RADIATION SURVEY WORKSHEET

eXaminer Radiation Survey Information

Airport:	DAY	Scanner Location:	Baggage Handeling Room	Case#:	DAY358879
Personnel Performing Radiation Survey:	[redacted]	Date Survey Performed:	3/18/2011		

Scanner Serial Number:	6944	Entrance Tunnel Serial Number:	5597A	Exit Tunnel Serial Number:	5597B
High Reading:	30	High Reading:	255	High Reading:	64
Average Reading:	15.68	Average Reading:	39.14	Average Reading:	25.13
Min. Reading:	1	Min. Reading:	2	Min. Reading:	5
Good		Good		Good	

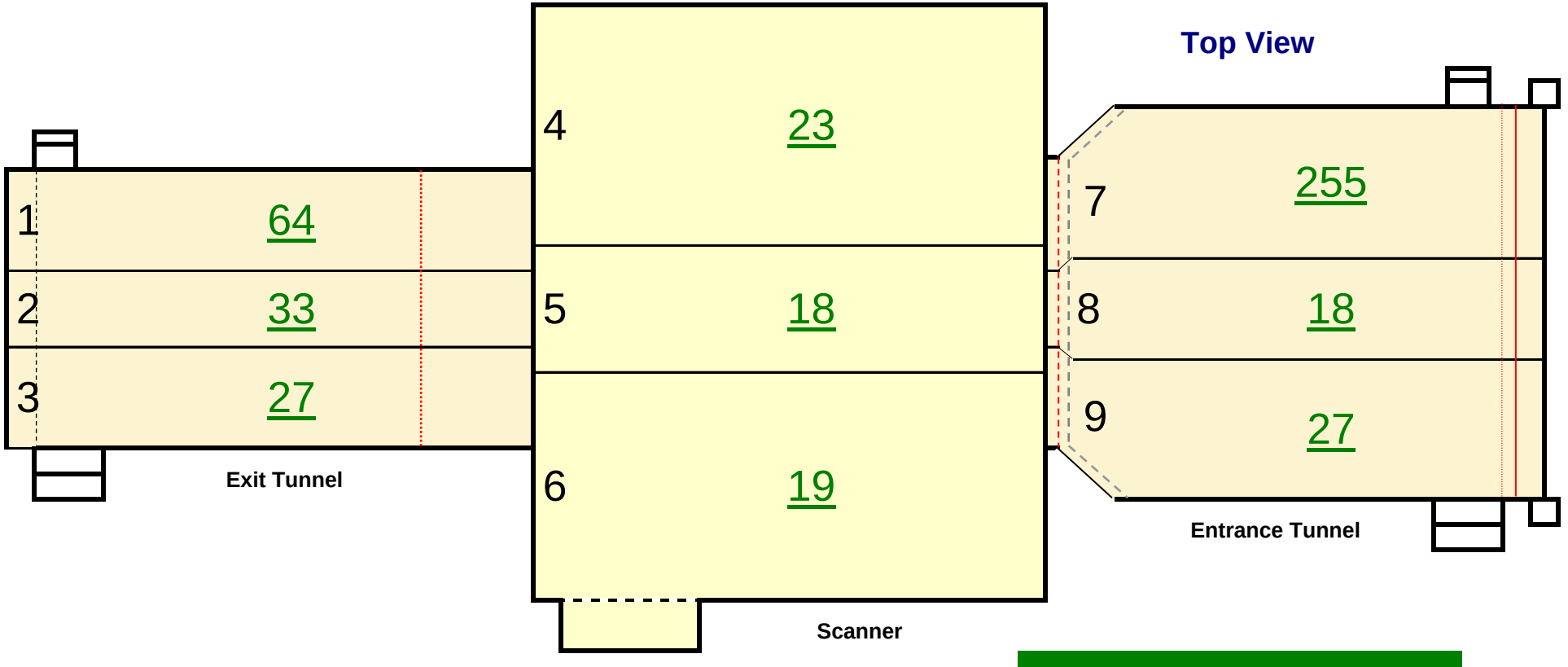
Radiation Meter:	Type Meter:	451P	Meter Serial Number:	4057	Calibration Due Date:	February 18, 2012

NOTES

Complete Radiation Survey (CRS)	Record Voltage and Bean Current here:					
Rename this Document before starting the Survey to:	Voltage:	165	KV	Beam Current:	9.9	mA
DAY-CRS-18MAR2011-6944	Maximum Safe Readings	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 µR/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.

RADIATION SURVEY WORKSHEET



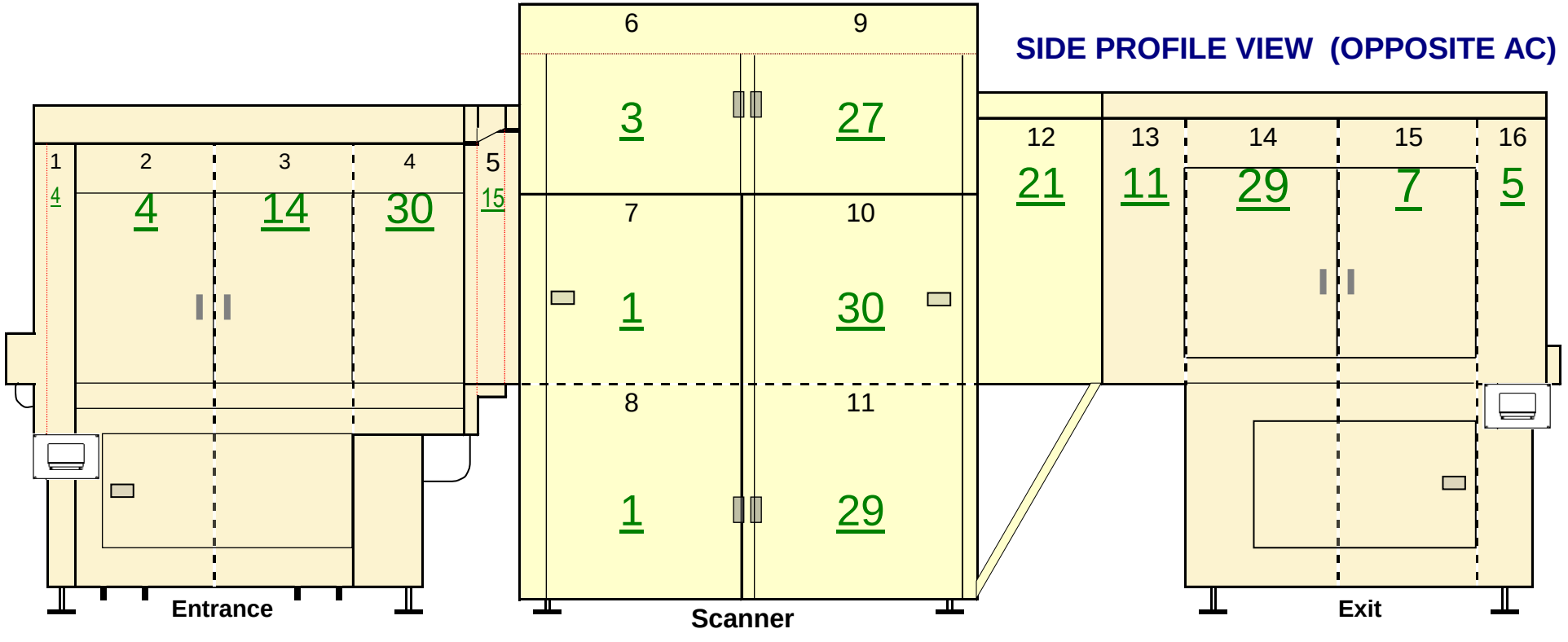
GOOD

Top View			
Scattered Radiation Measurement Points Worksheet			No PROBLEM
Record highest reading per panel		µR/Hr	
1	Exit Conveyor Top Panel	64	
2	Exit Conveyor Top Panel	33	
3	Exit Conveyor Top Panel	27	
4	Scanner Conveyor Top Panel	23	
5	Scanner Conveyor Top Panel	18	
6	Scanner Conveyor Top Panel	19	
7	Entrance Conveyor Top Panel	255	
8	Entrance Conveyor Top Panel	18	
9	Entrance Conveyor Top Panel	27	

Highest Reading	255
Average Reading	54
Lowest Reading	18

RADIATION SURVEY WORKSHEET

SIDE PROFILE VIEW (OPPOSITE AC)



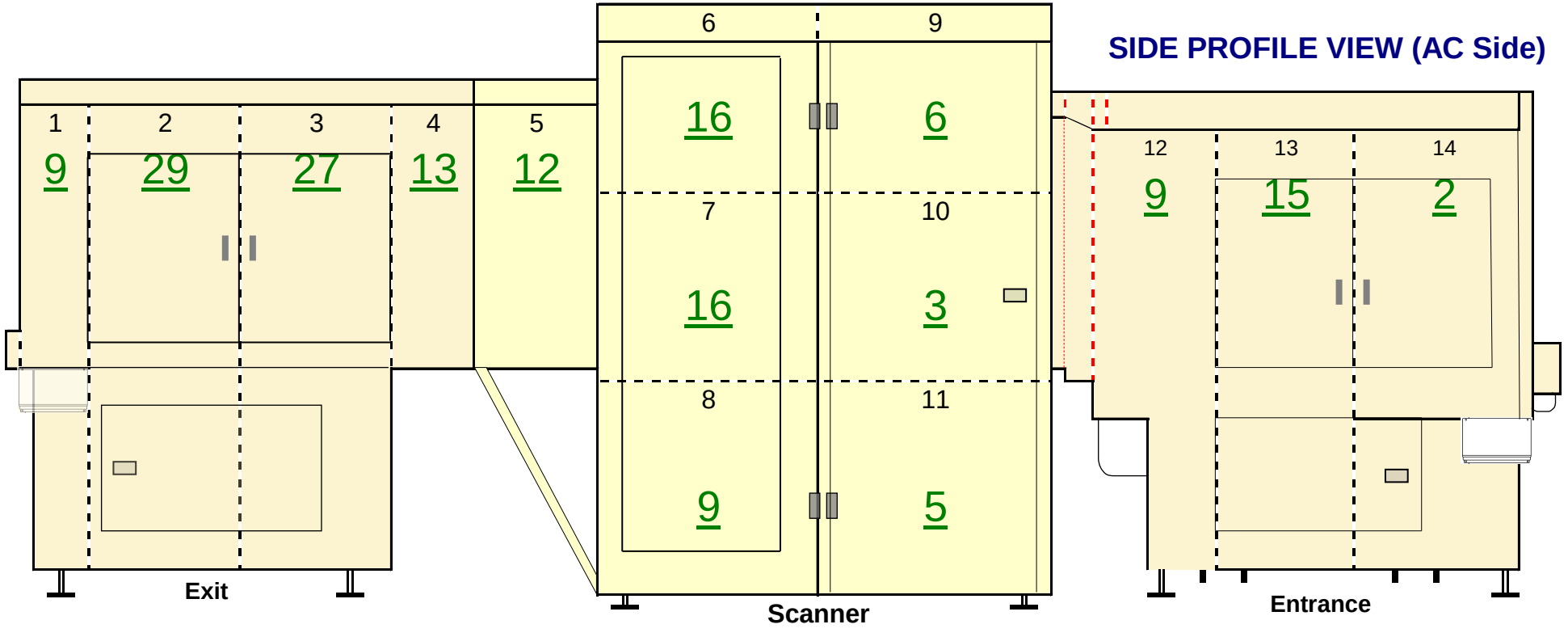
SYSTEM - SIDE PROFILE VIEW (Opposite AC Side)			
Scattered Radiation Measurement Points Worksheet			No PROBLEM
Record highest reading per panel		µR/Hr	
1	Entrance Conveyor Panel	4	
2	Entrance Conveyor Panel	4	
3	Entrance Conveyor Panel	14	
4	Entrance Conveyor Panel	30	
5	Entrance Conveyor / Scanner Panel	15	
6	Upper Scanner Panel	3	
7	Middle Scanner Panel	1	
8	Lower Scanner Panel	1	
9	Upper Scanner Panel	27	
10	Middle Scanner Panel	30	
11	Lower Scanner Panel	29	
12	Exit Conveyor / Scanner Panel	21	
13	Exit Conveyor Panel	11	
14	Exit Conveyor Panel	29	
15	Exit Conveyor Panel	7	
16	Exit Conveyor Panel	5	

GOOD

Highest Reading	30
Average Reading	14
Low Reading	1

RADIATION SURVEY WORKSHEET

SIDE PROFILE VIEW (AC Side)



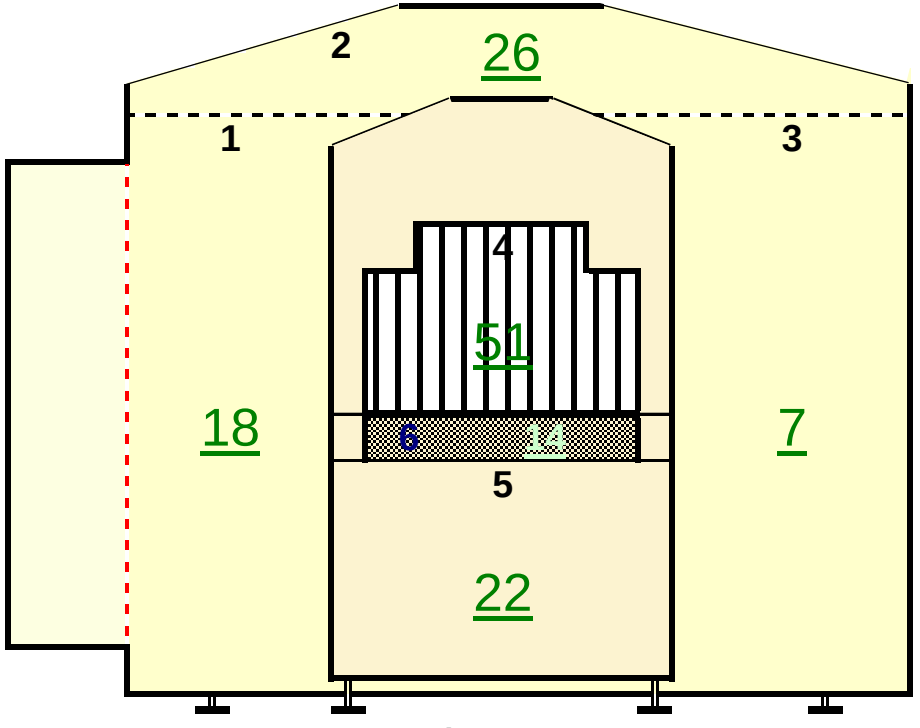
SYSTEM - SIDE PROFILE VIEW (AC Side)			
Scattered Radiation Measurement Points Worksheet			No PROBLEM
Record highest reading per panel		µR/Hr	
1	Exit Conveyor Panel	9	
2	Exit Conveyor Panel	29	
3	Exit Conveyor Panel	27	
4	Exit Conveyor Panel	13	
5	Exit Conveyor / Scanner Panel	12	
6	Upper Scanner Pane	16	
7	Middle Scanner Panel	16	
8	Lower Scanner Panel	9	
9	Upper Scanner Panel	6	
10	Middle Scanner Panel	3	
11	Lower Scanner Panel	5	
12	Entrance Conveyor / Scanner Panel	9	
13	Entrance Conveyor Panel	15	
14	Entrance Conveyor Panel	2	

GOOD

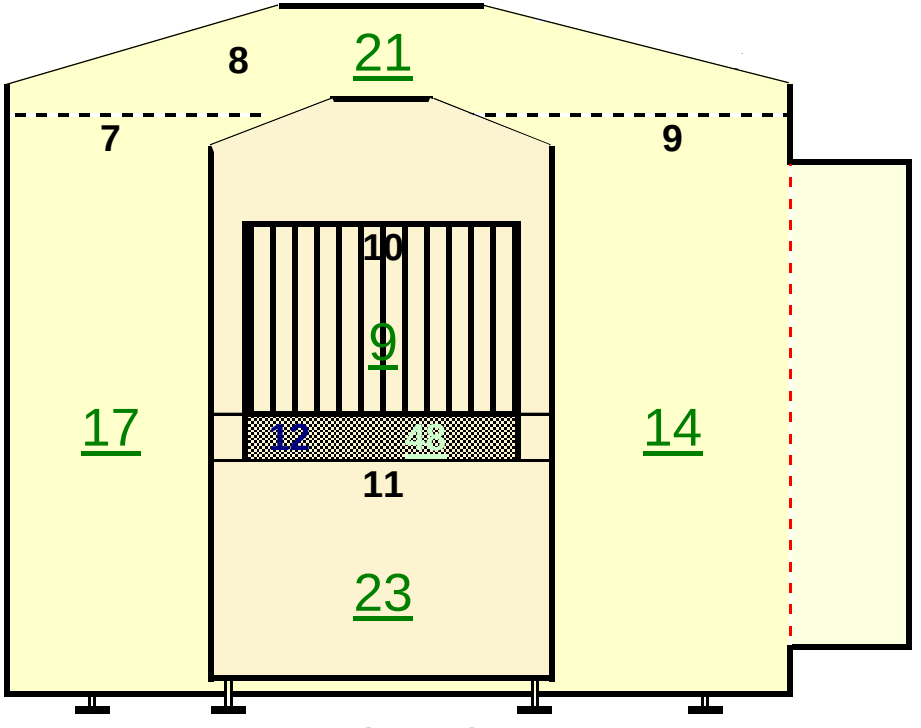
Highest Reading	29
Average Reading	12
Low Reading	2

RADIATION SURVEY WORKSHEET

SYSTEM - FACES (End Views)



eXaminer entrance



eXaminer exit

SYSTEM - FACES (End Views)			
Scattered Radiation Measurement Points Worksheet			No PROBLEM
Record highest reading per panel		µR/Hr	
1	Scanner Panel	18	
2	Scanner Top Panel	26	
3	Scanner Panel	7	
4	Belt Entrance	51	
5	Entrance Lower Panel	22	
6	Belt Lower Facia Cover Entrance	14	
7	Scanner Panel	17	
8	Scanner Top Panel	21	
9	Scanner Panel	14	
10	Belt Exit	9	
11	Exit Lower Panel	23	
12	Belt Lower Facia Cover Exit	48	

GOOD

Highest Reading	51
Average Reading	23
Low Reading	7