

# RADIATION SURVEY WORKSHEET

## eXaminer Radiation Survey Information

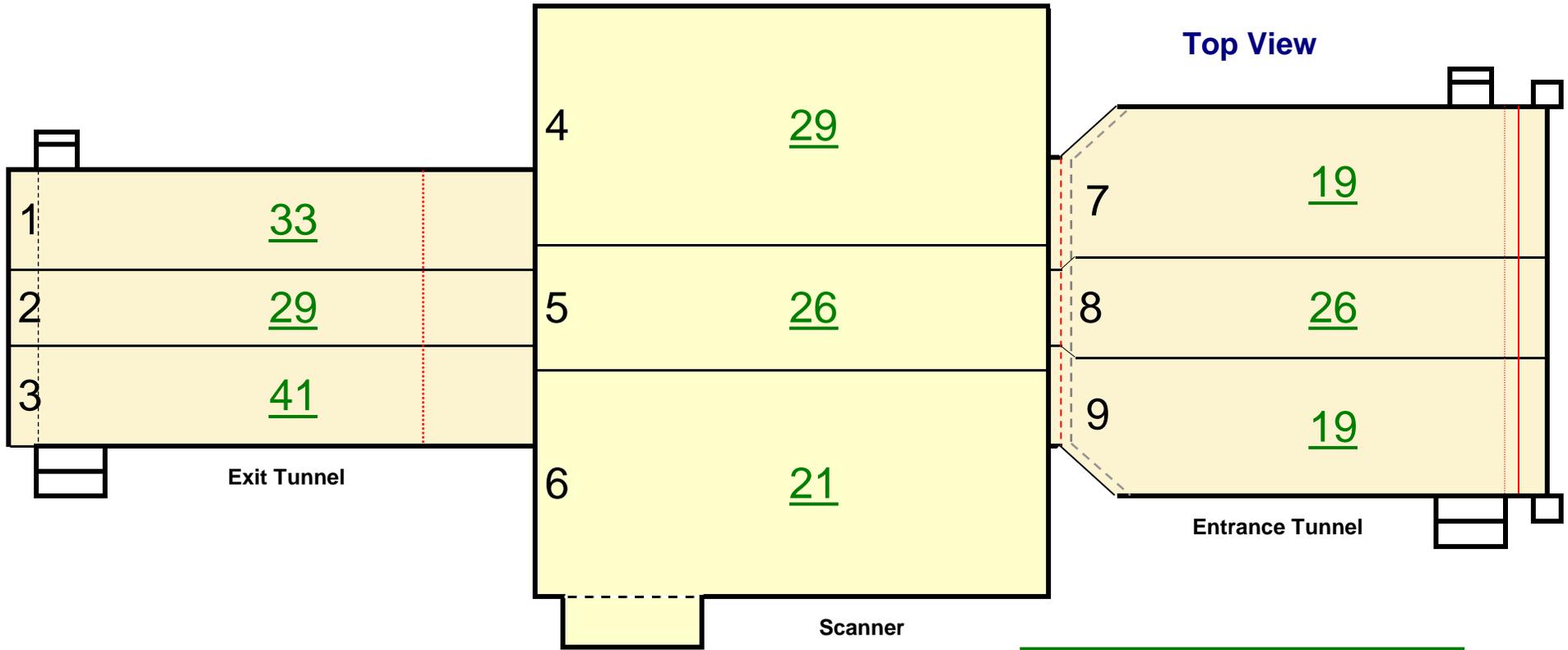
Airport: <b>Orlando International Airport</b>	Scanner Location: <b>Baggage Handling Room</b>	Case#: <b>MCO-C361304</b>
Personnel Performing Radiation Survey: <span style="background-color: black; color: black;">XXXXXXXXXX</span>		Date Survey Performed: <b>3/29/2011</b>
Scanner Serial Number: <b>6320</b>	Entrance Tunnel Serial Number: <b>5448a</b>	Exit Tunnel Serial Number: <b>5441b</b>
High Reading: <b>81</b>	Average Reading: <b>25.72</b>	Min. Reading: <b>6</b>
High Reading: <b>72</b>	Average Reading: <b>29.53</b>	Min. Reading: <b>19</b>
High Reading: <b>220</b>	Average Reading: <b>43.67</b>	Min. Reading: <b>8</b>
<b>Good</b>	<b>Good</b>	<b>Good</b>
Radiation Meter: Type Meter: <b>451P</b>	Meter Serial Number: <b>110</b>	Calibration Due Date: <b>October 13, 2011</b>

NOTES

<b>Complete Radiation Survey (CRS)</b>	<b>Record Voltage and Beam Current here:</b>
<b>Rename this Document before starting the Survey to:</b>  <b>MCO-CRS-29MAR2011-6320</b>	<b>Voltage:</b> <u>164</u> KV   <b>Beam Current:</b> <u>9.9</u> mA
	<b>Maximum Safe Readings</b>   <b>Scanner</b> 350   <b>Tunnels</b> 350   <b>Curtains</b> 350

Step:	Procedure	Expected results
1.	Set Up: Obtain Inovision Ion Chamber Survey Meter and in an area away from the scanners, turn on the meter by pressing the On-Off key. Wait approx. 4 minutes for the meter to run through the initialization procedure.	The GUI will be visible and will indicate Standby. After the radiation meter initialization procedure is complete the meter will be reading less than 20 $\mu$ R/hr and the meter will be ready for use.
2.	The scanner will be in Standby. Change the conveyor switch on the scanner to Stop. Change the exit tunnel conveyor switch to Off to stop the conveyor.	Both conveyors should be stopped.
3.	On the GUI dropdown screen, select diagnostic, followed by Radiation Survey. A radiation survey window will appear. Click "Turn On" button to turn x-rays on. Turn on x-rays prompt will say "Place survey bag on belt". Place IQTK bag on Entry Conveyor Belt.	A window indicating "Radiation Survey" will appear.
4.	When "Bag in survey position" appears, go to the FCC monitor and select "2" then <Enter>, verify and record the voltage and current in the displayed on the FCC screen in the planks provided above.	The high voltage is between <b>144KV</b> and <b>176KV</b> . The current is between <b>8.8mA</b> and <b>10.6mA</b> and the scanner X-ray indicator lights are on.
5.	Survey one of the areas indicated by the boxes in Appendix A2. Record the highest reading within the area. Repeat the process until all areas are surveyed and readings are recorded.	As the survey is conducted, the radiation meter indicates the degree of radiation emission.
6.	Review all radiation data sheets for high readings.	Readings shall not exceed 350 uR/hr in any box.
7.	After radiation survey is complete, click on "Start Conveyor" button on the GUI. Click the "Turn Off" button to turn off x-rays. Next click "Done". The IQTK bag will eject from exit tunnel. EDAC will reboot.	IQTK bag is ejected and scanner reboots.
7.	Visually inspect the entrance and exit of the system for X-ray caution hazard signs.	X-ray hazard signs reading "Do not insert any part of the body when system is energized" are posted at entrance and exit of system.
9.	Fill out the eXaminer radiation sticker and adhere to to the frame of the eXaminer under door #5 on the left side of the scanner.	Readings shall not exceed 350 uR/hr in any box.

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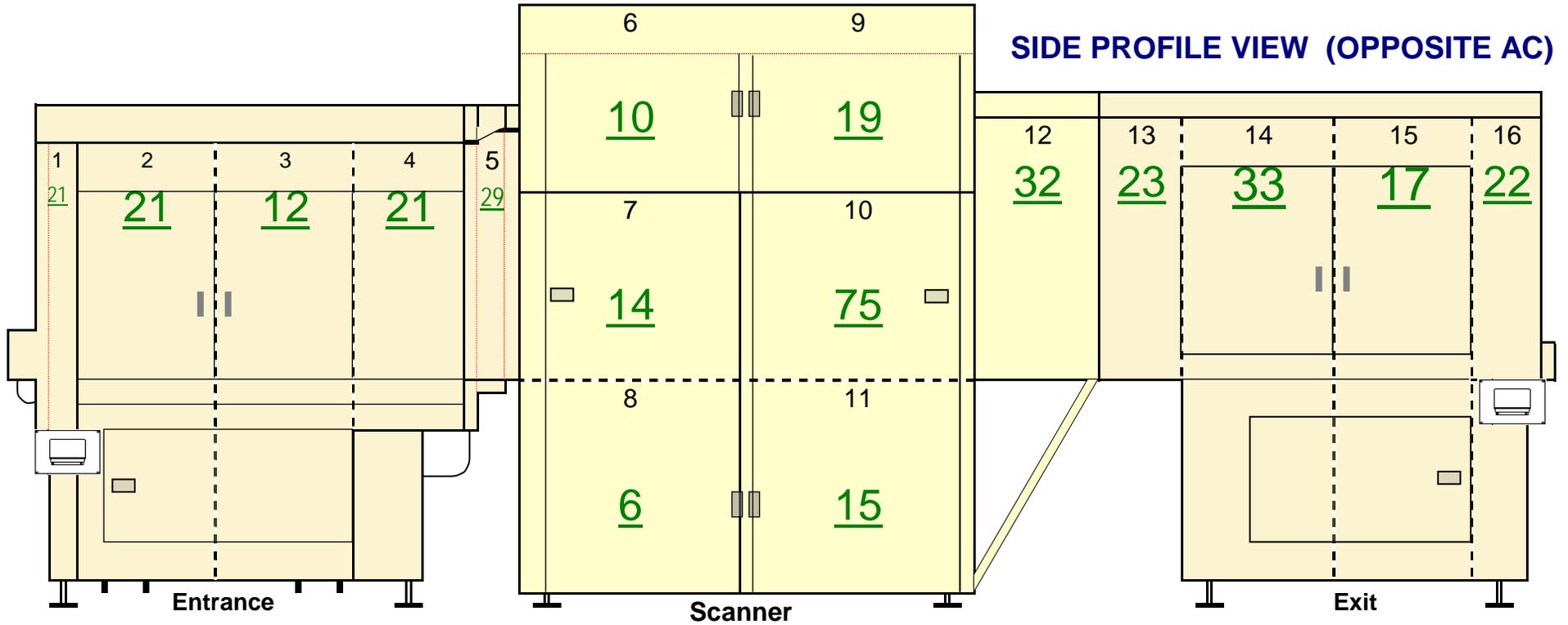


Top View			
Scattered Radiation Measurement Points Worksheet			No PROBLEM
Record highest reading per panel		µR/Hr	
1	Exit Conveyor Top Panel	33	
2	Exit Conveyor Top Panel	29	
3	Exit Conveyor Top Panel	41	
4	Scanner Conveyor Top Panel	29	
5	Scanner Conveyor Top Panel	26	
6	Scanner Conveyor Top Panel	21	
7	Entrance Conveyor Top Panel	19	
8	Entrance Conveyor Top Panel	26	
9	Entrance Conveyor Top Panel	19	

**GOOD**

Highest Reading	41
Average Reading	27
Lowest Reading	19

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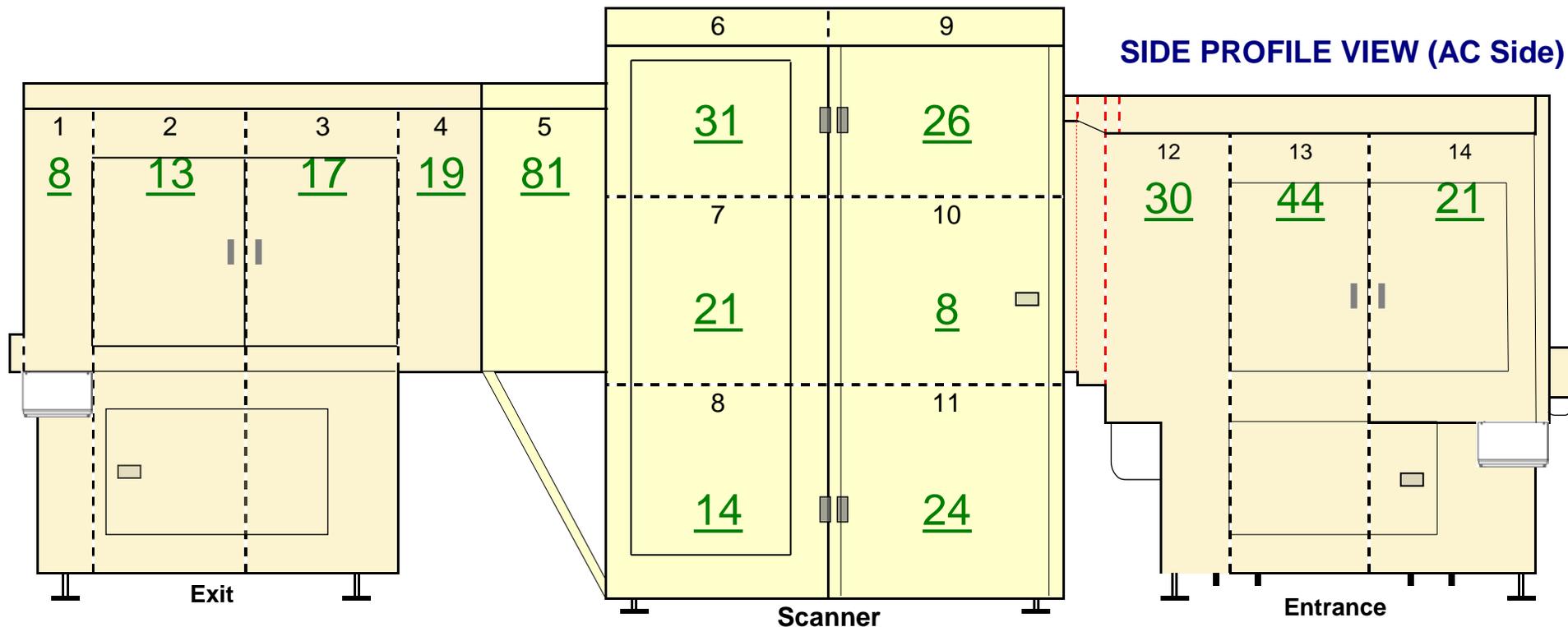


SYSTEM - SIDE PROFILE VIEW (Opposite AC Side)			
Scattered Radiation Measurement Points Worksheet			
	Record highest reading per panel	μR/Hr	No PROBLEM
1	Entrance Conveyor Panel	21	
2	Entrance Conveyor Panel	21	
3	Entrance Conveyor Panel	12	
4	Entrance Conveyor Panel	21	
5	Entrance Conveyor / Scanner Panel	29	
6	Upper Scanner Panel	10	
7	Middle Scanner Panel	14	
8	Lower Scanner Panel	6	
9	Upper Scanner Panel	19	
10	Middle Scanner Panel	75	
11	Lower Scanner Panel	15	
12	Exit Conveyor / Scanner Panel	32	
13	Exit Conveyor Panel	23	
14	Exit Conveyor Panel	33	
15	Exit Conveyor Panel	17	
16	Exit Conveyor Panel	22	

GOOD

Highest Reading	75
Average Reading	23
Low Reading	6

# RADIATION SURVEY WORKSHEET



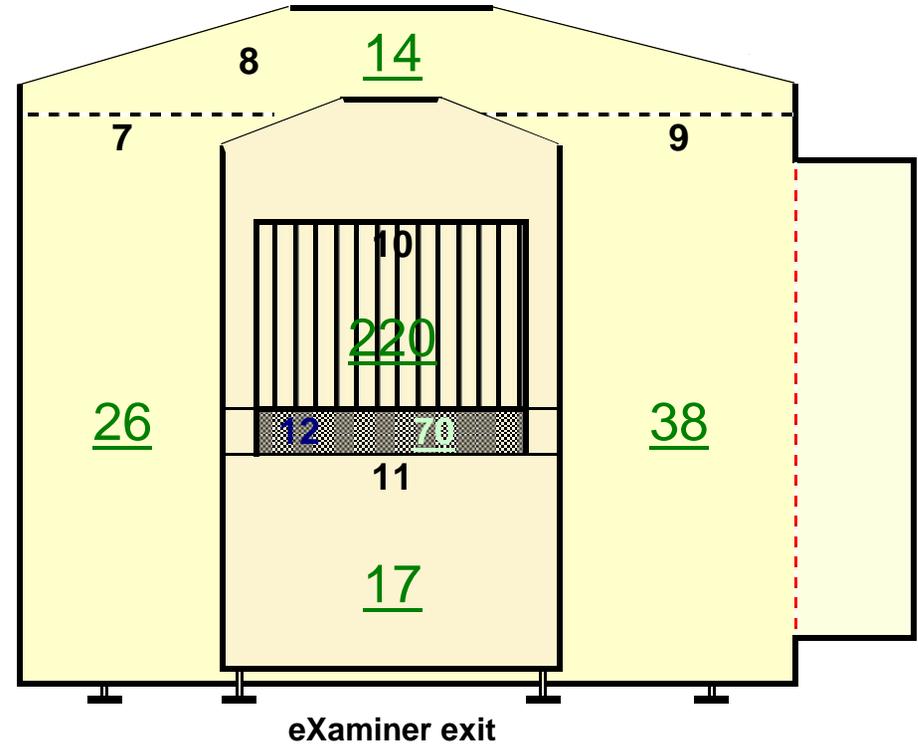
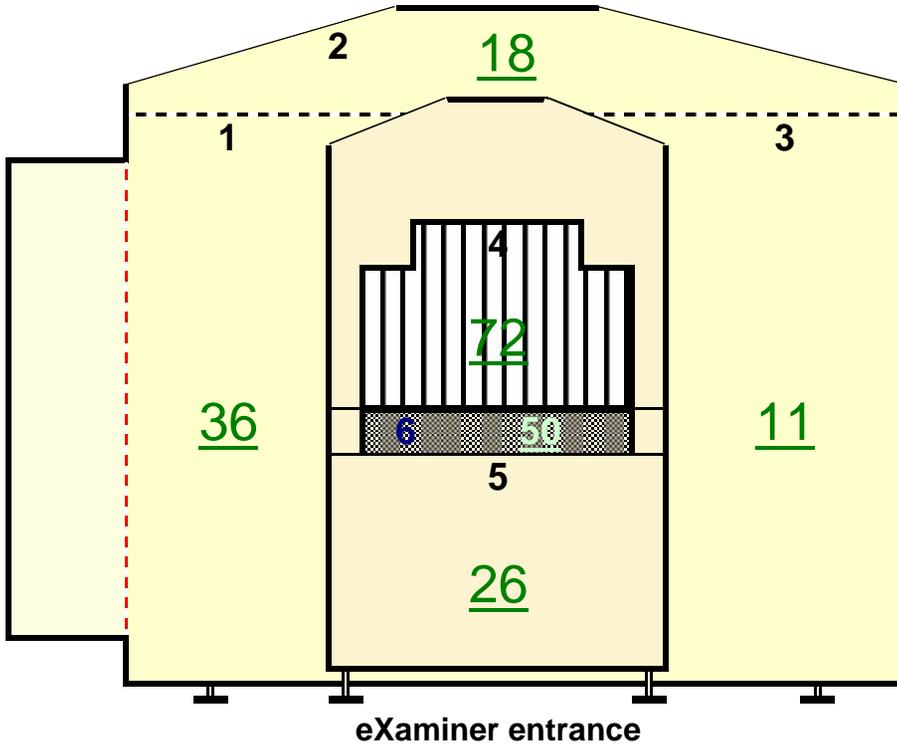
SYSTEM - SIDE PROFILE VIEW ( AC Side)		
Scattered Radiation Measurement Points Worksheet		
Record highest reading per panel		μR/Hr
1	Exit Conveyor Panel	8
2	Exit Conveyor Panel	13
3	Exit Conveyor Panel	17
4	Exit Conveyor Panel	19
5	Exit Conveyor / Scanner Panel	81
6	Upper Scanner Pane	31
7	Middle Scanner Panel	21
8	Lower Scanner Panel	14
9	Upper Scanner Panel	26
10	Middle Scanner Panel	8
11	Lower Scanner Panel	24
12	Entrance Conveyor / Scanner Panel	30
13	Entrance Conveyor Panel	44
14	Entrance Conveyor Panel	21

GOOD

Highest Reading	81
Average Reading	26
Low Reading	8

# RADIATION SURVEY WORKSHEET

## SYSTEM - FACES (End Views)



SYSTEM - FACES (End Views)		
Scattered Radiation Measurement Points Worksheet		
Record highest reading per panel		$\mu\text{R}/\text{Hr}$
1	Scanner Panel	36
2	Scanner Top Panel	18
3	Scanner Panel	11
4	Belt Entrance	72
5	Entrance Lower Panel	26
6	Belt Lower Facia Cover Entrance	50
7	Scanner Panel	26
8	Scanner Top Panel	14
9	Scanner Panel	38
10	Belt Exit	220
11	Exit Lower Panel	17
12	Belt Lower Facia Cover Exit	70

GOOD

Highest Reading	220
Average Reading	50
Low Reading	11