

RADIATION SURVEY WORKSHEET

eXaminer Radiation Survey Information

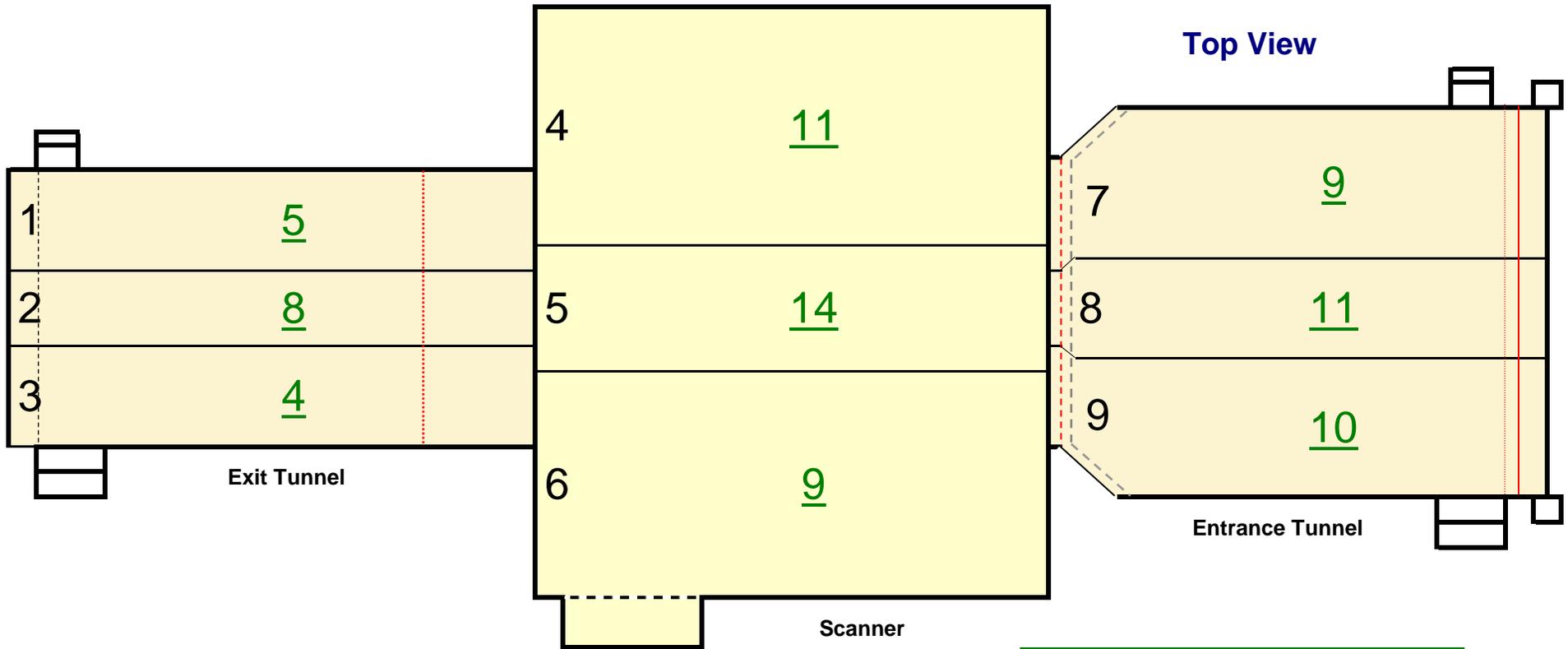
Airport: Tucson Airport	Scanner Location: Baggage Handling Room	Case#: TUS-C356903
Personnel Performing Radiation Survey: XXXXXXXXXX		Date Survey Performed: 3/8/2011
Scanner Serial Number: 6226	Entrance Tunnel Serial Number: 2153A	Exit Tunnel Serial Number: 2153B
High Reading: 22	Average Reading: 12.38	Min. Reading: 4
High Reading: 95	Average Reading: 27.03	Min. Reading: 9
High Reading: 187	Average Reading: 39.71	Min. Reading: 4
Good	Good	Good
Radiation Meter: Type Meter: 450P	Meter Serial Number: 4465	Calibration Due Date: August 13, 2011

NOTES

Complete Radiation Survey (CRS)	Record Voltage and Beam Current here:					
Rename this Document before starting the Survey to: TUS-CRS-8MAR2011-6226	Voltage: <u>165</u> KV Beam Current: <u>9.8</u> mA					
	Maximum Safe Readings <table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">Scanner</td> <td style="border: 1px solid black; padding: 2px;">350</td> <td style="border: 1px solid black; padding: 2px;">Tunnels</td> <td style="border: 1px solid black; padding: 2px;">350</td> <td style="border: 1px solid black; padding: 2px;">Curtains</td> <td style="border: 1px solid black; padding: 2px;">350</td> </tr> </table>	Scanner	350	Tunnels	350	Curtains
Scanner	350	Tunnels	350	Curtains	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 μ 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 144KV and 176KV . The current is between 8.8mA and 10.6mA 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 stickers and place on the eXaminer in accordance with Examiner Technical Bulletin ex253.	Readings shall not exceed 350 uR/hr in any box.

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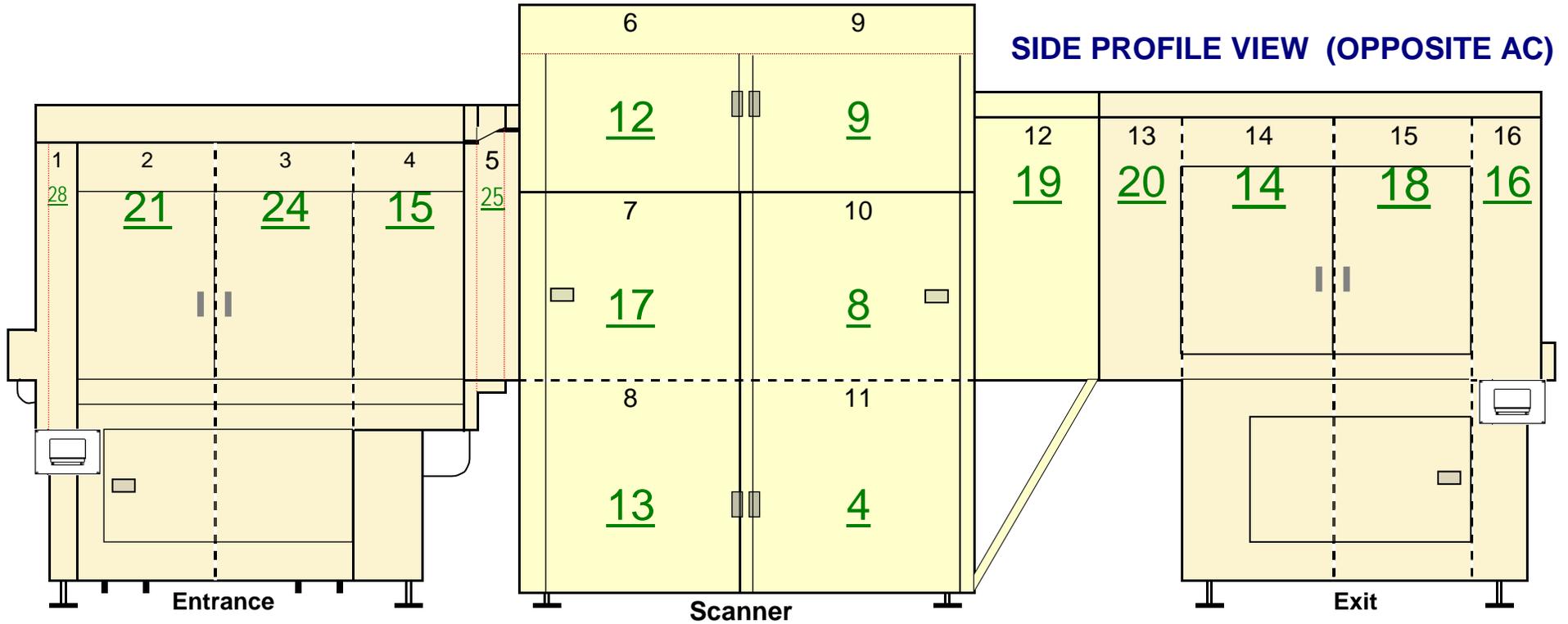


GOOD

Top View			
Scattered Radiation Measurement Points Worksheet			No PROBLEM
Record highest reading per panel		μR/Hr	
1	Exit Conveyor Top Panel	5	
2	Exit Conveyor Top Panel	8	
3	Exit Conveyor Top Panel	4	
4	Scanner Conveyor Top Panel	11	
5	Scanner Conveyor Top Panel	14	
6	Scanner Conveyor Top Panel	9	
7	Entrance Conveyor Top Panel	9	
8	Entrance Conveyor Top Panel	11	
9	Entrance Conveyor Top Panel	10	

Highest Reading	14
Average Reading	9
Lowest Reading	4

RADIATION SURVEY WORKSHEET

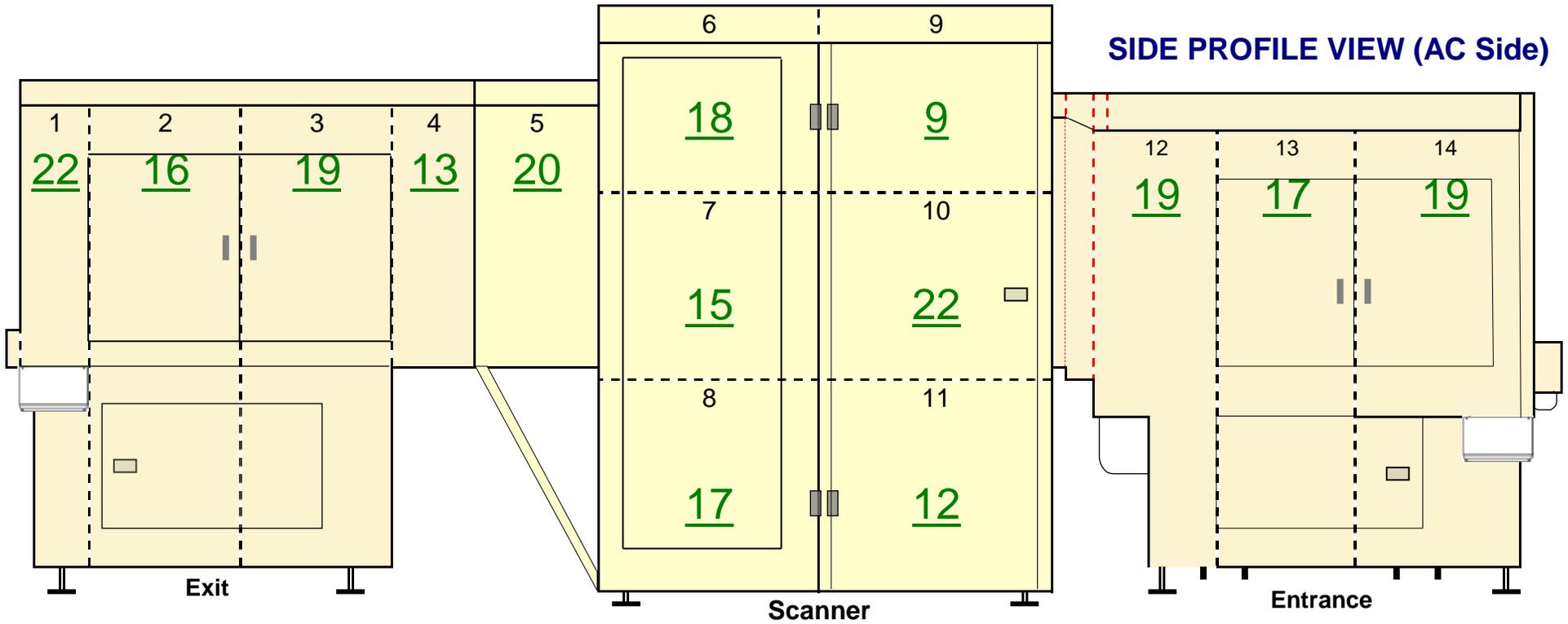


SYSTEM - SIDE PROFILE VIEW (Opposite AC Side)		
Scattered Radiation Measurement Points Worksheet		
	Record highest reading per panel	μR/Hr
1	Entrance Conveyor Panel	28
2	Entrance Conveyor Panel	21
3	Entrance Conveyor Panel	24
4	Entrance Conveyor Panel	15
5	Entrance Conveyor / Scanner Panel	25
6	Upper Scanner Panel	12
7	Middle Scanner Panel	17
8	Lower Scanner Panel	13
9	Upper Scanner Panel	9
10	Middle Scanner Panel	8
11	Lower Scanner Panel	4
12	Exit Conveyor / Scanner Panel	19
13	Exit Conveyor Panel	20
14	Exit Conveyor Panel	14
15	Exit Conveyor Panel	18
16	Exit Conveyor Panel	16

GOOD

Highest Reading	28
Average Reading	16
Low Reading	4

RADIATION SURVEY WORKSHEET



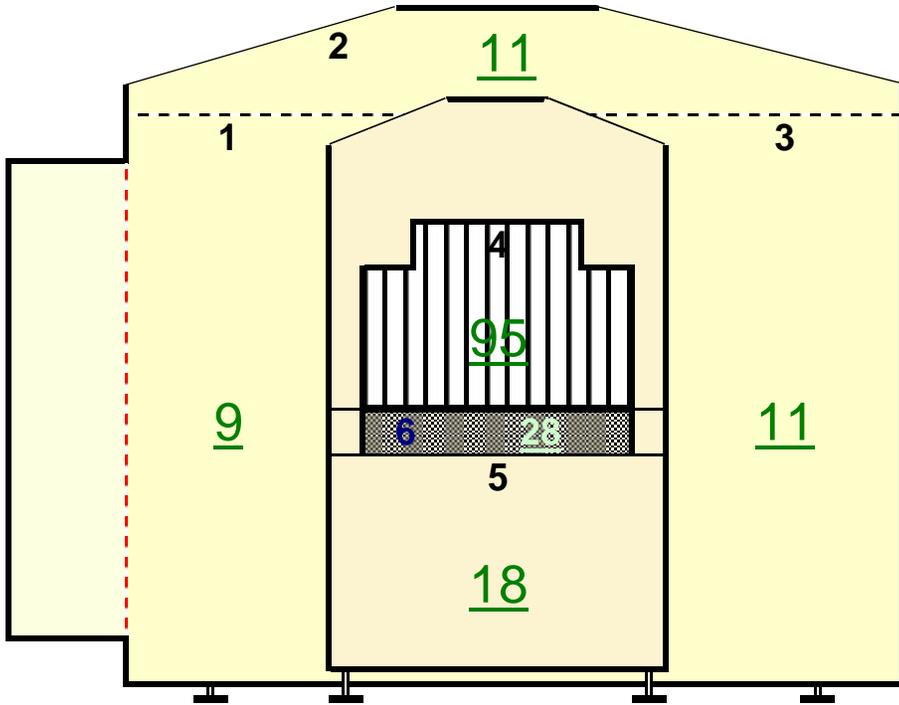
SYSTEM - SIDE PROFILE VIEW (AC Side)			
Scattered Radiation Measurement Points Worksheet			No PROBLEM
Record highest reading per panel		μR/Hr	
1	Exit Conveyor Panel	22	
2	Exit Conveyor Panel	16	
3	Exit Conveyor Panel	19	
4	Exit Conveyor Panel	13	
5	Exit Conveyor / Scanner Panel	20	
6	Upper Scanner Pane	18	
7	Middle Scanner Panel	15	
8	Lower Scanner Panel	17	
9	Upper Scanner Panel	9	
10	Middle Scanner Panel	22	
11	Lower Scanner Panel	12	
12	Entrance Conveyor / Scanner Panel	19	
13	Entrance Conveyor Panel	17	
14	Entrance Conveyor Panel	19	

GOOD

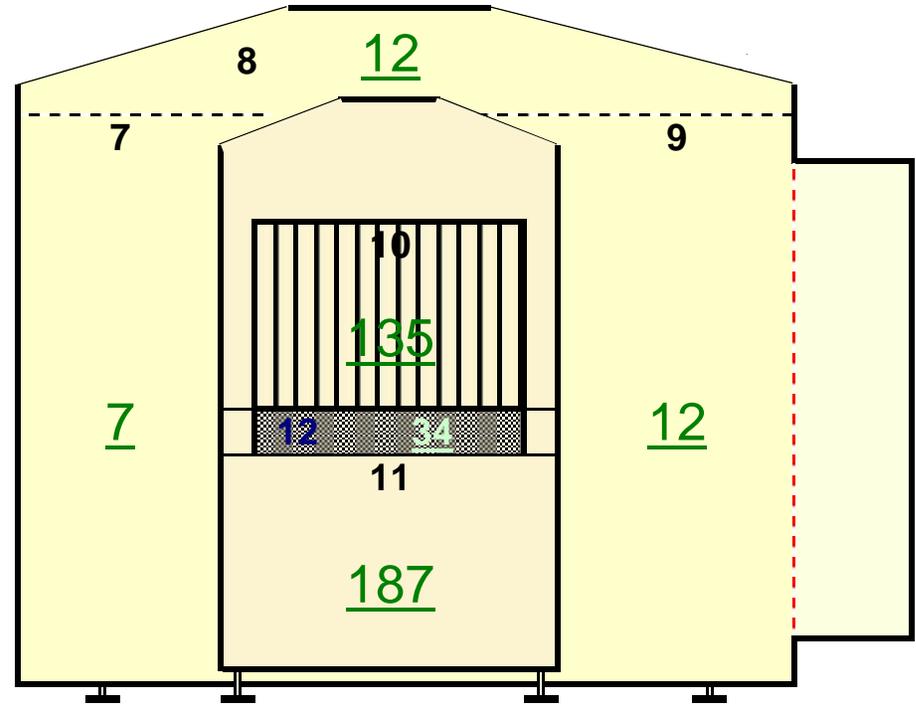
Highest Reading	22
Average Reading	17
Low Reading	9

RADIATION SURVEY WORKSHEET

SYSTEM - FACES (End Views)



eXaminer entrance



eXaminer exit

SYSTEM - FACES (End Views)		
Scattered Radiation Measurement Points Worksheet		
Record highest reading per panel		$\mu\text{R}/\text{Hr}$
1	Scanner Panel	9
2	Scanner Top Panel	11
3	Scanner Panel	11
4	Belt Entrance	95
5	Entrance Lower Panel	18
6	Belt Lower Facia Cover Entrance	28
7	Scanner Panel	7
8	Scanner Top Panel	12
9	Scanner Panel	12
10	Belt Exit	135
11	Exit Lower Panel	187
12	Belt Lower Facia Cover Exit	34

GOOD

Highest Reading	187
Average Reading	47
Low Reading	7