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.# 3745017 Deferred W.O.#

1. Name of Facility: JOHN F. KENNEDY INTERNATIONAL AIRPORT	2. Region: NEW YORK	3. Street Address: TERMINAL 7 GIP LN 7
4. City: JAMAICA		5. State or Province Code: NY — 6. Zip Code: 11430
7. Room No. or Other Physical Location of System: TERMINAL 7 GIP LN 7	[redacted]	
11. Manufacture Information & Certification Label Present ☑ Yes - Pass ☐ No - Fail	12. Radiation Measuring Instrument: Model: INVISION 451P-RYR Serial No. 586 Calibration Due Date: 12/22/2011	
Manufacturer Rapiscan Systems Inc.	13. System Model No.: 620DVAT — 14. Single Source ☐ Dual Source ☑ Other ☐, Describe:	15. System Serial No.: 7091404
16. Date of Manufacture Mo. 03 Yr. 2009	18. Facility Owner Has been notified of responsibility for "Application for Registration" with their State Radiation Control Agency ☑ Yes ☐ 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 ☑ Yes ☐ No
17. X-ray Tube Serial Number(s): P7005, P7540	20. Operator Instructions Available ☑ Yes - Pass ☐ No - Fail	21. Maintenance Schedule Available ☑ Yes - Pass ☐ No - Fail
22. Warning Label Present at Controls Stating: "Caution: X-Rays Produced When Energized" ☑ Yes - Pass ☐ 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" ☑ Yes - Pass ☐ No - Fail	24. Two Indicators Labeled "X-Ray On" Present at Controls (including software user interface) ☑ Yes - Pass ☐ No - Fail

25. At Least One Indicator, Marked "X-Ray On" is Visible from Each Port ☑ Yes - Pass ☐ No - Fail	26. Captured Key: The Key for the Key Actuated Control Cannot be Removed in Any Mode that Allows X-Ray Generation ☑ Yes - Pass ☐ No - Fail
27. All Doors and Access Panels To the X-Ray Beam Prevent Generation of X-Radiation ☑ Yes - Pass ☐ No - Fail	28. Some Part of the Body Can Be Inserted Through a Port Into The Primary Beam ☐ Yes ☑ No
29. Use of X-Ray Control Necessary to Resume Operation Following Interruption ☑ Yes ☐ No	30. Means Provided to Ensure Operator Presence at the Control Area X-ray located in a public access area ☑ Yes - Pass ☐ No – Fail Or X-ray located in a non-public access area ☐ Not Required

Rapiscan Systems Test Procedure Used: Rapiscan Systems WI-0023-4	31. Scatter Block Description: ☐ Two (2) Reams Copy Paper ☑ Other, Describe: METER CASE	32. Means Provided to Operator for Terminating Exposures of Greater than One-Half Second and Preventing X-rays (E-Stop Test) ☑ Yes - Pass ☐ No - Fail
33. X-Ray Generator Settings: 160 kVp 1.000 mA	**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: 1 uR/hr	--	**Maximum External Surface Dose Rate Not to Exceed 500 uR/hr at 5 cm from all external surfaces.**

34.3 Record All Readings in uR/hr Unless Otherwise Noted

Please see model specific diagram (attached)

36. Overall Condition of Lead Drapes: ☑ SAT - Pass ☐ UNSAT- Fail Description	37. Overall Condition of Machine: ☑ SAT – Pass ☐ UNSAT – Fail	38. Comments, Corrective Active Actions and/or Recommendations: NONE

[redacted]	41. Date of Survey: 3/23/2011	42. Time of Survey: 2 AM

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. [redacted] have received a copy of this Radiation Survey Report and und[redacted] report for State inspection. Sig[redacted]te 3-24-11

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.

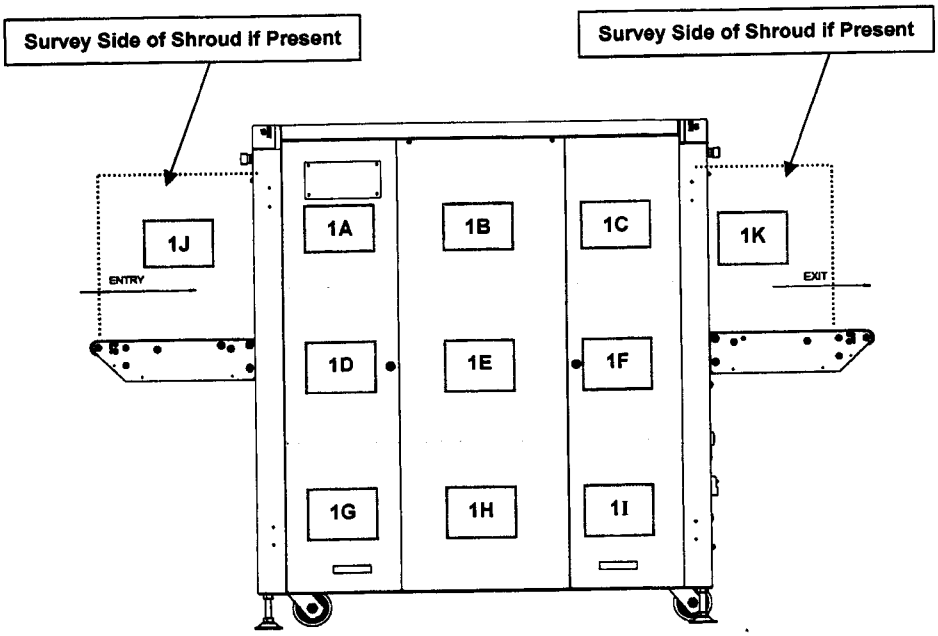
Rapiscan Systems	MODEL 620DV OR 500 SERIES EQUIVALENT RADIATION LEAKAGE SURVEY FORM	MODEL 620DV FSE SURVEY FORM	FORM FSE-R-0047-620DV-1

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)

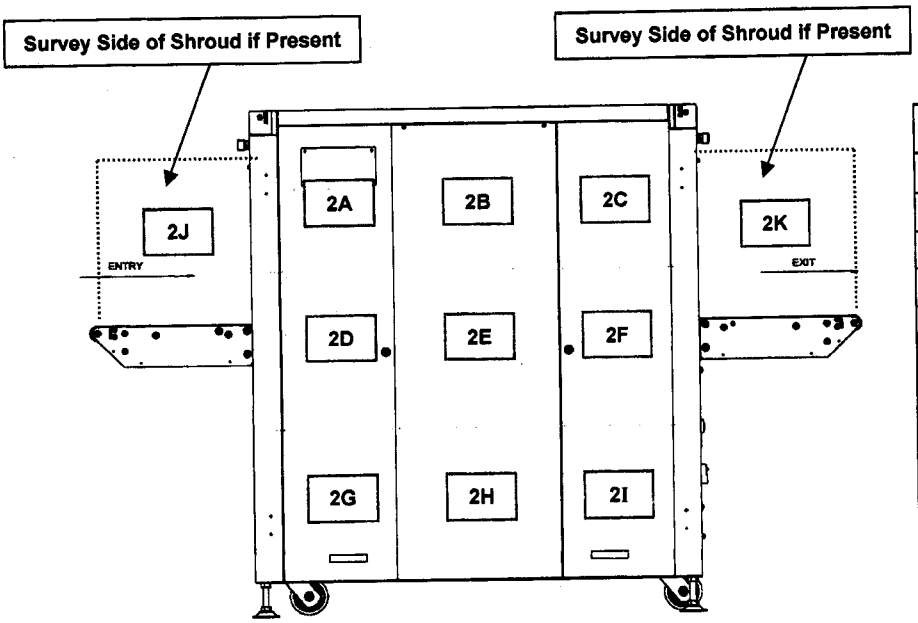
Date: 3/23/2011	Location Manufactured: (Check One) ___ Malaysia ___ UK ✓ US	Instrument Model No: 451P-RYR
Time: 2 AM	Date of Mfg: 03/2009	Instrument Serial No: 586
Background: ___ uSv/hr (1 uR/hr)	Serial No: 7091404	Instrument Calibration Due: 12/22/2011
All Measurements Recorded In: ___ uSv/hr ✓ uR/hr (Check One)	Settings: 160 kvP 1.000 mA Settings: 160 kvP 1.000 mA	Description of Scatter Body: (Check One) ___ Paper (2 Reams, 500 sheets each) ___ Wood Block (4" x 4" x 12" L) ✓ Other METER CASE



Operators Side

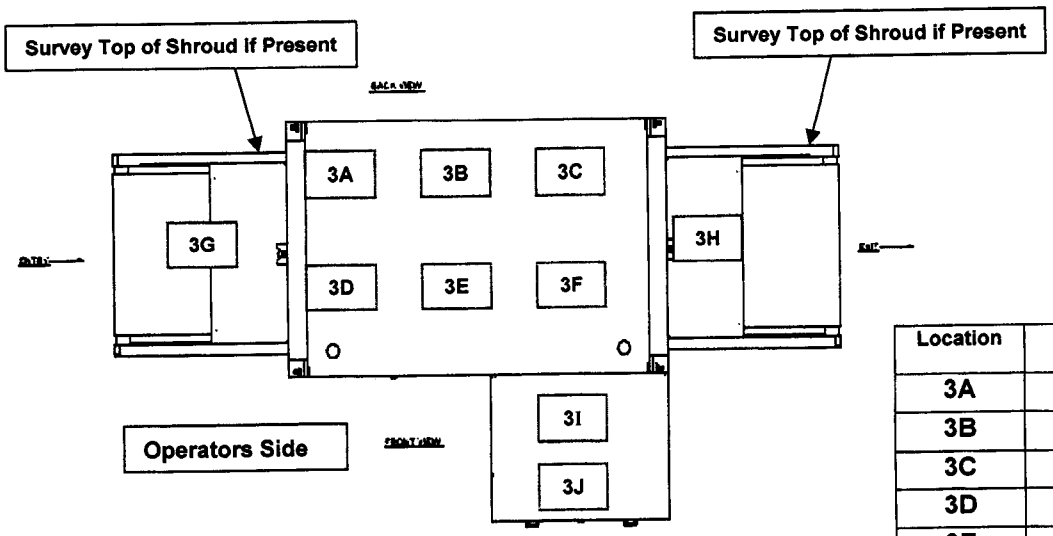
Location	Results NO Scatter Body	Results WITH Scatter Body
1A	12	9
1B	10	16
1C	3	15
1D	4	10
1E	3	14
1F	7	20
1G	8	2
1H	2	3
1I	7	12
1J	30	29
1K	22	46

FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY



Non-Operators Side

Location	Results NO Scatter Body	Results WITH Scatter Body
2A	12	13
2B	9	12
2C	5	13
2D	7	14
2E	9	11
2F	8	10
2G	2	11
2H	3	6
2I	6	3
2J	18	19
2K	11	15

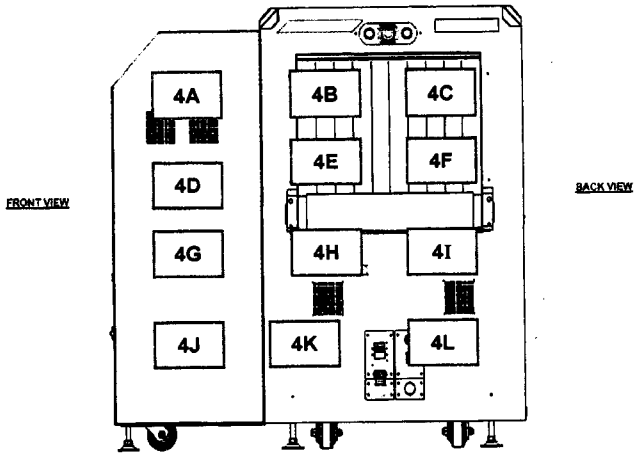


Top View

Location	Results NO Scatter Body	Results WITH Scatter Body
3A	5	11
3B	3	5
3C	4	4
3D	10	6
3E	13	7
3F	11	9
3G	10	7
3H	17	13
3I	19	35
3J	15	24

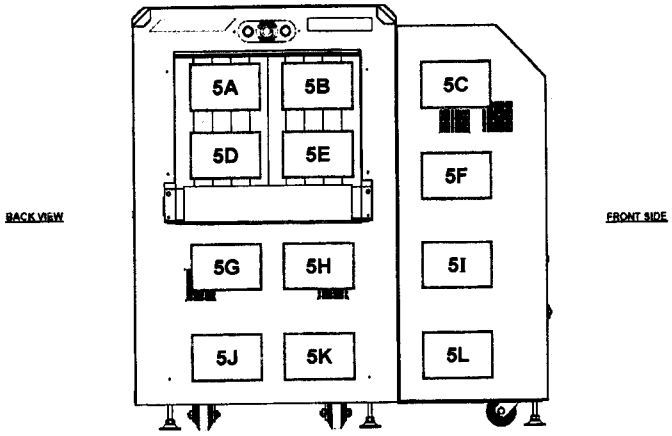
FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY

EXIT TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
4A	11	8
4B	24	27
4C	29	32
4D	13	10
4E	61	50
4F	48	41
4G	10	14
4H	22	36
4I	16	23
4J	7	9
4K	11	22
4L	17	19

ENTRANCE TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
5A	45	43
5B	39	39
5C	19	12
5D	36	41
5E	32	36
5F	26	20
5G	18	25
5H	12	13
5I	21	13
5J	10	17
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: [redacted] DATE: 3/23/2011