9	13
3E	8	10
3F	9	9
3G	39	74
3H	77	119
3I	37	21
3J	20	6

Top View

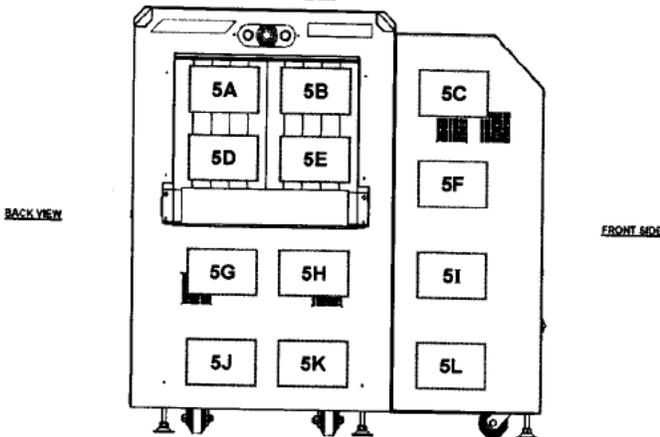
FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY

EXIT TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
4A	17	29
4B	34	44
4C	44	53
4D	24	36
4E	35	41
4F	29	38
4G	10	10
4H	8	10
4I	7	11
4J	7	9
4K	8	11
4L	9	9

ENTRANCE TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
5A	27	55
5B	32	51
5C	16	17
5D	29	41
5E	32	48
5F	16	17
5G	34	23
5H	15	15
5I	10	9
5J	17	19
5K	11	14
5L	10	12

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: _____

3-28-2011