| Rapiscan systems | BAGGAGE/PARCEL CABINET X-RAY SYSTEM RADIATION LEAKAGE REPORT | FIELD SERVICE ENGINEERS | Form R-0588- 9/9/09<br>45. RSI W.O.# ___<br>Deferred W.O.# ___ |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1. Name of Facility: HARTSFIELD INTERNATIONAL | 2. Region: EAST | 3. Street Address: 6000 TERMINAL PARKWAY | |
| 4. City: ATLANTA | | 5. State or Province Code: GA | 6. Zip Code: 30320 |
| 7. Room No. or Other Physical Location of System: MAIN CKPT LANE 5 | 8. Person Interviewed: [redacted] | 9. Telephone Number: | 10. Fax Number: |
| 11. Manufacture Information & Certification Label Present: ☑ Yes - Pass ☐ No - Fail | 12. Radiation Measuring Instrument: Model: INVISION P451 Serial No. 0517 | FSE Shall Attach Copy of Calibration Certificate to This Form. Calibration Due Date: 12-14-11 | |
| Manufacturer: Rapiscan Systems Inc. | 13. System Model No.: 620DV | 14. Single Source ☐ Dual Source ☑ Other ☐, Describe: | 15. System Serial No.: 7083520 |
| 16. Date of Manufacture: Mo. SEPT 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): V= P-5437 H=P-5497 | 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<br>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: PELICAN 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: 160.8 kVp 1.007 mA V<br>160.8 kVp 1.007 mA H | 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: 4 uR/hr | 3729368 | 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: |

| | | | |
|---|---|---|---|
| 39. Surveyor Name (Print: L, F, MI): [redacted] | 40. Surveyor Signature: [redacted] | 41. Date of Survey: 3-15-11 | 42. Time of Survey: 6 PM |

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 ( ) have received a copy of this Radiation Survey Report and understa[redacted] this report for State inspection.

Signature [redacted] Date 3/16/11

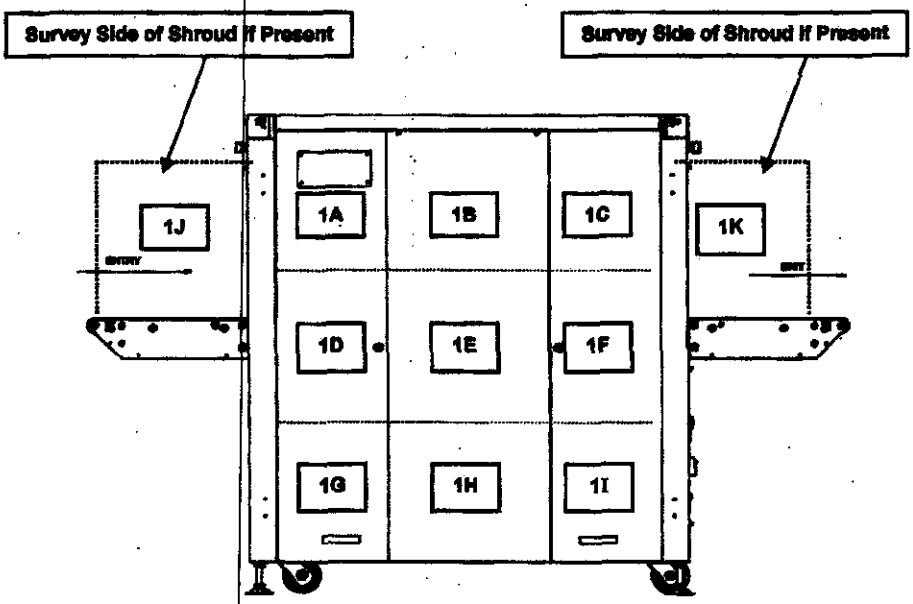
**This report is to certify this x-ray unit has been surveyed for radiation leakage emissions and found to be within the regulatory radiation emission limit. The safety features, controls and indicators incorporated in the x-ray unit have been satisfactorily tested and/or inspected. The owner of this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

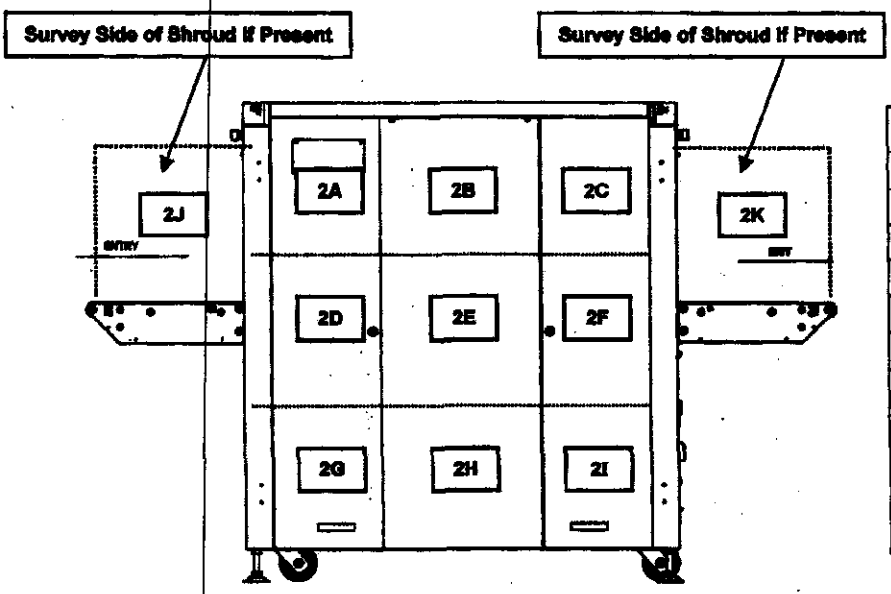
[redacted]

| | | |
|---|---|---|
| Date: 3-15-11 | Location Manufactured: (Check One) ___ Malaysia ___ UK ✓ US | Instrument Model No: INOVISION P-457 |
| Time: 6 PM | Date of Mfg: SEPT 2008 | Instrument Serial No: 0517 |
| Background: ___ uSv/hr ( 4 uR/hr) | Serial No: 7083570 | Instrument Calibration Due: 12-14-11 |
| All Measurements Recorded In: ___ uSv/hr ✓ uR/hr (Check One) | Settings: 160.8 kvP 1.007 mA ✓<br>Settings: 160.8 kvP 1.007 mA 11 | Description of Scatter Body: (Check One) ___ Paper (2 Reams, 500 sheets each) ___ Wood Block (4" x 4" x 12" L) ✓ Other PELICAN CASE |



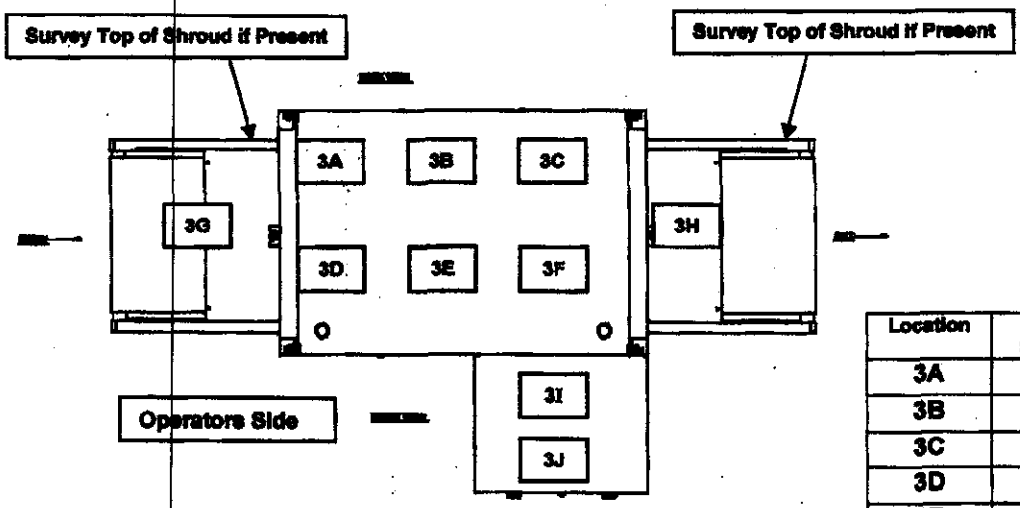

| Location | Results NO Scatter Body | Results WITH Scatter Body |
|---|---|---|
| 1A | 32 | 20 |
| 1B | 13 | 19 |
| 1C | 7 | 14 |
| 1D | 39 | 31 |
| 1E | 12 | 15 |
| 1F | 3 | 7 |
| 1G | 31 | 28 |
| 1H | 6 | 9 |
| 1I | 4 | 11 |
| 1J | 16 | 19 |
| 1K | 12 | 14 |

## FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY




Non-Operators Side

| Location | Results NO Scatter Body | Results WITH Scatter Body |
|---|---|---|
| 2A | 48 | 52 |
| 2B | 32 | 38 |
| 2C | 23 | 25 |
| 2D | 19 | 17 |
| 2E | 23 | 19 |
| 2F | 14 | 19 |
| 2G | 17 | 21 |
| 2H | 12 | 18 |
| 2I | 8 | 11 |
| 2J | 7 | 9 |
| 2K | 29 | 33 |

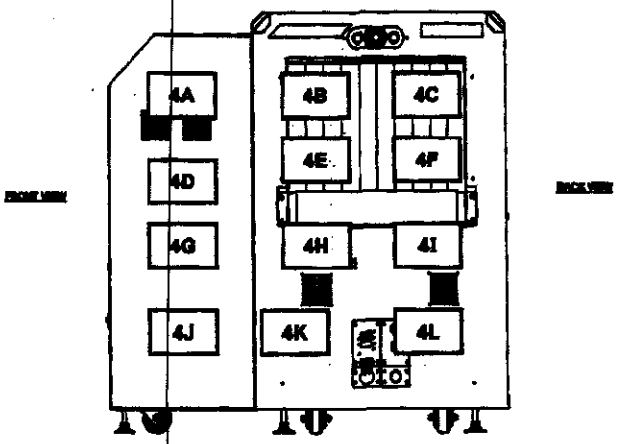



Top View

| Location | Results NO Scatter Body | Results WITH Scatter Body |
|---|---|---|
| 3A | 71 | 72 |
| 3B | 41 | 5 |
| 3C | 5 | 38 |
| 3D | 12 | 21 |
| 3E | 7 | 7 |
| 3F | 21 | 41 |
| 3G | 38 | 71 |
| 3H | 26 | 26 |
| 3I | 38 | 78 |
| 3J | 73 | 116 |

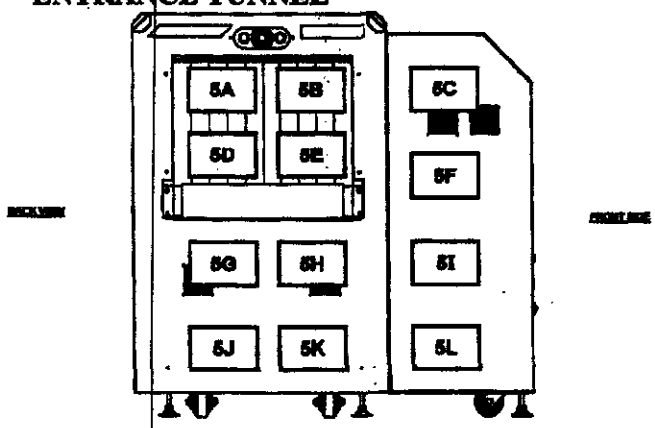
# FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY

## EXIT TUNNEL




| Location | Results NO Scatter Body | Results WITH Scatter Body |
|---|---|---|
| 4A | 44 | 39 |
| 4B | 32 | 28 |
| 4C | 49 | 49 |
| 4D | 36 | 39 |
| 4E | 5 | 15 |
| 4F | 11 | 16 |
| 4G | 8 | 11 |
| 4H | 14 | 19 |
| 4I | 14 | 17 |
| 4J | 27 | 21 |
| 4K | 21 | 26 |
| 4L | 17 | 19 |

## ENTRANCE TUNNEL




| Location | Results NO Scatter Body | Results WITH Scatter Body |
|---|---|---|
| 5A | 32 | 37 |
| 5B | 40 | 32 |
| 5C | 24 | 28 |
| 5D | 16 | 19 |
| 5E | 25 | 28 |
| 5F | 10 | 14 |
| 5G | 33 | 26 |
| 5H | 33 | 25 |
| 5I | 12 | 20 |
| 5J | 14 | 11 |
| 5K | 15 | 19 |
| 5L | 12 | 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 t[redacted] gaps, mating surfaces, and photo sensor cut-outs.

SURVEY PERFORMED BY: [redacted] DATE: 3-15-11