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.# _____
Deferred W.O.# _____

1. Name of Facility: LOS ANGELES INTERNATIONAL AIRPORT
2. Region: WEST
3. Street Address: 1 WORLD WAY
4. City: LOS ANGELES
5. State or Province Code: CA
6. Zip Code: 90045
7. Room No. or Other Physical Location of System: TERMINAL 5, LANE 2
[redacted]
9. Telephone Number: [redacted]
10. Fax Number: [redacted]

11. Manufacture Information & Certification Label Present ☒ Yes - Pass ☐ No - Fail

[redacted] Model: 451P Serial No. 0661 Calibration Due Date: 12/10/10 — FSE Shall Attach Copy of Calibration Certificate to This Form

Manufacturer: Rapiscan Systems Inc.

13. System Model No. 620DV
14. Single Source ☐ Dual Source ☒ Other ☐, Describe:
15. System Serial No. 708/712

16. Date of Manufacture Mo. 05 Yr. 2008

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): P2380, P3932

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-0023-6

31. Scatter Block Description: ☐ Two (2) Reams Copy Paper ☒ Other, Describe: PELICAN CASE 1400

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: 160.8 kVp 1.007 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 20 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 Drapery: ☒ SAT - Pass ☐ UNSAT - Fail Description:

37. Overall Condition of Machine: ☒ SAT - Pass ☐ UNSAT - Fail

38. Comments, Corrective Active Actions and/or Recommendations:

39. Surveyor Name (Print. L, F, M): [redacted]

40. Surveyor Signature: [redacted]

41. Date of Survey: 2/22/10

42. Time of Survey: 1350

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 retain this report for State inspection.

Signature: [redacted] Date 2/22/10

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.

MAK 57433
PM 2906416

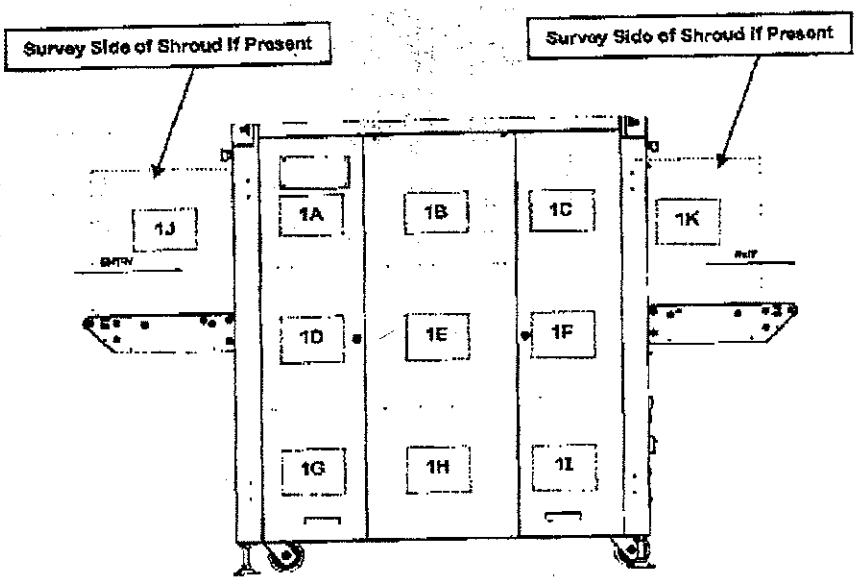
Rapiscan Systems	MODEL 620DV OR 500 SERIES EQUIVALENT RADIATION LEAKAGE SURVEY FORM	MODEL 620DV FSE SURVEY FORM	FORM FSE-R-0047-620DV-1

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: 2/22/10	Location Manufactured: (Check One) Malaysia ___ UK X US	Instrument Model No: ~~451P~~ ~~620DV~~ 451P
Time: 1330	Date of Mfg: 5/08	Instrument Serial No: ~~7081712~~ 06bd
Background: uSv/hr (20 uR/hr)	Serial No: 7081712	Instrument Calibration Due: 12/10/10
All Measurements Recorded in: ___ uSv/hr X uR/hr (Check One)	Settings: 160.8 kvP 1.07 mA Settings: 160.8 kvP 1.07 mA	Description of Scatter Body: (Check One) ___ Paper (2 Reams, 500 sheets each) ___ Wood Block (4" x 4" x 12" L) X Other Trays (Plastic)



Location	Results NO Scatter Body	Results WITH Scatter Body
1A	8	20
1B	14	25
1C	17	16
1D	15	17
1E	30	25
1F	6	16
1G	1	10
1H	3	8
1I	6	8
1J	22	14
1K	9	22

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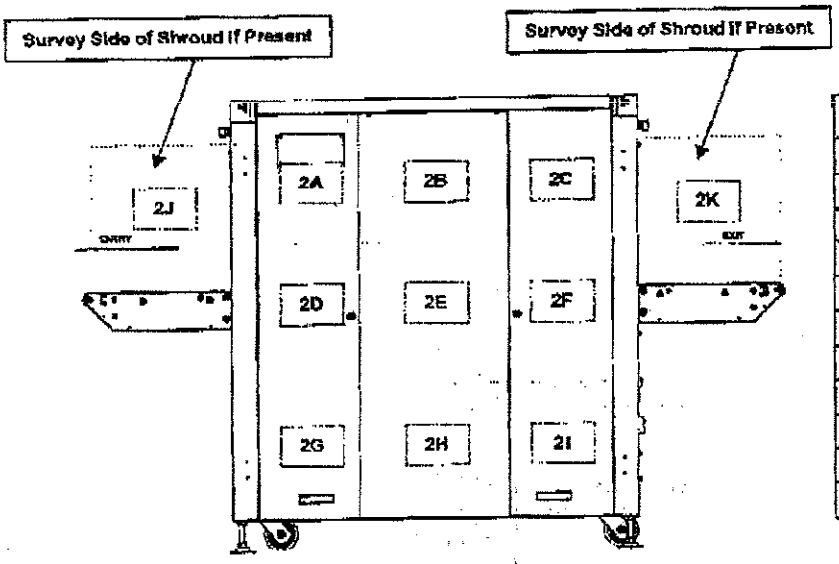
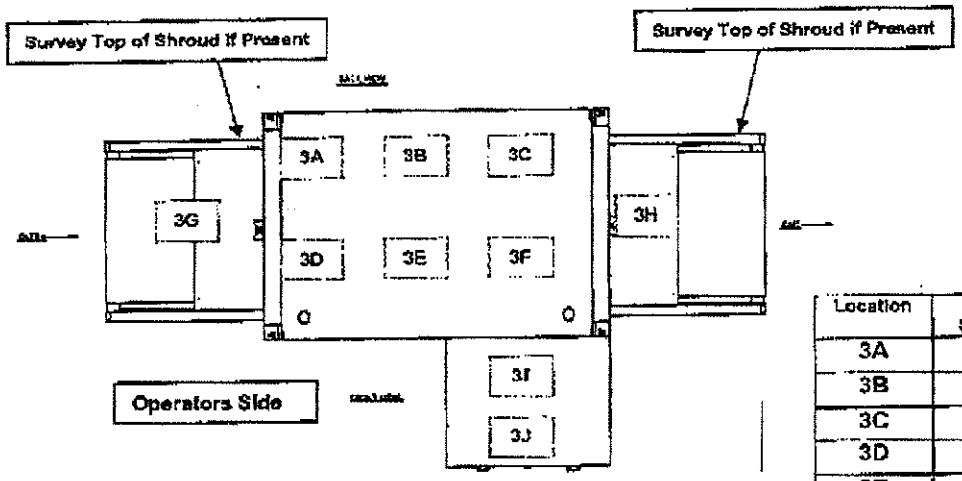
FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY



Non-Operators Side

Location	Results NO Scatter Body	Results WITH Scatter Body
2A	5	15
2B	7	11
2C	2	5
2D	18	19
2E	14	17
2F	20	21
2G	10	10
2H	7	8
2I	10	7
2J	60	81
2K	53	88



Top View

Location	Results NO Scatter Body	Results WITH Scatter Body
3A	5	12
3B	5	17
3C	8	17
3D	6	8
3E	9	10
3F	6	7
3G	40	~~35~~ ~~40~~ 55
3H	~~24~~ 18	~~30~~ 40
3I	~~10~~ 19	~~22~~ 30
3J	10	22

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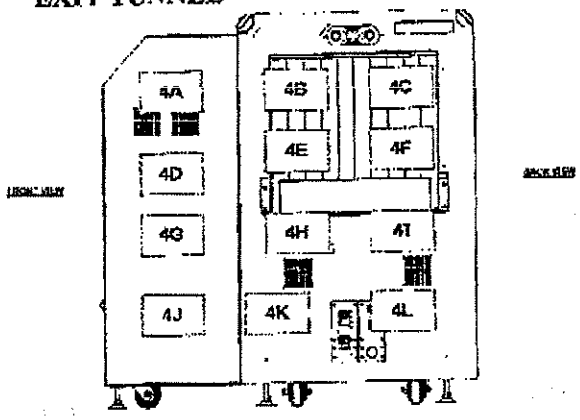
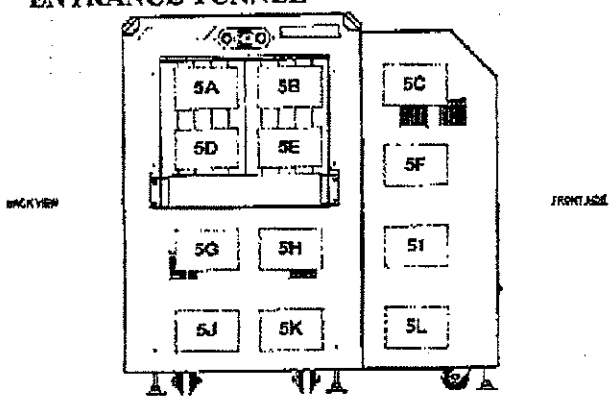
FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY

EXIT TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
4A	4	8
4B	25	46
4C	25	40
4D	8	18
4E	26	48
4F	20	55
4G	8	10
4H	20	30
4I	11	35
4J	8	5
4K	12	14
4L	3	14

ENTRANCE TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
5A	11	40
5B	20	46
5C	19	30
5D	20	57
5E	33	70
5F	28	46
5G	5	9
5H	~~12~~ 6	9
5I	12	14
5J	7	7
5K	8	6
5L	12	8

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: 2/22/10