

Rapiscan systems An OGE 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 George Bush Intercontinental		2. Region TX		3. Street Address Terminal A		45. RSI W.O.# Deferred W.O.#	
4. City Houston		5. State or Province Code TX		6. Zip Code 77032			
7. Room No. or Other Physical Location of System Terminal A North Lvl							
11. Manufacture Information & Certification Label Present <input checked="" type="checkbox"/> Yes - Pass <input type="checkbox"/> No - Fail		12. Radiation Measuring Instrument: PSE shall Attach Copy of Calibration Certificate to This Form					
Manufacturer RAPISCAN		Model: 451P		Serial No. 0616		Calibration Due Date 5/24/11	
13. System Model No. 020DUAT		14. Single Source <input type="checkbox"/> Dual Source <input checked="" type="checkbox"/>		15. System Serial No. 7083011			
16. Date of Manufacture Mo. 7 Yr. 2008		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) V: P0744 H: P5048		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. 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		28. Some Part of the Body Can Be Inserted Through a Port Into The Primary Beam <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
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: Rapiscan Systems WL0023-4		31. Scatter Block Description: <input type="checkbox"/> Two (2) Reams Copy Paper <input checked="" type="checkbox"/> Other, Describe: Tool Boxes		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 160.8 kVp H 1.007 mA 160.8 kVp V 1.007		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: 9 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							
<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)		40. Surveyor Signature		41. Date of Survey 3/22/11		42. Time of Survey 900	
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. _____ Signature		I have received a copy of this Radiation Survey Report and report for State inspection. 3-22-11			

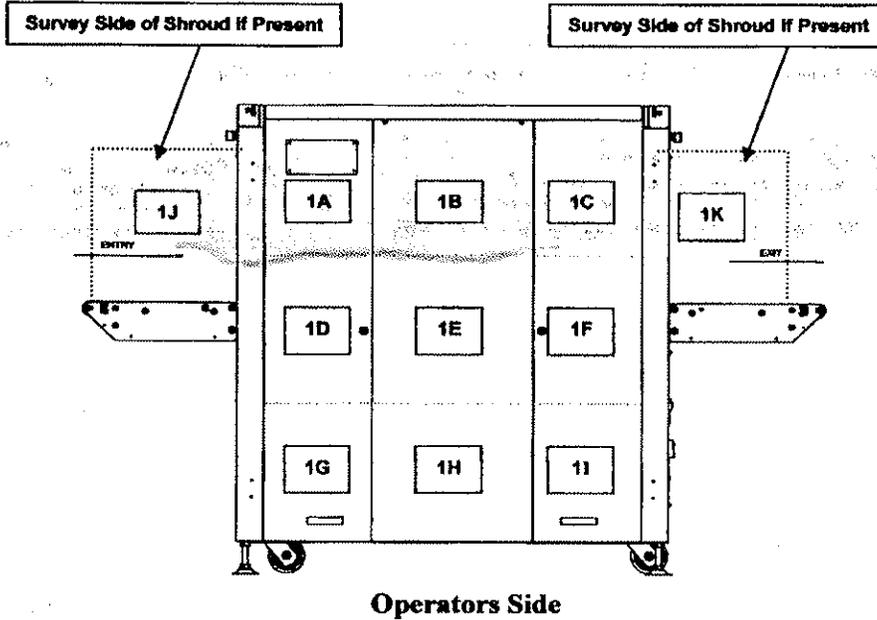
This report is to certify this x-ray unit has been surveyed for radiation leakage emissions and found to be within the regulatory radiation emission limit. The safety features, controls and indicators incorporated in the x-ray unit have been satisfactorily tested and/or inspected. The owner of this x-ray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

57958
3744104

FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY

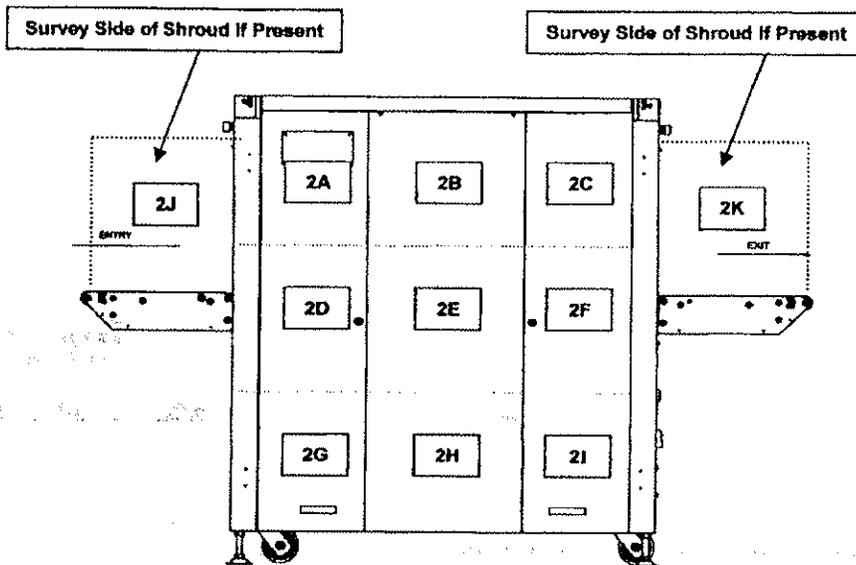
United States and Canada External Surface Radiation Leakage Limit Is 5.0 uSv/hr at 5 cm (500 uR/hr)
Global External Surface Radiation Leakage Limit Is 1.0 uSv/hr at 5 cm (100 uR/hr at 5 cm)

Date: 3/22/11	Location Manufactured: (Check One) Malaysia <input type="checkbox"/> UK <input type="checkbox"/> <input checked="" type="checkbox"/> US	Instrument Model No: 451P
Time: 900	Date of Mfg: 7/2008	Instrument Serial No: 0616
Background: uSv/hr (9 uR/hr)	Serial No: 7083011	Instrument Calibration Due: 5/24/11
All Measurements Recorded In: uSv/hr <input checked="" type="checkbox"/> uR/hr <input type="checkbox"/> (Check One)	Settings: 160.8 kVp 1.007 mA Settings: 160.8 kVp 1.007 mA	Description of Scatter Body: (Check One) <input type="checkbox"/> Paper (2 Reams, 500 sheets each) <input type="checkbox"/> Wood Block (4" x 4" x 12" L) <input checked="" type="checkbox"/> Other TOOLBOX



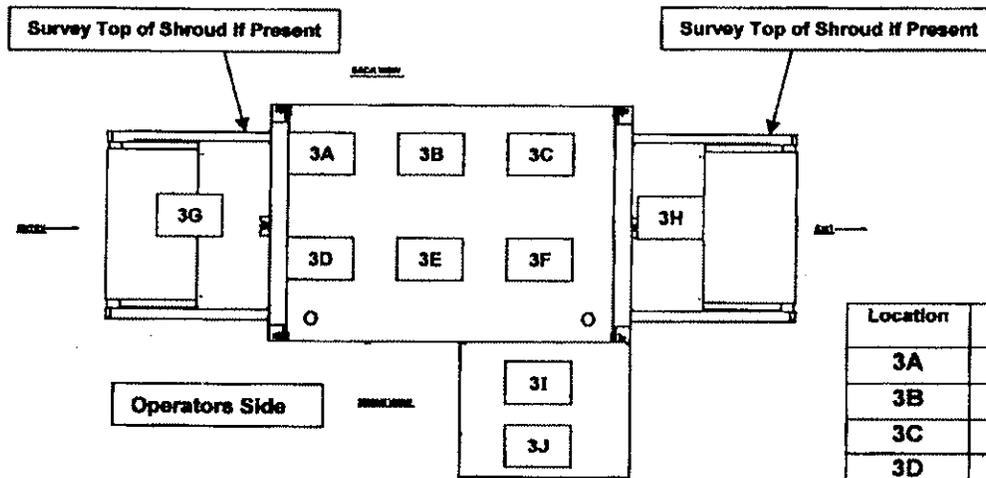
Location	Results NO Scatter Body	Results WITH Scatter Body
1A	11	10
1B	19	23
1C	11	20
1D	9	18
1E	11	21
1F	9	9
1G	9	8
1H	8	9
1I	10	10
1J	27	39
1K	24	49

FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY



Location	Results NO Scatter Body	Results WITH Scatter Body
2A	16	11
2B	9	13
2C	9	10
2D	9	9
2E	9	14
2F	9	14
2G	10	15
2H	13	10
2I	9	9
2J	65	92
2K	36	53

Non-Operators Side

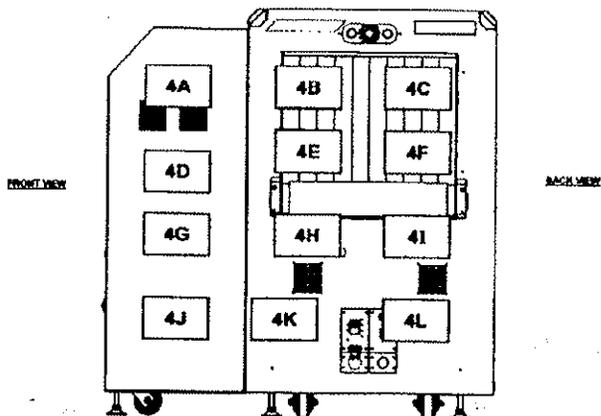


Location	Results NO Scatter Body	Results WITH Scatter Body
3A	8	11
3B	10	16
3C	9	9
3D	8	12
3E	9	12
3F	9	9
3G	36	90
3H	56	69
3I	14	16
3J	9	13

Top View

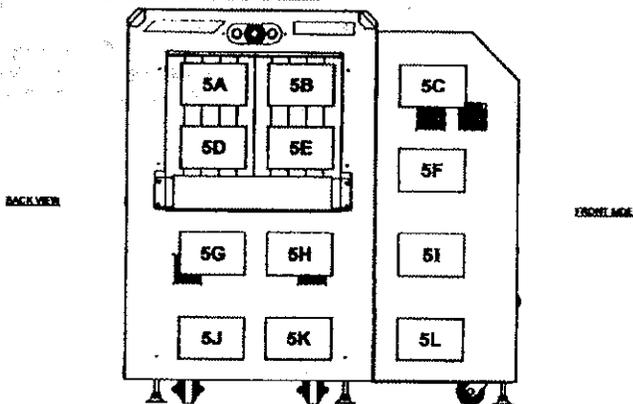
FIELD SERVICE ENGINEERS RADIATION EMISSION SURVEY

EXIT TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
4A	16	31
4B	14	28
4C	23	31
4D	25	33
4E	18	32
4F	21	29
4G	12	10
4H	22	17
4I	13	10
4J	10	9
4K	10	9
4L	9	15

ENTRANCE TUNNEL



Location	Results NO Scatter Body	Results WITH Scatter Body
5A	16	38
5B	27	34
5C	9	30
5D	21	48
5E	23	57
5F	10	18
5G	22	40
5H	10	17
5I	9	15
5J	14	37
5K	9	21
5L	9	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: 3/22/11