RMRS Rocky Mountain Remediation Services, L L C
protecting the environment

RF/RMRS-99-358.UN

Closeout Radiological Survey Report

For Building 729

Rocky Mountain Remediation Services, L.L.C.

Millennium Services Inc

Revision 1

July 1999

Volume 2

1/531

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Introduction

Survey 72901020 was conducted on April 23, 1999 by STANLEY/PILKINGTON as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901020 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

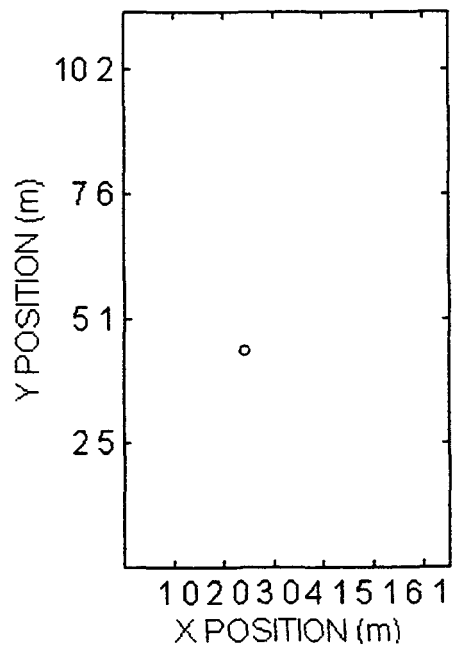

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

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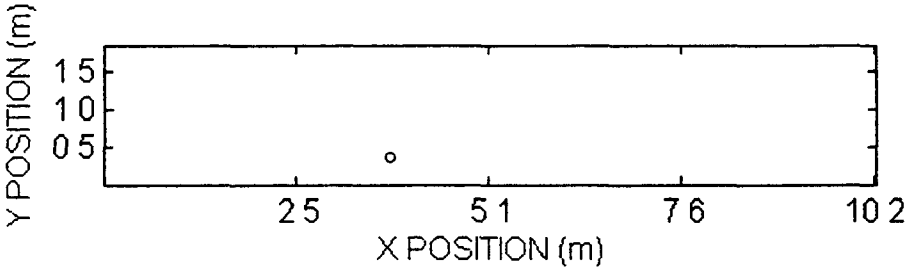

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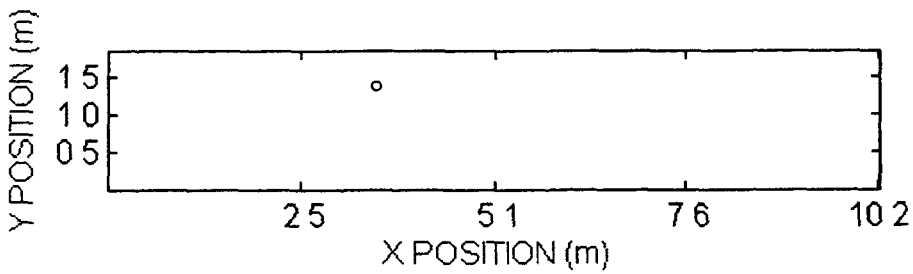

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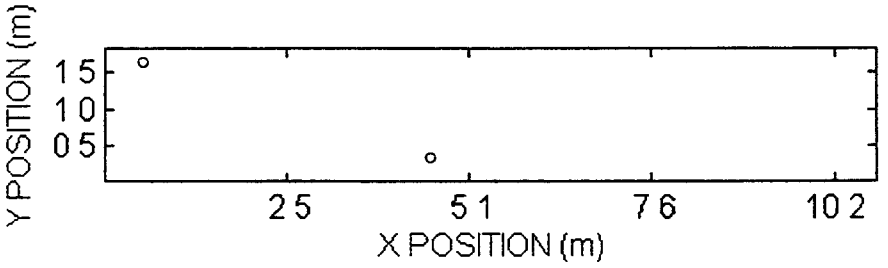

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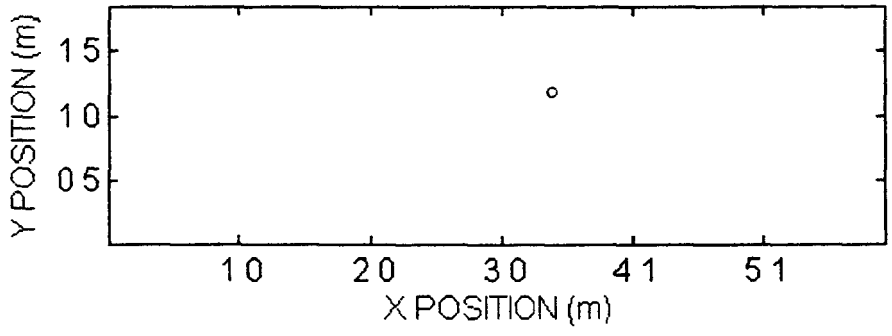

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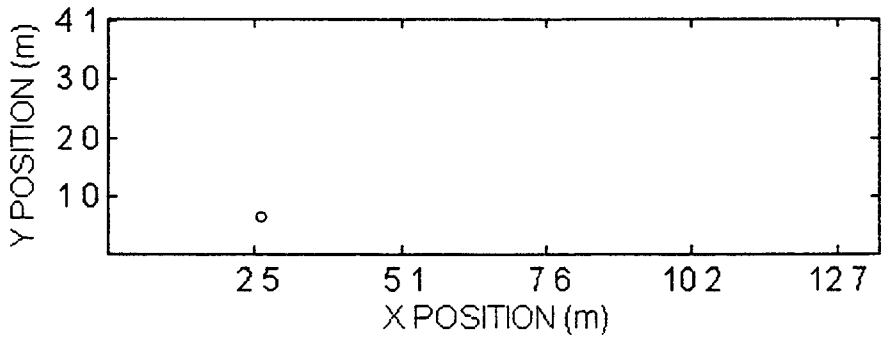

Figure 3. Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

Attachment A

Survey Unit 72901 Media/Contamination Results and Maps

ATTACHMENT A

SURVEY UNIT 72901 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_W$ =

>75% and <100% of $DCGL_W$ =

Greater Than or Equal to $DCGL_W$ =

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Survey Unit 72901 Data Summary and Approval Sheet

Total Activity Measurements (Supporting Media Sampling-No Statistics Required)

	Number Required	Number Obtained
Pre-Media Sample	15	16
Post-Media Sample	15	16

Removable Surface Activity Measurements

	Number Required	Number Obtained
Pre-Media Sample	17	26
Post-Media Sample	16	16

	Pre-Media Sample		Post-Media Sample	
MIN	0 0	dpm/100 cm^2	0 0	dpm/100 cm^2
MAX	1 5	dpm/100 cm^2	3 0	dpm/100 cm^2
MEAN	0 2	dpm/100 cm^2	0 4	dpm/100 cm^2
STD DEV	0 6	dpm/100 cm^2	0 9	dpm/100 cm^2
TRANSURANIC $DCGL_W$	20	dpm/100 cm^2	20	dpm/100 cm^2

Media Sample Activity Analysis

	Number Required	Number Obtained
Media Samples	16	16

	TOTAL URANIUM RESULTS		TOTAL TRANSURANIC RESULTS	
MIN	0 9	dpm/100 cm^2	0 0	dpm/100 cm^2
MAX	33 6	dpm/100 cm^2	61 7	dpm/100 cm^2
MEAN	12 9	dpm/100 cm^2	4 7	dpm/100 cm^2
STD DEV	11 1	dpm/100 cm^2	15 2	dpm/100 cm^2
$DCGL_W$	5000	dpm/100 cm^2	100	dpm/100 cm^2

Survey Unit 72901 Data Summary and Approval Sheet

Total Surface Contamination Measurements

15	26
Number Required	Number Obtained

MIN	-9 7	dpm/100 cm^2
MAX	24 0	dpm/100 cm^2
MEAN	8 4	dpm/100 cm^2
STD DEV	9 3	dpm/100 cm^2
TRANSURANIC $DCGL_W$	100	dpm/100 cm^2

Reviewed [redacted] *4/19/99* Date

Approved [redacted] *4/19/99* Date

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Survey Area A Building 729 Surface Media Survey Results

SURVEY UNIT 72901						
Sample Location Number	Pre-Sample Results			Post-Sample Results		
	Total Activity (dpm/100 cm^2)	Removable Activity (dpm/100 cm^2)	MDA	Total Activity (dpm/100 cm^2)	Removable Activity (dpm/100 cm^2)	MDA
1	< 13	0 0	4 1	< 13	0 0	4 1
2	< 13	1 5	4 1	< 13	0 0	4 1
3	< 13	0 0	4 1	< 13	3 0	4 1
4	< 13	0 0	4 1	< 13	0 0	4 1
5	< 13	0 0	4 1	< 13	0 0	4 1
6	< 13	0 0	4 1	< 13	0 0	4 1
7	13	1 5	4 1	< 13	0 0	4 1
8	13	0 0	4 1	< 13	1 5	4 1
9	< 13	0 0	4 1	< 13	0 0	4 1
10	< 34	0 0	4 1	< 34	0 0	4 1
11	< 13	0 0	4 1	< 13	0 0	4 1
12	< 13	0 0	4 1	< 13	1 5	4 1
13	13	0 0	4 1	< 13	0 0	4 1
14	< 34	0 0	4 1	< 34	0 0	4 1
15	< 34	1 5	4 1	< 34	0 0	4 1
16	14	0 0	4 1	14	0 0	4 1
17 **		1 5	4 1			
18 **		0 0	4 1			
19 **		0 0	4 1			
20 **		0 0	4 1			
21 **		0 0	4 1			
22 **		0 0	4 1			
23 **		0 0	4 1			
24 **		0 0	4 1			
25 **		0 0	4 1			
26 **		0 0	4 1			
	MIN	0 0		MIN	0 0	
	MAX	1 5		MAX	3 0	
	MEAN	0 2		MEAN	0 4	
	SD	0 6		SD	0 9	
	Transuranic DCGL$_W$	20		Transuranic DCGL$_W$	20	

** *Survey measurements 17 through 26 were smears only No solid media samples were obtained due to unpainted concrete surfaces*

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Survey Area A Building 729 Sample Weight Data Sheet

SURVEY UNIT 72901						
RIN NUMBER 99A5187			RIN NUMBER 99A5050			SUM (*)
Sample Location Number	Event	Rad Screening Weight, grams	Sample Location Number	Event	Isotopic Analysis Weight, grams	Total Weight, grams
1	034 001	1 0204	1	034 001	21 69	22 71
2	035 001	1 0061	2	035 001	15 71	16 72
3	036 001	1 0281	3	036 001	9 36	10 39
4	037 001	1 0095	4	037 001	3 20	4 21
5	038 001	1 0076	5	038 001	16 71	17 72
6	039 001	1 0085	6	039 001	10 00	11 01
7	040 001	1 0132	7	040 001	16 80	17 81
8	041 001	1 0110	8	041 001	6 26	7 27
9	042 001	1 0167	9	042 001	2 07	3 09
10	047 001	2 0234	10	047 001	1 77	3 79
11	044 001	1 0242	11	044 001	6 51	7 53
12	045 001	1 0036	12	045 001	9 54	10 54
13	043 001	1 0252	13	043 001	18 64	19 67
14	048 001	2 0228	14	048 001	5 30	7 32
15	049 001	2 0054	15	049 001	2 79	4 80
16	046 001	1 0233	16	046 001	5 73	6 75

(*) Total weight of each sample used for the activity calculations is the sum of the weights of each aliquot removed for rad screening by THERMO NUTECH plus the aliquot analyzed by SA Cohen for isotopics

Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72901											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in²)	INDIVIDUAL NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) DCGL $_W$ =5000	TRANSURANIC TOTAL (dpm/100cm²) DCGL $_W$ =100
Block Wall	1	99A5050-034 001	U-233/234	0 856	0 071	22 71	40	16 7	1 4		
Block Wall	1	99A5050-034 001	U-235	0 036	0 049	22 71	40	0 7	1 0		
Block Wall	1	99A5050-034 001	U-238	0 829	0 039	22 71	40	16 2	0 8	33 6	
Block Wall	1	99A5050-034 001	Pu-239/240	0 034	0 091	22 71	40	0 7	1 8		
Block Wall	1	99A5050-034 001	Am-241	0 116	0 186	22 71	40	2 3	3 6		2 9
Stair Tread	2	99A5050-035 001	U-233/234	0 624	0 061	16 72	40	9 0	0 9		
Stair Tread	2	99A5050-035 001	U-235	0 047	0 042	16 72	40	0 7	0 6		
Stair Tread	2	99A5050-035 001	U-238	1 010	0 061	16 72	40	14 5	0 9	24 2	
Stair Tread	2	99A5050-035 001	Pu-239/240	3 840	0 036	16 72	40	55 2	0 5		
Stair Tread	2	99A5050-035 001	Am-241	0 447	0 123	16 72	40	6 4	1 8		61 7
Block Wall	3	99A5050-036 001	U-233/234	0 588	0 044	10 39	40	5 3	0 4		
Block Wall	3	99A5050-036 001	U-235	0 012	0 097	10 39	40	0 1	0 9		
Block Wall	3	99A5050-036 001	U-238	0 618	0 044	10 39	40	5 5	0 4	10 9	
Block Wall	3	99A5050-036 001	Pu-239/240	0 000	0 039	10 39	40	0 0	0 3		
Block Wall	3	99A5050-036 001	Am-241	-0 002	0 148	10 39	40	0 0	1 3		0 0
Block Wall	4	99A5050-037 001	U-233/234	0 147	0 036	4 21	40	0 5	0 1		
Block Wall	4	99A5050-037 001	U-235	0 016	0 045	4 21	40	0 1	0 2		
Block Wall	4	99A5050-037 001	U-238	0 080	0 036	4 21	40	0 3	0 1	0 9	
Block Wall	4	99A5050-037 001	Pu-239/240	0 003	0 088	4 21	40	0 0	0 3		
Block Wall	4	99A5050-037 001	Am-241	0 090	0 234	4 21	40	0 3	0 8		0 3
Block Wall	5	99A5050-038 001	U-233/234	0 625	0 073	17 72	40	9 5	1 1		
Block Wall	5	99A5050-038 001	U-235	0 019	0 050	17 72	40	0 3	0 8		
Block Wall	5	99A5050-038 001	U-238	0 973	0 041	17 72	40	14 8	0 6	24 6	
Block Wall	5	99A5050-038 001	Pu-239/240	-0 016	0 082	17 72	40	-0 2	1 2		
Block Wall	5	99A5050-038 001	Am-241	0 027	0 105	17 72	40	0 4	1 6		0 2
Block Wall	6	99A5050-039 001	U-233/234	0 894	0 076	11 01	40	8 5	0 7		
Block Wall	6	99A5050-039 001	U-235	0 078	0 053	11 01	40	0 7	0 5		
Block Wall	6	99A5050-039 001	U-238	0 912	0 043	11 01	40	8 6	0 4	17 8	
Block Wall	6	99A5050-039 001	Pu-239/240	0 009	0 072	11 01	40	0 1	0 7		
Block Wall	6	99A5050-039 001	Am-241	0 000	0 065	11 01	40	0 0	0 6		0 1

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Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72901											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_w$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_w$=100
Block Wall	7	99A5050-040 001	U-233/234	0 781	0 073	17 81	40	12 0	1 1		
Block Wall	7	99A5050-040 001	U-235	0 075	0 051	17 81	40	1 1	0 8		
Block Wall	7	99A5050-040 001	U-238	0 739	0 041	17 81	40	11 3	0 6	24 4	
Block Wall	7	99A5050-040 001	Pu-239/240	0 041	0 037	17 81	40	0 6	0 6		
Block Wall	7	99A5050-040 001	Am-241	0 134	0 121	17 81	40	2 1	1 9		2 7
Block Wall	8	99A5050-041 001	U-233/234	0 486	0 092	7 27	40	3 0	0 6		
Block Wall	8	99A5050-041 001	U-235	0 000	0 054	7 27	40	0 0	0 3		
Block Wall	8	99A5050-041 001	U-238	0 481	0 043	7 27	40	3 0	0 3	6 0	
Block Wall	8	99A5050-041 001	Pu-239/240	0 036	0 049	7 27	40	0 2	0 3		
Block Wall	8	99A5050-041 001	Am-241	0 022	0 059	7 27	40	0 1	0 4		0 4
Floor	9	99A5050-042 001	U-233/234	0 217	0 039	3 09	40	0 6	0 1		
Floor	9	99A5050-042 001	U-235	0 072	0 048	3 09	40	0 2	0 1		
Floor	9	99A5050-042 001	U-238	0 361	0 039	3 09	40	1 0	0 1	1 7	
Floor	9	99A5050-042 001	Pu-239/240	0 102	0 089	3 09	40	0 3	0 2		
Floor	9	99A5050-042 001	Am-241	0 097	0 156	3 09	40	0 3	0 4		0 5
Block Wall	13	99A5050-043 001	U-233/234	0 717	0 041	19 67	40	12 1	0 7		
Block Wall	13	99A5050-043 001	U-235	0 022	0 108	19 67	40	0 4	1 8		
Block Wall	13	99A5050-043 001	U-238	0 617	0 073	19 67	40	10 4	1 2	22 9	
Block Wall	13	99A5050-043 001	Pu-239/240	0 012	0 033	19 67	40	0 2	0 6		
Block Wall	13	99A5050-043 001	Am-241	0 042	0 108	19 67	40	0 7	1 8		0 9
Floor	11	99A5050-044 001	U-233/234	0 212	0 075	7 53	40	1 4	0 5		
Floor	11	99A5050-044 001	U-235	0 000	0 052	7 53	40	0 0	0 3		
Floor	11	99A5050-044 001	U-238	0 242	0 075	7 53	40	1 6	0 5	2 9	
Floor	11	99A5050-044 001	Pu-239/240	0 087	0 075	7 53	40	0 6	0 5		
Floor	11	99A5050-044 001	Am-241	-0 008	0 088	7 53	40	-0 1	0 6		0 5
Beam	12	99A5050-045 001	U-233/234	1 250	0 077	10 54	40	11 3	0 7		
Beam	12	99A5050-045 001	U-235	0 050	0 045	10 54	40	0 5	0 4		

Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72901											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_w$=5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_w$=100
Beam	12	99A5050-045 001	U-238	1 120	0 065	10 54	40	10 2	0 6	21 9	
Beam	12	99A5050-045 001	Pu-239/240	0 002	0 080	10 54	40	0 0	0 7		
Beam	12	99A5050-045 001	Am-241	-0 003	0 218	10 54	40	0 0	2 0		0 0
Beam	16	99A5050-046 001	U-233/234	0 846	0 042	6 75	40	4 9	0 2		
Beam	16	99A5050-046 001	U-235	0 069	0 093	6 75	40	0 4	0 5		
Beam	16	99A5050-046 001	U-238	0 764	0 042	6 75	40	4 4	0 2	9 7	
Beam	16	99A5050-046 001	Pu-239/240	0 056	0 101	6 75	40	0 3	0 6		
Beam	16	99A5050-046 001	Am-241	0 018	0 048	6 75	40	0 1	0 3		0 4
Floor	10	99A5050-047 001	U-233/234	0 443	0 044	3 79	40	1 4	0 1		
Floor	10	99A5050-047 001	U-235	-0 008	0 098	3 79	40	1 4	0 1		
Floor	10	99A5050-047 001	U-238	0 294	0 044	3 79	40	0 0	0 3	2 9	
Floor	10	99A5050-047 001	Pu-239/240	0 142	0 043	3 79	40	1 0	0 1		
Floor	10	99A5050-047 001	Am-241	0 059	0 122	3 79	40	0 5	0 1		1 4
Floor	14	99A5050-048 001	U-233/234	0 162	0 068	7 32	40	0 2	0 4		
Floor	14	99A5050-048 001	U-235	0 000	0 047	7 32	40	1 0	0 4		
Floor	14	99A5050-048 001	U-238	0 148	0 067	7 32	40	0 0	0 3	1 2	
Floor	14	99A5050-048 001	Pu-239/240	0 253	0 110	7 32	40	0 9	0 4		
Floor	14	99A5050-048 001	Am-241	0 049	0 092	7 32	40	1 6	0 7		2 5
Floor	15	99A5050-049 001	U-233/234	0 164	0 058	4 80	40	0 3	0 6		
Floor	15	99A5050-049 001	U-235	0 015	0 040	4 80	40	0 1	0 2		
Floor	15	99A5050-049 001	U-238	0 176	0 058	4 80	40	0 7	0 2	1 1	
Floor	15	99A5050-049 001	Pu-239/240	0 045	0 104	4 80	40	0 2	0 4		
Floor	15	99A5050-049 001	Am-241	0 024	0 065	4 80	40	0 1	0 3		0 3

MIN	0 9	0 0
MAX	33 6	61 7
MEAN	12 9	4 7
STD DEV	11 1	15 2
$DCGL_W$ =	5000	100

Survey Area A Building 729 Total Surface Contamination Results

Survey Unit 72901			
Meter Model	NE/Technology Electra w/ DP6 Probe	Efficiency (c/d)	0 208
Serial #/Date	2181 / QC - 1259	Local Area Bkgd (cpm)	3
Cal Due Date	7/15/99	QC Efficiency (c/d)	0 2169
QC Cal Due Date	8/18/1999	QC Local Area Bkgd (cpm)	2

Sample Location Number	Total Surface Activity		Quality Control Measurements	MDA
	(cpm)	(dpm/100 cm^2)	(dpm/100 cm^2)	(dpm/100 cm^2)
1	5	9 5	N/A	52
2	6	14 3	N/A	52
3	1	-9 7	N/A	52
4	5	9 5	N/A	52
5	3	-0 1	N/A	52
6	5	9 5	N/A	52
7	5	9 5	N/A	52
8	5	9 5	N/A	52
9	1	-9 7	N/A	52
10	3	-0 1	N/A	52
11	5	9 5	N/A	52
12	7	19 2	9 2	52/43[a]
13	2	-4 9	N/A	52
14	5	9 5	N/A	52
15	3	-0 1	N/A	52
16	6	14 3	N/A	52
17	8	24 0	N/A	52
18	6	14 3	N/A	52
19	7	19 2	N/A	52
20	4	4 7	N/A	52
21	3	-0 1	N/A	52
22	4	4 7	N/A	52
23	7	19 2	N/A	52
24	4	4 7	N/A	52
25	8	24 0	N/A	52
26	6	14 3	4 6	52/43[a]
	MIN	-9 7		
	MAX	24 0		
	MEAN	8 4		
	SD	9 3		
	Transuranic $DCGL_W$	**100**		

[a] MDA for QC measurements

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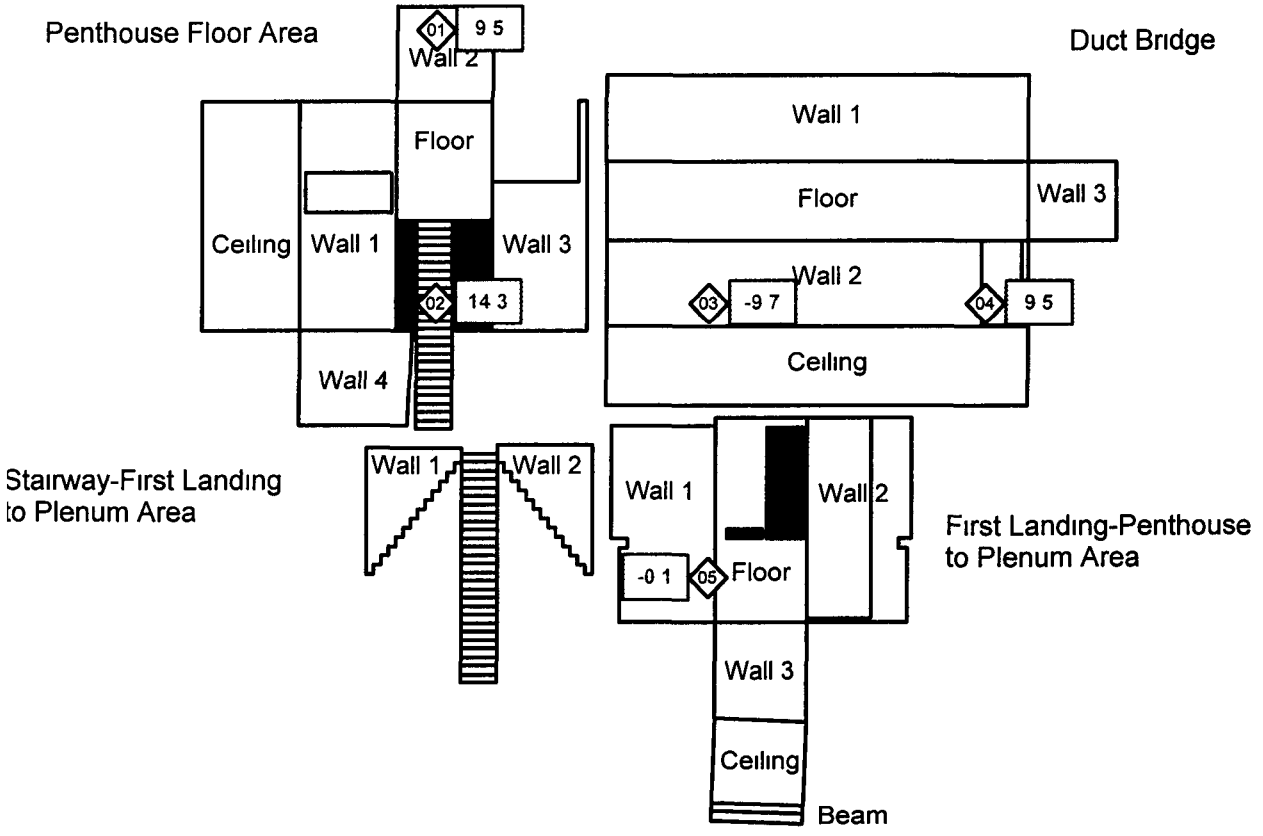
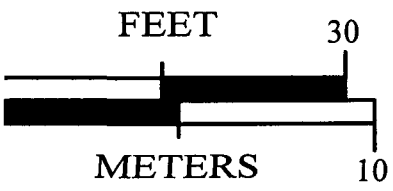
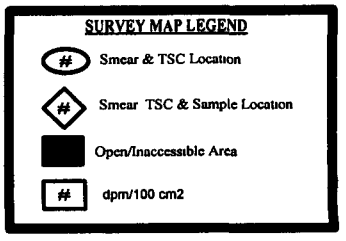
Total Surface Activity
Posting Plot for Survey Unit 72901

SURVEY UNIT 72901-MAP 1 OF 2







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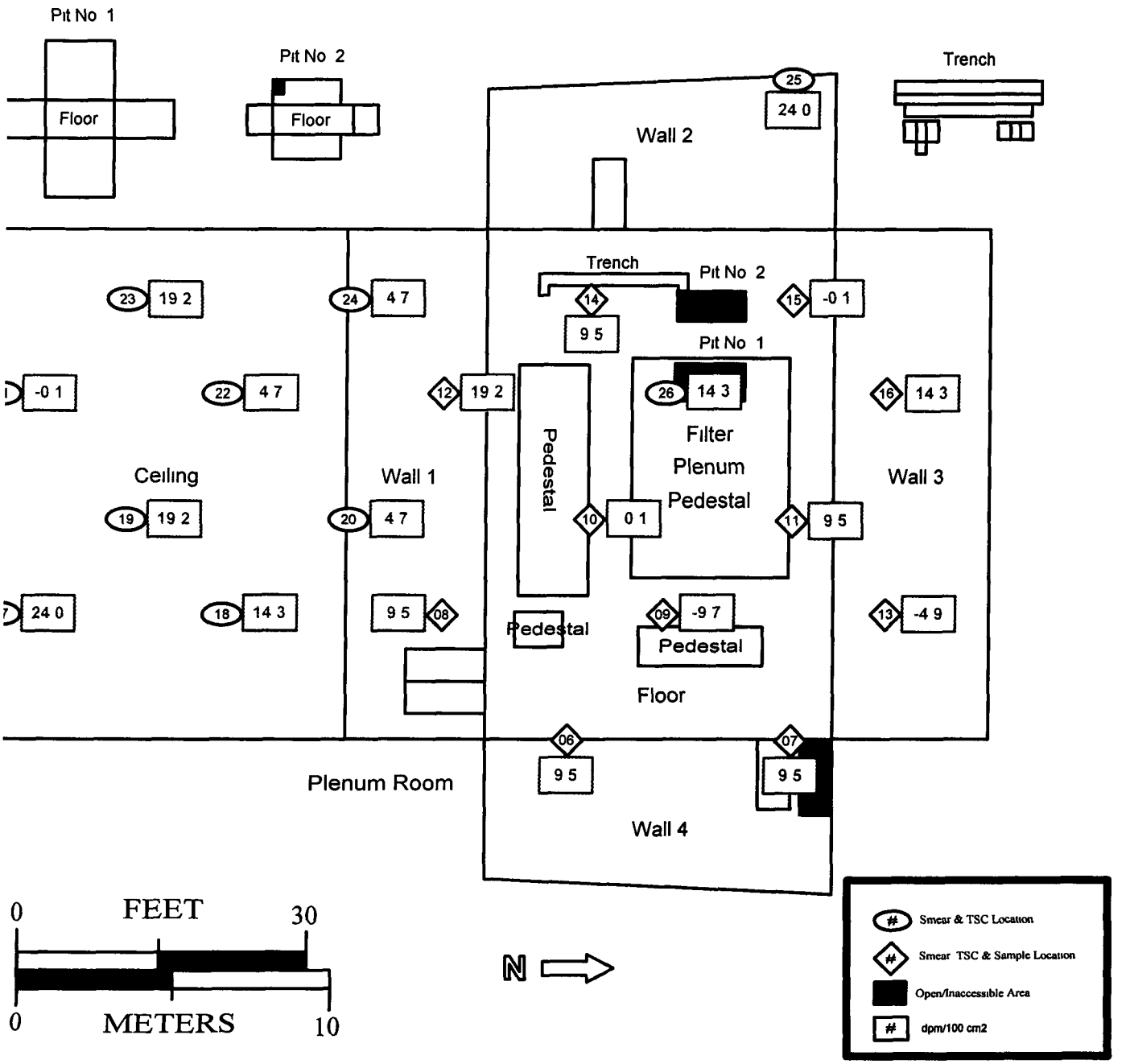
Total Surface Activity
Posting Plot for Survey Unit 72901

SURVEY UNIT 72901-MAP 2 OF 2



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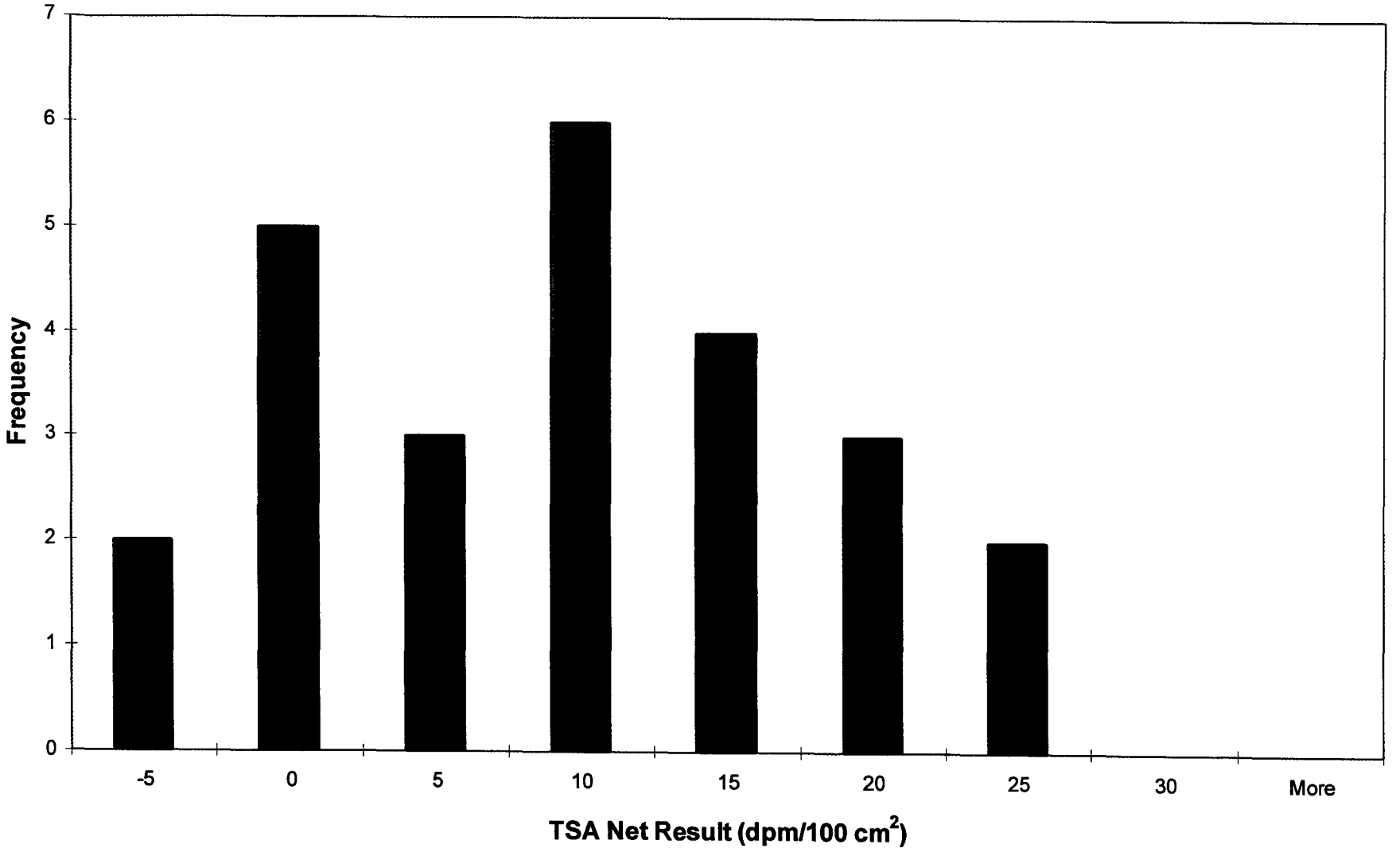
72901 TSA Data Frequency Plot



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Total Surface Activity Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72901 data are calculated on the "Survey Area A Building 729 Total Surface Contamination Results" form Because all total surface activity (TSA or TSC) measurement results are less than $DCGL_W$ (less than 100 dpm/100 cm^2) , the survey unit clearly meets the TSA release criterion

A graphical data review was also performed on the attached form The posting plot indicated that spatial trends of elevated areas are not present The histogram indicated that no isolated areas of elevated activity are present

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Total Surface Activity Measurement Calculation Worksheet") was based on the use of this test An average local area background (LAB) value was subtracted from each gross measurement to calculate a net result, thus the sign test applies (sign test is typically applied only when the contaminant is not present in background)

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The sign test assumes that the data from the survey unit consists of independent samples from each distribution This assumption is verified per the posting plot (see Step 1), that indicates that spatial dependencies do not exist in the survey unit

The assumed data variance, as indicated by the assumed standard deviation (see "Total Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of samples with the ACTUAL survey unit standard deviation

The actual sample standard deviation for 72901 is 9 3

Thus, the ACTUAL required number of samples is as follows

$$\Delta/\delta = (DCGL_{TSA} - LBGR_{TSA})/ SD_{TSA}$$

$$\Delta/\delta_{transuranics} = 7.1 = (100 \text{ dpm}/100\text{cm}^2 - 34 \text{ dpm}/100\text{cm}^2)/9.3 \text{ dpm}/100\text{cm}^2$$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{TSA}$ is the total surface Activity derived concentration guideline value (DOE Order 5400 5 total surface Activity limit equals 100 dpm/100cm^2 for transuranics and 5000 dpm/100cm^2 for uranium, per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{TSA}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor

SD_{TSA} is the ACTUAL standard deviation of the total surface Activity

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5 4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5 4, equals 0 998650 for a relative shift of 3 0 (The actual value approaches one The highest published value is utilized for conservatism)

Step 3 Continued

Determine the number of TSA surface Activity measurements for the applicable survey unit using the following MARSSIM, Section 5 5 2 3 formula that is based on Plutonium contaminants not being present in the

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Total Surface Activity Summary Statistics Calculation Worksheet

background

$N = (1.645 + 1.645)^2 / 4(\text{Sign P} - 0.5)^2$

$N = (1.645 + 1.645)^2 / 4(0.998650 - 0.5)^2 = \underline{10.9}$

Where

1.645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0.998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5.5.2.3

$N = \underline{10.9} * 1.2 = \underline{13}$

Conclusion Utilizing a conservative relative shift value of 3.0, a minimum of 13 Total Surface Activity measurements was required in 72901

Step 5

Draw conclusions from the data All measurements are less than $DCGL_W$. The minimum number of required TSA measurements were collected. Thus, survey unit 72901 complies with the TSA release criteria.

[redacted]

4/24/99

Date

4/24/99

Date

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Removable Contamination Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72901 removable surface contamination data are calculated on the "Survey Area A Building 729 Surface Media Survey Results" form Because all removable survey measurement results are less than $DCGL_W$ (less than 20 dpm/100 cm^2) , the survey unit clearly meets the removable contamination release criterion

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0\ 05$ and $\beta = 0\ 05$ The number of sample points calculated (see "Removable Surface Activity Measurement Calculation Worksheet") was based on the use of this test

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The assumed data variance, as indicated by the assumed standard deviation (see "Removable Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of smears with the ACTUAL survey unit standard deviation

The actual removable survey standard deviation for 72901 is 0 6

Thus, the ACTUAL required number of measurements is as follows

$$\Delta/\delta = (DCGL_{REMOVABLE} - LBGR_{REMOVABLE})/ SD_{REMOVABLE}$$

$$\Delta/\delta_{transuranics} = 16\ 7 = (20\ dpm/100cm^2 - 10\ dpm/100cm^2)/0\ 6\ dpm/100cm^2$$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{REMOVABLE}$ is the removable surface contamination derived concentration guideline value (DOE Order 5400 5 removable surface contamination limit equals 20 dpm/100cm^2 for transuranics per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{REMOVABLE}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor

$SD_{REMOVABLE}$ is the ACTUAL standard deviation of the removable surface contamination measurements

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5 4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5 4, equals 0 998650 for a relative shift of 3 0 (The actual value approaches one The highest published value is utilized for conservatism)

Determine the number of removable surface contamination measurements for the applicable survey unit using the following MARSSIM, Section 5 5 2 3 formula that is based on Plutonium contaminants not being present in the background

Step 3 Continued

$$N = (1\ 645 + 1\ 645)^2 / 4(Sign\ P - 0\ 5)^2$$

$$N = (1\ 645 + 1\ 645)^2 / 4(0\ 998650 - 0\ 5)^2 = 10\ 9$$

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Paint Sample Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72901 media sample (paint) data are calculated on the "Survey Area A Building 729 Paint/Solid Media Sample Results" form Because all media sample results are less than $DCGL_W$ (less than 100 dpm/100 cm^2 for transuranics and 5000 dpm/100 cm^2 for uranium), the survey unit clearly meets the media sample release criterion

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Media Surface Activity Measurement Calculation Worksheet") was based on the use of this test

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The assumed data variance, as indicated by the assumed standard deviation (see "Media Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of samples with the ACTUAL survey unit standard deviation

The actual media (paint) sample standard deviation for transuranics for 72901 is 15.2
The actual media (paint) sample standard deviation for uranium for 72901 is 11.1

Thus, the ACTUAL required number of samples is as follows

$\Delta/\delta = (DCGL_{MEDIA} - LBGR_{MEDIA})/ SD_{MEDIA}$

$\Delta/\delta_{transuranics} = 3.28 = (100 \text{ dpm}/100\text{cm}^2 - 50 \text{ dpm}/100\text{cm}^2)/15.2 \text{ dpm}/100\text{cm}^2$
$\Delta\delta_{uranium} = 16.2 = (5000 \text{ dpm}/100\text{cm}^2 - 4819.9 \text{ dpm}/100\text{cm}^2)/11.1 \text{ dpm}/100\text{cm}^2$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{MEDIA}$ is the media sample derived concentration guideline value (DOE Order 5400.5 total surface contamination limit equals 100 dpm/100cm^2 for transuranics and 5000 dpm/100cm^2 for uranium per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{MEDIA}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor *Note that for transuranics, the LBGR was changed from the original value used in calculating the number of measurements (95.7) The original LBGR was chosen only to establish a relative shift between 1 and 3 However, a more reasonable value, and the value recommended by MARSSIM, is one-half of the $DCGL_w$ (or 50 dpm/100 cm^2)*

SD_{MEDIA} is the ACTUAL standard deviation of the 72901 samples

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5.4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5.4, equals 0.998650 for a relative shift of 3.0 (The actual value approaches one The highest published value is utilized for conservatism)

Determine the number of media samples for the applicable survey unit using the following MARSSIM, Section 5.5.2.3 formula that is based on Plutonium and Uranium contaminants not being present in the background

Step 3 Continued

$N = (1.645 + 1.645)^2 / 4(\text{Sign P} - 0.5)^2$

$N = (1.645 + 1.645)^2 / 4(0.998650-0.5)^2 = 10.9$

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Paint Sample Summary Statistics Calculation Worksheet

Where
1 645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0 998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5 5 2 3

N = 10 9 * 1 2 = 13

Conclusion Utilizing a conservative relative shift value of 3 0, a minimum of 13 Media (paint) samples was required in 72901

Step 5

Draw conclusions from the data All sample results are less than $DCGL_W$ The minimum number of required media samples were collected Thus, survey unit 72901 complies with the media sample release criteria.

[redacted] 4/24/99
Date
4/24/99
Date

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Attachment B

Survey Unit 72902 Media/Contamination Results and Maps

ATTACHMENT B

SURVEY UNIT 72902 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_W$ =

>75% and <100% of $DCGL_W$ =

Greater Than or Equal to $DCGL_W$ =

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Survey Unit 72902 Data Summary and Approval Sheet

Total Activity Measurements (Supporting Media Sampling-No Statistics Required)

Pre-Media Sample	15	16	Post-Media Sample	15	16
	Number Required	Obtained		Number Required	Number Obtained

Removable Surface Activity Measurements

Pre-Media Sample	17	18	Post-Media Sample	16	16
	Number Required	Number Obtained		Number Required	Number Obtained

MIN	0 0	dpm/100 cm^2	MIN	0 0	dpm/100 cm^2
MAX	3 0	dpm/100 cm^2	MAX	1 5	dpm/100 cm^2
MEAN	0 7	dpm/100 cm^2	MEAN	0 7	dpm/100 cm^2
STD DEV	0 9	dpm/100 cm^2	STD DEV	0 8	dpm/100 cm^2
TRANSURANIC $DCGL_W$	20	dpm/100 cm^2	TRANSURANIC $DCGL_W$	20	dpm/100 cm^2

Media Sample Activity Analysis

Media Samples	16	16
	Number Required	Number Obtained

TOTAL URANIUM RESULTS			TOTAL TRANSURANIC RESULTS		
MIN	0 7	dpm/100 cm^2	MIN	-0 1	dpm/100 cm^2
MAX	36 5	dpm/100 cm^2	MAX	2 0	dpm/100 cm^2
MEAN	9 4	dpm/100 cm^2	MEAN	0 7	dpm/100 cm^2
STD DEV	10 7	dpm/100 cm^2	STD DEV	0 7	dpm/100 cm^2
$DCGL_W$	5000	dpm/100 cm^2	$DCGL_W$	100	dpm/100 cm^2

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Survey Unit 72902 Data Summary and Approval Sheet

Total Surface Contamination Measurements

15	18
Number Required	Number Obtained

MIN	-9 6	dpm/100 cm^2
MAX	28 8	dpm/100 cm^2
MEAN	1 9	dpm/100 cm^2
STD DEV	10 1	dpm/100 cm^2
TRANSURANIC $DCGL_W$	100	dpm/100 cm^2

Reviewe [redacted] *4/19/99* Date

Approve [redacted] *4/19/99* Date

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Survey Area A Building 729 Surface Media Survey Results

SURVEY UNIT 72902						
	Pre-Sample Results			Post-Sample Results		
Sample Location	Total Activity (dpm/100 cm^2)	Removable Activity (dpm/100 cm^2)	MDA	Total Activity (dpm/100 cm^2)	Removable Activity (dpm/100 cm^2)	MDA
1	< 13	0 0	4 1	< 13	0 0	4 1
2	< 13	0 0	4 1	< 13	1 5	4 1
3	< 13	1 5	4 1	< 13	0 0	4 1
4	< 13	0 0	4 1	< 13	1 5	4 1
5	< 13	0 0	4 1	< 13	0 0	4 1
6	< 13	1 5	4 1	< 13	1 5	4 1
7	< 13	0 0	4 1	< 13	1 5	4 1
8	< 13	1 5	4 1	< 13	0 0	4 1
9 #			4 1			4 1
10	< 13	3 0	4 1	< 13	0 0	4 1
11	< 13	0 0	4 1	< 13	0 0	4 1
12	< 13	0 0	4 1	< 13	0 0	4 1
13	< 13	1 5	4 1	< 13	0 0	4 1
14	< 13	0 0	4 1	< 13	1 5	4 1
15	< 13	1 5	4 1	< 13	0 0	4 1
16	< 13	0 0	4 1	< 13	1 5	4 1
17	< 13	0 0	4 1	< 13	1 5	4 1
18 **		1 5	4 1			
19 #						
20 **		0 0	4 1			
	MIN	0 0		MIN	0 0	
	MAX	3 0		MAX	1 5	
	MEAN	0 7		MEAN	0 7	
	SD	0 9		SD	0 8	
	Transuranic $DCGL_W$	**20**		Transuranic $DCGL_W$	**20**	

** *Survey measurements 18 and 20 were smears only No solid media samples were obtained due to unpainted concrete surface*

Survey measurements 9 and 19 were inaccessable due to high voltage lines within 10 feet of sample locations

Survey Area A Building 729 Sample Weight Data Sheet

SURVEY UNIT 72902						
RIN NUMBER 99A5187			RIN NUMBER 99A5050			SUM (*)
Location Number	Event	Rad Screening Weight, grams	Location Number	Event	Isotopic Analysis Weight, grams	Total Weight, grams
1	029 001	1 0086	1	029 001	4 96	5 97
2	030 001	1 0106	2	030 001	15 42	16 43
3	032 001	1 0296	3	032 001	4 78	5 81
4	033 001	1 0363	4	033 001	3 37	4 41
5	028 001	1 0062	5	028 001	6 30	7 31
6	020 001	1 0512	6	020 001	0 35	1 40
7	021 001	1 0012	7	021 001	3 27	4 27
8	025 001	1 0333	8	025 001	18 02	19 05
9	No Sample		9	No Sample		
10	023 001	1 0217	10	023 001	7 30	8 32
11	018 001	1 0279	11	018 001	3 62	4 65
12	019 001	1 0060	12	019 001	9 93	10 94
13	026 001	1 0058	13	026 001	18 12	19 13
14	022 001	1 0137	14	022 001	3 68	4 69
15	024 001	1 0197	15	024 001	11 88	12 90
16	027 001	1 0276	16	027 001	4 12	5 15
17	031 001	1 0256	17	031 001	4 61	5 64

(*) Total weight of each sample used for the activity calculations is the sum of the weights of each aliquot removed for rad screening by THERMO NUTECH plus the aliquot analyzed by SA Cohen for isotopics

Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72902											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in²)	INDIVIDUAL NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) DCGL $_W$ =5000	TRANSURANIC TOTAL (dpm/100cm²) DCGL$_W$ =100
Floor	11	99A5050-018 001	U-233/234	0 353	0 040	4 65	40	1 4	0 2		
Floor	11	99A5050-018 001	U-235	0 018	0 049	4 65	40	0 1	0 2		
Floor	11	99A5050-018 001	U-238	0 190	0 040	4 65	40	0 8	0 2	2 2	
Floor	11	99A5050-018 001	Pu-239/240	0 223	0 046	4 65	40	0 9	0 2		
Floor	11	99A5050-018 001	Am-241	0 069	0 093	4 65	40	0 3	0 4		1 2
Block Wall	12	99A5050-019 001	U-233/234	0 648	0 091	10 94	40	6 1	0 9		
Block Wall	12	99A5050-019 001	U-235	0 046	0 063	10 94	40	0 4	0 6		
Block Wall	12	99A5050-019 001	U-238	0 504	0 051	10 94	40	4 7	0 5	11 3	
Block Wall	12	99A5050-019 001	Pu-239/240	0 010	0 086	10 94	40	0 1	0 8		
Block Wall	12	99A5050-019 001	Am-241	0 068	0 303	10 94	40	0 6	2 9		0 7
Steel Door	6	99A5050-020 001	U-233/234	0 412	0 107	1 40	40	0 5	0 1		
Steel Door	6	99A5050-020 001	U-235	0 027	0 074	1 40	40	0 0	0 1		
Steel Door	6	99A5050-020 001	U-238	0 154	0 060	1 40	40	0 2	0 1	0 7	
Steel Door	6	99A5050-020 001	Pu-239/240	0 085	0 058	1 40	40	0 1	0 1		
Steel Door	6	99A5050-020 001	Am-241	0 068	0 062	1 40	40	0 1	0 1		0 2
Floor	7	99A5050-021 001	U-233/234	0 558	0 072	4 27	40	2 0	0 3		
Floor	7	99A5050-021 001	U-235	0 018	0 050	4 27	40	0 1	0 2		
Floor	7	99A5050-021 001	U-238	0 325	0 040	4 27	40	1 2	0 1	3 3	
Floor	7	99A5050-021 001	Pu-239/240	0 373	0 035	4 27	40	1 4	0 1		
Floor	7	99A5050-021 001	Am-241	0 150	0 068	4 27	40	0 6	0 2		1 9
Floor	14	99A5050-022 001	U-233/234	0 173	0 066	4 69	40	0 7	0 3		
Floor	14	99A5050-022 001	U-235	0 000	0 046	4 69	40	0 0	0 2		
Floor	14	99A5050-022 001	U-238	0 301	0 037	4 69	40	1 2	0 1	1 9	
Floor	14	99A5050-022 001	Pu-239/240	0 111	0 050	4 69	40	0 4	0 2		
Floor	14	99A5050-022 001	Am-241	0 016	0 239	4 69	40	0 1	1 0		0 5
Block Wall	10	99A5050-023 001	U-233/234	0 499	0 057	8 32	40	3 6	0 4		
Block Wall	10	99A5050-023 001	U-235	0 029	0 039	8 32	40	0 2	0 3		
Block Wall	10	99A5050-023 001	U-238	0 672	0 056	8 32	40	4 8	0 4	8 6	
Block Wall	10	99A5050-023 001	Pu-239/240	-0 024	0 163	8 32	40	-0 2	1 2		
Block Wall	10	99A5050-023 001	Am-241	0 077	0 070	8 32	40	0 6	0 5		0 4

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Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72902											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in²)	INDIVIDUAL NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) $DCGL_w$ =5000	TRANSURANIC TOTAL (dpm/100cm²) $DCGL_w$ =100
Block Wall	15	99A5050-024 001	U-233/234	0 465	0 033	12 90	40	5 2	0 4		
Block Wall	15	99A5050-024 001	U-235	0 054	0 073	12 90	40	0 6	0 8		
Block Wall	15	99A5050-024 001	U-238	0 354	0 033	12 90	40	3 9	0 4	9 7	
Block Wall	15	99A5050-024 001	Pu-239/240	0 035	0 126	12 90	40	0 4	1 4		
Block Wall	15	99A5050-024 001	Am-241	-0 018	0 160	12 90	40	-0 2	1 8		0 2
Block Wall	8	99A5050-025 001	U-233/234	0 865	0 036	19 05	40	14 2	0 6		
Block Wall	8	99A5050-025 001	U-235	0 032	0 044	19 05	40	0 5	0 7		
Block Wall	8	99A5050-025 001	U-238	1 040	0 035	19 05	40	17 0	0 6	31 7	
Block Wall	8	99A5050-025 001	Pu-239/240	0 020	0 061	19 05	40	0 3	1 0		
Block Wall	8	99A5050-025 001	Am-241	0 081	0 117	19 05	40	1 3	1 9		1 7
Block Wall	13	99A5050-026 001	U-233/234	1 000	0 079	19 13	40	16 5	1 3		
Block Wall	13	99A5050-026 001	U-235	0 040	0 054	19 13	40	0 7	0 9		
Block Wall	13	99A5050-026 001	U-238	1 180	0 044	19 13	40	19 4	0 7	36 5	
Block Wall	13	99A5050-026 001	Pu-239/240	0 040	0 037	19 13	40	0 7	0 6		
Block Wall	13	99A5050-026 001	Am-241	0 081	0 106	19 13	40	1 3	1 7		2 0
Block Wall	16	99A5050-027 001	U-233/234	0 965	0 066	5 15	40	4 3	0 3		
Block Wall	16	99A5050-027 001	U-235	0 034	0 046	5 15	40	0 2	0 2		
Block Wall	16	99A5050-027 001	U-238	0 899	0 037	5 15	40	4 0	0 2	8 4	
Block Wall	16	99A5050-027 001	Pu-239/240	0 022	0 059	5 15	40	0 1	0 3		
Block Wall	16	99A5050-027 001	Am-241	0 037	0 145	5 15	40	0 2	0 6		0 3
Block Wall	5	99A5050-028 001	U-233/234	0 311	0 067	7 31	40	2 0	0 4		
Block Wall	5	99A5050-028 001	U-235	0 000	0 046	7 31	40	0 0	0 3		
Block Wall	5	99A5050-028 001	U-238	0 488	0 066	7 31	40	3 1	0 4	5 0	
Block Wall	5	99A5050-028 001	Pu-239/240	0 009	0 077	7 31	40	0 1	0 5		
Block Wall	5	99A5050-028 001	Am-241	0 057	0 147	7 31	40	0 4	0 9		0 4
Ceiling	1	99A5050-029 001	U-233/234	0 301	0 034	5 97	40	1 5	0 2		
Ceiling	1	99A5050-029 001	U-235	0 009	0 075	5 97	40	0 0	0 4		
Ceiling	1	99A5050-029 001	U-238	0 362	0 034	5 97	40	1 9	0 2	3 5	
Ceiling	1	99A5050-029 001	Pu-239/240	0 025	0 069	5 97	40	0 1	0 4		
Ceiling	1	99A5050-029 001	Am-241	0 054	0 219	5 97	40	0 3	1 1		0 4

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Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72902											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_w$ =5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_w$ =100
Block Wall	2	99A5050-030 001	U-233/234	0 557	0 039	16 43	40	7 9	0 6		
Block Wall	2	99A5050-030 001	U-235	0 035	0 048	16 43	40	0 5	0 7		
Block Wall	2	99A5050-030 001	U-238	0 654	0 039	16 43	40	9 2	0 6	17 6	
Block Wall	2	99A5050-030 001	Pu-239/240	0 038	0 051	16 43	40	0 5	0 7		
Block Wall	2	99A5050-030 001	Am-241	0 081	0 155	16 43	40	1 1	2 2		1 7
Block Wall	17	99A5050-031 001	U-233/234	0 711	0 071	5 64	40	3 4	0 3		
Block Wall	17	99A5050-031 001	U-235	0 036	0 049	5 64	40	0 2	0 2		
Block Wall	17	99A5050-031 001	U-238	0 510	0 040	5 64	40	2 5	0 2	6 1	
Block Wall	17	99A5050-031 001	Pu-239/240	0 000	0 066	5 64	40	0 0	0 3		
Block Wall	17	99A5050-031 001	Am-241	0 023	0 061	5 64	40	0 1	0 3		0 1
Block Wall	3	99A5050-032 001	U-233/234	0 240	0 074	5 81	40	1 2	0 4		
Block Wall	3	99A5050-032 001	U-235	0 000	0 051	5 81	40	0 0	0 3		
Block Wall	3	99A5050-032 001	U-238	0 306	0 042	5 81	40	1 5	0 2	2 7	
Block Wall	3	99A5050-032 001	Pu-239/240	0 000	0 044	5 81	40	0 0	0 2		
Block Wall	3	99A5050-032 001	Am-241	0 044	0 178	5 81	40	0 2	0 9		0 2
Ceiling	4	99A5050-033 001	U-233/234	0 266	0 069	4 41	40	1 0	0 3		
Ceiling	4	99A5050-033 001	U-235	0 018	0 048	4 41	40	0 1	0 2		
Ceiling	4	99A5050-033 001	U-238	0 086	0 039	4 41	40	0 3	0 1	1 4	
Ceiling	4	99A5050-033 001	Pu-239/240	-0 007	0 079	4 41	40	0 0	0 3		
Ceiling	4	99A5050-033 001	Am-241	-0 018	0 168	4 41	40	-0 1	0 6		-0 1

MIN	0 7	-0 1
MAX	36 5	2 0
MEAN	9 4	0 7
STD DEV	10 7	0 7
$DCGL_w$ =	5000	100

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Survey Area A Building 729 Total Surface Contamination Results

Survey Unit 72902			
Meter Model	NE/Technology Electra w/ DP6 Probe	Efficiency (c/d)	0 208
Serial #/Date	2181/ QC - 1259	Local Area Bkgd (cpm)	2
Cal Due Date	7/15/99	QC Efficiency (c/d)	0 2169
QC Cal Due Date	8/18/99	QC Local Area Bkgd (cpm)	2

Sample Location Number	Total Surface Activity		Quality Control Measurements	MDA
	(cpm)	(dpm/100 cm^2)	(dpm/100 cm^2)	(dpm/100 cm^2)
1	3	4 8	N/A	45
2	2	0 0	N/A	45
3	3	4 8	N/A	45
4	2	0 0	N/A	45
5	1	-4 8	N/A	45
6	3	4 8	N/A	45
7	1	-4 8	N/A	45
8	5	14 4	11 5	45/43[a]
9#				
10	1	-4 8	N/A	45
11	0	-9 6	N/A	45
12	4	9 6	18 4	45/43[a]
13	1	-4 8	N/A	45
14	0	-9 6	N/A	45
15	0	-9 6	N/A	45
16	2	0 0	N/A	45
17	2	0 0	N/A	45
18	5	14 4	N/A	45
19#				
20	8	28 8	N/A	45
	MIN	-9 6		
	MAX	28 8		
	MEAN	1 9		
	SD	10 1		
	Transuranic $DCGL_W$	100		

Survey measurements 9 and 19 were inaccessable due to high voltage lines within 10 feet of sample locations

[a] MDA for QC measurements

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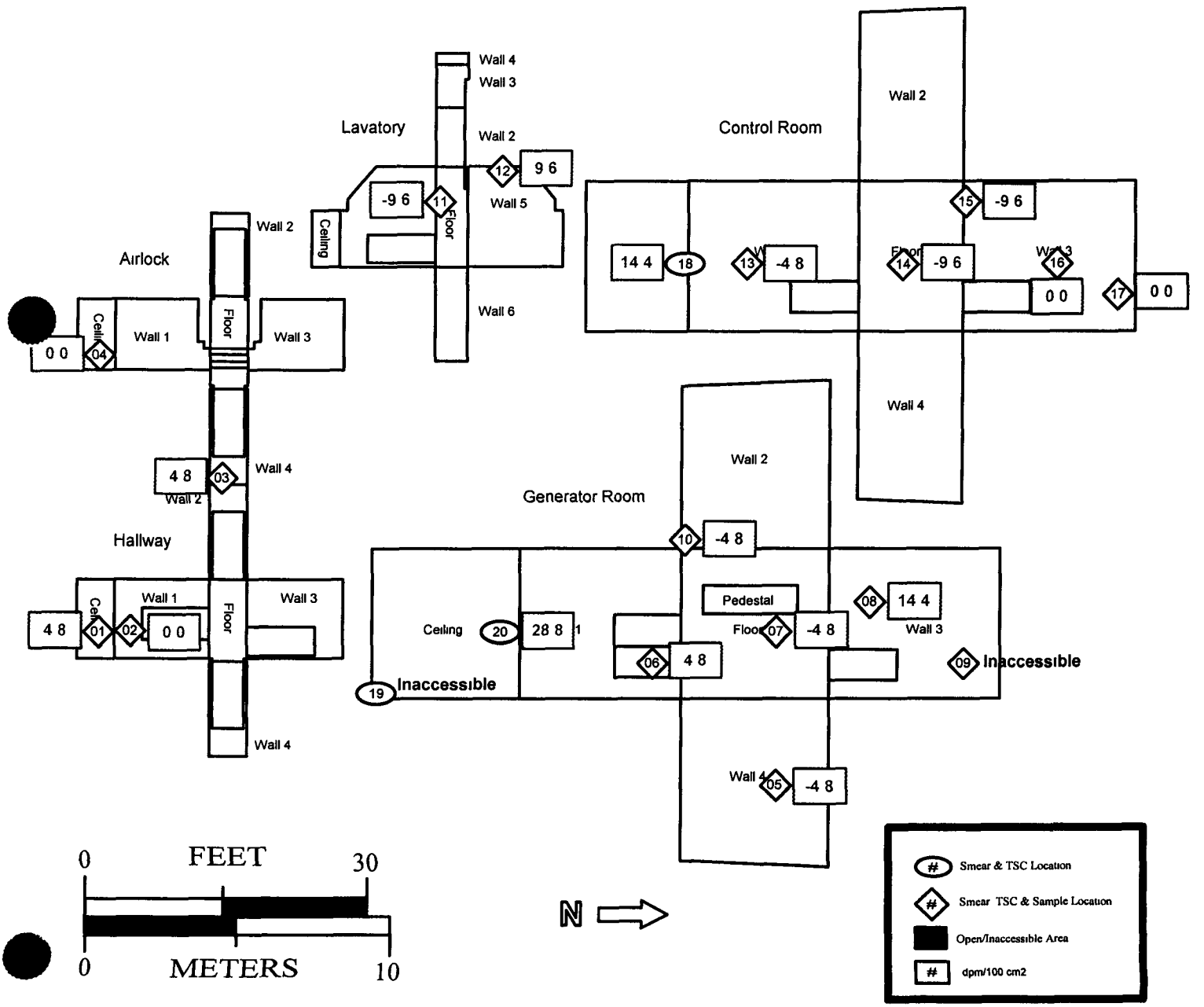
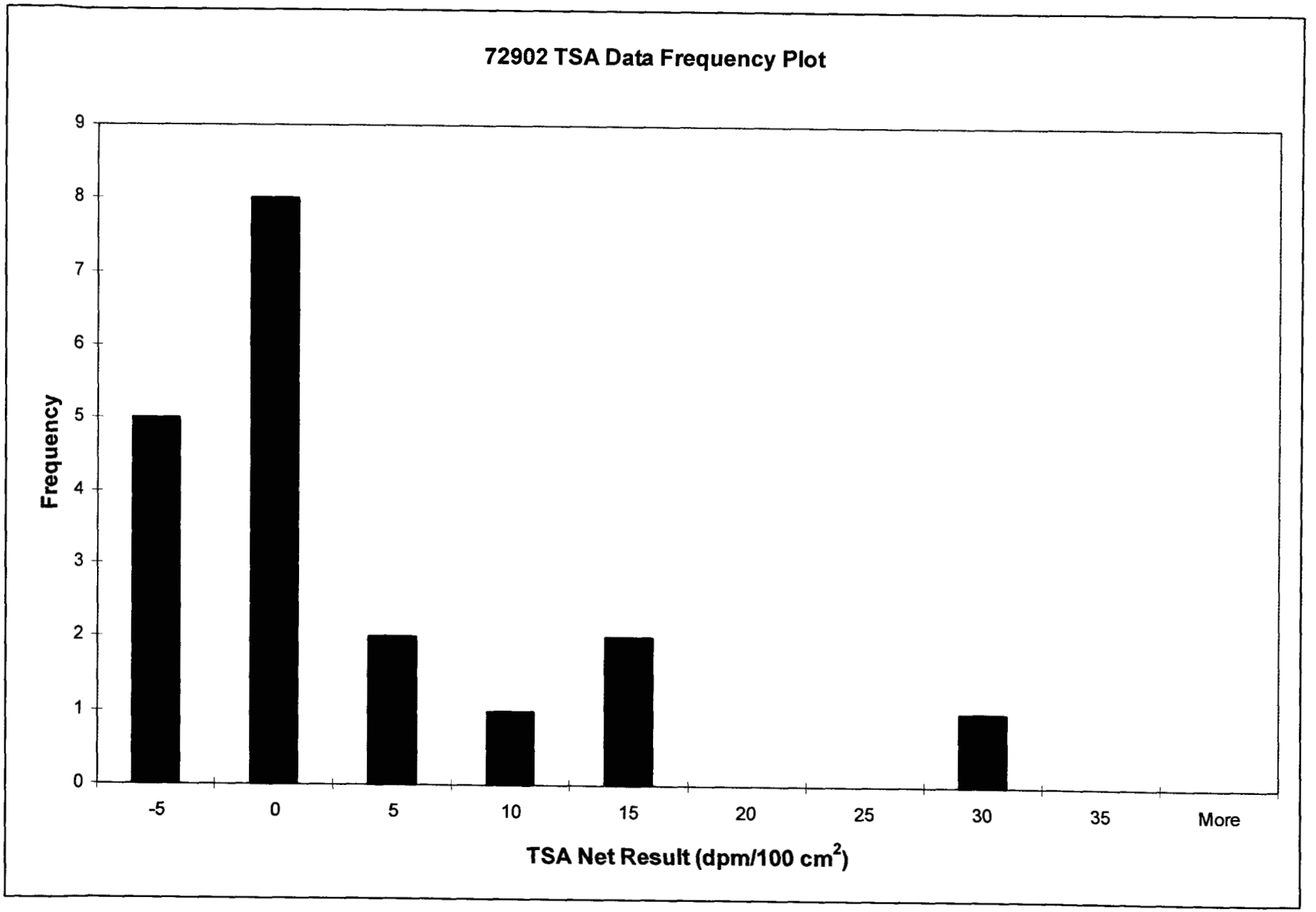
Total Surface Activity
Posting Plot for Survey Unit 72902

SURVEY UNIT 72902-MAP 1 OF 1



LD


72902 TSA Data Frequency Plot
Frequency
0
1
2
3
4
5
6
7
8
9
-5
0
5
10
15
20
25
30
35
More
TSA Net Result (dpm/100 cm2)

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Survey Area: A	Building 729
Survey Unit (s): 72902	

Total Surface Activity Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72902 data are calculated on the "Survey Area A Building 729 Total Surface Contamination Results" form Because all total surface activity (TSA or TSA) measurement results are less than $DCGL_W$ (less than 100 dpm/100 cm^2) , the survey unit clearly meets the TSA release criterion

A graphical data review was also performed on the attached form The posting plot indicated that spatial trends of elevated areas are not present The histogram indicated that no isolated areas of elevated activity are present

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Total Surface Activity Measurement Calculation Worksheet") was based on the use of this test An average local area background (LAB) value was subtracted from each gross measurement to calculate a net result, thus the sign test applies (sign test is typically applied only when the contaminant is not present in background)

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The sign test assumes that the data from the survey unit consists of independent samples from each distribution This assumption is verified per the posting plot (see Step 1), that indicates that spatial dependencies do not exist in the survey unit

The assumed data variance, as indicated by the assumed standard deviation (see "Total Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of samples with the ACTUAL survey unit standard deviation

The actual sample standard deviation for 72902 is 10 1

Thus, the ACTUAL required number of samples is as follows

$$\Delta/\delta = (DCGL_{TSA} - LBGR_{TSA})/ SD_{TSA}$$

$$\Delta/\delta_{transuranics} = 6.5 = (100 \text{ dpm}/100\text{cm}^2 - 34 \text{ dpm}/100\text{cm}^2)/10.1 \text{ dpm}/100\text{cm}^2$$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{TSA}$ is the total surface activity derived concentration guideline value (DOE Order 5400 5 total surface activity limit equals 100 dpm/100cm^2 for transuranics and 5000 dpm/100cm^2 for uranium, per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{TSA}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor

SD_{TSA} is the ACTUAL standard deviation of the total surface activity

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5 4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5 4, equals 0 998650 for a relative shift of 3 0 (The actual value approaches one The highest published value is utilized for conservatism)

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Survey Area: A	Building 729
Survey Unit (s): 72902	

Total Surface Activity Summary Statistics Calculation Worksheet

Step 3 Continued

Determine the number of TSA surface activity measurements for the applicable survey unit using the following MARSSIM, Section 5 5 2 3 formula that is based on Plutonium contaminants not being present in the background

$N = (1\ 645 + 1\ 645)^2 / 4(\text{Sign P} - 0\ 5)^2$

$N = (1\ 645 + 1\ 645)^2 / 4(0\ 998650 - 0\ 5)^2 = \underline{10\ 9}$

Where

1 645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0 998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5 5 2 3

$N = \underline{10\ 9} * 1\ 2 = \underline{13}$

Conclusion Utilizing a conservative relative shift value of 3 0, a minimum of 13 Total Surface Activity measurements was required in 72902

Step 5

Draw conclusions from the data All measurements are less than $DCGL_W$ The minimum number of required measurements were collected Thus, survey unit 72902 complies with the TSA release criteria

[redacted] 4/24/99

Date

[redacted] 4/24/99

Date

K3

Survey Area: A	Building. 729
Survey Unit (s): 72902	

Removable Contamination Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72902 removable surface contamination data are calculated on the "Survey Area A Building 729 Surface Media Survey Results" form Because all removable survey measurement results are less than $DCGL_W$ (less than 20 dpm/100 cm^2) , the survey unit clearly meets the removable contamination release criterion

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Removable Surface Activity Measurement Calculation Worksheet") was based on the use of this test

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The assumed data variance, as indicated by the assumed standard deviation (see "Removable Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of smears with the ACTUAL survey unit standard deviation

The actual removable survey standard deviation for 72902 is 0.9

Thus, the ACTUAL required number of measurements is as follows

$$\Delta/\delta = (DCGL_{REMOVABLE} - LBGR_{REMOVABLE})/ SD_{REMOVABLE}$$

$$\Delta/\delta_{transuranics} = 11.1 = (20\ dpm/100cm^2 - 10\ dpm/100cm^2)/0.9\ dpm/100cm^2$$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{REMOVABLE}$ is the removable surface contamination derived concentration guideline value (DOE Order 5400 5 removable surface contamination limit equals 20 dpm/100cm^2 for transuranics per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{REMOVABLE}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor

$SD_{REMOVABLE}$ is the ACTUAL standard deviation of the removable surface contamination measurements

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5 4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5 4, equals 0.998650 for a relative shift of 3 0 (The actual value approaches one The highest published value is utilized for conservatism)

Determine the number of removable surface contamination measurements for the applicable survey unit using the following MARSSIM, Section 5 5 2 3 formula that is based on Plutonium contaminants not being present in the background

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Survey Area: A	**Building** 729
Survey Unit (s): 72902	

Removable Contamination Summary Statistics Calculation Worksheet

Step 3 Continued

$N = (1\ 645 + 1\ 645)^2 / 4(\text{Sign P} - 0\ 5)^2$

$N = (1\ 645 + 1\ 645)^2 / 4(0\ 998650 - 0\ 5)^2 = \underline{10\ 9}$

Where

1 645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological

Sign P equals 0 998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5 5 2 3

$N = \underline{10\ 9} * 1\ 2 = \underline{13}$

Conclusion Utilizing a conservative relative shift value of 3 0, a minimum of 13 Removable Surface Contamination measurements was required in 72902

Step 5

Draw conclusions from the data All measurements are less than $DCGL_W$ The minimum number of required removable survey measurements were collected Thus, survey unit 72902 complies with the removable contamination release criteria

[redacted] | *4/24/99*

Date

[redacted] | *4/24/99*

Date

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Survey Area: A	Building 729
Survey Unit (s): 72902	

Paint Sample Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72902 media sample (paint) data are calculated on the "Survey Area A Building 729 Paint/Solid Media Sample Results" form Because all media sample results are less than $DCGL_W$ (less than 100 dpm/100 cm^2 for transuranics and 5000 dpm/100 cm^2 for uranium), the survey unit clearly meets the media sample release criterion

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Media Surface Activity Measurement Calculation Worksheet") was based on the use of this test

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The assumed data variance, as indicated by the assumed standard deviation (see "Media Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of samples with the ACTUAL survey unit standard deviation

The actual media (paint) sample standard deviation for transuranics for 72902 is 0.7
The actual media (paint) sample standard deviation for uranium for 72902 is 10.7

Thus, the ACTUAL required number of samples is as follows

$\Delta/\delta = (DCGL_{MEDIA} - LBGR_{MEDIA})/ SD_{MEDIA}$

$\Delta/\delta_{transuranics} = 71.4 = (100\ dpm/100cm^2 - 50\ dpm/100cm^2)/0.7\ dpm/100cm^2$
$\Delta\delta_{uranium} = 16.8 = (5000\ dpm/100cm^2 - 4819.9\ dpm/100cm^2)/10.7\ dpm/100cm^2$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{MEDIA}$ is the media sample derived concentration guideline value (DOE Order 5400.5 total surface contamination limit equals 100 dpm/100cm^2 for transuranics and 5000 dpm/100cm^2 for uranium per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{MEDIA}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor *Note that for transuranics, the LBGR was changed from the original value used in calculating the number of measurements (95.7) The original LBGR was chosen only to establish a relative shift between 1 and 3 However a more reasonable value, and the value recommended by MARSSIM, is one-half of the $DCGL_w$ (or 50 dpm/100 cm^2)*

SD_{MEDIA} is the ACTUAL standard deviation of the 72902 samples

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5.4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5.4, equals 0.998650 for a relative shift of 3.0 (The actual value approaches one The highest published value is utilized for conservatism)

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Survey Area: A	Building 729
Survey Unit (s): 72902	

Paint Sample Summary Statistics Calculation Worksheet

Step 3 Continued

Determine the number of media samples for the applicable survey unit using the following MARSSIM, Section 5 5 2 3 formula that is based on Plutonium and Uranium contaminants not being present in the background

$N = (1\ 645 + 1\ 645)^2 / 4(\text{Sign P} - 0\ 5)^2$

$N = (1\ 645 + 1\ 645)^2 / 4(0\ 998650 - 0\ 5)^2 = \underline{10\ 9}$

Where

1 645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0 998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5 5 2 3

$N = \underline{10\ 9} * 1\ 2 = \underline{13}$

Conclusion Utilizing a conservative relative shift value of 3 0, a minimum of 13 Media (paint) samples was required in 72902

Step 5

Draw conclusions from the data All sample results are less than $DCGL_W$ The minimum number of required media samples were collected Thus, survey unit 72902 complies with the media sample release criteria.

[redacted] | 4/24/99 | Date

[redacted] | 4/24/99 | Date

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Attachment B

Survey Unit 72902 Media/Contamination Results and Maps

ATTACHMENT B

SURVEY UNIT 72902 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_W$ =

>75% and <100% of $DCGL_W$ =

Greater Than or Equal to $DCGL_W$ =

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Survey Unit 72902 Data Summary and Approval Sheet

Total Activity Measurements (Supporting Media Sampling-No Statistics Required)

	Number Required	Number Obtained		Number Required	Number Obtained
Pre-Media Sample	15	16	Post-Media Sample	15	16

Removable Surface Activity Measurements

	Number Required	Number Obtained		Number Required	Number Obtained
Pre-Media Sample	17	18	Post-Media Sample	16	16

MIN	0 0	dpm/100 cm^2	MIN	0 0	dpm/100 cm^2
MAX	3 0	dpm/100 cm^2	MAX	1 5	dpm/100 cm^2
MEAN	0 7	dpm/100 cm^2	MEAN	0 7	dpm/100 cm^2
STD DEV	0 9	dpm/100 cm^2	STD DEV	0 8	dpm/100 cm^2
TRANSURANIC $DCGL_W$	20	dpm/100 cm^2	TRANSURANIC $DCGL_W$	20	dpm/100 cm^2

Media Sample Activity Analysis

	Number Required	Number Obtained
Media Samples	16	16

TOTAL URANIUM RESULTS			TOTAL TRANSURANIC RESULTS		
MIN	0 7	dpm/100 cm^2	MIN	-0 1	dpm/100 cm^2
MAX	36 5	dpm/100 cm^2	MAX	2 0	dpm/100 cm^2
MEAN	9 4	dpm/100 cm^2	MEAN	0 7	dpm/100 cm^2
STD DEV	10 7	dpm/100 cm^2	STD DEV	0 7	dpm/100 cm^2
$DCGL_W$	5000	dpm/100 cm^2	$DCGL_W$	100	dpm/100 cm^2

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Survey Unit 72902 Data Summary and Approval Sheet

Total Surface Contamination Measurements

15	18
Number Required	Number Obtained

MIN	-9 6	dpm/100 cm^2
MAX	28 8	dpm/100 cm^2
MEAN	1 9	dpm/100 cm^2
STD DEV	10 1	dpm/100 cm^2
TRANSURANIC $DCGL_W$	100	dpm/100 cm^2

Reviewe [redacted] *4/19/99* Date

Approved [redacted] *4/19/99* Date

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Survey Area A Building 729 Surface Media Survey Results

SURVEY UNIT 72902						
	Pre-Sample Results			Post-Sample Results		
Sample Location	Total Activity (dpm/100 cm^2)	Removable Activity (dpm/100 cm^2)	MDA	Total Activity (dpm/100 cm^2)	Removable Activity (dpm/100 cm^2)	MDA
1	< 13	0 0	4 1	< 13	0 0	4 1
2	< 13	0 0	4 1	< 13	1 5	4 1
3	< 13	1 5	4 1	< 13	0 0	4 1
4	< 13	0 0	4 1	< 13	1 5	4 1
5	< 13	0 0	4 1	< 13	0 0	4 1
6	< 13	1 5	4 1	< 13	1 5	4 1
7	< 13	0 0	4 1	< 13	1 5	4 1
8	< 13	1 5	4 1	< 13	0 0	4 1
9 #			4 1			4 1
10	< 13	3 0	4 1	< 13	0 0	4 1
11	< 13	0 0	4 1	< 13	0 0	4 1
12	< 13	0 0	4 1	< 13	0 0	4 1
13	< 13	1 5	4 1	< 13	0 0	4 1
14	< 13	0 0	4 1	< 13	1 5	4 1
15	< 13	1 5	4 1	< 13	0 0	4 1
16	< 13	0 0	4 1	< 13	1 5	4 1
17	< 13	0 0	4 1	< 13	1 5	4 1
18 **		1 5	4 1			
19 #						
20 **		0 0	4 1			
	MIN	0 0		MIN	0 0	
	MAX	3 0		MAX	1 5	
	MEAN	0 7		MEAN	0 7	
	SD	0 9		SD	0 8	
	Transuranic DCGL$_W$	**20**		Transuranic DCGL$_W$	**20**	

** *Survey measurements 18 and 20 were smears only No solid media samples were obtained due to unpainted concrete surface*

\# *Survey measurements 9 and 19 were inaccessable due to high voltage lines within 10 feet of sample locations*

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Survey Area A Building 729 Sample Weight Data Sheet

SURVEY UNIT 72902						
RIN NUMBER 99A5187			RIN NUMBER 99A5050			SUM (*)
Location Number	Event	Rad Screening Weight, grams	Location Number	Event	Isotopic Analysis Weight, grams	Total Weight, grams
1	029 001	1 0086	1	029 001	4 96	5 97
2	030 001	1 0106	2	030 001	15 42	16 43
3	032 001	1 0296	3	032 001	4 78	5 81
4	033 001	1 0363	4	033 001	3 37	4 41
5	028 001	1 0062	5	028 001	6 30	7 31
6	020 001	1 0512	6	020 001	0 35	1 40
7	021 001	1 0012	7	021 001	3 27	4 27
8	025 001	1 0333	8	025 001	18 02	19 05
9	No Sample		9	No Sample		
10	023 001	1 0217	10	023 001	7 30	8 32
11	018 001	1 0279	11	018 001	3 62	4 65
12	019 001	1 0060	12	019 001	9 93	10 94
13	026 001	1 0058	13	026 001	18 12	19 13
14	022 001	1 0137	14	022 001	3 68	4 69
15	024 001	1 0197	15	024 001	11 88	12 90
16	027 001	1 0276	16	027 001	4 12	5 15
17	031 001	1 0256	17	031 001	4 61	5 64

(*) Total weight of each sample used for the activity calculations is the sum of the weights of each aliquot removed for rad screening by THERMO NUTECH plus the aliquot analyzed by SA Cohen for isotopics

Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72902											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in^2)	INDIVIDUAL NUCLIDE ($dpm/100cm^2$)	ESTIMATED MDA ($dpm/100cm^2$)	URANIUM TOTAL ($dpm/100cm^2$) $DCGL_w$ =5000	TRANSURANIC TOTAL ($dpm/100cm^2$) $DCGL_w$ =100
Floor	11	99A5050-018 001	U-233/234	0 353	0 040	4 65	40	1 4	0 2		
Floor	11	99A5050-018 001	U-235	0 018	0 049	4 65	40	0 1	0 2		
Floor	11	99A5050-018 001	U-238	0 190	0 040	4 65	40	0 8	0 2	2 2	
Floor	11	99A5050-018 001	Pu-239/240	0 223	0 046	4 65	40	0 9	0 2		
Floor	11	99A5050-018 001	Am-241	0 069	0 093	4 65	40	0 3	0 4		1 2
Block Wall	12	99A5050-019 001	U-233/234	0 648	0 091	10 94	40	6 1	0 9		
Block Wall	12	99A5050-019 001	U-235	0 046	0 063	10 94	40	0 4	0 6		
Block Wall	12	99A5050-019 001	U-238	0 504	0 051	10 94	40	4 7	0 5	11 3	
Block Wall	12	99A5050-019 001	Pu-239/240	0 010	0 086	10 94	40	0 1	0 8		
Block Wall	12	99A5050-019 001	Am-241	0 068	0 303	10 94	40	0 6	2 9		0 7
Steel Door	6	99A5050-020 001	U-233/234	0 412	0 107	1 40	40	0 5	0 1		
Steel Door	6	99A5050-020 001	U-235	0 027	0 074	1 40	40	0 0	0 1		
Steel Door	6	99A5050-020 001	U-238	0 154	0 060	1 40	40	0 2	0 1	0 7	
Steel Door	6	99A5050-020 001	Pu-239/240	0 085	0 058	1 40	40	0 1	0 1		
Steel Door	6	99A5050-020 001	Am-241	0 068	0 062	1 40	40	0 1	0 1		0 2
Floor	7	99A5050-021 001	U-233/234	0 558	0 072	4 27	40	2 0	0 3		
Floor	7	99A5050-021 001	U-235	0 018	0 050	4 27	40	0 1	0 2		
Floor	7	99A5050-021 001	U-238	0 325	0 040	4 27	40	1 2	0 1	3 3	
Floor	7	99A5050-021 001	Pu-239/240	0 373	0 035	4 27	40	1 4	0 1		
Floor	7	99A5050-021 001	Am-241	0 150	0 068	4 27	40	0 6	0 2		1 9
Floor	14	99A5050-022 001	U-233/234	0 173	0 066	4 69	40	0 7	0 3		
Floor	14	99A5050-022 001	U-235	0 000	0 046	4 69	40	0 0	0 2		
Floor	14	99A5050-022 001	U-238	0 301	0 037	4 69	40	1 2	0 1	1 9	
Floor	14	99A5050-022 001	Pu-239/240	0 111	0 050	4 69	40	0 4	0 2		
Floor	14	99A5050-022 001	Am-241	0 016	0 239	4 69	40	0 1	1 0		0 5
Block Wall	10	99A5050-023 001	U-233/234	0 499	0 057	8 32	40	3 6	0 4		
Block Wall	10	99A5050-023 001	U-235	0 029	0 039	8 32	40	0 2	0 3		
Block Wall	10	99A5050-023 001	U-238	0 672	0 056	8 32	40	4 8	0 4	8 6	
Block Wall	10	99A5050-023 001	Pu-239/240	-0 024	0 163	8 32	40	-0 2	1 2		
Block Wall	10	99A5050-023 001	Am-241	0 077	0 070	8 32	40	0 6	0 5		0 4

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Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72902											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in²)	INDIVIDUAL NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) *DCGL $_W$ =5000*	TRANSURANIC TOTAL (dpm/100cm²) DCGL$_W$ =100
Block Wall	15	99A5050-024 001	U-233/234	0 465	0 033	12 90	40	5 2	0 4		
Block Wall	15	99A5050-024 001	U-235	0 054	0 073	12 90	40	0 6	0 8		
Block Wall	15	99A5050-024 001	U-238	0 354	0 033	12 90	40	3 9	0 4	9 7	
Block Wall	15	99A5050-024 001	Pu-239/240	0 035	0 126	12 90	40	0 4	1 4		
Block Wall	15	99A5050-024 001	Am-241	-0 018	0 160	12 90	40	-0 2	1 8		0 2
Block Wall	8	99A5050-025 001	U-233/234	0 865	0 036	19 05	40	14 2	0 6		
Block Wall	8	99A5050-025 001	U-235	0 032	0 044	19 05	40	0 5	0 7		
Block Wall	8	99A5050-025 001	U-238	1 040	0 035	19 05	40	17 0	0 6	31 7	
Block Wall	8	99A5050-025 001	Pu-239/240	0 020	0 061	19 05	40	0 3	1 0		
Block Wall	8	99A5050-025 001	Am-241	0 081	0 117	19 05	40	1 3	1 9		1 7
Block Wall	13	99A5050-026 001	U-233/234	1 000	0 079	19 13	40	16 5	1 3		
Block Wall	13	99A5050-026 001	U-235	0 040	0 054	19 13	40	0 7	0 9		
Block Wall	13	99A5050-026 001	U-238	1 180	0 044	19 13	40	19 4	0 7	36 5	
Block Wall	13	99A5050-026 001	Pu-239/240	0 040	0 037	19 13	40	0 7	0 6		
Block Wall	13	99A5050-026 001	Am-241	0 081	0 106	19 13	40	1 3	1 7		2 0
Block Wall	16	99A5050-027 001	U-233/234	0 965	0 066	5 15	40	4 3	0 3		
Block Wall	16	99A5050-027 001	U-235	0 034	0 046	5 15	40	0 2	0 2		
Block Wall	16	99A5050-027 001	U-238	0 899	0 037	5 15	40	4 0	0 2	8 4	
Block Wall	16	99A5050-027 001	Pu-239/240	0 022	0 059	5 15	40	0 1	0 3		
Block Wall	16	99A5050-027 001	Am-241	0 037	0 145	5 15	40	0 2	0 6		0 3
Block Wall	5	99A5050-028 001	U-233/234	0 311	0 067	7 31	40	2 0	0 4		
Block Wall	5	99A5050-028 001	U-235	0 000	0 046	7 31	40	0 0	0 3		
Block Wall	5	99A5050-028 001	U-238	0 488	0 066	7 31	40	3 1	0 4	5 0	
Block Wall	5	99A5050-028 001	Pu-239/240	0 009	0 077	7 31	40	0 1	0 5		
Block Wall	5	99A5050-028 001	Am-241	0 057	0 147	7 31	40	0 4	0 9		0 4
Ceiling	1	99A5050-029 001	U-233/234	0 301	0 034	5 97	40	1 5	0 2		
Ceiling	1	99A5050-029 001	U-235	0 009	0 075	5 97	40	0 0	0 4		
Ceiling	1	99A5050-029 001	U-238	0 362	0 034	5 97	40	1 9	0 2	3 5	
Ceiling	1	99A5050-029 001	Pu-239/240	0 025	0 069	5 97	40	0 1	0 4		
Ceiling	1	99A5050-029 001	Am-241	0 054	0 219	5 97	40	0 3	1 1		0 4

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Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72902											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in²)	INDIVIDUAL NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) *DCGL $_W$ =5000*	TRANSURANIC TOTAL (dpm/100cm²) *DCGL$_W$ =100*
Block Wall	2	99A5050-030 001	U-233/234	0 557	0 039	16 43	40	7 9	0 6		
Block Wall	2	99A5050-030 001	U-235	0 035	0 048	16 43	40	0 5	0 7		
Block Wall	2	99A5050-030 001	U-238	0 654	0 039	16 43	40	9 2	0 6	17 6	
Block Wall	2	99A5050-030 001	Pu-239/240	0 038	0 051	16 43	40	0 5	0 7		
Block Wall	2	99A5050-030 001	Am-241	0 081	0 155	16 43	40	1 1	2 2		1 7
Block Wall	17	99A5050-031 001	U-233/234	0 711	0 071	5 64	40	3 4	0 3		
Block Wall	17	99A5050-031 001	U-235	0 036	0 049	5 64	40	0 2	0 2		
Block Wall	17	99A5050-031 001	U-238	0 510	0 040	5 64	40	2 5	0 2	6 1	
Block Wall	17	99A5050-031 001	Pu-239/240	0 000	0 066	5 64	40	0 0	0 3		
Block Wall	17	99A5050-031 001	Am-241	0 023	0 061	5 64	40	0 1	0 3		0 1
Block Wall	3	99A5050-032 001	U-233/234	0 240	0 074	5 81	40	1 2	0 4		
Block Wall	3	99A5050-032 001	U-235	0 000	0 051	5 81	40	0 0	0 3		
Block Wall	3	99A5050-032 001	U-238	0 306	0 042	5 81	40	1 5	0 2	2 7	
Block Wall	3	99A5050-032 001	Pu-239/240	0 000	0 044	5 81	40	0 0	0 2		
Block Wall	3	99A5050-032 001	Am-241	0 044	0 178	5 81	40	0 2	0 9		0 2
Ceiling	4	99A5050-033 001	U-233/234	0 266	0 069	4 41	40	1 0	0 3		
Ceiling	4	99A5050-033 001	U-235	0 018	0 048	4 41	40	0 1	0 2		
Ceiling	4	99A5050-033 001	U-238	0 086	0 039	4 41	40	0 3	0 1	1 4	
Ceiling	4	99A5050-033 001	Pu-239/240	-0 007	0 079	4 41	40	0 0	0 3		
Ceiling	4	99A5050-033 001	Am-241	-0 018	0 168	4 41	40	-0 1	0 6		-0 1

MIN	0 7	-0 1
MAX	36 5	2 0
MEAN	9 4	0 7
STD DEV	10 7	0 7
DCGL$_W$ =	***5000***	***100***

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Survey Area A Building 729 Total Surface Contamination Results

Survey Unit 72902			
Meter Model	NE/Technology Electra w/ DP6 Probe	Efficiency (c/d)	0 208
Serial #/Date	2181/ QC - 1259	Local Area Bkgd (cpm)	2
Cal Due Date	7/15/99	QC Efficiency (c/d)	0 2169
QC Cal Due Date	8/18/99	QC Local Area Bkgd (cpm)	2

Sample Location Number	Total Surface Activity		Quality Control Measurements	MDA
	(cpm)	(dpm/100 cm^2)	(dpm/100 cm^2)	(dpm/100 cm^2)
1	3	4 8	N/A	45
2	2	0 0	N/A	45
3	3	4 8	N/A	45
4	2	0 0	N/A	45
5	1	-4 8	N/A	45
6	3	4 8	N/A	45
7	1	-4 8	N/A	45
8	5	14 4	11 5	45/43[a]
9#				
10	1	-4 8	N/A	45
11	0	-9 6	N/A	45
12	4	9 6	18 4	45/43[a]
13	1	-4 8	N/A	45
14	0	-9 6	N/A	45
15	0	-9 6	N/A	45
16	2	0 0	N/A	45
17	2	0 0	N/A	45
18	5	14 4	N/A	45
19#				
20	8	28 8	N/A	45
	MIN	-9 6		
	MAX	28 8		
	MEAN	1 9		
	SD	10 1		
	Transuranic $DCGL_W$	**100**		

Survey measurements 9 and 19 were inaccessable due to high voltage lines within 10 feet of sample locations

[a] MDA for QC measurements

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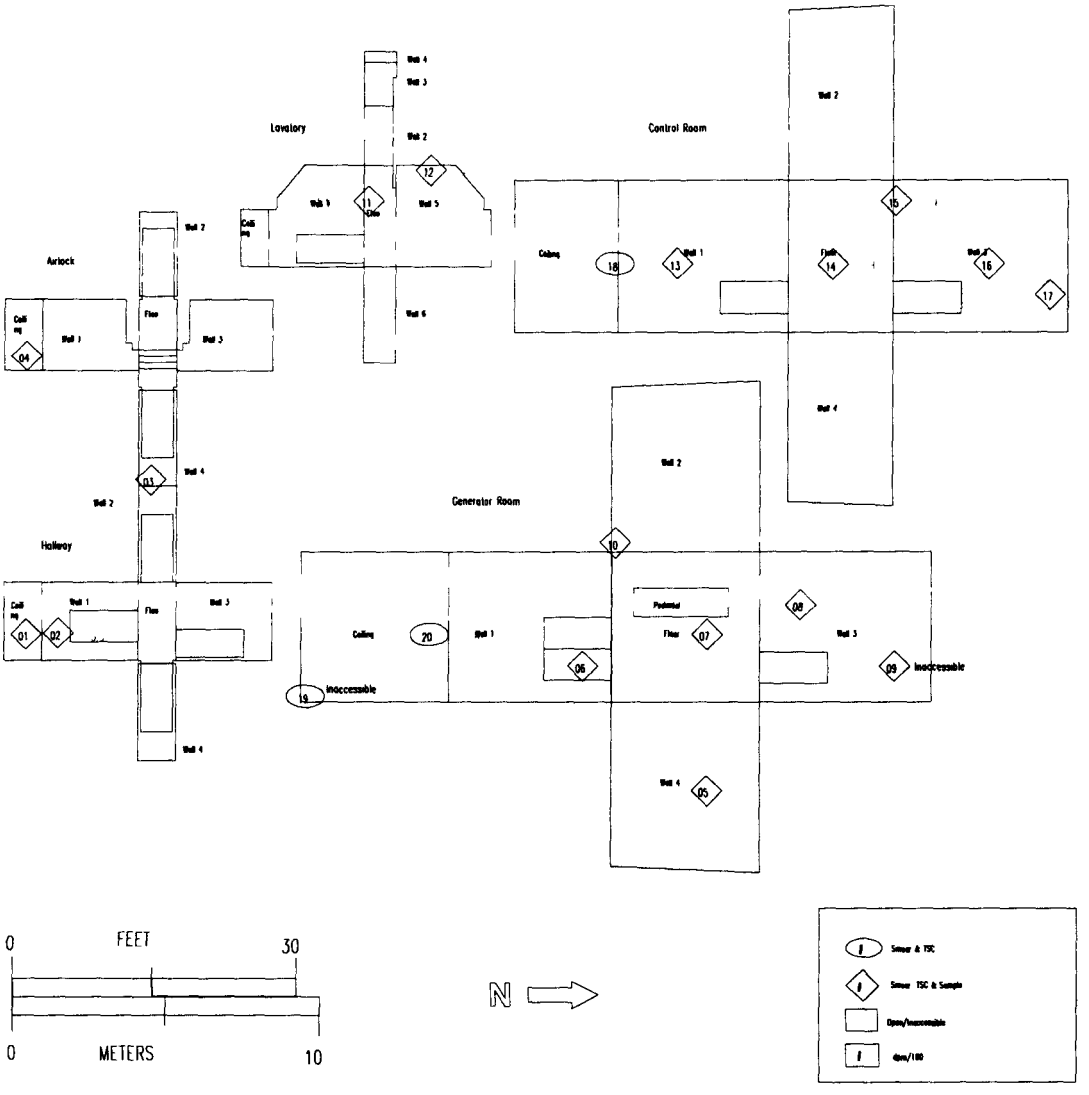
Total Surface Activity
Posting Plot for Survey Unit

SURVEY UNIT 72902-MAP 1



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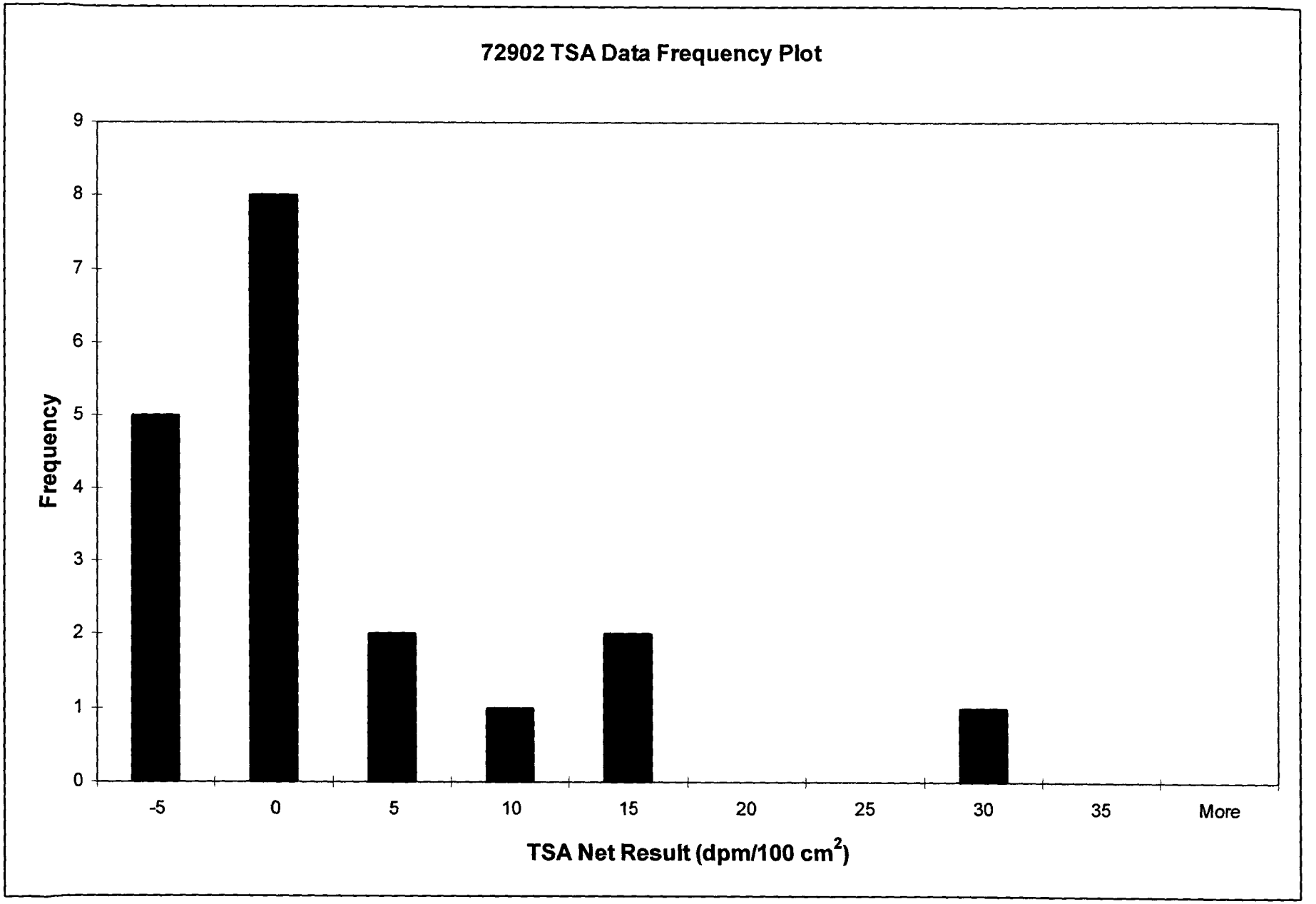
72902 TSA Data Frequency Plot
Frequency
0
1
2
3
4
5
6
7
8
9
-5
0
5
10
15
20
25
30
35
More
TSA Net Result (dpm/100 cm2)

Survey Area: A	Building 729
Survey Unit (s): 72902	

Total Surface Activity Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72902 data are calculated on the "Survey Area A Building 729 Total Surface Contamination Results" form Because all total surface activity (TSA or TSA) measurement results are less than $DCGL_W$ (less than 100 dpm/100 cm^2) , the survey unit clearly meets the TSA release criterion

A graphical data review was also performed on the attached form The posting plot indicated that spatial trends of elevated areas are not present The histogram indicated that no isolated areas of elevated activity are present

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Total Surface Activity Measurement Calculation Worksheet") was based on the use of this test An average local area background (LAB) value was subtracted from each gross measurement to calculate a net result, thus the sign test applies (sign test is typically applied only when the contaminant is not present in background)

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The sign test assumes that the data from the survey unit consists of independent samples from each distribution This assumption is verified per the posting plot (see Step 1), that indicates that spatial dependencies do not exist in the survey unit

The assumed data variance, as indicated by the assumed standard deviation (see "Total Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of samples with the ACTUAL survey unit standard deviation

The actual sample standard deviation for 72902 is 10 1

Thus, the ACTUAL required number of samples is as follows

$\Delta/\delta = (DCGL_{TSA} - LBGR_{TSA})/ SD_{TSA}$

$\Delta/\delta_{transuranics} = 6.5 = (100 \text{ dpm}/100\text{cm}^2 - 34 \text{ dpm}/100\text{cm}^2)/10.1 \text{ dpm}/100\text{cm}^2$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{TSA}$ is the total surface activity derived concentration guideline value (DOE Order 5400 5 total surface activity limit equals 100 dpm/100cm^2 for transuranics and 5000 dpm/100cm^2 for uranium, per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{TSA}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor

SD_{TSA} is the ACTUAL standard deviation of the total surface activity

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5 4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5 4, equals 0 998650 for a relative shift of 3 0 (The actual value approaches one The highest published value is utilized for conservatism)

Survey Area: A	Building 729
Survey Unit (s): 72902	

Total Surface Activity Summary Statistics Calculation Worksheet

Step 3 Continued

Determine the number of TSA surface activity measurements for the applicable survey unit using the following MARSSIM, Section 5 5 2 3 formula that is based on Plutonium contaminants not being present in the background

$N = (1\ 645 + 1\ 645)^2 / 4(\text{Sign P} - 0\ 5)^2$

$N = (1\ 645 + 1\ 645)^2 / 4(0\ 998650 - 0\ 5)^2 = \underline{10\ 9}$

Where

1 645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0 998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5 5 2 3

$N = \underline{10\ 9} * 1\ 2 = \underline{13}$

Conclusion Utilizing a conservative relative shift value of 3 0, a minimum of 13 Total Surface Activity measurements was required in 72902

Step 5

Draw conclusions from the data All measurements are less than $DCGL_W$ The minimum number of required measurements were collected Thus, survey unit 72902 complies with the TSA release criteria.

[redacted]		4/24/99
		Date
		4/24/99
		Date

Survey Area: A	Building 729
Survey Unit (s): 72902	

Removable Contamination Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72902 removable surface contamination data are calculated on the "Survey Area A Building 729 Surface Media Survey Results" form Because all removable survey measurement results are less than $DCGL_W$ (less than 20 dpm/100 cm^2) , the survey unit clearly meets the removable contamination release criterion

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Removable Surface Activity Measurement Calculation Worksheet") was based on the use of this test

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The assumed data variance, as indicated by the assumed standard deviation (see "Removable Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of smears with the ACTUAL survey unit standard deviation

The actual removable survey standard deviation for 72902 is 0.9

Thus, the ACTUAL required number of measurements is as follows

$$\Delta/\delta = (DCGL_{REMOVABLE} - LBGR_{REMOVABLE})/ SD_{REMOVABLE}$$

$$\Delta/\delta_{transuranics} = 11.1 = (20 \text{ dpm}/100\text{cm}^2 - 10 \text{ dpm}/100\text{cm}^2)/0.9 \text{ dpm}/100\text{cm}^2$$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{REMOVABLE}$ is the removable surface contamination derived concentration guideline value (DOE Order 5400.5 removable surface contamination limit equals 20 dpm/100cm^2 for transuranics per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{REMOVABLE}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor

$SD_{REMOVABLE}$ is the ACTUAL standard deviation of the removable surface contamination measurements

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5.4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5.4, equals 0.998650 for a relative shift of 3.0 (The actual value approaches one The highest published value is utilized for conservatism)

Determine the number of removable surface contamination measurements for the applicable survey unit using the following MARSSIM, Section 5.5.2.3 formula that is based on Plutonium contaminants not being present in the background

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Survey Area: A	Building 729
Survey Unit (s): 72902	

Removable Contamination Summary Statistics Calculation Worksheet

Step 3 Continued

$N = (1.645 + 1.645)^2 / 4(Sign\ P - 0.5)^2$

$N = (1.645 + 1.645)^2 / 4(0.998650 - 0.5)^2 = \underline{10.9}$

Where

1.645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological

Sign P equals 0.998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5.5.2.3

$N = \underline{10.9} * 1.2 = \underline{13}$

Conclusion Utilizing a conservative relative shift value of 3.0, a minimum of 13 Removable Surface Contamination measurements was required in 72902

Step 5

Draw conclusions from the data All measurements are less than $DCGL_W$. The minimum number of required removable survey measurements were collected. Thus, survey unit 72902 complies with the removable contamination release criteria.

[redacted]

	4/24/99
	Date
	4/24/99
	Date

b3

Survey Area: A	Building 729
Survey Unit (s): 72902	

Paint Sample Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72902 media sample (paint) data are calculated on the "Survey Area A Building 729 Paint/Solid Media Sample Results" form Because all media sample results are less than $DCGL_W$ (less than 100 dpm/100 cm^2 for transuranics and 5000 dpm/100 cm^2 for uranium), the survey unit clearly meets the media sample release criterion

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Media Surface Activity Measurement Calculation Worksheet") was based on the use of this test

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The assumed data variance, as indicated by the assumed standard deviation (see "Media Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of samples with the ACTUAL survey unit standard deviation

The actual media (paint) sample standard deviation for transuranics for 72902 is 0.7
The actual media (paint) sample standard deviation for uranium for 72902 is 10.7

Thus, the ACTUAL required number of samples is as follows

$$\Delta/\delta = (DCGL_{MEDIA} - LBGR_{MEDIA})/ SD_{MEDIA}$$

$\Delta/\delta_{transuranics} = 71.4 = (100 \text{ dpm}/100\text{cm}^2 - 50 \text{ dpm}/100\text{cm}^2)/0.7 \text{ dpm}/100\text{cm}^2$
$\Delta\delta_{uranium} = 16.8 = (5000 \text{ dpm}/100\text{cm}^2 - 4819.9 \text{ dpm}/100\text{cm}^2)/10.7 \text{ dpm}/100\text{cm}^2$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{MEDIA}$ is the media sample derived concentration guideline value (DOE Order 5400.5 total surface contamination limit equals 100 dpm/100cm^2 for transuranics and 5000 dpm/100cm^2 for uranium per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{MEDIA}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor *Note that for transuranics, the LBGR was changed from the original value used in calculating the number of measurements (95.7) The original LBGR was chosen only to establish a relative shift between 1 and 3 However a more reasonable value, and the value recommended by MARSSIM, is one-half of the $DCGL_w$ (or 50 dpm/100 cm^2)*

SD_{MEDIA} is the ACTUAL standard deviation of the 72902 samples

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5.4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5.4, equals 0.998650 for a relative shift of 3.0 (The actual value approaches one The highest published value is utilized for conservatism)

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Survey Area: A	Building 729
Survey Unit (s): 72902	

Paint Sample Summary Statistics Calculation Worksheet

Step 3 Continued

Determine the number of media samples for the applicable survey unit using the following MARSSIM, Section 5 5 2 3 formula that is based on Plutonium and Uranium contaminants not being present in the background

$N = (1\ 645 + 1\ 645)^2 / 4(\text{Sign P} - 0\ 5)^2$

$N = (1\ 645 + 1\ 645)^2 / 4(0\ 998650 - 0\ 5)^2 = \underline{10\ 9}$

Where

1 645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0 998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5 5 2 3

$N = \underline{10\ 9} * 1\ 2 = \underline{13}$

Conclusion Utilizing a conservative relative shift value of 3 0, a minimum of 13 Media (paint) samples was required in 72902

Step 5

Draw conclusions from the data All sample results are less than $DCGL_W$ The minimum number of required media samples were collected Thus, survey unit 72902 complies with the media sample release criteria.

[redacted]	4/24/99
	Date
[redacted]	4/24/99
	Date

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Attachment C

Survey Unit 72903 Media/Contamination Results and Maps

ATTACHMENT C

SURVEY UNIT 72903 DATA

COLOR CODES:

Less Than or Equal to 75% of $DCGL_{W}$ =

>75% and <100% of $DCGL_{W}$ =

Greater Than or Equal to $DCGL_{W}$ =

Survey Unit 72903 Data Summary and Approval Sheet

Total Activity Measurements (Supporting Media Sampling-No Statistics Required)

Pre-Media Sample	15	17	Post-Media Sample	15	17
	Number Required	Number Obtained		Number Required	Number Obtained

Removable Surface Activity Measurements

Pre-Media Sample	17	19	Post-Media Sample	17	17
	Number Required	Number Obtained		Number Required	Number Obtained

MIN	-1 1	dpm/100 cm^2	MIN	-1 1	dpm/100 cm^2
MAX	2 0	dpm/100 cm^2	MAX	2 0	dpm/100 cm^2
MEAN	0 1	dpm/100 cm^2	MEAN	0 0	dpm/100 cm^2
STD DEV	1 1	dpm/100 cm^2	STD DEV	1 2	dpm/100 cm^2
TRANSURANIC DCGL$_W$	20	dpm/100 cm^2	TRANSURANIC DCGL$_W$	20	dpm/100 cm^2

Media Sample Activity Analysis

Media Samples	16	17
	Number Required	Number Obtained

TOTAL URANIUM RESULTS			TOTAL TRANSURANIC RESULTS		
MIN	1 6	dpm/100 cm^2	MIN	-13 0	dpm/100 cm^2
MAX	146 6	dpm/100 cm^2	MAX	23 1	dpm/100 cm^2
MEAN	44 8	dpm/100 cm^2	MEAN	4 1	dpm/100 cm^2
STD DEV	39 9	dpm/100 cm^2	STD DEV	8 4	dpm/100 cm^2
DCGL$_W$	5000	dpm/100 cm^2	DCGL$_W$	100	dpm/100 cm^2

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Survey Unit 72903 Data Summary and Approval Sheet

Total Surface Contamination Measurements

15	19
Number Required	Number Obtained

MIN	-14 4	dpm/100 cm^2
MAX	33 7	dpm/100 cm^2
MEAN	5 3	dpm/100 cm^2
STD DEV	12 5	dpm/100 cm^2
TRANSURANIC DCGL$_W$	100	dpm/100 cm^2

Reviewed By [redacted] *4/19/99* Date

Approved By [redacted] *4/19/99* Date

Survey Area A Building 729 Surface Media Survey Result

SURVEY UNIT 72903						
	Pre-Sample Results			Post-Sample Results		
	Total Activity	Removable Activity		Total Activity	Removable Activity	
Sample Location	(dpm/100 cm^2)	(dpm/100 cm^2)	MDA	(dpm/100 cm^2)	(dpm/100 cm^2)	MDA
1	< 60	0 46	8 51	< 60	0 46	8 51
2	< 34	-1 10	8 51	< 34	-1 10	8 51
3	< 60	-1 10	8 51	< 60	0 46	8 51
4	< 60	2 00	8 51	< 60	0 46	8 51
5	42	2 00	8 51	< 60	0 46	8 51
6	< 34	0 46	8 51	< 34	-1 10	8 51
7	< 34	0 46	8 51	36	-1 10	8 51
8	< 60	0 46	8 51	< 60	-1 10	8 51
9	< 60	0 46	8 51	< 60	-1 10	8 51
10	< 34	-1 10	8 51	< 35	-1 10	8 51
11	< 34	-1 10	8 51	< 35	-1 10	8 51
12	< 60	0 46	8 51	< 60	0 46	8 51
13	< 34	0 46	8 51	< 34	-1 10	8 51
14	< 34	-1 10	8 51	36	0 46	8 51
15	< 60	-1 10	8 51	< 60	2 00	8 51
16	< 60	0 46	8 51	< 60	2 00	8 51
17	< 34	-1 10	8 51	< 34	2 00	8 51
18 **		2 00	8 51			
19 **		0 46	8 51			
	MIN	-1 10		MIN	-1 10	
	MAX	2 00		MAX	2 00	
	MEAN	0 13		MEAN	0 00	
	SD	1 11		SD	1 20	
	Transuranic $DCGL_W$	**20**		Transuranic $DCGL_W$	**20**	

** *Survey measurements 18 and 19 were smears only No solid media samples were obtained due to unpainted metallic surfaces*

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Survey Area A Building 729 Sample Weight Data Sheet

SURVEY UNIT 72903						
RIN NUMBER 99A5187			RIN NUMBER 99A5050			SUM (*)
Location Number	Event	Rad Screening Weight, grams	Location Number	Event	Isotopic Analysis Weight, grams	Total Weight, grams
1	011 001	1 0159	1	011 001	38 34	39 36
2	017 001	1 0154	2	017 001	267 11	268 13
3	009 001	1 0025	3	009 001	30 07	31 07
4	010 001	1 0212	4	010 001	21 72	22 74
5	003 001	1 0070	5	003 001	52 06	53 07
6	008 001	1 0050	6	008 001	4 44	5 45
7	007 001	1 0074	7	007 001	7 07	8 08
8	015 001	1 0090	8	015 001	342 64	343 65
9	016 001	1 0294	9	016 001	367 08	368 11
10	006 001	1 0104	10	006 001	87 63	88 64
11	005 001	1 0002	11	005 001	4 50	5 50
12	014 001	1 0837	12	014 001	446 32	447 40
13	002 001	1 0027	13	002 001	48 41	49 41
14	004 001	1 0154	14	004 001	64 84	65 86
15	013 001	1 0086	15	013 001	296 21	297 22
16	012 001	1 0586	16	012 001	259 60	260 66
17	001 001	1 0060	17	001 001	69 47	70 48

(*) Total weight of each sample used for the activity calculations is the sum of the weights of each aliquot removed for rad screening by THERMO NUTECH plus the aliquot analyzed by SA Cohen for isotopics

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Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72903											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in²)	INDIVIDUAL NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) $DCGL_{w}$=5000	TRANSURANIC TOTAL (dpm/100cm²) $DCGL_{w}$=100
BLOCK WALL	17	99A5050-001 001	U-233/234	0 266	0 057	70 48	40	16 1	3 5		
BLOCK WALL	17	99A5050-001 001	U-235	0 015	0 039	70 48	40	0 9	2 4		
BLOCK WALL	17	99A5050-001 001	U-238	0 352	0 032	70 48	40	21 3	1 9	38 4	
BLOCK WALL	17	99A5050-001 001	Pu-239/240	0 046	0 031	70 48	40	2 8	1 9		
BLOCK WALL	17	99A5050-001 001	Am-241	0 131	0 109	70 48	40	7 9	6 6		10 7
BLOCK WALL	13	99A5050-002 001	U-233/234	0 425	0 063	49 41	40	18 1	2 7		
BLOCK WALL	13	99A5050-002 001	U-235	0 016	0 044	49 41	40	0 7	1 9		
BLOCK WALL	13	99A5050-002 001	U-238	0 377	0 035	49 41	40	16 0	1 5	34 8	
BLOCK WALL	13	99A5050-002 001	Pu-239/240	0 014	0 067	49 41	40	0 6	2 8		
BLOCK WALL	13	99A5050-002 001	Am-241	0 009	0 115	49 41	40	0 4	4 9		1 0
CONCRETE	5	99A5050-003 001	U-233/234	0 313	0 059	53 07	40	14 3	2 7		
CONCRETE	5	99A5050-003 001	U-235	0 000	0 041	53 07	40	0 0	1 9		
CONCRETE	5	99A5050-003 001	U-238	0 312	0 059	53 07	40	14 2	2 7	28 5	
CONCRETE	5	99A5050-003 001	Pu-239/240	0 106	0 100	53 07	40	4 8	4 6		
CONCRETE	5	99A5050-003 001	Am-241	0 005	0 097	53 07	40	0 2	4 4		5 1
BLOCK WALL	14	99A5050-004 001	U-233/234	0 318	0 028	65 86	40	18 0	1 6		
BLOCK WALL	14	99A5050-004 001	U-235	0 020	0 061	65 86	40	1 1	3 5		
BLOCK WALL	14	99A5050-004 001	U-238	0 368	0 028	65 86	40	20 8	1 6	40 0	
BLOCK WALL	14	99A5050-004 001	Pu-239/240	-0 004	0 051	65 86	40	-0 2	2 9		
BLOCK WALL	14	99A5050-004 001	Am-241	0 008	0 065	65 86	40	0 5	3 7		0 2
STEEL DOOR	11	99A5050-005 001	U-233/234	0 225	0 031	5 50	40	1 1	0 1		
STEEL DOOR	11	99A5050-005 001	U-235	0 014	0 038	5 50	40	0 1	0 2		
STEEL DOOR	11	99A5050-005 001	U-238	0 101	0 030	5 50	40	0 5	0 1	1 6	
STEEL DOOR	11	99A5050-005 001	Pu-239/240	0 037	0 033	5 50	40	0 2	0 2		
STEEL DOOR	11	99A5050-005 001	Am-241	-0 044	0 259	5 50	40	-0 2	1 2		0 0
BLOCK WALL	10	99A5050-006 001	U-233/234	0 777	0 069	88 64	40	59 2	5 3		
BLOCK WALL	10	99A5050-006 001	U-235	0 035	0 048	88 64	40	2 7	3 7		
BLOCK WALL	10	99A5050-006 001	U-238	0 779	0 038	88 64	40	59 4	2 9	121 3	
BLOCK WALL	10	99A5050-006 001	Pu-239/240	0 038	0 034	88 64	40	2 9	2 6		
BLOCK WALL	10	99A5050-006 001	Am-241	0 024	0 075	88 64	40	1 8	5 7		4 7

Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72903											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in²)	INDIVIDUAL NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) $DCGL_W$=5000	TRANSURANIC TOTAL (dpm/100cm²) $DCGL_W$=100
STEEL DOOR	7	99A5050-007 001	U-233/234	0 152	0 069	8 08	40	1 1	0 5		
STEEL DOOR	7	99A5050-007 001	U-235	0 018	0 048	8 08	40	0 1	0 3		
STEEL DOOR	7	99A5050-007 001	U-238	0 186	0 039	8 08	40	1 3	0 3	2 5	
STEEL DOOR	7	99A5050-007 001	Pu-239/240	0 027	0 083	8 08	40	0 2	0 6		
STEEL DOOR	7	99A5050-007 001	Am-241	0 028	0 202	8 08	40	0 2	1 4		0 4
STEEL DOOR	6	99A5050-008 001	U-233/234	0 264	0 059	5 45	40	1 2	0 3		
STEEL DOOR	6	99A5050-008 001	U-235	0 015	0 041	5 45	40	0 1	0 2		
STEEL DOOR	6	99A5050-008 001	U-238	0 134	0 033	5 45	40	0 6	0 2	1 9	
STEEL DOOR	6	99A5050-008 001	Pu-239/240	0 027	0 036	5 45	40	0 1	0 2		
STEEL DOOR	6	99A5050-008 001	Am-241	-0 018	0 160	5 45	40	-0 1	0 8		0 0
CONCRETE	3	99A5050-009 001	U-233/234	0 294	0 083	31 07	40	7 9	2 2		
CONCRETE	3	99A5050-009 001	U-235	0 036	0 049	31 07	40	1 0	1 3		
CONCRETE	3	99A5050-009 001	U-238	0 362	0 039	31 07	40	9 7	1 0	18 5	
CONCRETE	3	99A5050-009 001	Pu-239/240	-0 006	0 065	31 07	40	-0 2	1 7		
CONCRETE	3	99A5050-009 001	Am-241	0 050	0 113	31 07	40	1 3	3 0		1 2
CONCRETE	4	99A5050-010 001	U-233/234	0 206	0 033	22 74	40	4 0	0 6		
CONCRETE	4	99A5050-010 001	U-235	0 030	0 040	22 74	40	0 6	0 8		
CONCRETE	4	99A5050-010 001	U-238	0 265	0 033	22 74	40	5 2	0 6	9 8	
CONCRETE	4	99A5050-010 001	Pu-239/240	0 029	0 039	22 74	40	0 6	0 8		
CONCRETE	4	99A5050-010 001	Am-241	0 028	0 104	22 74	40	0 5	2 0		1 1
BLOCK WALL	1	99A5050-011 001	U-233/234	0 623	0 037	39 36	40	21 1	1 3		
BLOCK WALL	1	99A5050-011 001	U-235	0 026	0 081	39 36	40	0 9	2 7		
BLOCK WALL	1	99A5050-011 001	U-238	0 634	0 037	39 36	40	21 5	1 3	43 4	
BLOCK WALL	1	99A5050-011 001	Pu-239/240	0 041	0 037	39 36	40	1 4	1 3		
BLOCK WALL	1	99A5050-011 001	Am-241	0 029	0 118	39 36	40	1 0	4 0		2 4
TAR ROOF	16	99A5050-012 001	U-233/234	0 023	0 069	260 66	40	5 2	15 5		
TAR ROOF	16	99A5050-012 001	U-235	0 018	0 048	260 66	40	4 0	10 8		
TAR ROOF	16	99A5050-012 001	U-238	0 122	0 069	260 66	40	27 4	15 5	36 5	
TAR ROOF	16	99A5050-012 001	Pu-239/240	0 024	0 032	260 66	40	5 4	7 2		
TAR ROOF	16	99A5050-012 001	Am-241	-0 022	0 116	260 66	40	-4 9	26 0		0 4

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Survey Unit A Building 729 Paint/Solid Media Sample Results

SURVEY UNIT 72903											
LOCATION DESCRIPTION	SAMPLE LOCATION NUMBER	SITE SAMPLE ID	NUCLIDE	pCi/g	MDA (pCi/g)	WEIGHT (g)	SURFACE AREA (in²)	INDIVIDUAL NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) $DCGL_W$=5000	TRANSURANIC TOTAL (dpm/100cm²) $DCGL_W$=100
TAR ROOF	15	99A5050-013 001	U-233/234	0 086	0 058	297 22	40	22 0	14 8		
TAR ROOF	15	99A5050-013 001	U-235	0 015	0 128	297 22	40	3 8	32 7		
TAR ROOF	15	99A5050-013 001	U-238	0 149	0 058	297 22	40	38 1	14 8	63 9	
TAR ROOF	15	99A5050-013 001	Pu-239/240	-0 010	0 066	297 22	40	-2 6	16 9		
TAR ROOF	15	99A5050-013 001	Am-241	0 047	0 081	297 22	40	12 0	20 7		9 5
TAR ROOF	12	99A5050-014 001	U-233/234	0 144	0 035	447 40	40	55 4	13 5		
TAR ROOF	12	99A5050-014 001	U-235	0 016	0 044	447 40	40	6 2	16 9		
TAR ROOF	12	99A5050-014 001	U-238	0 221	0 035	447 40	40	85 1	13 5	146 6	
TAR ROOF	12	99A5050-014 001	Pu-239/240	0 023	0 083	447 40	40	8 9	31 9		
TAR ROOF	12	99A5050-014 001	Am-241	0 037	0 094	447 40	40	14 2	36 2		23 1
TAR ROOF	8	99A5050-015 001	U-233/234	0 154	0 070	343 65	40	45 5	20 7		
TAR ROOF	8	99A5050-015 001	U-235	0 000	0 048	343 65	40	0 0	14 2		
TAR ROOF	8	99A5050-015 001	U-238	0 087	0 039	343 65	40	25 7	11 5	71 2	
TAR ROOF	8	99A5050-015 001	Pu-239/240	0 007	0 061	343 65	40	2 1	18 0		
TAR ROOF	8	99A5050-015 001	Am-241	0 064	0 123	343 65	40	18 9	36 4		21 0
TAR ROOF	9	99A5050-016 001	U-233/234	0 070	0 073	368 11	40	22 2	23 1		
TAR ROOF	9	99A5050-016 001	U-235	0 056	0 051	368 11	40	17 7	16 1		
TAR ROOF	9	99A5050-016 001	U-238	0 061	0 041	368 11	40	19 3	13 0	59 2	
TAR ROOF	9	99A5050-016 001	Pu-239/240	0 000	0 037	368 11	40	0 0	11 7		
TAR ROOF	9	99A5050-016 001	Am-241	-0 041	0 152	368 11	40	-13 0	48 1		-13 0
TAR ROOF	2	99A5050-017 001	U-233/234	0 077	0 066	268 13	40	17 8	15 2		
TAR ROOF	2	99A5050-017 001	U-235	0 017	0 046	268 13	40	3 9	10 6		
TAR ROOF	2	99A5050-017 001	U-238	0 090	0 066	268 13	40	20 8	15 2	42 4	
TAR ROOF	2	99A5050-017 001	Pu-239/240	0 016	0 044	268 13	40	3 7	10 1		
TAR ROOF	2	99A5050-017 001	Am-241	-0 006	0 071	268 13	40	-1 4	16 4		2 3

MIN	1 6	-13 0
MAX	146 6	23 1
MEAN	44 8	4 1
STD DEV	39 9	8 4
$DCGL_W$ =	5000	100

Survey Area A Building 729 Total Surface Contamination Results

Survey Unit 72903			
Meter Model	NE/Technology Electra w/ DP6 Probe	Efficiency (c/d)	0 208
Serial #/Date	2181, QC - 1259	Local Area Bkgd (cpm)	3
Cal Due Date	7/15/99	QC Efficiency (c/d)	0 2169
QC Cal Due Date	8/18/99	QC Local Area Bkgd (cpm)	4

Sample Location Number	Total Surface Activity		Quality Control Measurements	MDA
	(cpm)	(dpm/100 cm^2)	(dpm/100 cm^2)	(dpm/100 cm^2)
1	3	0 0	N/A	52
2	4	4 8	N/A	52
3	0	-14 4	N/A	52
4	3	0 0	9 6	52/55[a]
5	8	24 0	N/A	52
6	1	-9 6	N/A	52
7	3	0 0	N/A	52
8	5	9 6	N/A	52
9	3	0 0	N/A	52
10	10	33 7	0 0	52/55[a]
11	7	19 2	N/A	52
12	1	-9 6	N/A	52
13	3	0 0	N/A	52
14	8	24 0	N/A	52
15	4	4 8	N/A	52
16	5	9 6	N/A	52
17	2	-4 8	N/A	52
18	4	4 8	N/A	52
19	4	4 8	N/A	52
	MIN	-14 4		
	MAX	33 7		
	MEAN	5 3		
	SD	12 5		
	Transuranic $DCGL_W$	**100**		

[a] MDA for QC measurements

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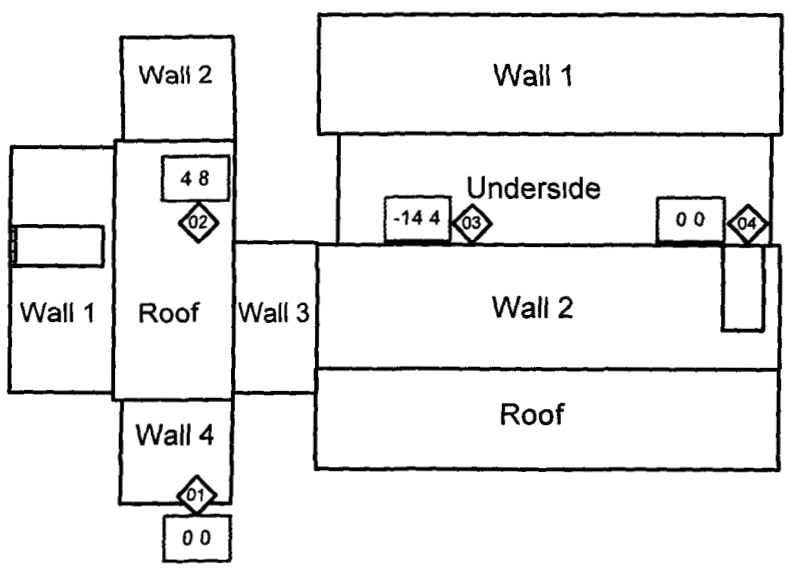
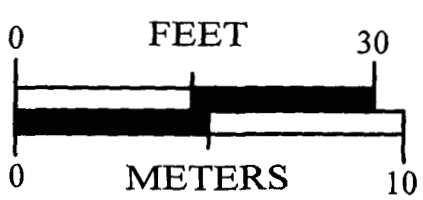
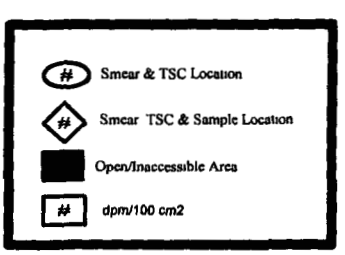
Total Surface Activity
Posting Plot for Survey Unit 72903

SURVEY UNIT 72903-MAP 1 OF 2





N



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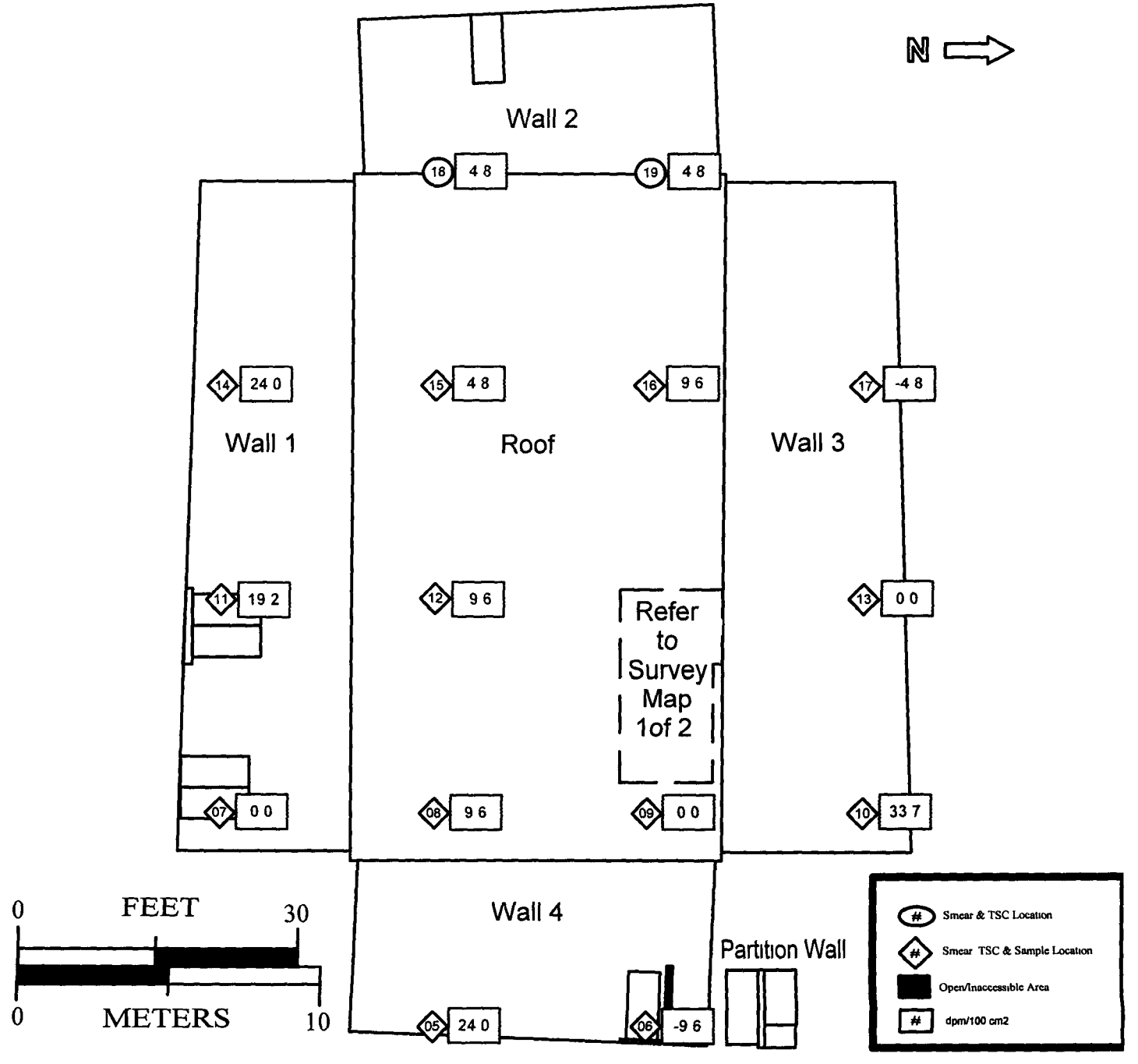
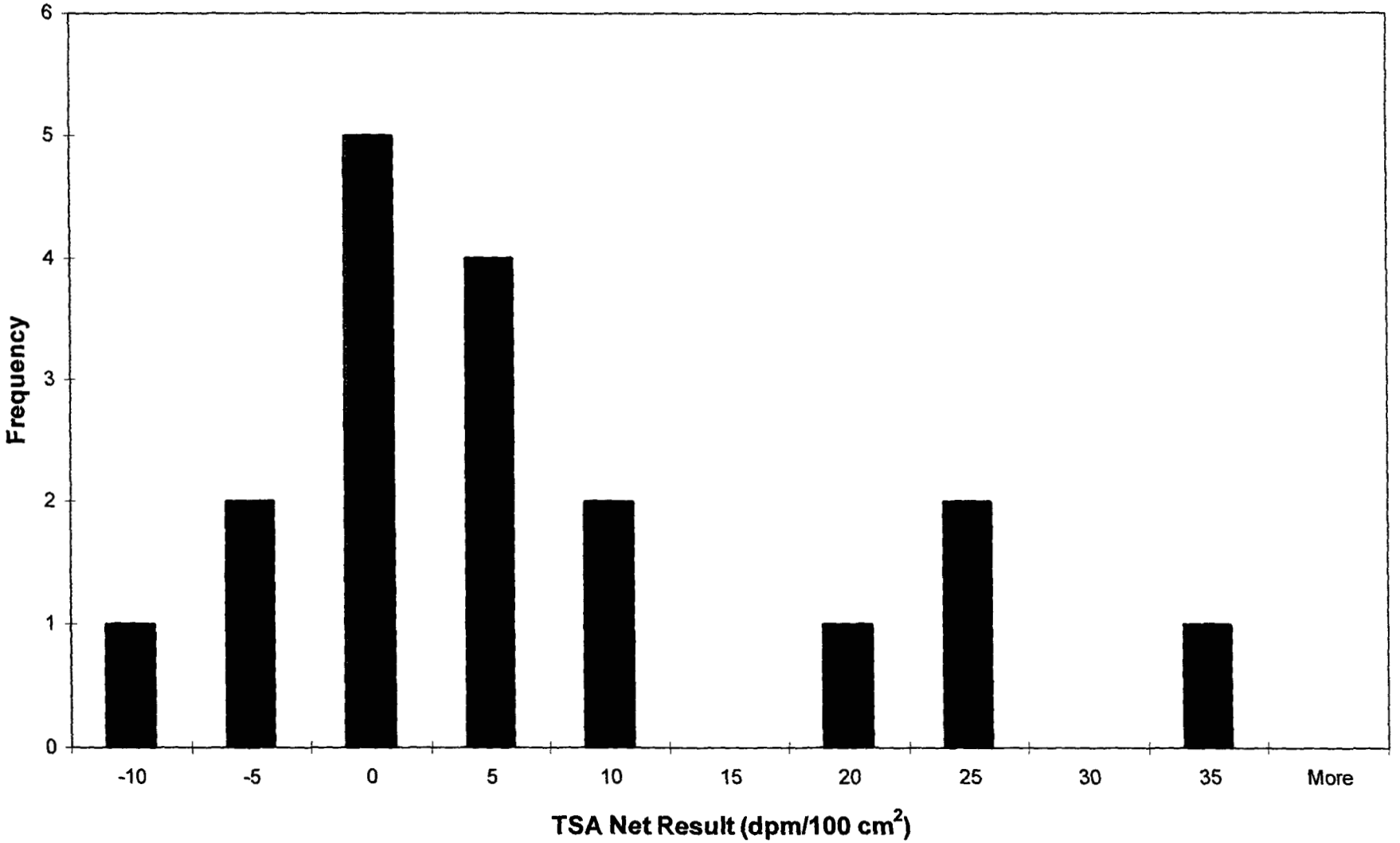
Total Surface Activity
Posting Plot for Survey Unit 72903

SURVEY UNIT 72903-MAP 2 OF 2



72903 TSA Data Frequency Plot



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Survey Area: A	Building. 729
Survey Unit (s): 72903	

Total Surface Activity Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72903 data are calculated on the "Survey Area A Building 729 Total Surface Contamination Results" form Because all total surface activity (TSA or TSC) measurement results are less than $DCGL_W$ (less than 100 dpm/100 cm^2) , the survey unit clearly meets the TSA release criterion

A graphical data review was also performed on the attached form The posting plot indicated that spatial trends of elevated areas are not present The histogram indicated that no isolated areas of elevated activity are present

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Total Surface Activity Measurement Calculation Worksheet") was based on the use of this test An average local area background (LAB) value was subtracted from each gross measurement to calculate a net result, thus the sign test applies (sign test is typically applied only when the contaminant is not present in background)

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The sign test assumes that the data from the survey unit consists of independent samples from each distribution This assumption is verified per the posting plot (see Step 1), that indicates that spatial dependencies do not exist in the survey unit

The assumed data variance, as indicated by the assumed standard deviation (see "Total Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of samples with the ACTUAL survey unit standard deviation

The actual sample standard deviation for 72903 is 12 5

Thus, the ACTUAL required number of samples is as follows

$\Delta/\delta = (DCGL_{TSA} - LBGR_{TSA})/ SD_{TSA}$

$\Delta/\delta_{transuranics} = 5.3 = (100 \text{ dpm}/100\text{cm}^2 - 34 \text{ dpm}/100\text{cm}^2)/ 12.5 \text{ dpm}/100\text{cm}^2$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{TSA}$ is the total surface activity derived concentration guideline value (DOE Order 5400 5 total surface activity limit equals 100 dpm/100cm^2 for transuranics and 5000 dpm/100cm^2 for uranium, per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{TSA}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor

SD_{TSA} is the ACTUAL standard deviation of the total surface activity

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5 4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5 4, equals 0 998650 for a relative shift of 3 0 (The actual value approaches one The highest published value is utilized for conservatism)

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Survey Area: A	Building 729
Survey Unit (s): 72903	

Total Surface Activity Summary Statistics Calculation Worksheet

Step 3 Continued

Determine the number of TSA surface activity measurements for the applicable survey unit using the following MARSSIM, Section 5 5 2 3 formula that is based on Plutonium contaminants not being present in the background

$N = (1\ 645 + 1\ 645)^2 / 4(\text{Sign P} - 0\ 5)^2$

$N = (1\ 645 + 1\ 645)^2 / 4(0\ 998650\text{-}0\ 5)^2 = \underline{10\ 9}$

Where

1 645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0 998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5 5 2 3

$N = \underline{10\ 9} * 1\ 2 = \underline{13}$

Conclusion. Utilizing a conservative relative shift value of 3 0, a minimum of 13 Total Surface Activity measurements was required in 72903

Step 5

Draw conclusions from the data All measurements are less than $DCGL_W$ The minimum number of required measurements were collected Thus, survey unit 72903 complies with the TSA release criteria.

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Survey Area: A	Building. 729
Survey Unit (s): 72903	

Removable Contamination Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72903 removable surface contamination data are calculated on the "Survey Area A Building 729 Surface Media Survey Results" form Because all removable survey measurement results are less than $DCGL_W$ (less than 20 dpm/100 cm^2) , the survey unit clearly meets the removable contamination release criterion

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Removable Surface Activity Measurement Calculation Worksheet") was based on the use of this test

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test. The assumed data variance, as indicated by the assumed standard deviation (see "Removable Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of smears with the ACTUAL survey unit standard deviation

The actual removable survey standard deviation for 72903 is 1.1

Thus, the ACTUAL required number of measurements is as follows

$$\Delta/\delta = (DCGL_{REMOVABLE} - LBGR_{REMOVABLE})/ SD_{REMOVABLE}$$

$$\Delta/\delta_{transuranics} = 9.1 = (20\ dpm/100cm^2 - 10\ dpm/100cm^2)/1.1\ dpm/100cm^2$$

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{REMOVABLE}$ is the removable surface contamination derived concentration guideline value (DOE Order 5400.5 removable surface contamination limit equals 20 dpm/100cm^2 for transuranics per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{REMOVABLE}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor

$SD_{REMOVABLE}$ is the ACTUAL standard deviation of the removable surface contamination measurements

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5.4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5.4, equals 0.998650 for a relative shift of 3.0 (The actual value approaches one The highest published value is utilized for conservatism)

Determine the number of removable surface contamination measurements for the applicable survey unit using the following MARSSIM, Section 5.5.2.3 formula that is based on Plutonium contaminants not being present in the background

4\

Survey Area: A	Building. 729
Survey Unit (s): 72903	

Removable Contamination Summary Statistics Calculation Worksheet

Step 3 Continued

$N = (1\ 645 + 1\ 645)^2 / 4(\text{Sign P} - 0\ 5)^2$

$N = (1\ 645 + 1\ 645)^2 / 4(0\ 998650 - 0\ 5)^2 = \underline{10\ 9}$

Where

1 645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0 998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5 5 2 3

$N = \underline{10\ 9} * 1\ 2 = \underline{13}$

Conclusion: Utilizing a conservative relative shift value of 3 0, a minimum of 13 Removable Surface Contamination measurements was required in 72903

Step 5

Draw conclusions from the data. All measurements are less than $DCGL_W$ The minimum number of required removable survey measurements were collected Thus, survey unit 72903 complies with the removable contamination release criteria

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Date

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Date

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Survey Area: A	**Building.** 729
Survey Unit (s): 72903	

Paint Sample Summary Statistics Calculation Worksheet

Step 1

Conduct a preliminary data review (the mean, standard deviation, and median of the 72903 media sample (paint) data are calculated on the "Survey Area A Building 729 Paint/Solid Media Sample Results" form Because all media sample results are less than $DCGL_W$ (less than 100 dpm/100 cm^2 for transuranics and 5000 dpm/100 cm^2 for uranium), the survey unit clearly meets the media sample release criterion

Step 2

Select the statistical tests The one-sample sign test was selected to assess the data, with $\alpha = 0.05$ and $\beta = 0.05$ The number of sample points calculated (see "Media Surface Activity Measurement Calculation Worksheet") was based on the use of this test

The performance of the sign test was not necessary due to the fact that each individual net result was less than the $DCGL_W$ Thus, the sign test would result in the rejection of the null hypothesis, and conclude that the median concentration of residual radioactivity in the survey unit is less than the $DCGL_W$

Step 3

Verify the assumptions of the test The assumed data variance, as indicated by the assumed standard deviation (see "Media Surface Activity Measurement Calculation Worksheet") was verified by re-calculating the required number of samples with the ACTUAL survey unit standard deviation

The actual media (paint) sample standard deviation for transuranics for 72903 is 8.4
The actual media (paint) sample standard deviation for uranium for 72903 is 39.9

Thus, the ACTUAL required number of samples is as follows

$$\Delta/\delta = (DCGL_{MEDIA} - LBGR_{MEDIA})/ SD_{MEDIA}$$

$\Delta/\delta_{transuranics}$ = 6.0 = (100 dpm/100cm^2 – *50* dpm/100cm^2)/8.4 dpm/100cm^2
$\Delta\delta_{uranium}$ = 4.5 = (5000 dpm/100cm^2 – 4819.9 dpm/100cm^2)/39.9 dpm/100cm^2

Where

Δ/δ is the relative shift or the resolution of measurements in units of measurement uncertainty

$DCGL_{MEDIA}$ is the media sample derived concentration guideline value (DOE Order 5400.5 total surface contamination limit equals 100 dpm/100cm^2 for transuranics and 5000 dpm/100cm^2 for uranium per the B779 Cluster Radiological Closeout Survey Plan)

$LBGR_{MEDIA}$ is the lower bound of the gray region – the lower bound of the range of values of the parameter of interest in a survey unit where the consequences of making a decision error is relatively minor *Note that for transuranics, the LBGR was changed from the original value used in calculating the number of measurements (95.7) The original LBGR was chosen only to establish a relative shift between 1 and 3 However, a more reasonable value, and the value recommended by MARSSIM, is one-half of the $DCGL_w$ (or 50 dpm/100 cm^2)*

SD_{MEDIA} is the ACTUAL standard deviation of the 72903 samples

Determine the Sign P value by looking up the relative shift (Δ/δ) in Table 5.4 of MARSSIM (the Sign P value is the estimated probability that a random measurement from the survey unit will be less than the DCGL when the survey unit median is actually at the LBGR) The Sign P value from Table 5.4, equals 0.998650 for a relative shift of 3.0 (The actual value approaches one The highest published value is utilized for conservatism)

Determine the number of media samples for the applicable survey unit using the following MARSSIM, Section 5.5.2.3 formula that is based on Plutonium and Uranium contaminants not being present in the background

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Survey Area: A	**Building:** 729
Survey Unit (s): 72903	

Paint Sample Summary Statistics Calculation Worksheet

Step 3 Continued

$N = (1.645 + 1.645)^2 / 4(Sign\ P - 0.5)^2$

$N = (1.645 + 1.645)^2 / 4(0.998650 - 0.5)^2 = \underline{10.9}$

Where

1.645 is the alpha and beta decision error value (95% confidence) per the B779 Cluster Radiological Closeout Survey Plan

Sign P equals 0.998650

Step 4 Increase N by 20% to allow for missing or invalid data points per MARSSIM, Section 5.5.2.3

$N = \underline{10.9} * 1.2 = \underline{13}$

Conclusion: Utilizing a conservative relative shift value of 3.0, a minimum of 13 Media (paint) samples was required in 72903

Step 5

Draw conclusions from the data. All sample results are less than $DCGL_W$. The minimum number of required media samples were collected. Thus, survey unit 72903 complies with the media sample release criteria.

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	Date

ATTACHMENT D

SCM/SIMS Surface Contamination Survey Results and Maps

Introduction

Survey 72901001 was conducted on April 2, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901001 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

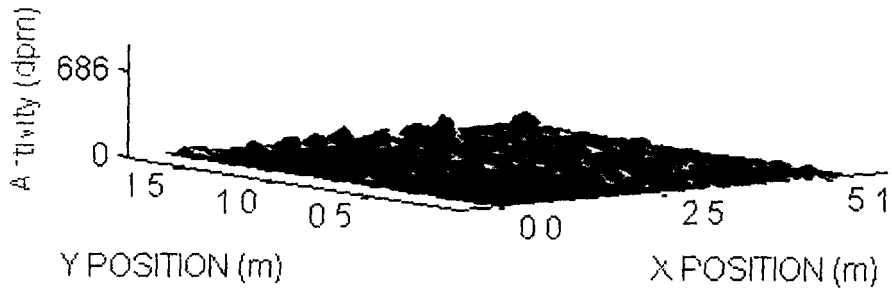

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

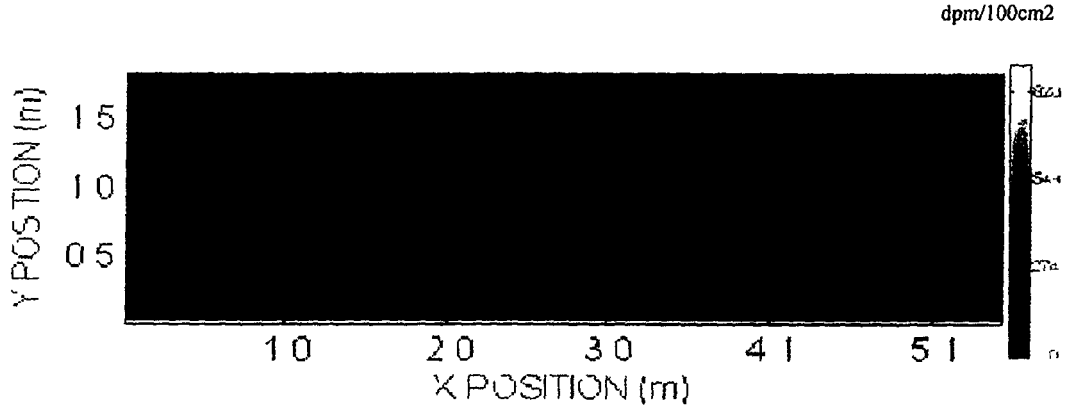

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100 cm^2 areas
1	1	0	34	0	3 0	0
2	1	0	34	0	4 0	0
3	1	10	68	0	13 0	60
4	1	13	102	0	21 0	100
5	1	6	102	0	15 0	100
6	1	5	68	0	12 0	40
1	2	8	34	0	6 0	10
2	2	8	68	0	8 0	10
3	2	14	137	0	18 0	52
4	2	8	102	0	15 0	80
5	2	8	122	0	20 0	80
6	2	5	95	0	18 0	32

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

(Primary) Date 04-09-1999 Time 09 29 04 72901001-4

Introduction

Survey 72901002 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901002 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 135 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

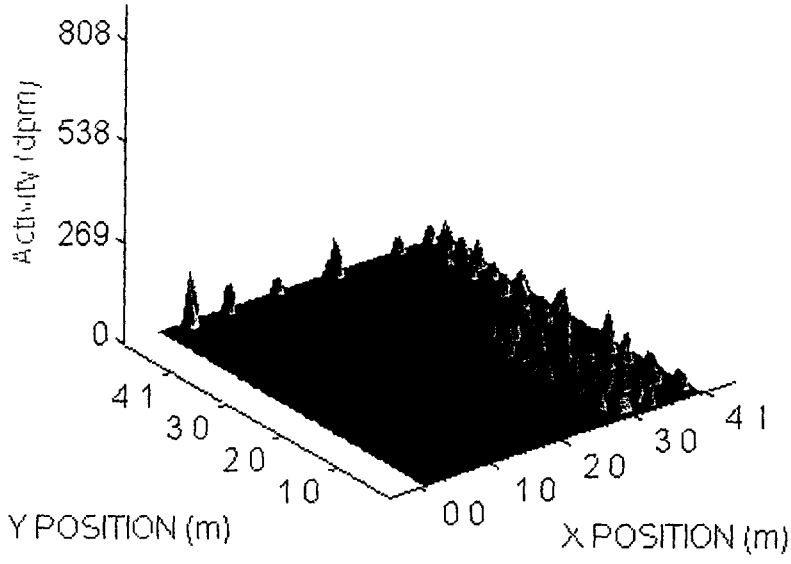

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

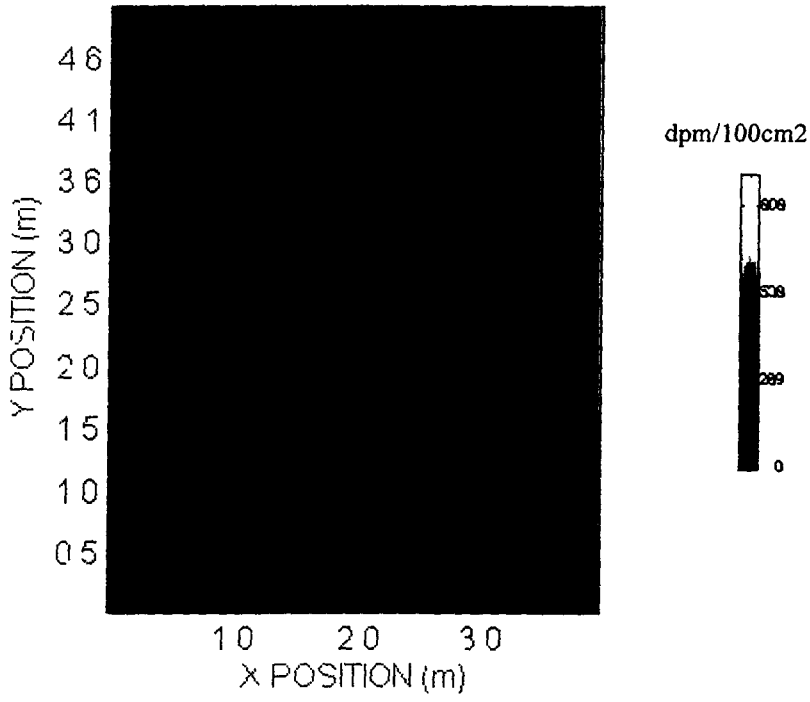

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2 +

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X	Y	Mean	Max	Min	STD	100 cm^2 areas
1	1	0	0	0	0	0
2	1	0	0	0	0	0
3	1	10	68	0	10 0	20
4	1	8	102	0	18 0	90
1	2	0	0	0	0	0
2	2	0	0	0	0	0
3	2	10	102	0	10 0	20
4	2	8	102	0	14 0	90
1	3	0	0	0	0	0
2	3	0	0	0	0	0
3	3	8	68	0	8 0	12
4	3	9	68	0	19 0	66
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	6	68	0	9 0	30
1	5	18	134	0	15 0	10
2	5	0	34	0	3 0	10
3	5	9	98	0	10 0	10
4	5	8	68	0	14 0	33

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901003 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to DCGLs To evaluate the measured activity levels versus release criteria, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901003 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

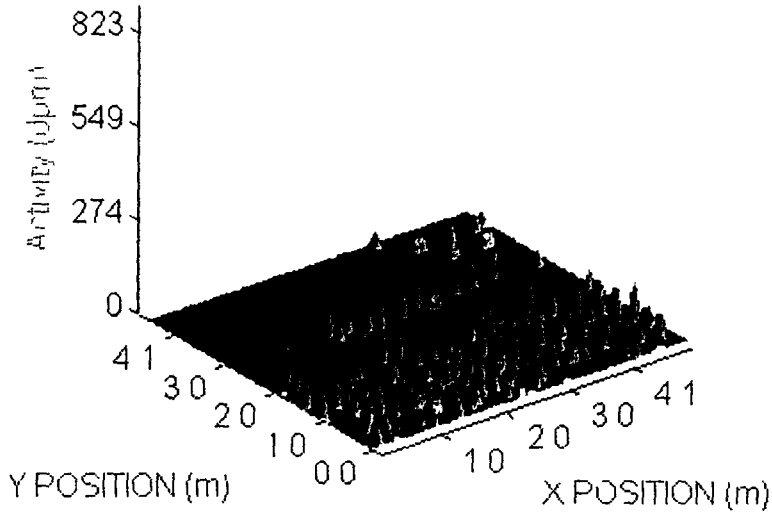

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

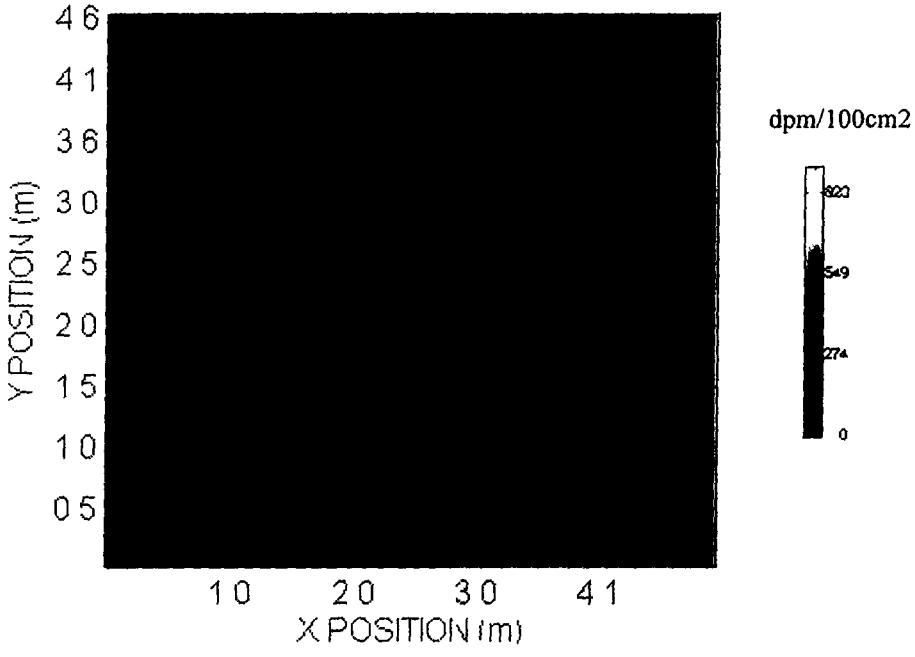

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	5	68	0	13 0	100
2	1	7	68	0	15 0	100
3	1	11	102	0	21 0	100
4	1	3	102	0	12 0	100
5	1	10	102	0	22 0	90
1	2	8	137	0	20 0	90
2	2	4	68	0	13 0	90
3	2	4	68	0	13 0	90
4	2	11	132	0	23 0	90
5	2	8	102	0	19 0	81
1	3	0	0	0	0	0
2	3	18	137	0	12 0	18
3	3	12	102	0	16 0	30
4	3	8	68	0	8 0	12
5	3	10	68	0	8 0	9
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	0	34	0	0	8
5	4	10	68	0	9 0	9
1	5	0	0	0	0	0
2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	6	34	0	8 0	16
5	5	4	34	0	8 0	18

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

QC

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901004 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901004 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 170 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

QA

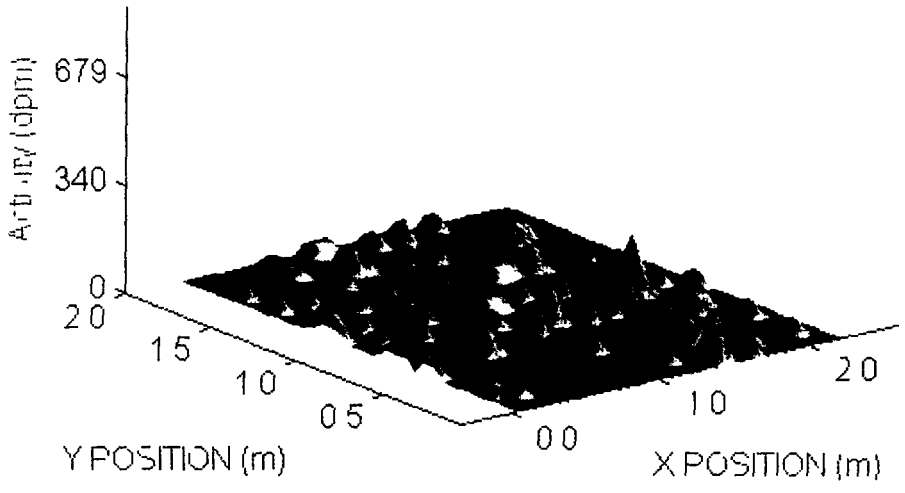

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

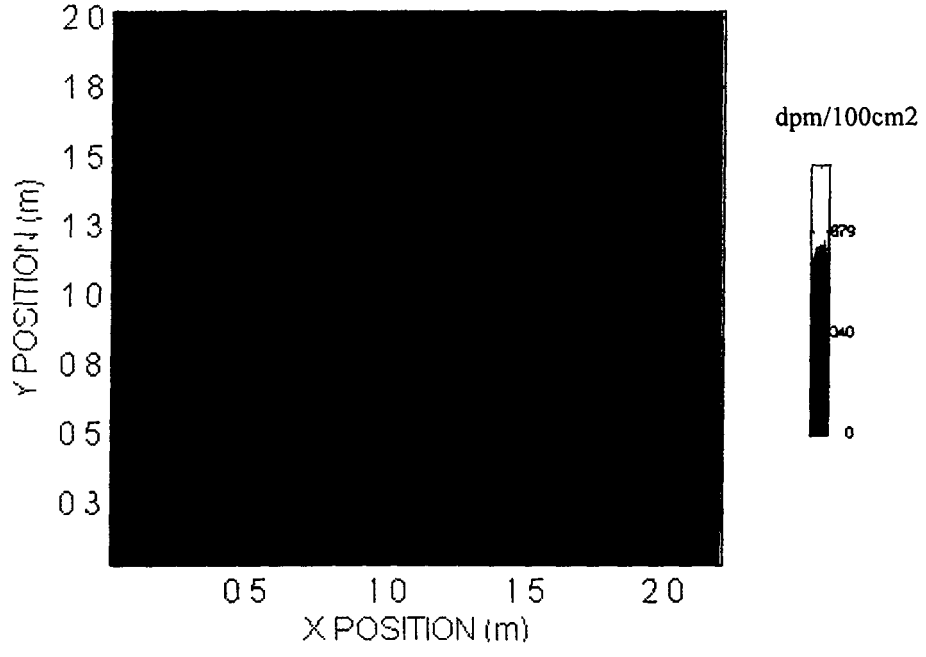

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

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X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	5	68	0	14 0	100
2	1	13	169	0	28 0	100
3	1	6	34	0	14 0	20
1	2	8	102	0	15 0	100
2	2	8	68	0	17 0	98
3	2	3	34	0	10 0	18

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i e. mean, max, min and standard deviation) are in dpm/100cm^2

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1 m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901005 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901005 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

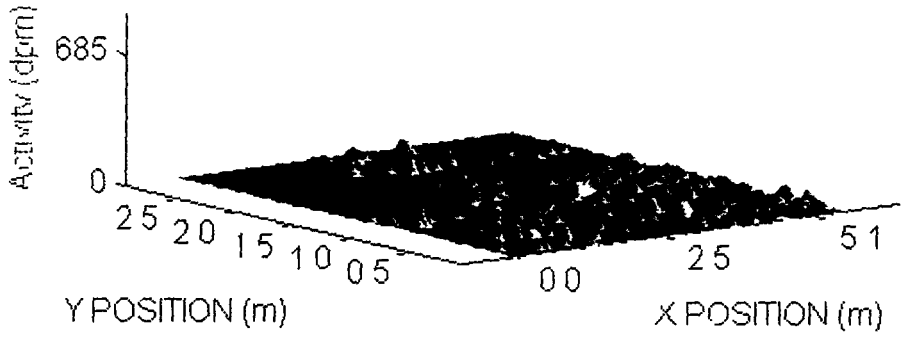

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

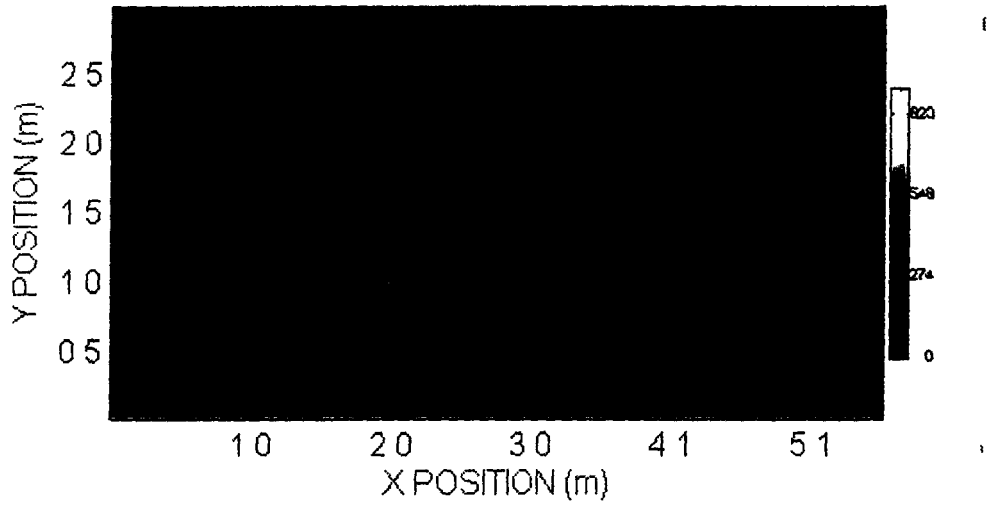

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	3	102	0	14 0	100
2	1	8	78	0	17 0	100
3	1	6	68	0	14 0	100
4	1	6	68	0	16 0	100
5	1	12	93	0	19 0	100
6	1	6	68	0	16 0	50
1	2	8	68	0	13 0	50
2	2	8	68	0	12 0	58
3	2	7	102	0	19 0	90
4	2	7	68	0	18 0	86
5	2	8	68	0	18 0	80
6	2	8	68	0	16 0	42
1	3	0	0	0	0	0
2	3	9	68	0	8 0	10
3	3	12	137	0	19 0	50
4	3	6	102	0	14 0	38
5	3	4	34	0	6 0	20
6	3	3	34	0	7 0	13

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901006 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901006 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

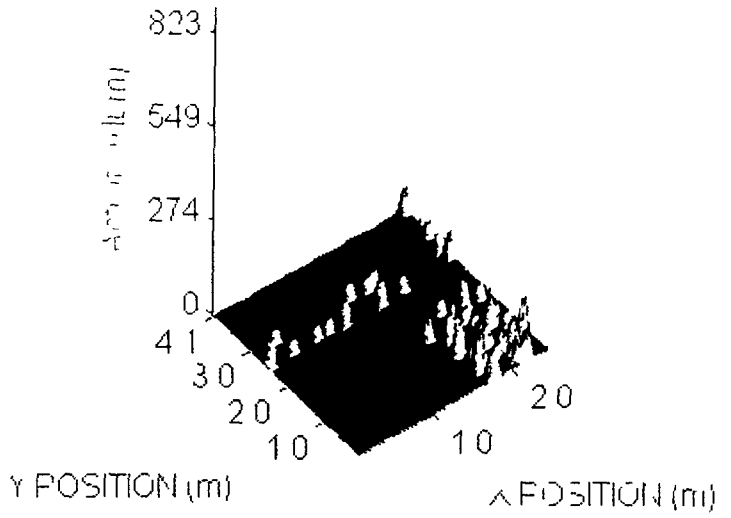

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

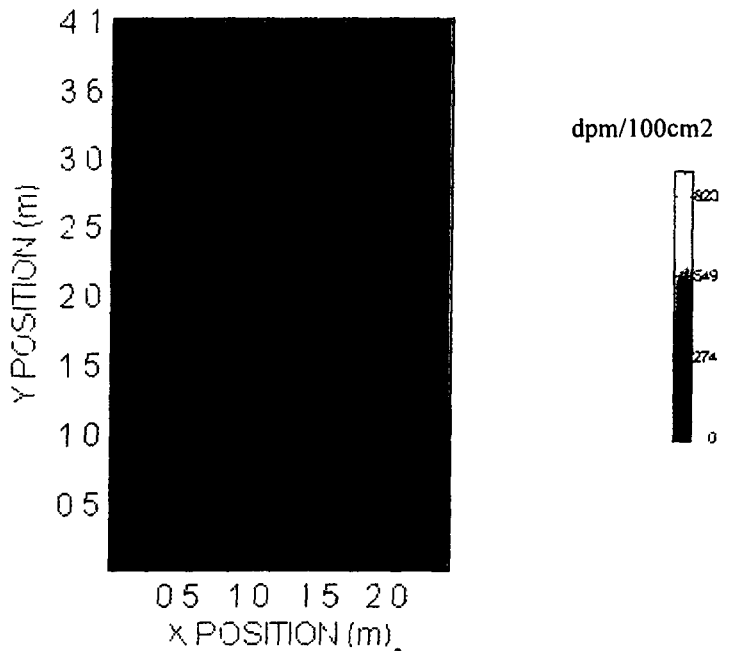

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	0	0	0	0	0
2	1	8	137	0	17 0	50
3	1	13	102	0	22 0	40
1	2	0	0	0	0	0
2	2	4	68	0	11 0	40
3	2	9	102	0	18 0	32
1	3	10	98	0	11 0	20
2	3	12	64	0	11 0	16
3	3	1	68	0	10 0	0
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	68	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901007 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901007 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 99 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

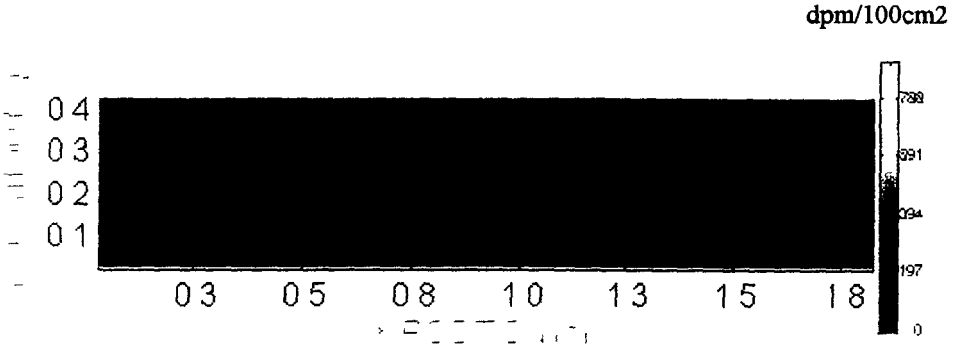

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	8	98	0	16 0	40
2	1	5	64	0	14 0	32

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901008 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901008 ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

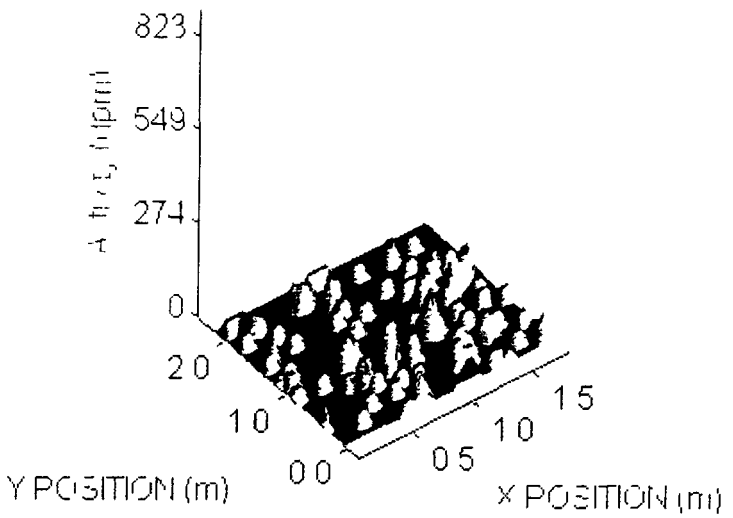

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

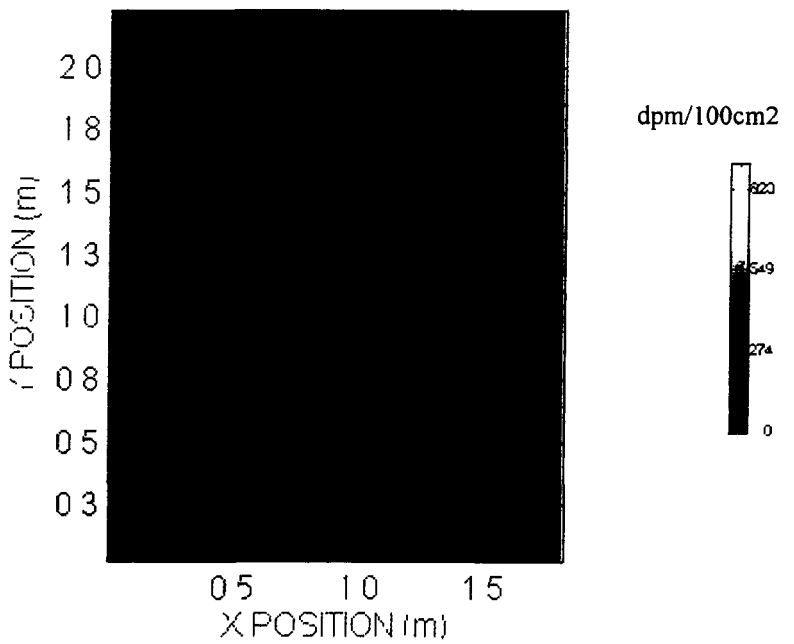

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	9	137	0	22 0	100
2	1	14	102	0	22 0	80
1	2	8	102	0	17 0	100
2	2	10	98	0	20 0	80
1	3	8	34	0	15 0	20
2	3	0	0	0	0	16

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901009 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901009 ranged from 0 to 135 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

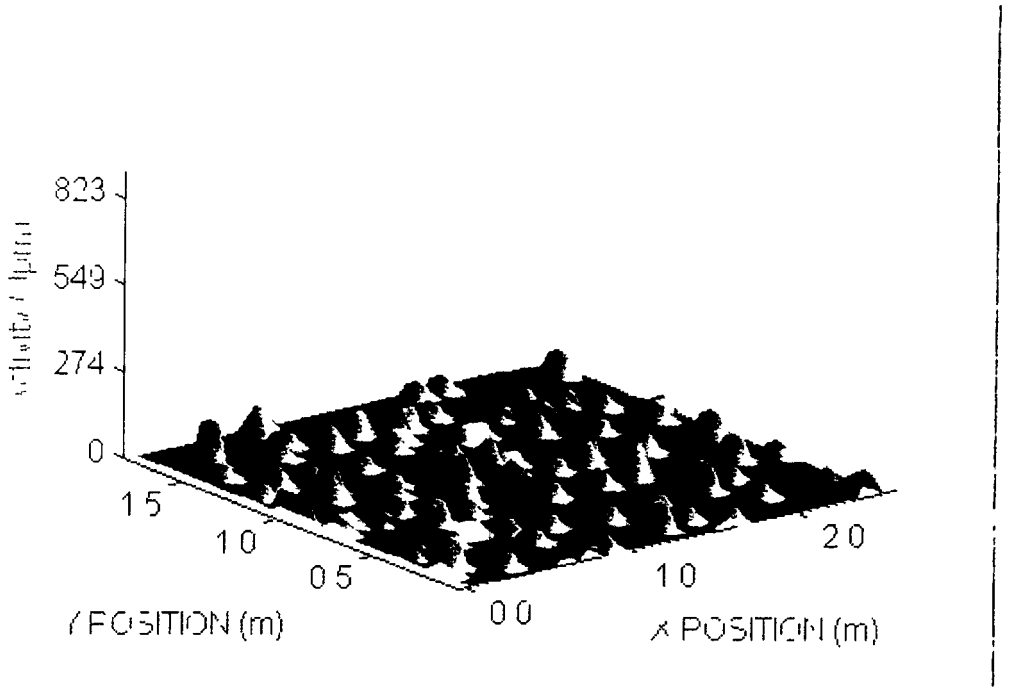

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

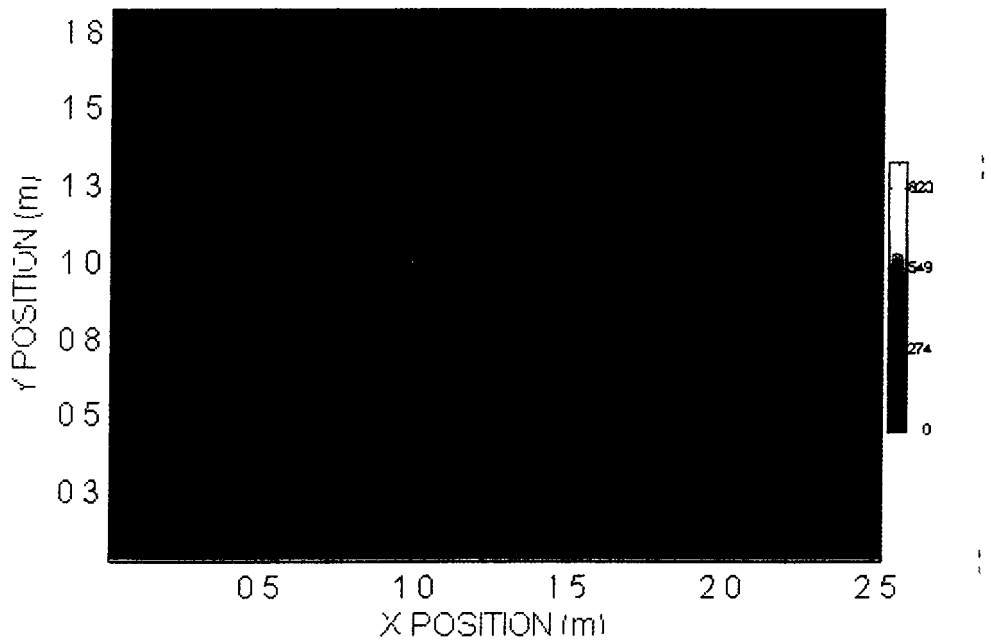

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	11	137	0	21 0	100
2	1	9	102	0	20 0	100
3	1	9	68	0	18 0	50
1	2	9	134	0	22 0	80
2	2	9	68	0	17 0	80
3	2	6	62	0	15 0	40

Table 1 The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$ The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data All unıts (ı e mean, max, mın and standard devıatıon) are ın dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 72901010 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901010 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 103 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

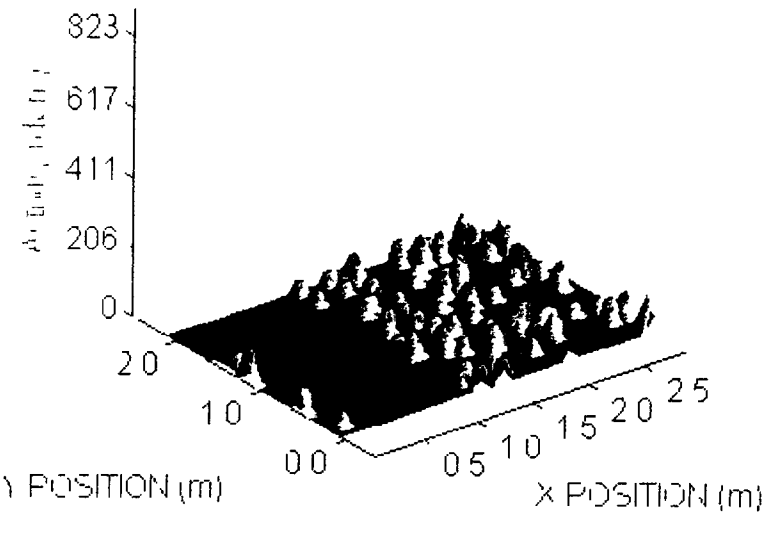

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

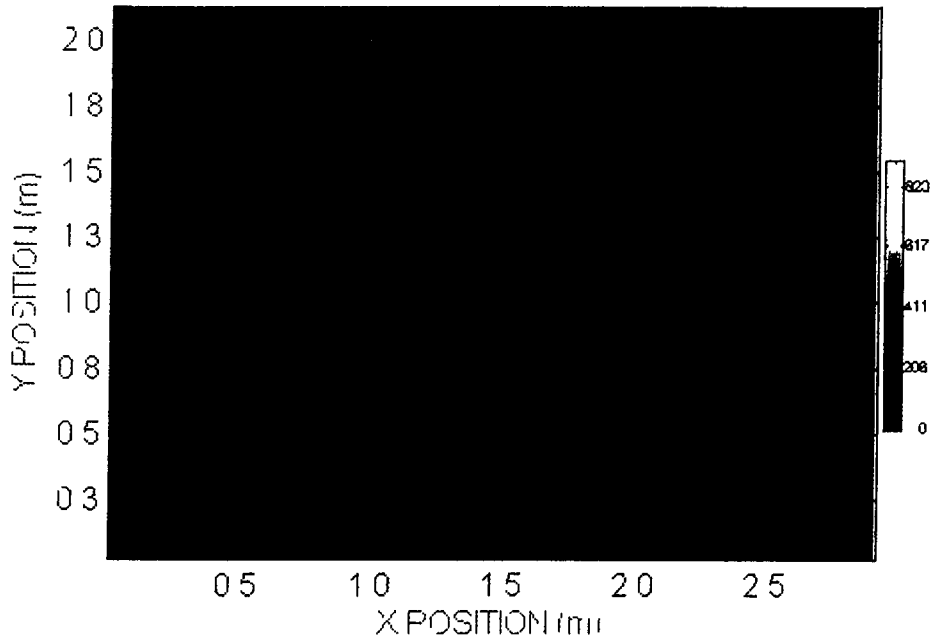

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	5	100	0	10 0	20
2	1	10	68	0	20 0	80
3	1	8	102	0	18 0	90
1	2	12	102	0	13 0	16
2	2	5	68	0	13 0	82
3	2	10	97	0	22 0	90
1	3	0	0	0	0	0
2	3	17	68	0	24 0	9
3	3	22	68	0	23 0	9

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901011 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901011 ranged from 0 to 59 dpm/pixel 100 cm^2 data ranged from 0 to 93 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

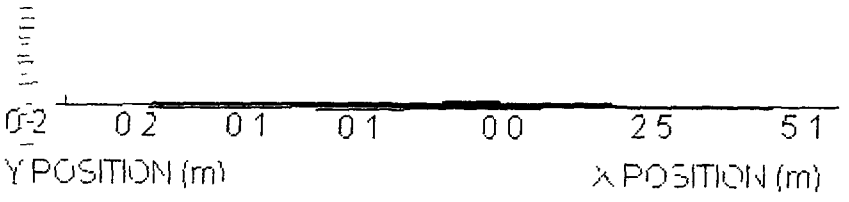

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

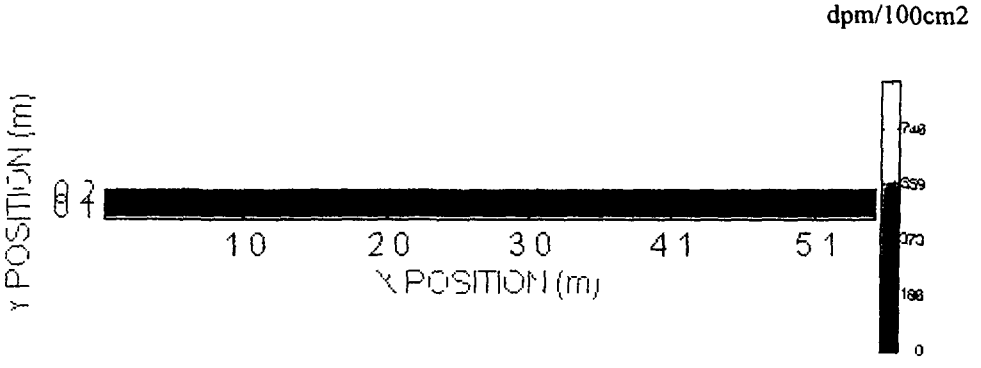

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	10	34	0	15 0	20
2	1	3	34	0	10 0	20
3	1	13	68	0	22 0	20
4	1	0	0	0	0	20
5	1	0	0	0	0	20
6	1	23	93	0	43 0	8

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901013 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901013 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 103 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

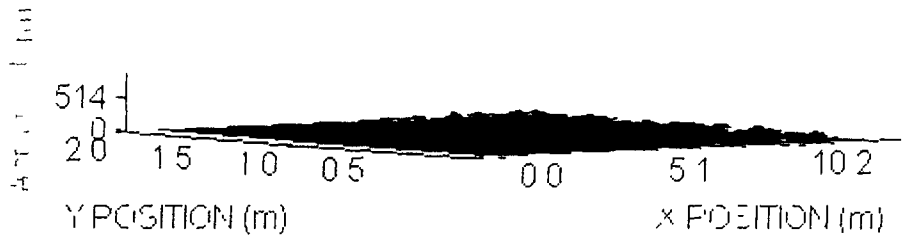

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

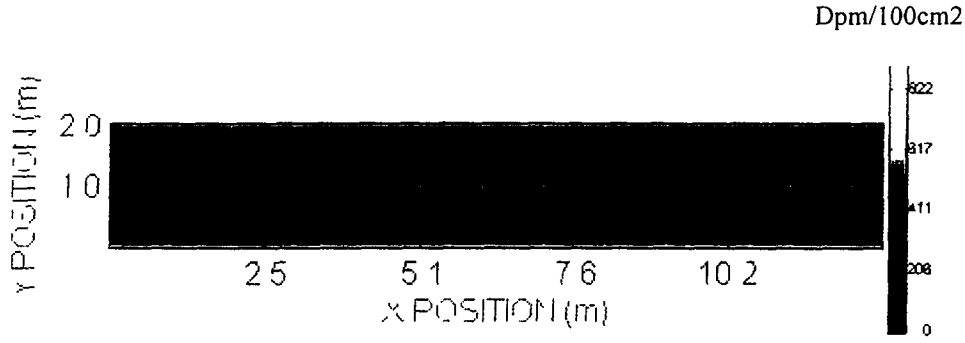

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	0	34	0	3 0	10
2	1	0	34	0	4 0	10
3	1	0	0	0	0	10
4	1	10	68	0	8 0	10
5	1	20	68	0	9 0	10
6	1	0	34	0	3 0	10
7	1	0	34	0	4 0	10
8	1	10	34	0	6 0	10
9	1	10	68	0	7 0	10
10	1	10	68	0	8 0	10
11	1	20	102	0	11 0	10
12	1	10	68	0	10 0	19
13	1	7	102	0	19 0	40
1	2	0	0	0	0	0
2	2	0	0	0	0	0
3	2	0	0	0	0	0
4	2	0	0	0	0	0
5	2	0	0	0	0	0
6	2	0	0	0	0	0
7	2	0	0	0	0	0
8	2	0	34	0	4 0	9
9	2	0	34	0	3 0	10
10	2	10	68	0	7 0	10
11	2	0	61	0	6 0	10
12	2	10	68	0	9 0	19
13	2	8	68	0	18 0	40

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901014 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901014 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 103 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

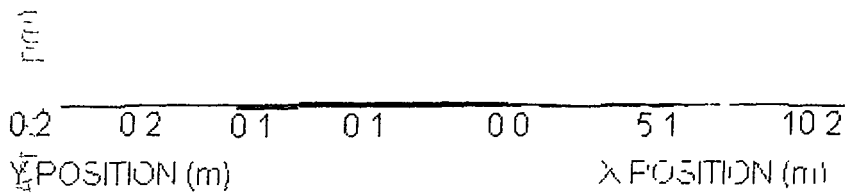

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

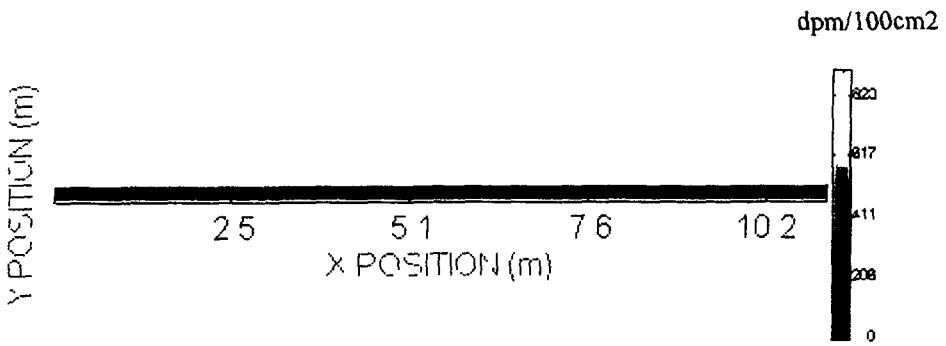

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	10	68	0	22 0	20
2	1	1	34	0	7 0	20
3	1	15	102	0	28 0	20
4	1	1	34	0	7 0	20
5	1	8	68	0	15 0	20
6	1	1	34	0	7.0	20
7	1	6	68	0	14 0	20
8	1	10	68	0	19 0	20
9	1	8	102	0	24 0	20
10	1	0	0	0	0	20
11	1	0	0	0	0	16

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901015 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901015 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 69 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

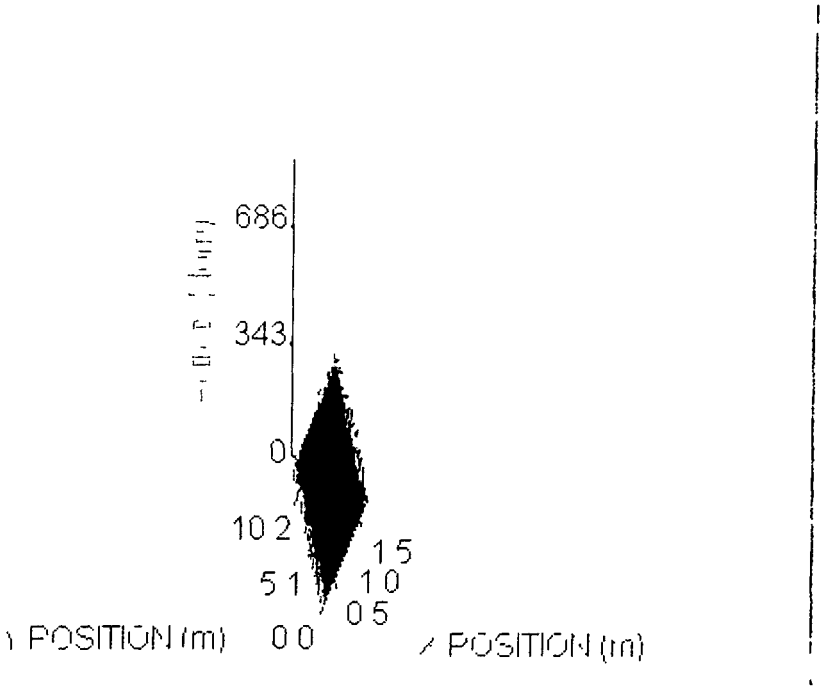

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

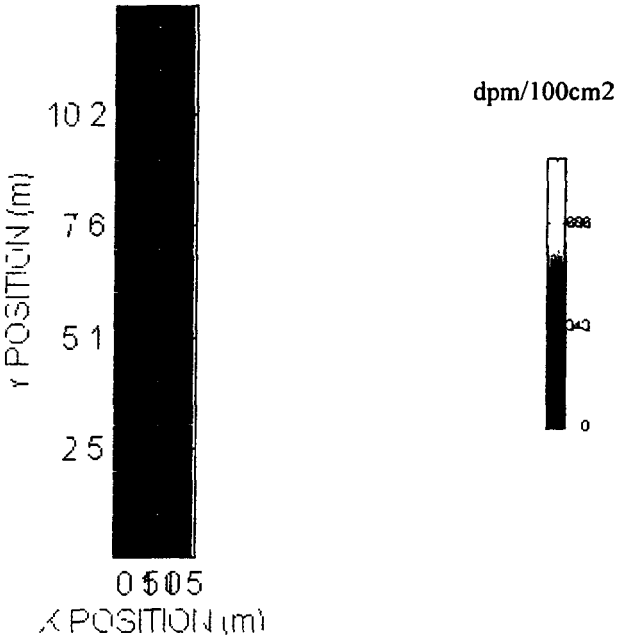

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	0	34	0	4 0	10
2	1	0	0	0	0	0
1	2	20	63	0	8 0	10
2	2	0	68	0	7 0	4
1	3	0	63	0	6 0	10
2	3	0	68	0	7 0	10
1	4	0	34	0	3 0	10
2	4	16	68	0	11 0	10
1	5	0	34	0	3 0	10
2	5	8	68	0	8 0	10
1	6	0	34	0	5 0	10
2	6	8	68	0	8 0	10
1	7	10	34	0	5 0	10
2	7	0	34	0	5 0	10
1	8	0	68	0	6 0	10
2	8	8	65	0	8 0	10
1	9	0	34	0	4 0	10
2	9	0	34	0	5 0	10
1	10	10	34	0	5 0	10
2	10	8	68	0	8 0	10
1	11	0	34	0	4 0	10
2	11	0	34	0	5 0	10
1	12	0	34	0	4 0	10
2	12	8	68	0	6 0	10
1	13	10	34	0	7 0	4
2	13	16	34	0	8 0	4

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901016 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901016 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

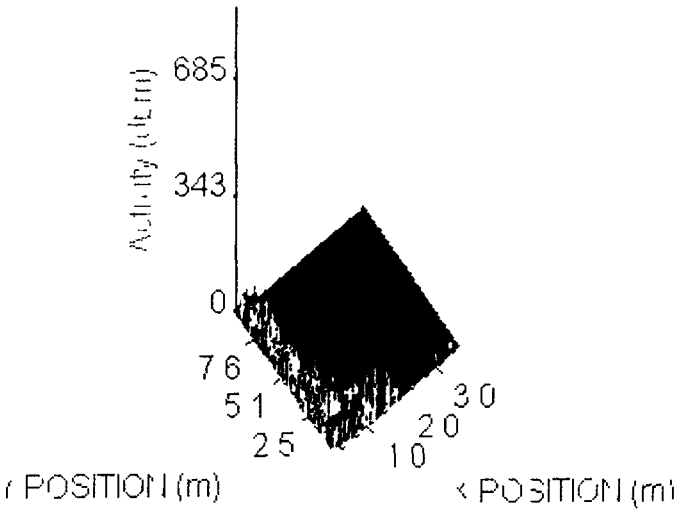

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

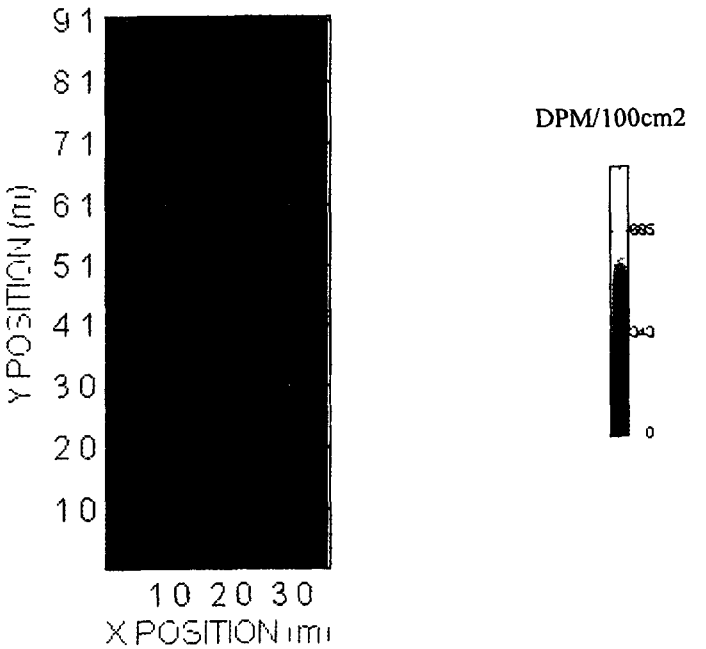

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	27	166	0	23 0	37
2	1	32	171	0	21 0	26
3	1	20	102	0	14 0	10
4	1	10	68	0	9 0	6
1	2	36	102	0	16 0	16
2	2	1	34	0	5 0	0
3	2	0	0	0	0	0
4	2	0	0	0	0	0
1	3	18	102	0	20 0	40
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
1	4	30	137	0	20 0	36
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	0	0	0	0	0
1	5	21	136	0	22 0	30
2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	0	0	0	0	0
1	6	24	68	0	14 0	18
2	6	0	0	0	0	0
3	6	0	0	0	0	0
4	6	0	0	0	0	0
1	7	50	102	0	16 0	10
2	7	0	0	0	0	0
3	7	0	0	0	0	0
4	7	0	0	0	0	0
1	8	42	137	0	21 0	17
2	8	0	0	0	0	0
3	8	0	0	0	0	0
4	8	0	0	0	0	0
1	9	25	102	0	15 0	20
2	9	0	0	0	0	0
3	9	0	0	0	0	0
4	9	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901020 was conducted on April 23, 1999 by STANLEY/PILKINGTON as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901020 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

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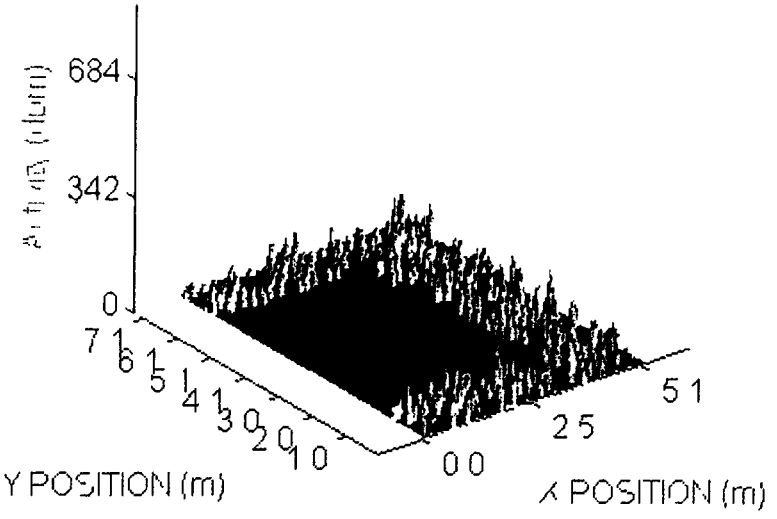

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

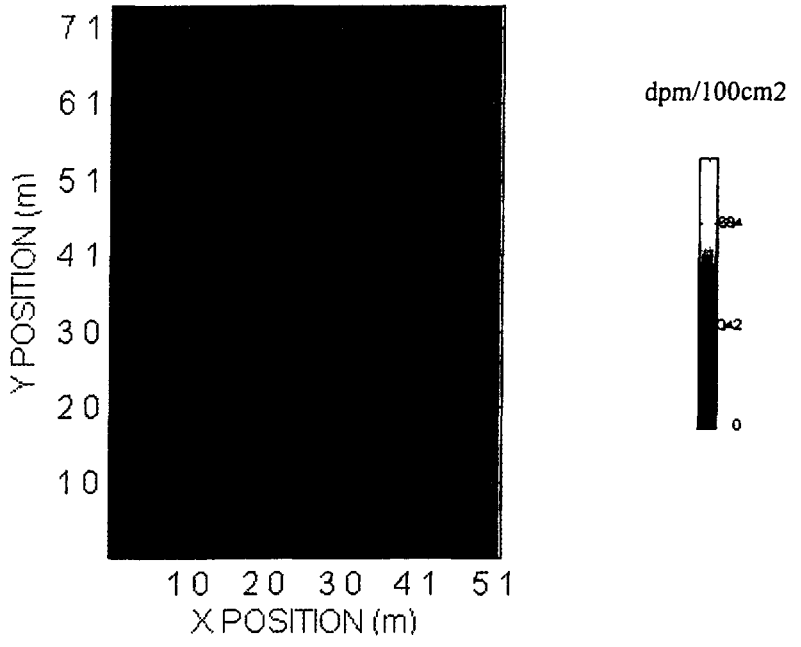

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	7	102	0	16.0	100
2	1	7	102	0	17 0	100
3	1	7	137	0	17 0	100
4	1	6	102	0	16 0	100
5	1	9	102	0	19 0	100
6	1	13	68	0	23 0	10
1	2	10	68	0	10 0	20
2	2	10	102	0	11 0	20
3	2	5	34	0	5 0	20
4	2	6	102	0	12 0	52
5	2	5	96	0	13 0	100
6	2	6	34	0	14 0	10
1	3	0	0	0	0	0
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	8	102	0	13 0	40
5	3	8	137	0	21 0	100
6	3	13	68	0	23 0	10
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	6	68	0	13 0	40
5	4	7	137	0	17 0	88
6	4	24	61	0	25 0	4
1	5	0	0	0	0	0
2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	10	102	0	15 0	40
5	5	14	102	0	23 0	100
6	5	0	0	0	0	10
1	6	0	0	0	0	0
2	6	0	0	0	0	0
3	6	0	0	0	0	0
4	6	12	102	0	17 0	58
5	6	8	102	0	19 0	100
6	6	3	34	0	10 0	10
1	7	6	100	0	15 0	80
2	7	4	68	0	11.0	80
3	7	9	102	0	20 0	80
4	7	5	102	0	12 0	94
5	7	10	170	0	23 0	100
6	7	16	68	0	23 0	10
1	8	2	34	0	8 0	20
2	8	3	68	0	8 0	20
3	8	11	68	0	18 0	20

4	8	10	68	0	18 0	20
5	8	3	67	0	10 0	20
6	8	0	0	0	0	2

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901021 was conducted on April 23, 1999 by STANLEY/PILKINGTON as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels. Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901021 ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 103 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

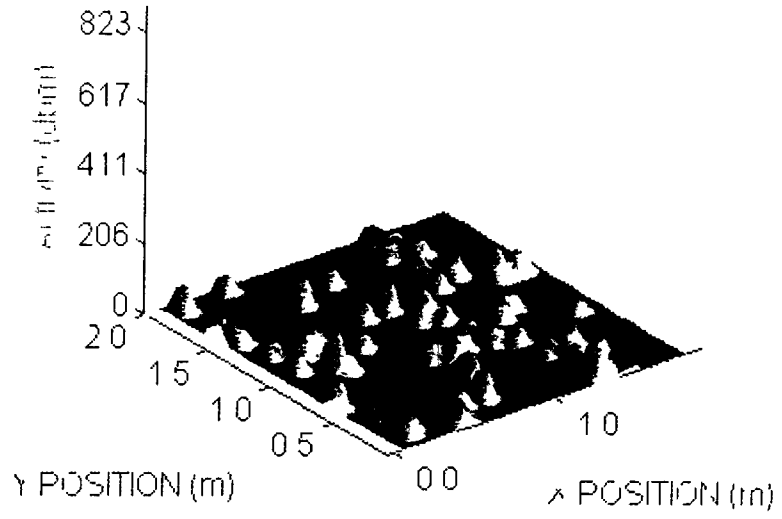

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

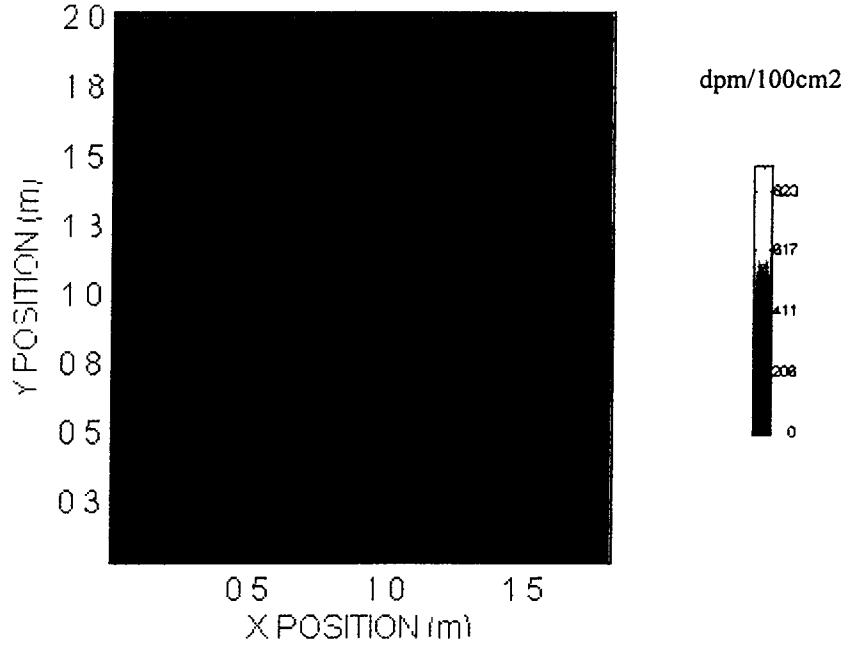

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	6	102	0	18 0	100
2	1	7	101	0	17 0	70
1	2	8	102	0	19 0	100
2	2	7	68	0	15 0	72

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 72901022 was conducted on April 20, 1999 by STANLEY/PILKINGTON as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901022 ranged from 0 to 62 dpm/pixel 100 cm^2 data ranged from 0 to 123 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

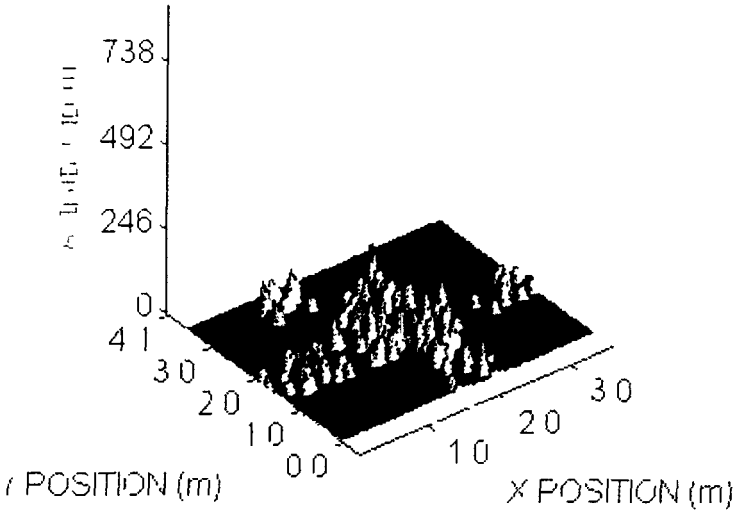

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

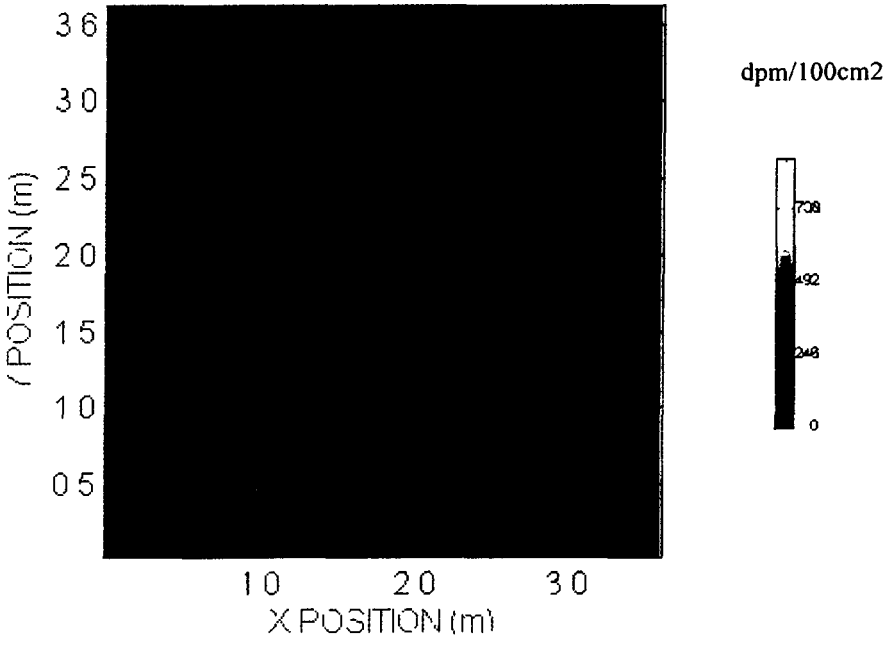

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	0	0	0	0	0
2	1	4	61	0	10 0	40
3	1	12	92	0	14 0	30
4	1	0	0	0	0	0
1	2	9	61	0	18 0	70
2	2	11	123	0	20 0	82
3	2	8	92	0	18 0	79
4	2	6	61	0	16 0	42
1	3	0	61	0	4 0	1
2	3	10	92	0	13 0	58
3	3	16	123	0	16 0	27
4	3	0	0	0	0	0
1	4	20	92	0	10 0	6
2	4	10	92	0	15 0	24
3	4	0	0	0	0	0
4	4	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1 m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 72901023 was conducted on April 20, 1999 by STANLEY/PILKINGTON as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901023 ranged from 0 to 62 dpm/pixel 100 cm^2 data ranged from 0 to 154 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

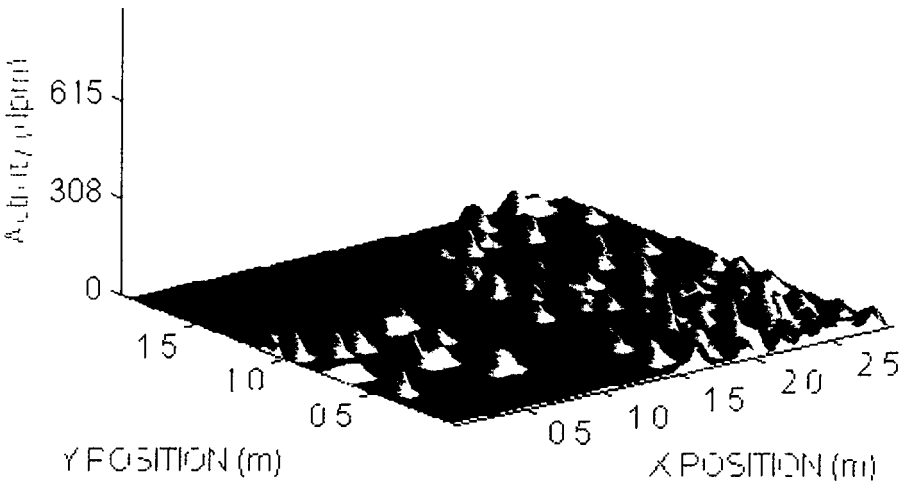

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

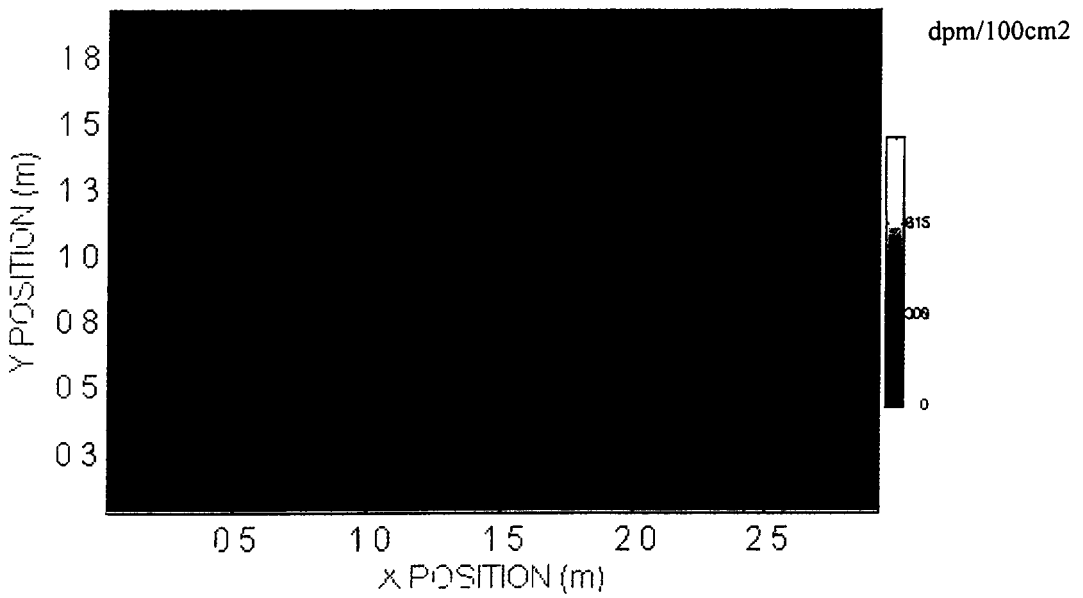

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	10	84	0	14 0	50
2	1	20	153	0	22 0	50
3	1	17	153	0	23 0	90
1	2	27	92	0	13 0	10
2	2	12	61	0	12 0	35
3	2	7	61	0	17 0	63

Table 1 The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL. When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$. The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data All unıts (ı.e mean, max, mın and standard devıatıon) are ın dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901025 was conducted on April 6, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901025 ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 192 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

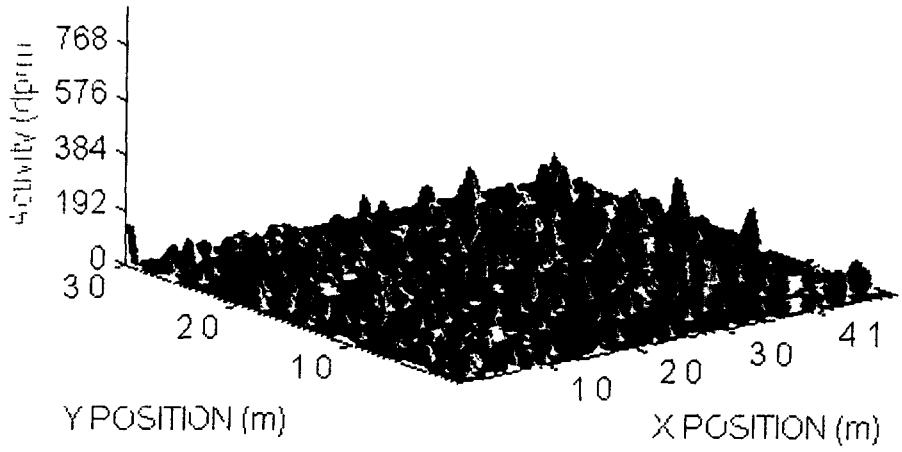

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

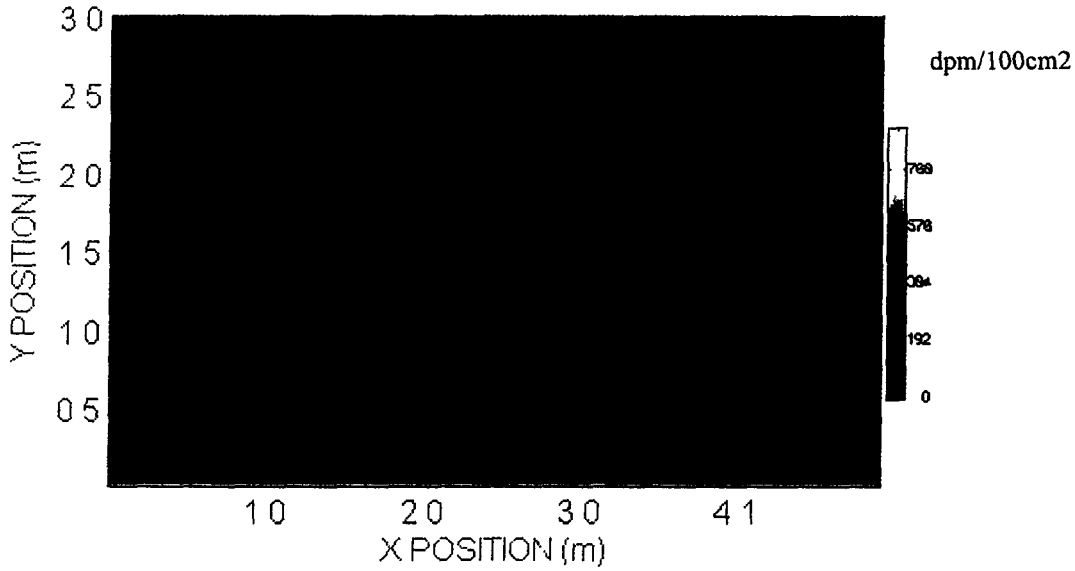

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	14	102	0	22 0	100
2	1	7	102	0	13 0	100
3	1	11	121	0	22 0	100
4	1	10	102	0	21 0	100
5	1	12	102	0	22 0	90
1	2	11	102	0	21 0	100
2	2	11	102	0	19 0	100
3	2	11	143	0	24 0	100
4	2	14	78	0	22 0	100
5	2	11	154	0	23 0	90
1	3	8	137	0	22 0	100
2	3	12	102	0	16 0	100
3	3	15	192	0	23 0	100
4	3	11	102	0	21 0	100
5	3	14	134	0	24 0	90

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011c was conducted on March 24, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011c ranged from 0 to 124 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

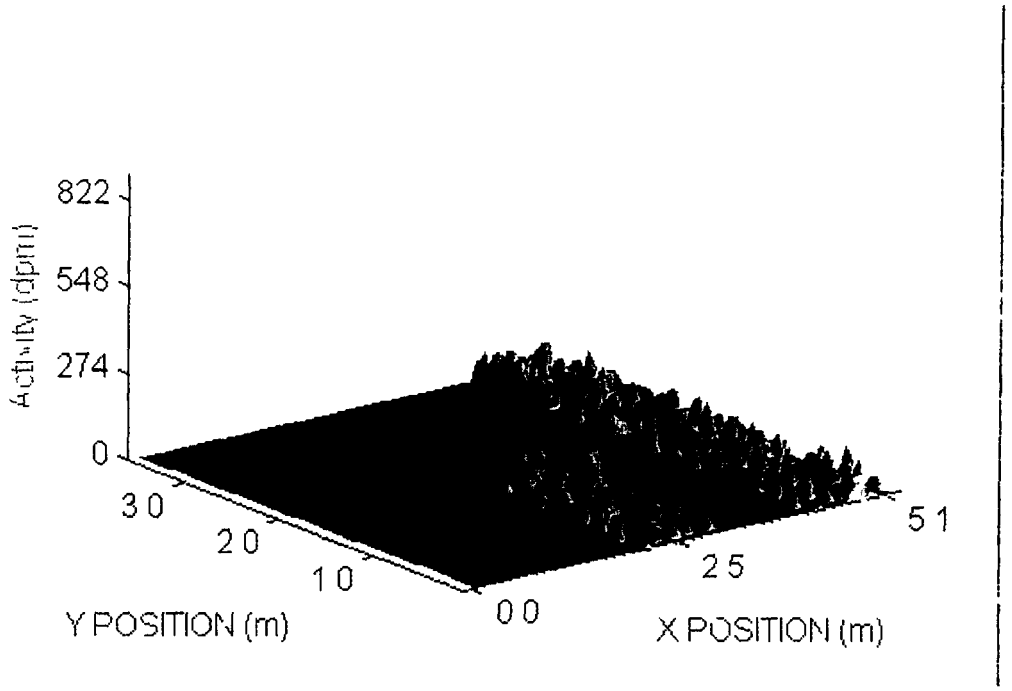

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

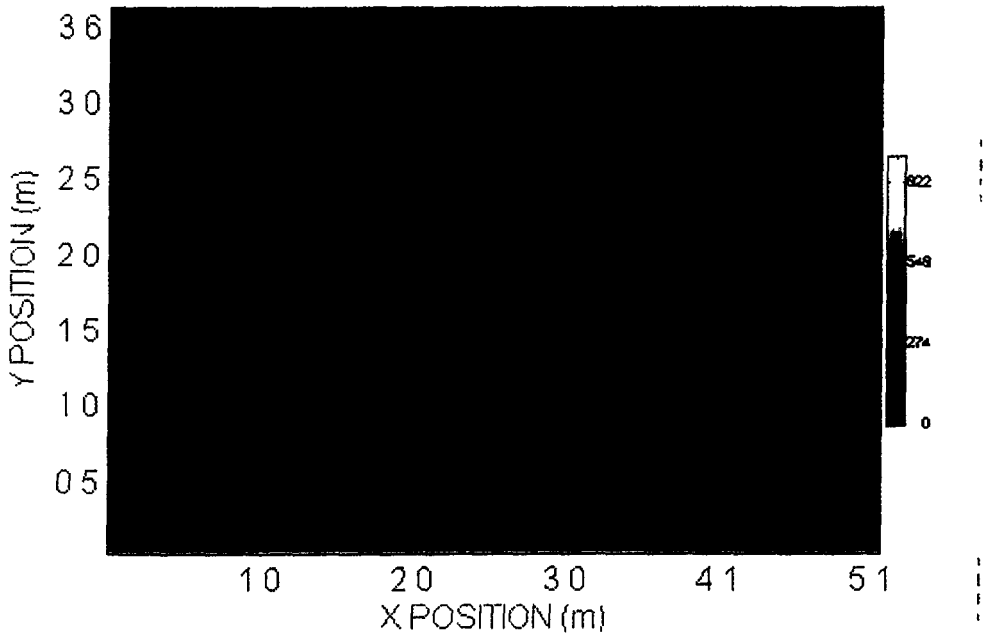

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	0	0	0	0	100
2	1	0	0	0	0	0
3	1	15	102	0	24 0	90
4	1	0	34	0	3 0	0
5	1	14	102	0	23 0	90
1	2	0	0	0	0	80
2	2	0	0	0	0	0
3	2	15	102	0	25 0	72
4	2	1	34	0	5 0	0
5	2	20	136	0	29 0	90
1	3	0	0	0	0	0
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	16	135	0	25 0	90
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	0	0	0	0	0
5	4	27	102	0	31 0	54

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011e was conducted on March 23, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011e ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 220 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

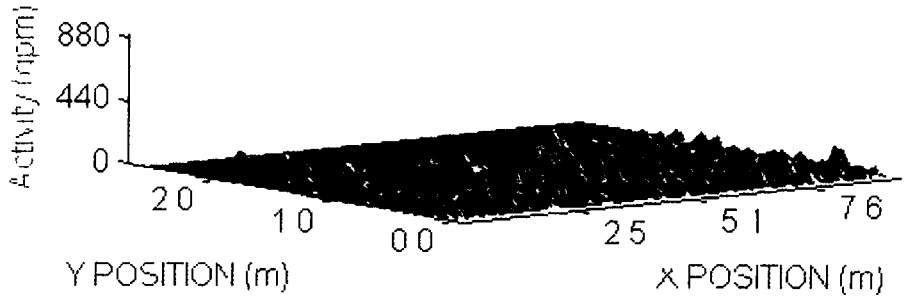

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

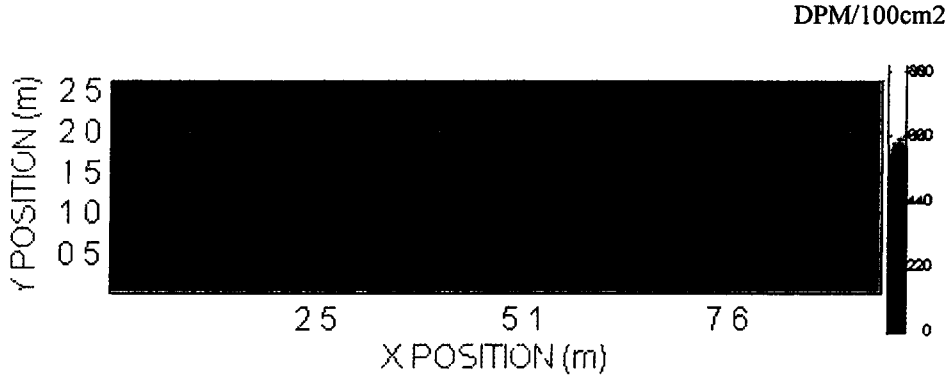

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	16	162	0	25 0	100
2	1	15	137	0	27 0	100
3	1	13	205	0	28 0	90
4	1	7	102	0	16 0	84
5	1	8	102	0	18 0	100
6	1	12	68	0	21 0	100
7	1	12	102	0	22 0	100
8	1	21	137	0	30 0	100
9	1	15	171	0	27 0	99
10	1	16	168	0	27 0	30
1	2	7	134	0	19 0	80
2	2	10	137	0	20 0	80
3	2	14	102	0	19 0	55
4	2	16	137	0	18 0	26
5	2	11	102	0	25 0	90
6	2	8	102	0	17 0	90
7	2	19	219	0	28.0	90
8	2	18	170	0	27 0	90
9	2	11	102	0	19 0	90
10	2	9	101	0	21 0	27
1	3	0	0	0	0	0
2	3	0	0	0	0	0
3	3	6	68	0	10 0	30
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	0	0	0	0	0
7	3	0	0	0	0	0
8	3	0	0	0	0	0
9	3	0	0	0	0	0
10	3	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011f was conducted on March 27, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011f ranged from 0 to 206 dpm/pixel 100 cm^2 data ranged from 0 to 274 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

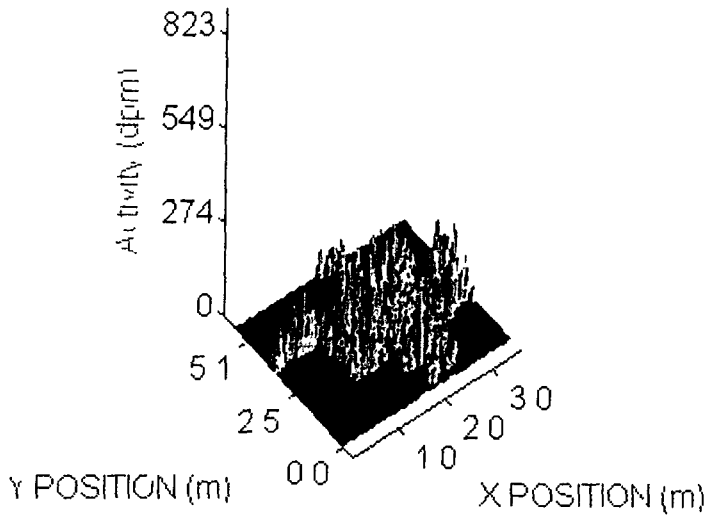

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

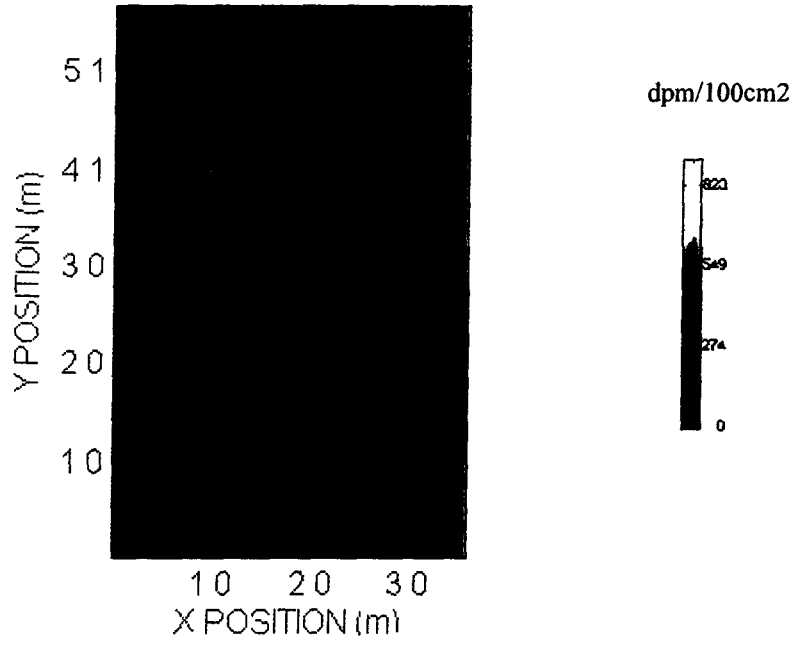

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	0	0	0	0	0
2	1	0	34	0	4 0	20
3	1	4	102	0	11 0	70
4	1	0	0	0	0	0
1	2	0	63	0	0	0
2	2	30	136	0	25 0	36
3	2	26	205	0	41 0	76
4	2	10	102	0	10 0	12
1	3	0	97	0	0	0
2	3	44	274	0	52 0	100
3	3	29	120	0	28 0	100
4	3	30	171	0	32 0	60
1	4	36	171	0	29 0	30
2	4	25	205	0	32 0	92
3	4	32	193	0	32 0	97
4	4	46	137	0	37 0	39
1	5	0	0	0	0	0
2	5	15	68	0	13 0	20
3	5	12	137	0	26 0	70
4	5	0	0	0	0	0
1	6	0	0	0	0	0
2	6	10	68	0	10 0	12
3	6	4	102	0	14 0	42
4	6	0	0	0	0	0

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 729011eu was conducted on March 23, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011eu ranged from 0 to 103 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

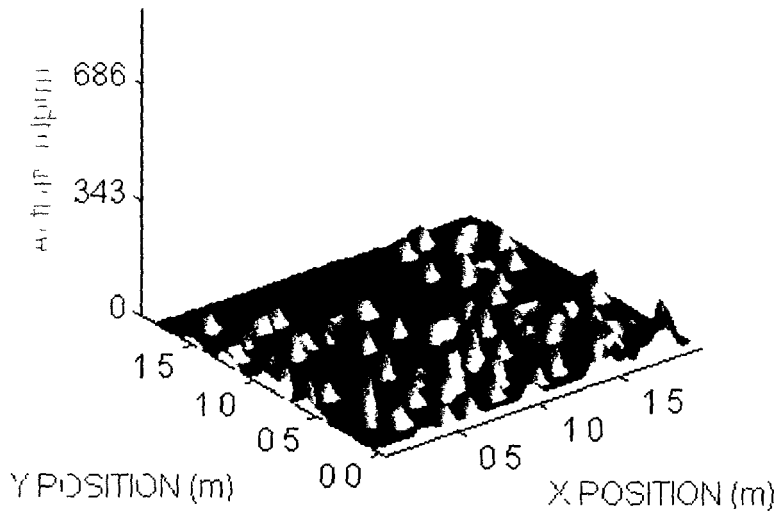

Figure 1. Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

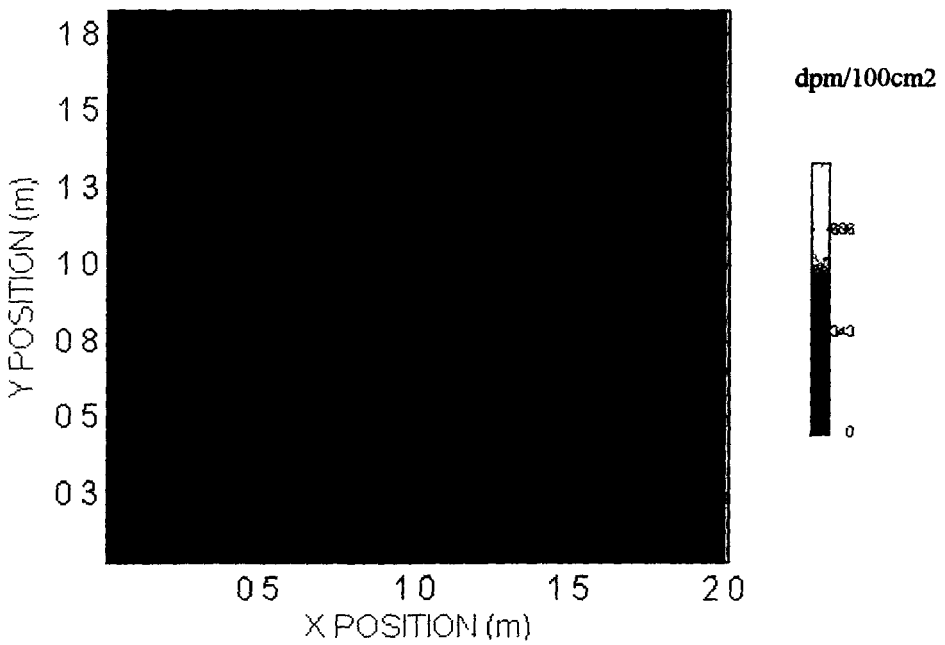

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	14	171	0	29 0	100
2	1	16	137	0	25 0	100
1	2	7	68	0	15 0	80
2	2	5	68	0	13 0	80

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011n was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011n ranged from 0 to 179 dpm/pixel 100 cm^2 data ranged from 0 to 251 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

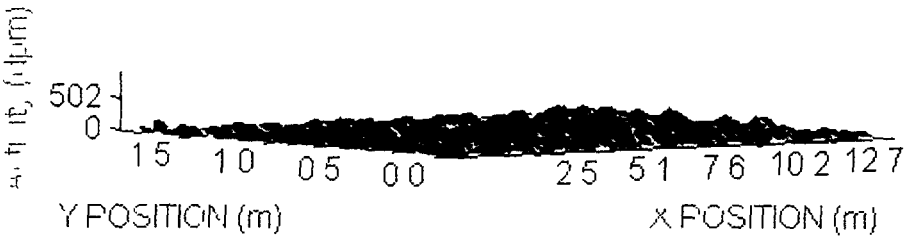

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

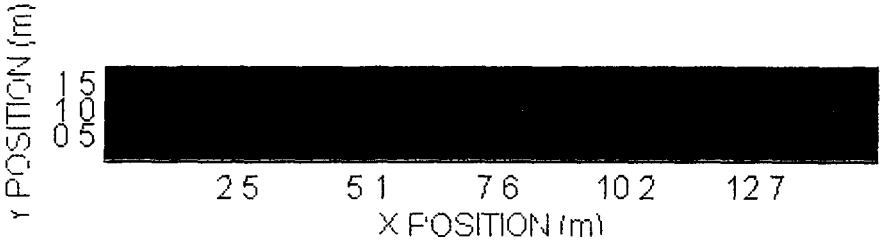

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	14	212	0	37 0	100
2	1	13	83	0	28 0	100
3	1	7	94	0	23 0	100
4	1	17	235	0	36 0	100
5	1	15	96	0	18 0	30
6	1	12	137	0	29 0	80
7	1	10	181	0	27 0	100
8	1	14	179	0	37 0	100
9	1	14	173	0	35 0	100
10	1	8	175	0	27 0	70
11	1	16	177	0	29 0	50
12	1	13	172	0	33 0	100
13	1	16	146	0	33 0	100
14	1	12	251	0	36 0	100
15	1	11	157	0	28 0	80
1	2	12	158	0	31 0	80
2	2	11	148	0	27 0	80
3	2	7	86	0	22 0	80
4	2	7	139	0	23 0	80
5	2	9	71	0	15 0	24
6	2	17	221	0	37 0	64
7	2	13	170	0	34 0	80
8	2	6	86	0	22 0	80
9	2	13	169	0	32 0	80
10	2	4	135	0	20 0	56
11	2	10	171	0	19 0	40
12	2	11	239	0	30 0	80
13	2	17	227	0	41 0	80
14	2	21	246	0	44 0	80
15	2	17	149	0	35 0	64

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011n was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011n ranged from 0 to 198 dpm/pixel 100 cm^2 data ranged from 0 to 224 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

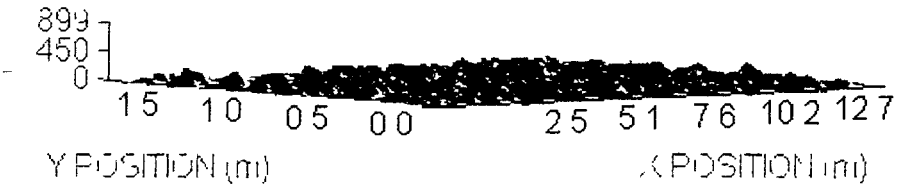

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

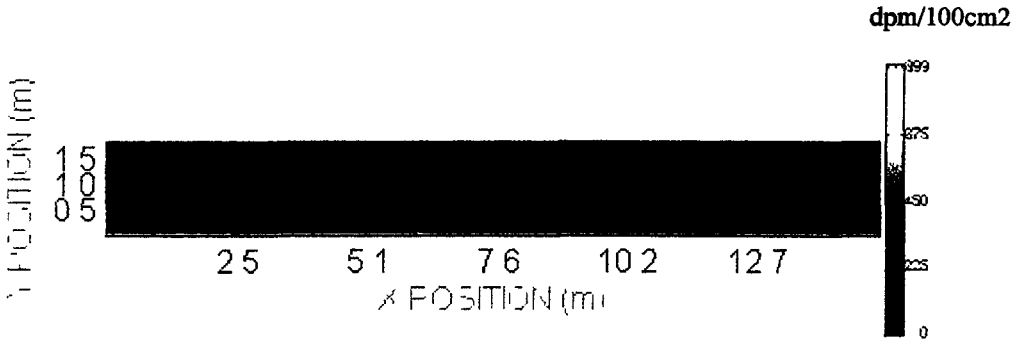

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	5	82	0	20 0	100
2	1	9	105	0	26 0	100
3	1	11	168	0	28 0	100
4	1	6	139	0	21 0	100
5	1	3	78	0	10 0	30
6	1	7	197	0	27 0	80
7	1	12	197	0	38 0	100
8	1	10	156	0	29 0	100
9	1	6	175	0	25 0	100
10	1	5	88	0	19 0	70
11	1	4	88	0	14 0	50
12	1	12	172	0	34 0	100
13	1	11	175	0	32 0	100
14	1	11	174	0	32 0	100
15	1	11	224	0	32 0	80
1	2	4	87	0	19 0	80
2	2	15	173	0	36 0	80
3	2	6	94	0	22 0	80
4	2	4	87	0	19 0	80
5	2	6	78	0	12 0	24
6	2	3	98	0	17 0	64
7	2	14	184	0	35 0	80
8	2	8	92	0	24 0	80
9	2	8	84	0	24 0	80
10	2	10	175	0	26 0	56
11	2	22	197	0	33 0	40
12	2	17	136	0	34 0	80
13	2	19	169	0	37 0	80
14	2	7	169	0	26 0	80
15	2	11	93	0	26 0	64

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011nu was conducted on March 22, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011nu ranged from 0 to 117 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

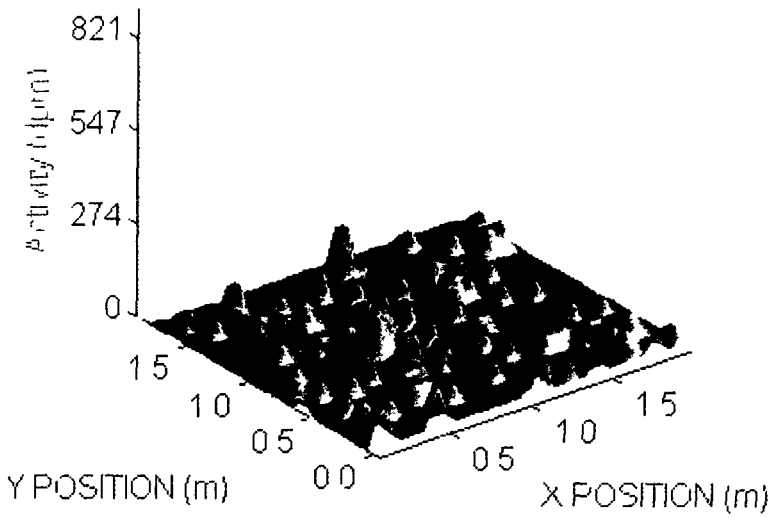

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

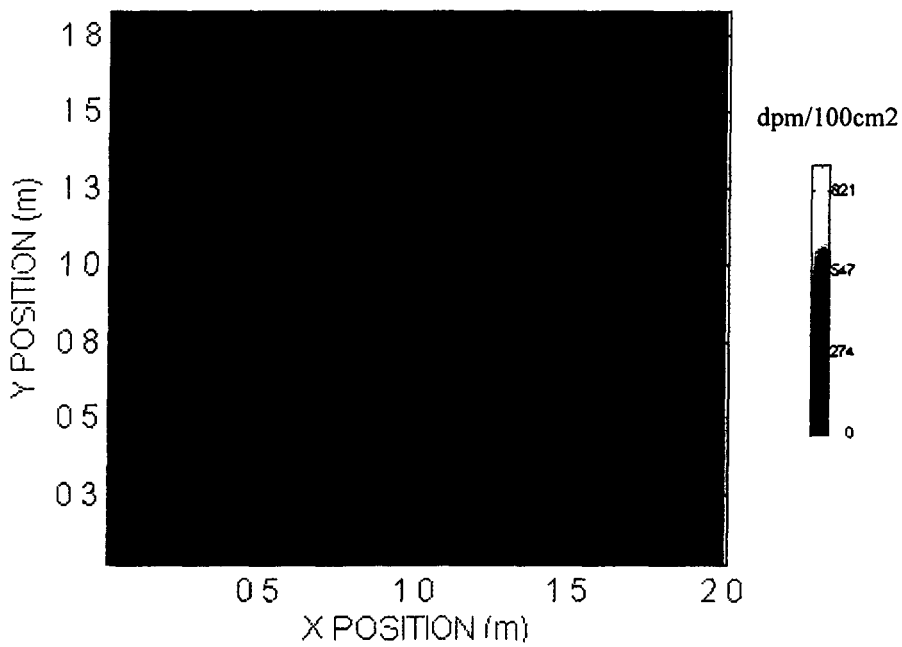

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	13	120	0	24 0	100
2	1	11	68	0	18 0	100
1	2	11	136	0	21 0	80
2	2	13	116	0	26 0	80

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 729011su was conducted on March 23, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011su ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

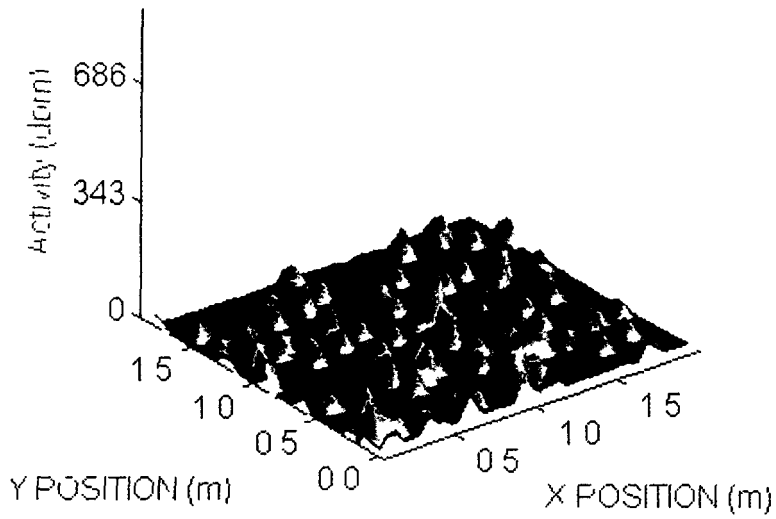

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

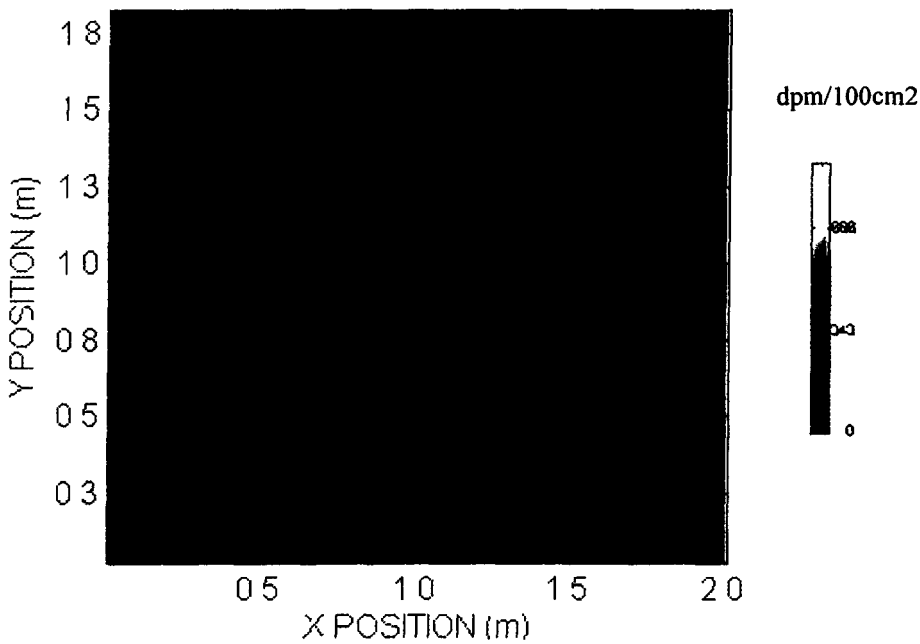

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	13	130	0	23 0	100
2	1	12	137	0	23 0	100
1	2	10	102	0	19 0	80
2	2	13	171	0	23 0	80

Table 1. The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grid ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$ The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data. All unıts (ı.e mean, max, mın and standard devıatıon) are ın dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011tc was conducted on March 17, 1999 by SMITH as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011tc ranged from 0 to 171 dpm/pixel 100 cm^2 data ranged from 0 to 379 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

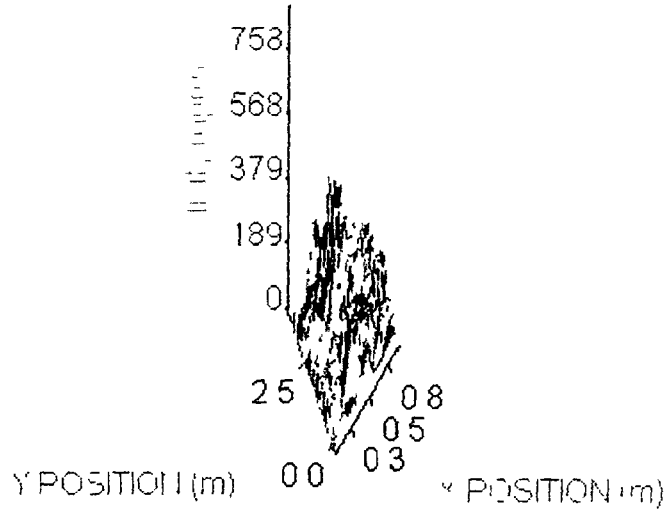

Figure 1. Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

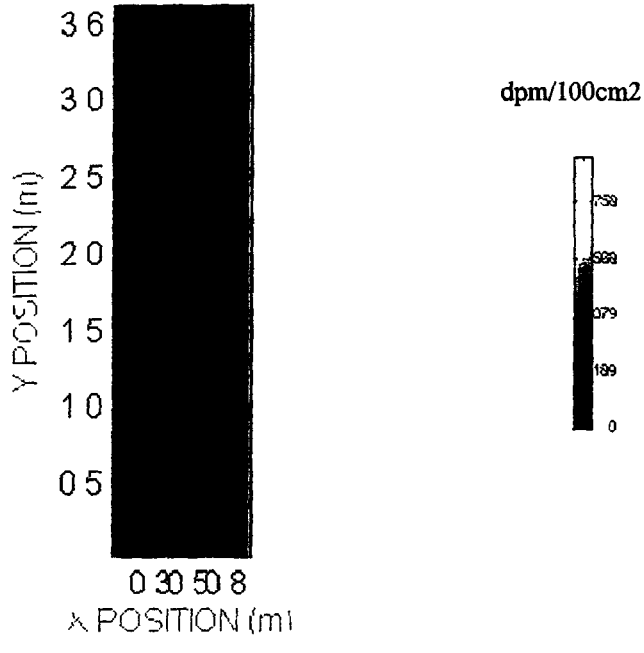

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	47	257	0	45 0	90
1	2	33	265	0	45 0	90
1	**3**	**61**	**378**	**0**	**63.0**	**90**
1	4	62	293	0	63 0	54

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

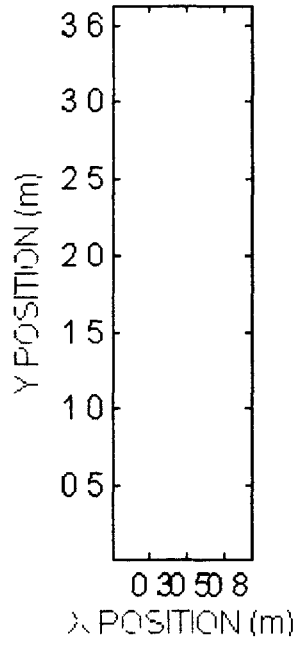

Figure 3. Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$.

Introduction

Survey 729011wu was conducted on March 23, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011wu ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 103 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

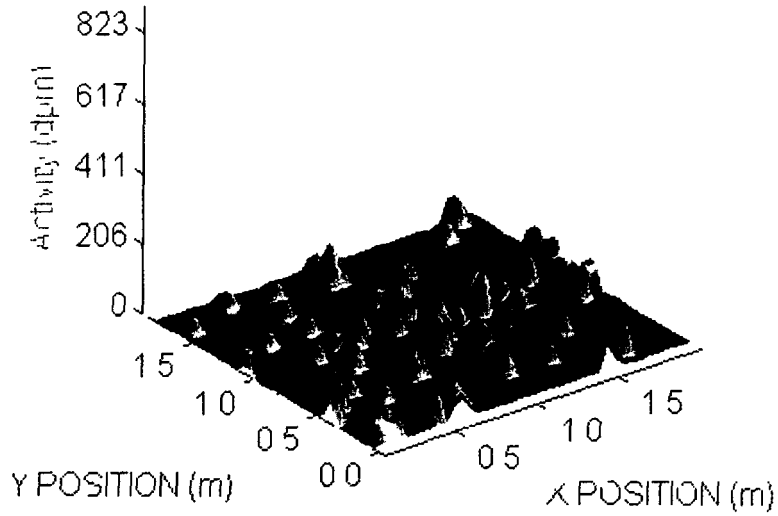

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

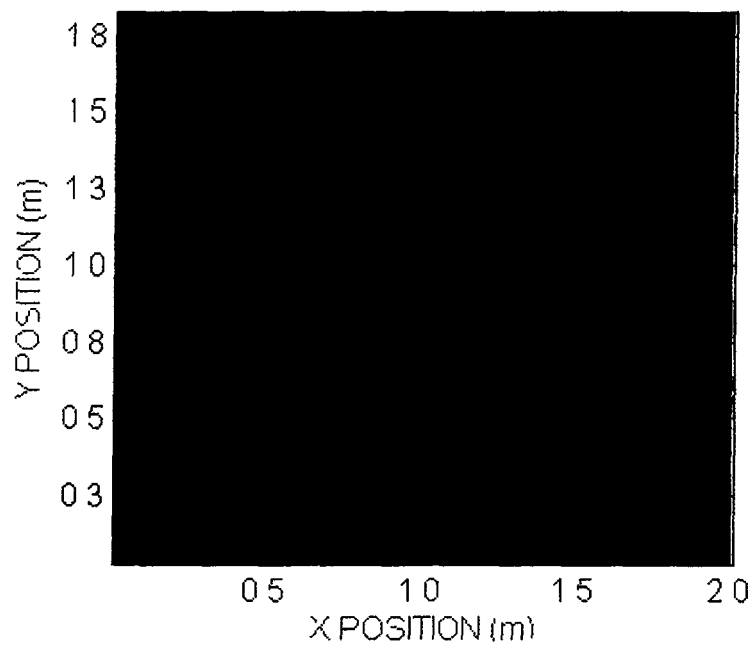

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	10	102	0	21 0	100
2	1	11	102	0	23 0	100
1	2	8	102	0	18 0	80
2	2	12	102	0	21 0	80

Table 1 The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$ The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data All unıts (ı.e mean, max, mın and standard devıatıon) are ın dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over $1m^2$
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over $1m^2$
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729012c was conducted on March 25, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012c ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 198 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

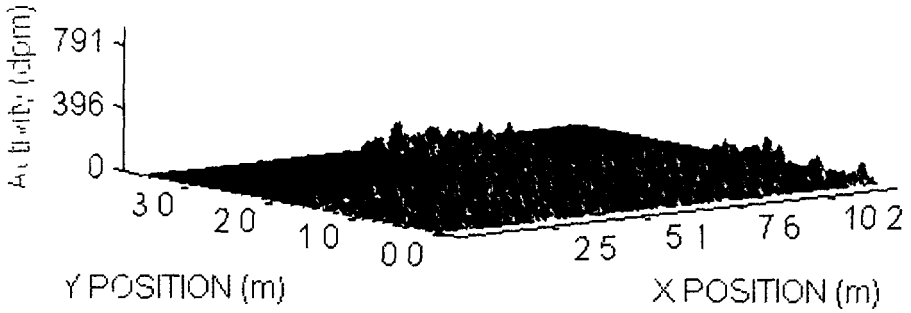

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

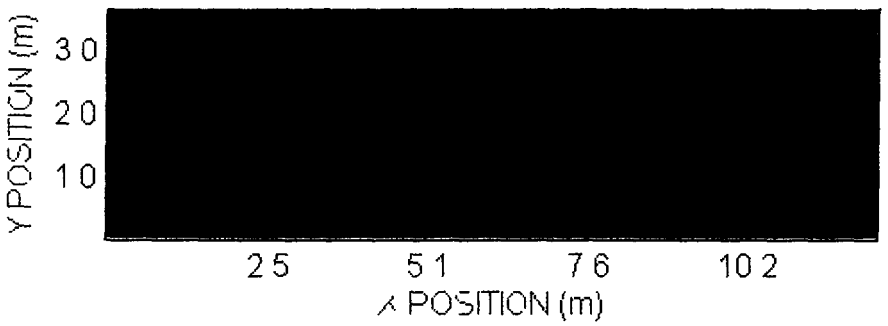

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	21	137	0	27 0	100
2	1	0	63	0	0	0
3	1	16	102	0	25 0	100
4	1	21	102	0	27 0	100
5	1	23	188	0	34 0	100
6	1	20	137	0	32 0	100
7	1	20	137	0	27 0	100
8	1	22	137	0	30 0	100
9	1	1	137	0	9 0	0
10	1	20	171	0	31 0	90
11	1	0	61	0	0	0
12	1	20	137	0	25 0	99
1	2	17	136	0	26 0	80
2	2	0	93	0	0	0
3	2	17	137	0	29 0	80
4	2	21	171	0	33 0	80
5	2	15	166	0	28 0	80
6	2	20	137	0	29 0	80
7	2	21	137	0	29 0	100
8	2	24	162	0	32 0	100
9	2	30	137	0	20 0	18
10	2	18	160	0	32 0	72
11	2	0	123	0	0	0
12	2	21	158	0	31 0	80
1	3	0	0	0	0	0
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	2	68	0	12 0	0
7	3	24	137	0	32 0	100
8	3	23	171	0	28 0	100
9	3	17	197	0	29 0	90
10	3	0	0	0	0	0
11	3	0	0	0	0	0
12	3	0	0	0	0	0
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	3	102	0	12 0	0
7	4	30	171	0	37 0	60
8	4	18	102	0	28 0	60
9	4	21	137	0	30 0	54

10	4	0	0	0	0	0
11	4	0	0	0	0	0
12	4	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 729012f was conducted on March 27, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012f ranged from 0 to 124 dpm/pixel 100 cm^2 data ranged from 0 to 220 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

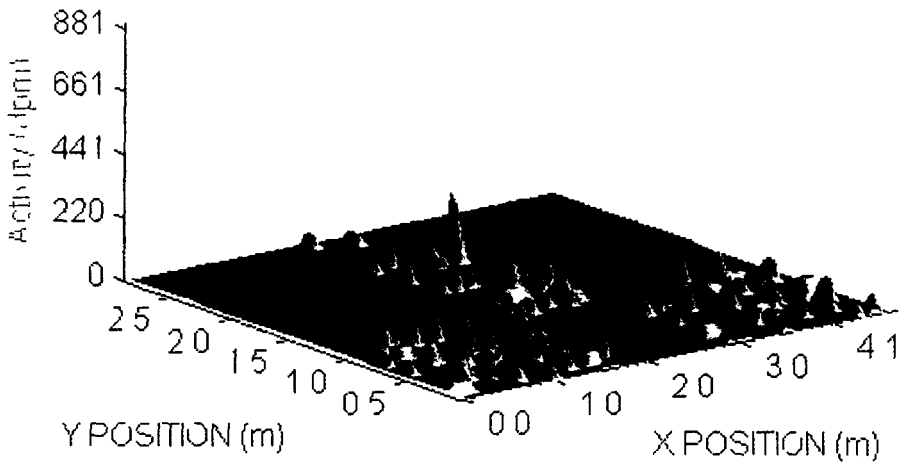

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

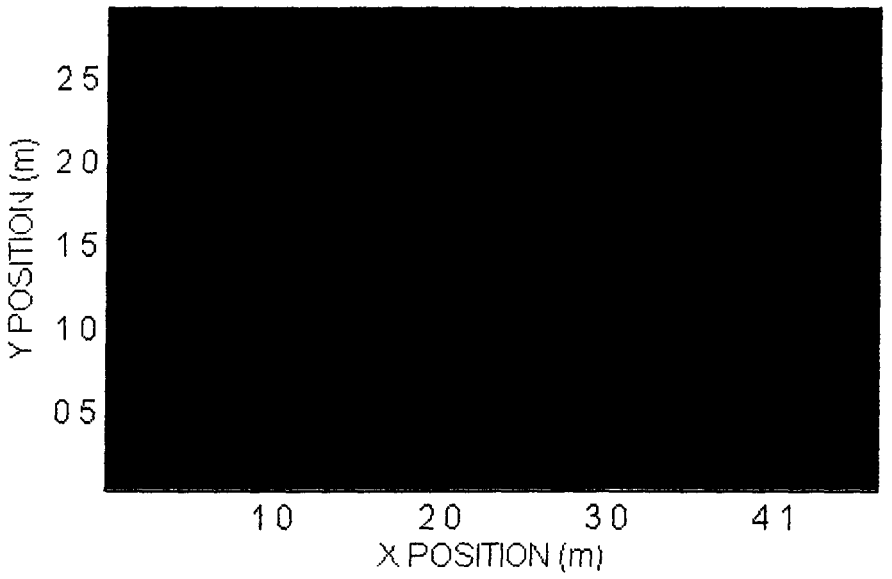

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	8	68	0	15 0	100
2	1	11	171	0	23 0	80
3	1	10	68	0	8 0	20
4	1	9	137	0	22 0	100
5	1	9	99	0	21 0	60
1	2	20	68	0	11 0	10
2	2	8	68	0	9 0	26
3	2	9	102	0	19 0	74
4	2	10	102	0	12 0	10
5	2	0	34	0	4 0	6
1	3	0	0	0	0	0
2	3	5	59	0	8 0	18
3	3	8	220	0	29 0	72
4	3	0	0	0	0	0
5	3	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729012n was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012n ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 133 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

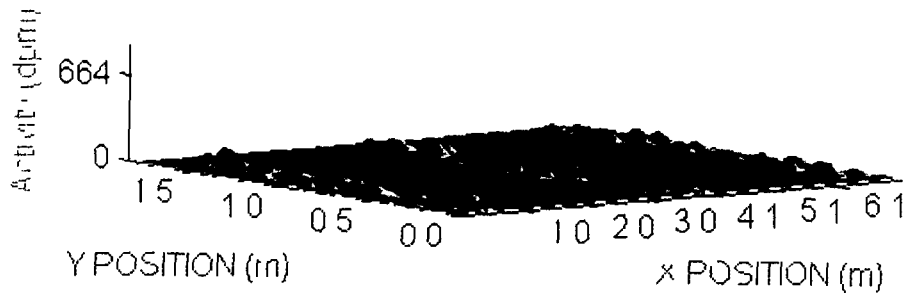

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

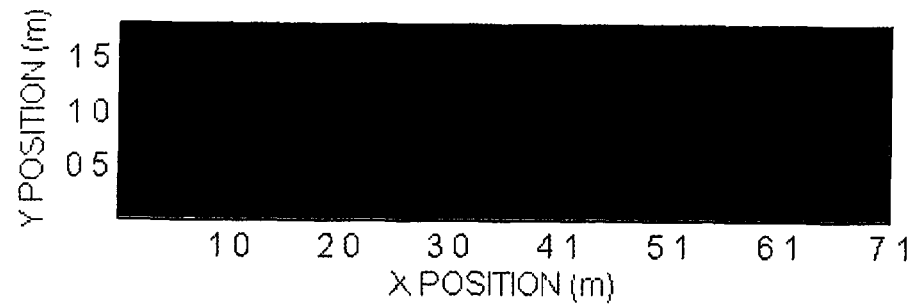

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	12	68	0	21 0	100
2	1	0	0	0	.0	0
3	1	0	0	0	0	0
4	1	10	132	0	21 0	80
5	1	5	68	0	8 0	20
6	1	0	0	0	0	0
7	1	4	68	0	12 0	70
1	2	8	102	0	21 0	80
2	2	0	0	0	0	0
3	2	0	0	0	0	0
4	2	9	102	0	21 0	64
5	2	5	68	0	9 0	16
6	2	0	0	0	0	0
7	2	4	68	0	13 0	56

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729012s was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012s ranged from 0 to 122 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

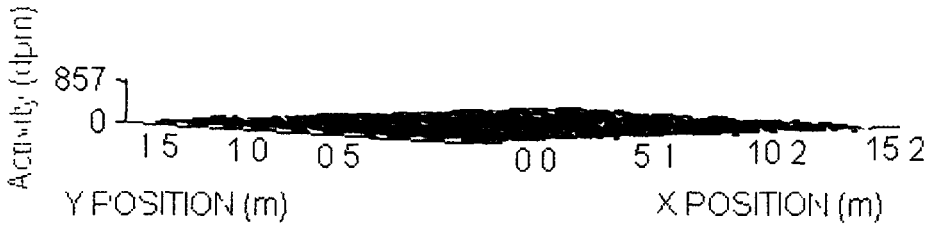

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

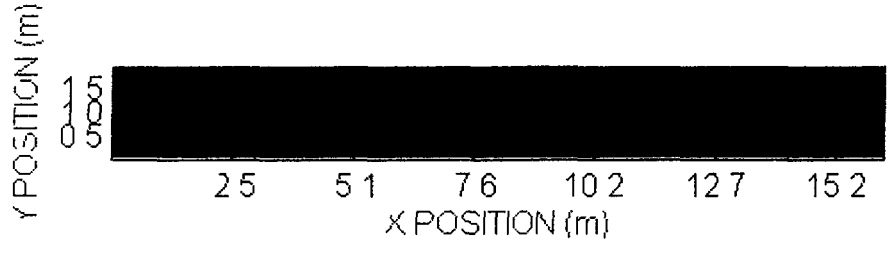

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	20	171	0	30 0	100
2	1	14	137	0	25 0	100
3	1	19	137	0	25 0	100
4	1	8	137	0	21 0	100
5	1	7	102	0	17 0	100
6	1	10	102	0	21 0	100
7	1	9	94	0	19 0	80
8	1	9	97	0	18 0	100
9	1	10	68	0	18 0	100
10	1	8	102	0	18 0	100
11	1	14	123	0	24 0	100
12	1	11	68	0	20 0	100
13	1	9	102	0	20 0	100
14	1	9	102	0	18 0	100
15	1	11	171	0	23 0	100
16	1	10	101	0	20 0	90
1	2	16	171	0	33 0	81
2	2	19	171	0	29 0	90
3	2	25	137	0	33 0	88
4	2	9	113	0	19 0	80
5	2	8	155	0	20 0	80
6	2	10	130	0	26 0	80
7	2	10	137	0	23 0	64
8	2	8	102	0	18 0	80
9	2	5	73	0	13 0	80
10	2	5	68	0	15 0	80
11	2	12	102	0	21 0	80
12	2	12	101	0	21 0	80
13	2	9	102	0	20 0	80
14	2	7	68	0	13 0	80
15	2	7	68	0	17 0	80
16	2	8	102	0	20 0	72

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data *All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2*

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729012w was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012w ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 164 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

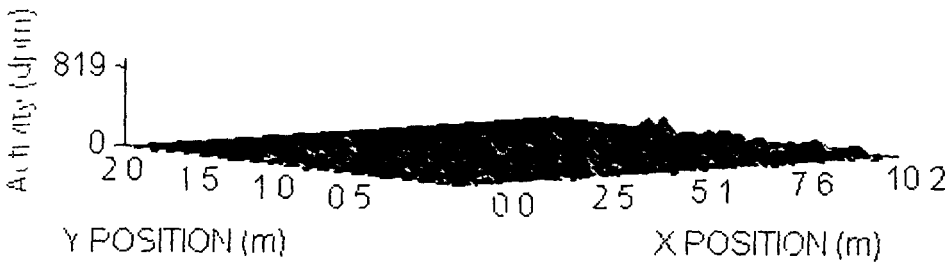

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

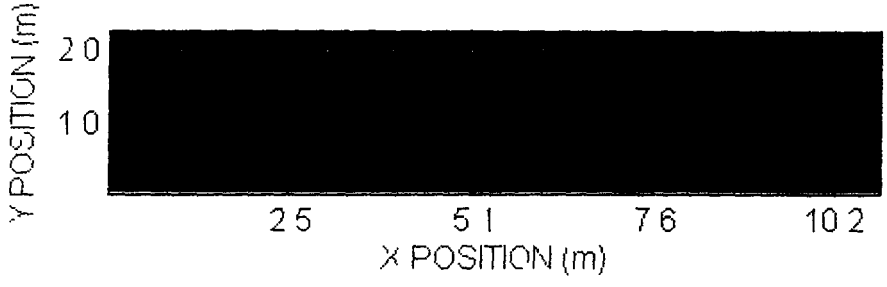

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	11	102	0	24 0	100
2	1	8	102	0	21 0	100
3	1	8	68	0	17 0	100
4	1	10	129	0	21 0	80
5	1	12	102	0	19 0	50
6	1	6	68	0	14 0	100
7	1	8	68	0	16 0	100
8	1	10	131	0	20 0	100
9	1	11	102	0	23 0	95
10	1	9	102	0	19 0	86
11	1	13	102	0	25 0	54
1	2	9	135	0	22 0	80
2	2	7	137	0	21 0	80
3	2	6	102	0	15 0	80
4	2	16	102	0	18 0	64
5	2	10	137	0	19 0	40
6	2	7	102	0	16 0	80
7	2	7	153	0	21 0	80
8	2	6	68	0	17 0	80
9	2	8	102	0	22 0	82
10	2	3	68	0	12 0	82
11	2	10	163	0	29 0	48
1	3	0	0	0	0	0
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	0	0	0	0	0
7	3	0	0	0	0	0
8	3	0	0	0	0	0
9	3	0	0	0	0	2
10	3	0	0	0	0	2
11	3	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290120p was conducted on March 17, 1999 by SMITH as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290120p ranged from 0 to 113 dpm/pixel 100 cm^2 data ranged from 0 to 241 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

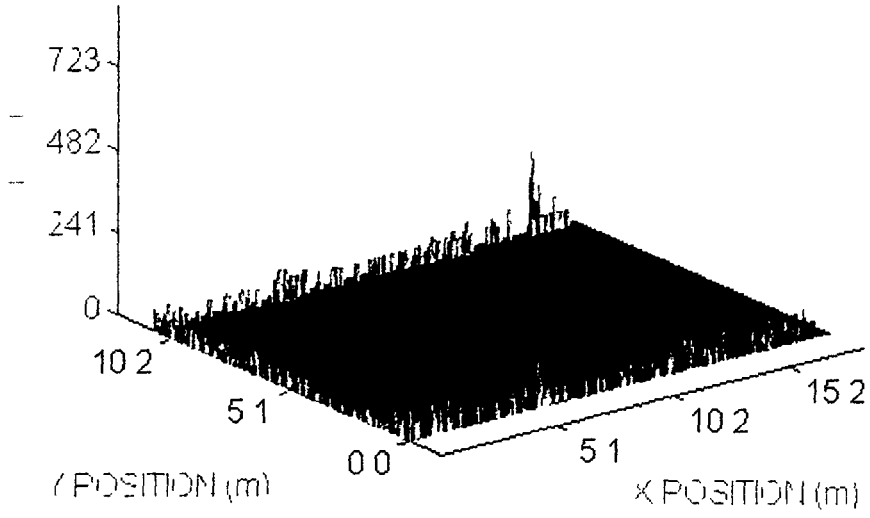

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

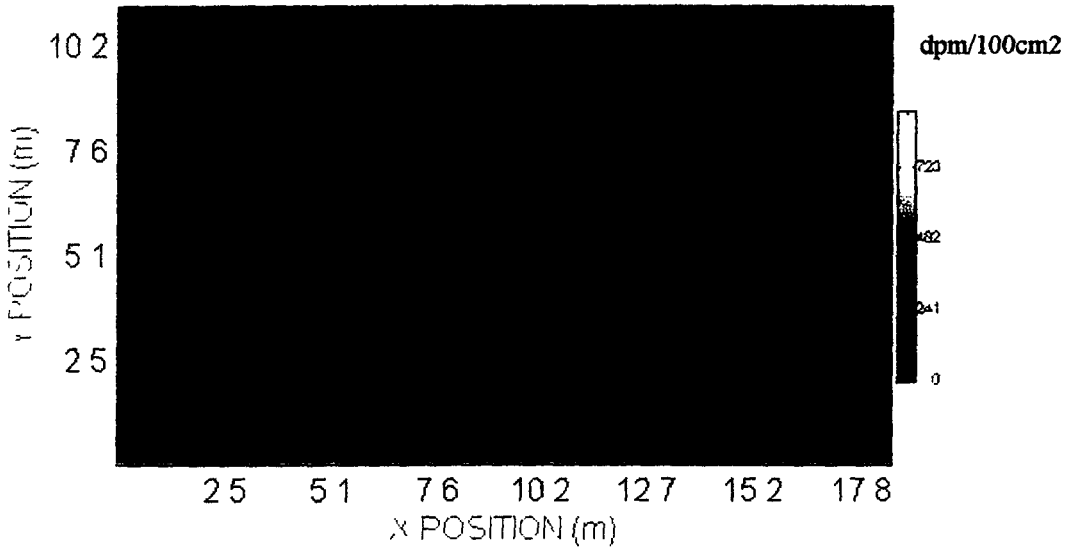

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	16	128	0	17 0	28
2	1	15	85	0	13 0	20
3	1	10	85	0	11 0	20
4	1	5	42	0	8 0	20
5	1	10	128	0	9 0	20
6	1	25	128	0	17 0	20
7	1	5	42	0	8 0	20
8	1	10	85	0	11 0	20
9	1	0	42	0	5 0	20
10	1	10	85	0	9 0	20
11	1	10	85	0	11 0	20
12	1	20	85	0	16 0	20
13	1	15	128	0	16 0	20
14	1	10	85	0	10 0	20
15	1	10	85	0	10 0	20
16	1	10	85	0	12 0	20
17	1	20	85	0	15 0	20
18	1	10	85	0	11 0	20
19	1	0	0	0	0	1
1	2	20	64	0	9 0	10
2	2	0	0	0	0	0
3	2	0	0	0	0	0
4	2	0	0	0	0	0
5	2	0	0	0	0	0
6	2	0	0	0	0	0
7	2	0	0	0	0	0
8	2	0	0	0	0	0
9	2	0	0	0	0	0
10	2	0	0	0	0	0
11	2	0	0	0	0	0
12	2	0	0	0	0	0
13	2	0	0	0	0	0
14	2	0	0	0	0	0
15	2	0	0	0	0	0
16	2	0	0	0	0	0
17	2	0	0	0	0	0
18	2	0	0	0	0	0
19	2	0	0	0	0	0
1	3	0	21	0	4 0	10
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	0	0	0	0	0
7	3	0	0	0	0	0

8	3	0	0	0	0	0
9	3	0	0	0	0	0
10	3	0	0	0	0	0
11	3	0	0	0	0	0
12	3	0	0	0	0	0
13	3	0	0	0	0	0
14	3	0	0	0	0	0
15	3	0	0	0	0	0
16	3	0	0	0	0	0
17	3	0	0	0	0	0
18	3	0	0	0	0	0
19	3	0	0	0	0	0
1	4	10	84	0	7 0	10
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	0	0	0	0	0
7	4	0	0	0	0	0
8	4	0	0	0	0	0
9	4	0	0	0	0	0
10	4	0	0	0	0	0
11	4	0	0	0	0	0
12	4	0	0	0	0	0
13	4	0	0	0	0	0
14	4	0	0	0	0	0
15	4	0	0	0	0	0
16	4	0	0	0	0	0
17	4	0	0	0	0	0
18	4	0	0	0	0	0
19	4	0	0	0	0	0
1	5	6	64	0	7 0	18
2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	0	0	0	0	0
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	0	0	0	0	0
8	5	0	0	0	0	0
9	5	0	0	0	0	0
10	5	0	0	0	0	0
11	5	0	0	0	0	0
12	5	0	0	0	0	0
13	5	0	0	0	0	0
14	5	0	0	0	0	0
15	5	0	0	0	0	0
16	5	0	0	0	0	0

17	5	0	0	0	0	0
18	5	0	0	0	0	0
19	5	0	0	0	0	0
1	6	5	42	0	7 0	20
2	6	0	0	0	0	0
3	6	0	0	0	0	0
4	6	0	0	0	0	0
5	6	0	0	0	0	0
6	6	0	0	0	0	0
7	6	0	0	0	0	0
8	6	0	0	0	0	0
9	6	0	0	0	0	0
10	6	0	0	0	0	0
11	6	0	0	0	0	0
12	6	0	0	0	0	0
13	6	0	0	0	0	0
14	6	0	0	0	0	0
15	6	0	0	0	0	0
16	6	0	0	0	0	0
17	6	0	0	0	0	0
18	6	0	0	0	0	0
19	6	0	0	0	0	0
1	7	20	64	0	10 0	10
2	7	0	0	0	0	0
3	7	0	0	0	0	0
4	7	0	0	0	0	0
5	7	0	0	0	0	0
6	7	0	0	0	0	0
7	7	0	0	0	0	0
8	7	0	0	0	0	0
9	7	0	0	0	0	0
10	7	0	0	0	0	0
11	7	0	0	0	0	0
12	7	0	0	0	0	0
13	7	0	0	0	0	0
14	7	0	0	0	0	0
15	7	0	0	0	0	0
16	7	0	0	0	0	0
17	7	0	0	0	0	0
18	7	0	0	0	0	0
19	7	0	0	0	0	0
1	8	20	42	0	9 0	10
2	8	0	0	0	0	0
3	8	0	0	0	0	0
4	8	0	0	0	0	0
5	8	0	0	0	0	0
6	8	0	0	0	0	0

7	8	0	0	0	0	0
8	8	0	0	0	0	0
9	8	0	0	0	0	0
10	8	0	0	0	0	0
11	8	0	0	0	0	0
12	8	0	0	0	0	0
13	8	0	0	0	0	0
14	8	0	0	0	0	0
15	8	0	0	0	0	0
16	8	0	0	0	0	0
17	8	0	0	0	0	0
18	8	0	0	0	0	0
19	8	0	0	0	0	0
1	9	0	42	0	40	10
2	9	0	0	0	0	0
3	9	0	0	0	0	0
4	9	0	0	0	0	0
5	9	0	0	0	0	0
6	9	0	0	0	0	0
7	9	0	0	0	0	0
8	9	0	0	0	0	0
9	9	0	0	0	0	0
10	9	0	0	0	0	0
11	9	0	0	0	0	0
12	9	0	0	0	0	0
13	9	0	0	0	0	0
14	9	0	0	0	0	0
15	9	0	0	0	0	0
16	9	0	0	0	0	0
17	9	0	0	0	0	0
18	9	0	0	0	0	0
19	9	0	0	0	0	0
1	10	5	42	0	80	20
2	10	0	0	0	0	0
3	10	0	0	0	0	0
4	10	0	0	0	0	0
5	10	0	0	0	0	0
6	10	0	0	0	0	0
7	10	0	0	0	0	0
8	10	0	0	0	0	0
9	10	0	0	0	0	0
10	10	0	0	0	0	0
11	10	0	0	0	0	0
12	10	0	0	0	0	0
13	10	0	0	0	0	0
14	10	0	0	0	0	0
15	10	0	0	0	0	0

16	10	0	0	0	0	0
17	10	0	0	0	0	0
18	10	0	0	0	0	0
19	10	0	0	0	0	0
1	11	16	84	0	14 0	25
2	11	5	42	0	8 0	17
3	11	0	42	0	4 0	20
4	11	8	42	0	10 0	20
5	11	4	42	0	7 0	25
6	11	15	85	0	19 0	27
7	11	8	85	0	9 0	22
8	11	4	42	0	8 0	20
9	11	0	42	0	6 0	20
10	11	4	42	0	8 0	20
11	11	8	42	0	10 0	20
12	11	8	79	0	9 0	22
13	11	12	85	0	13 0	25
14	11	8	85	0	11 0	25
15	11	8	78	0	10 0	20
16	11	4	85	0	10 0	20
17	11	24	241	0	29 0	20
18	11	8	85	0	11 0	20
19	11	0	0	0	0	4

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290121F was conducted on March 18, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290121F ranged from 0 to 169 dpm/pixel 100 cm^2 data ranged from 0 to 255 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

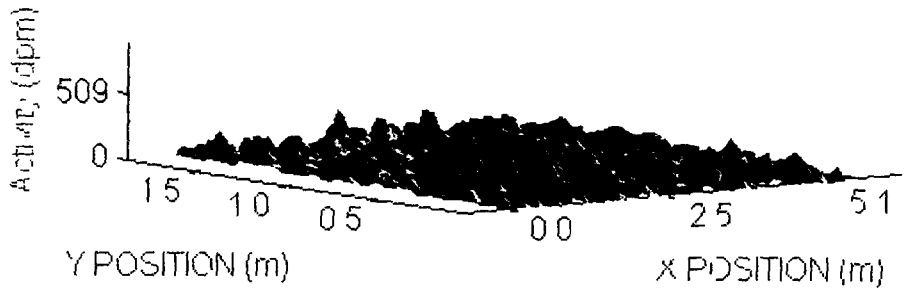

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

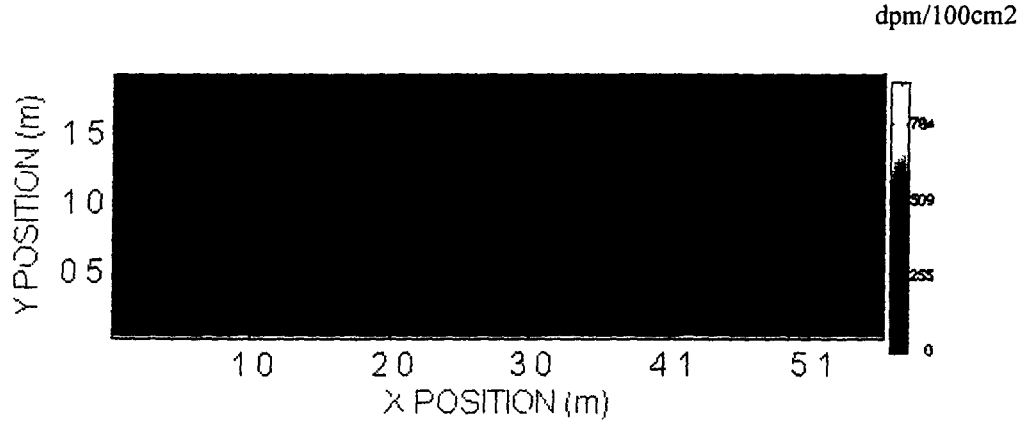

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	31	181	0	38 0	100
2	1	34	244	0	38 0	100
3	1	30	244	0	42 0	100
4	1	31	176	0	39 0	100
5	1	30	248	0	40 0	100
6	1	25	170	0	40 0	50
1	2	31	181	0	36 0	90
2	2	30	136	0	34 0	90
3	2	32	254	0	39 0	90
4	2	32	216	0	42 0	90
5	2	26	138	0	32 0	90
6	2	27	131	0	36 0	45

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290121F was conducted on March 18, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290121F ranged from 0 to 148 dpm/pixel 100 cm^2 data ranged from 0 to 239 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

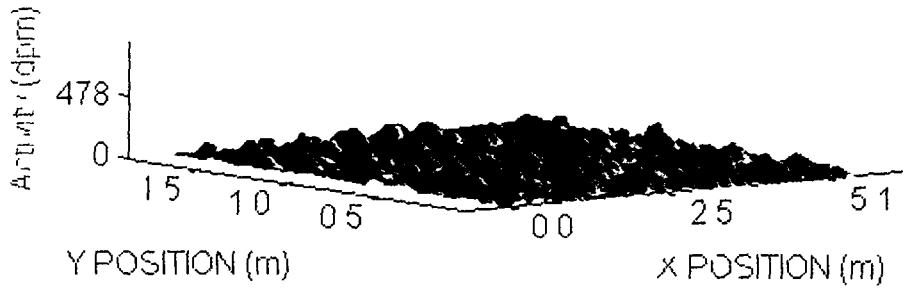

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

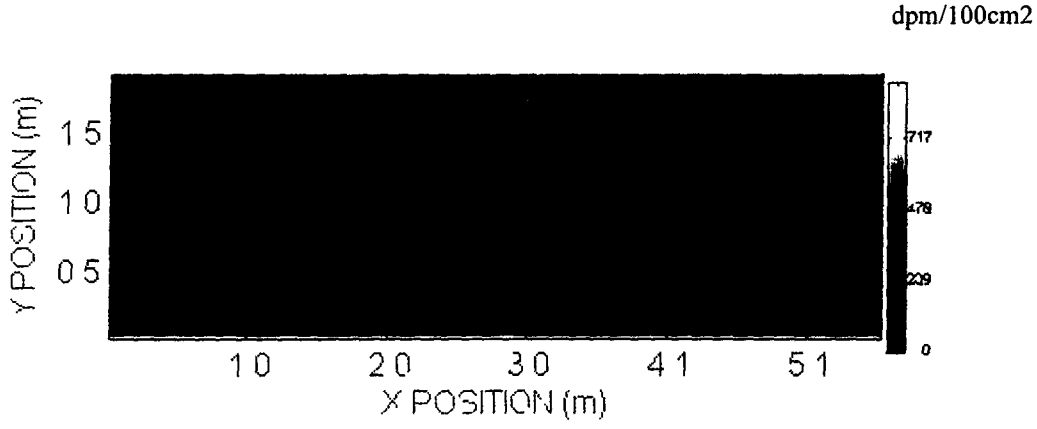

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	31	178	0	36 0	100
2	1	36	239	0	38 0	100
3	1	35	197	0	46 0	100
4	1	27	217	0	38 0	100
5	1	24	165	0	34 0	100
6	1	29	131	0	34 0	50
1	2	24	136	0	33 0	90
2	2	22	131	0	32 0	90
3	2	19	172	0	32 0	90
4	2	26	176	0	34 0	90
5	2	19	135	0	29 0	90
6	2	26	178	0	34 0	45

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729013s was conducted on February 26, 1999 by CHETE as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM1 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729013s ranged from 0 to 77 dpm/pixel 100 cm^2 data ranged from 0 to 167 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

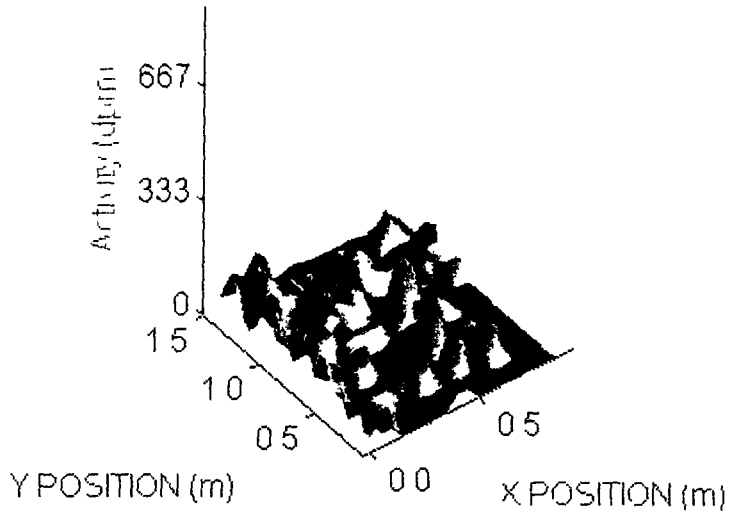

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

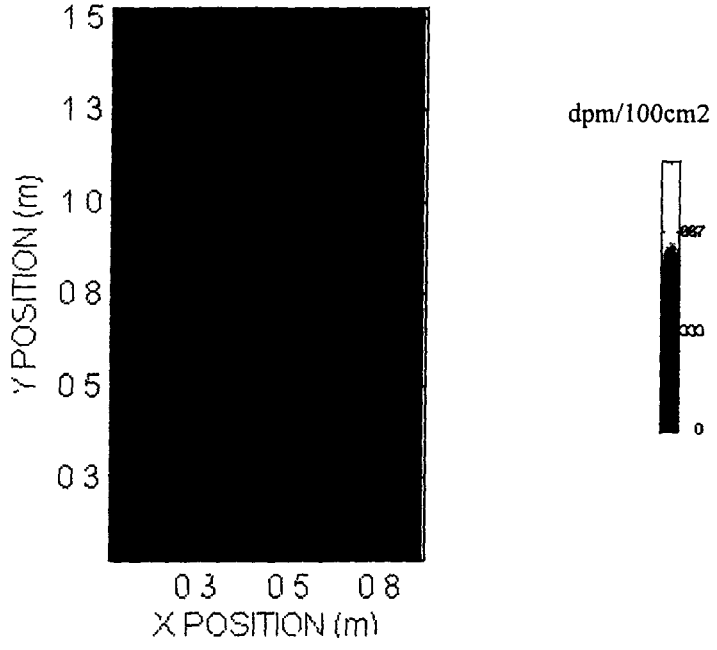

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	24	166	0	34 0	72
1	2	39	153	0	38 0	34

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM1, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729014e was conducted on February 26, 1999 by CHETE as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM1 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729014e ranged from 0 to 115 dpm/pixel 100 cm^2 data ranged from 0 to 154 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

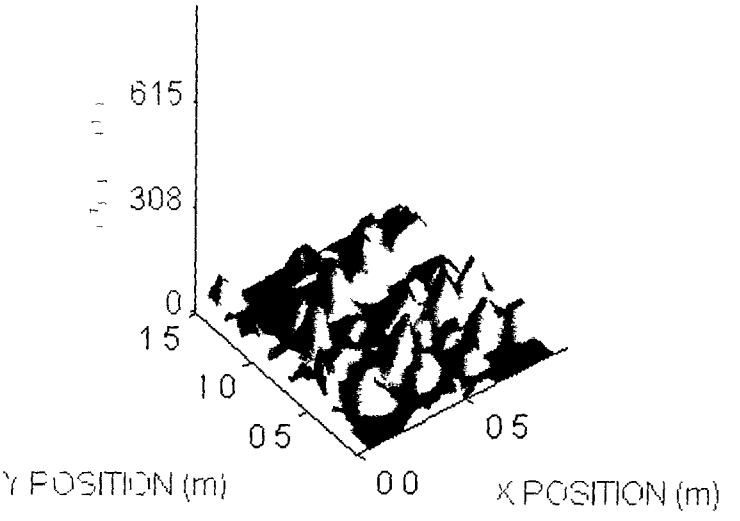

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

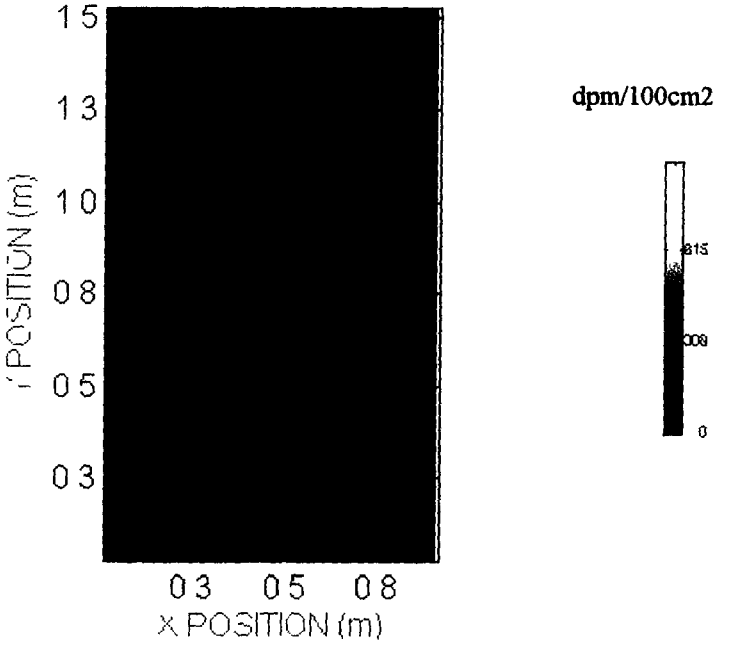

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	26	153	0	35 0	88
1	2	32	128	0	32 0	39

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM1, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729015f was conducted on March 24, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729015f ranged from 0 to 274 dpm/pixel 100 cm^2 data ranged from 0 to 308 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

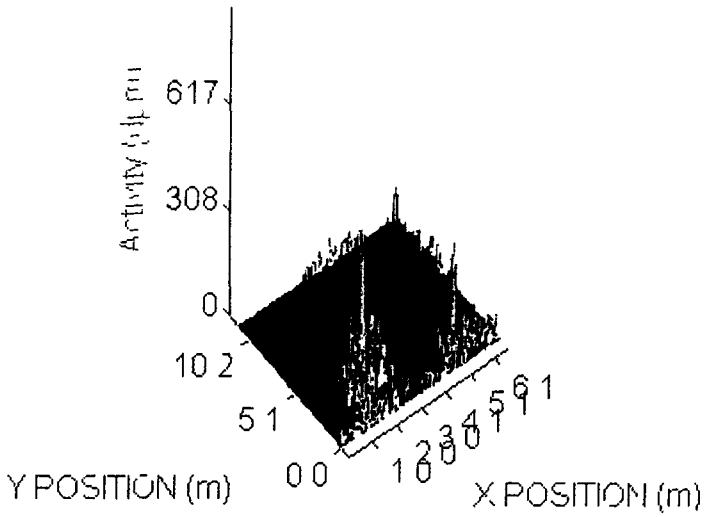

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

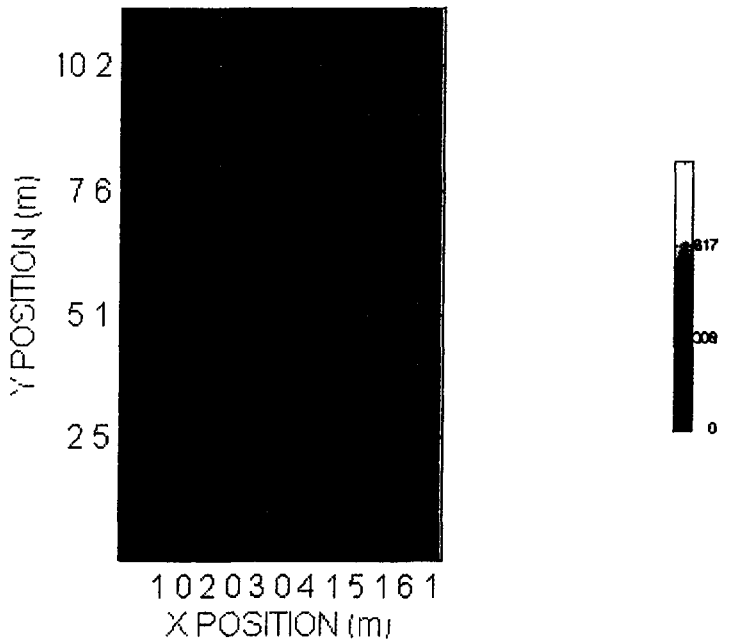

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	9	68	0	7 0	38
2	1	16	77	0	18 0	64
3	1	14	97	0	18 0	40
4	1	12	102	0	14 0	34
5	1	20	131	0	19 0	46
6	1	12	165	0	23 0	100
7	1	5	68	0	14 0	48
1	2	0	0	0	0	0
2	2	8	102	0	16 0	40
3	2	0	59	0	6 0	0
4	2	0	0	0	0	0
5	2	3	101	0	11 0	33
6	2	9	168	0	22 0	70
7	2	12	34	0	13 0	26
1	3	0	0	0	0	0
2	3	14	137	0	21 0	80
3	3	24	131	0	24 0	66
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	0	0	0	0	0
7	3	0	34	0	4 0	10
1	4	0	0	0	0	0
2	4	18	102	0	19 0	56
3	4	14	160	0	28 0	82
4	4	17	34	0	5 0	6
5	4	0	0	0	0	0
6	4	0	0	0	0	0
7	4	0	0	0	0	10
1	5	0	0	0	0	0
2	5	0	0	0	0	0
3	**5**	**15**	**308**	**0**	**37.0**	**80**
4	5	10	34	0	7 0	10
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	10	135	0	13 0	10
1	6	0	0	0	0	0
2	6	0	0	0	0	0
3	6	12	102	0	13 0	16
4	6	0	0	0	0	2
5	6	0	0	0	0	0
6	6	0	0	0	0	0
7	6	5	68	0	9 0	10
1	7	0	0	0	0	0
2	7	0	0	0	0	0
3	7	0	0	0	0	0

4	7	0	0	0	0	0
5	7	0	0	0	0	0
6	7	0	0	0	0	0
7	7	15	85	0	13 0	10
1	8	0	0	0	0	0
2	8	0	0	0	0	0
3	8	0	0	0	0	0
4	8	0	0	0	0	0
5	8	0	0	0	0	0
6	8	0	0	0	0	0
7	8	10	68	0	13 0	10
1	9	0	0	0	0	0
2	9	0	0	0	0	0
3	9	0	0	0	0	0
4	9	0	0	0	0	0
5	9	0	0	0	0	0
6	9	0	0	0	0	0
7	9	10	68	0	10 0	10
1	10	0	0	0	0	0
2	10	0	0	0	0	0
3	10	0	0	0	0	0
4	10	0	0	0	0	0
5	10	0	0	0	0	0
6	10	0	0	0	0	0
7	10	0	34	0	4 0	10
1	11	0	0	0	0	0
2	11	0	0	0	0	0
3	11	0	0	0	0	0
4	11	0	0	0	0	0
5	11	0	0	0	0	0
6	11	0	0	0	0	0
7	11	0	34	0	4 0	10
1	12	0	0	0	0	0
2	12	0	0	0	0	0
3	12	0	34	0	0	0
4	12	6	68	0	14 0	0
5	12	10	68	0	23 0	0
6	12	0	34	0	0	0
7	**12**	**100**	**102**	**0**	**45.0**	**1**

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

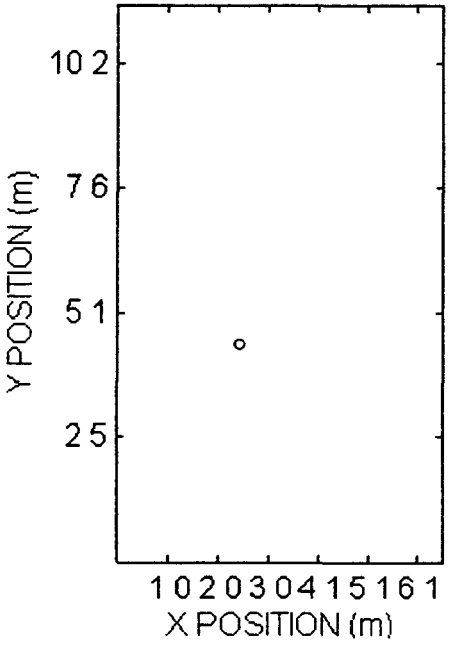

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

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Introduction

Survey 729015sw was conducted on March 27, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729015sw ranged from 0 to 129 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

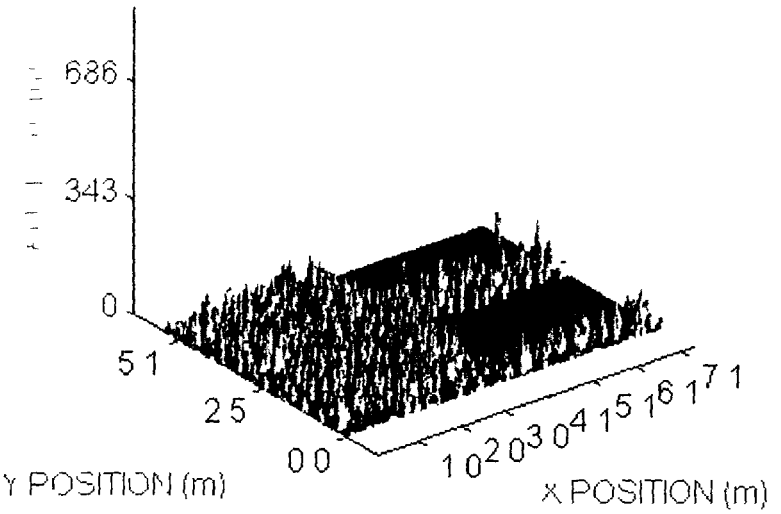

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

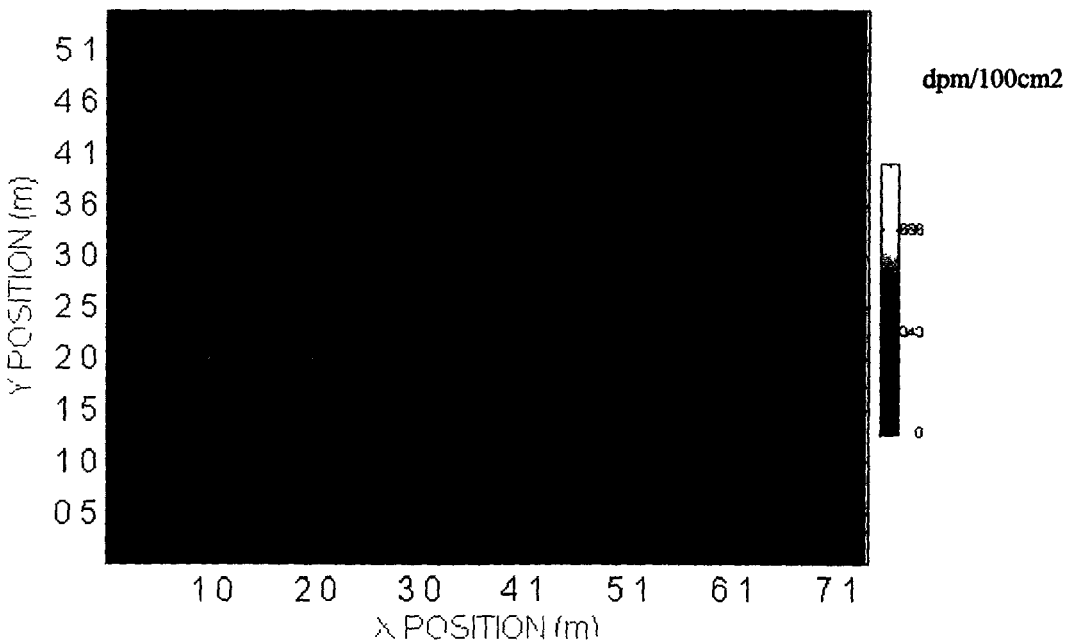

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	8	102	0	20 0	100
2	1	11	97	0	21 0	100
3	1	11	98	0	20 0	100
4	1	7	68	0	15 0	94
5	1	6	102	0	16 0	80
6	1	10	102	0	21 0	80
7	1	8	78	0	19 0	80
8	1	12	102	0	24 0	24
1	2	5	68	0	13 0	100
2	2	12	165	0	26 0	100
3	2	14	171	0	27 0	100
4	2	10	137	0	23 0	68
5	2	0	0	0	0	0
6	2	0	0	0	0	0
7	2	0	0	0	0	0
8	2	0	0	0	0	0
1	3	7	68	0	15 0	100
2	3	14	137	0	27 0	100
3	3	17	137	0	26 0	100
4	3	26	153	0	23 0	66
5	3	5	99	0	8 0	20
6	3	10	68	0	10 0	20
7	3	5	68	0	8 0	20
8	3	10	34	0	8 0	6
1	4	14	136	0	24 0	100
2	4	13	102	0	23 0	100
3	4	13	102	0	21 0	100
4	4	10	102	0	21 0	91
5	4	8	137	0	19 0	90
6	4	10	102	0	21 0	90
7	4	8	163	0	20 0	90
8	4	10	137	0	25 0	27
1	5	14	102	0	22 0	100
2	5	19	137	0	28 0	100
3	5	12	137	0	23 0	100
4	5	9	102	0	22 0	70
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	0	0	0	0	0
8	5	0	0	0	0	0
1	6	10	68	0	18 0	30
2	6	18	68	0	24 0	30
3	6	23	102	0	27 0	30
4	6	10	102	0	22 0	21
5	6	0	0	0	0	0

(Primary) Date 04-13-1999 Time 12 43 36 729015sw-3

6	6	0	0	0	0	0
7	6	0	0	0	0	0
8	6	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729015n was conducted on February 26, 1999 by CHETE as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM1 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729015n ranged from 0 to 77 dpm/pixel 100 cm^2 data ranged from 0 to 154 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

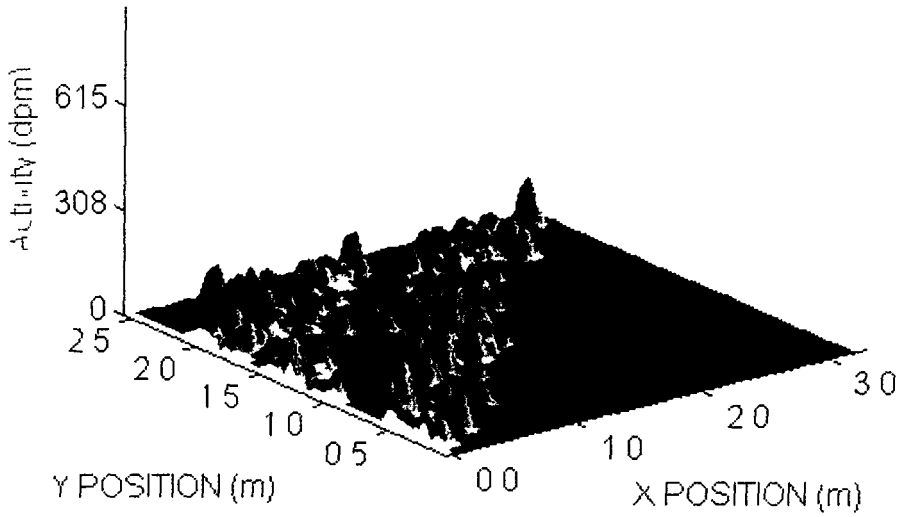

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

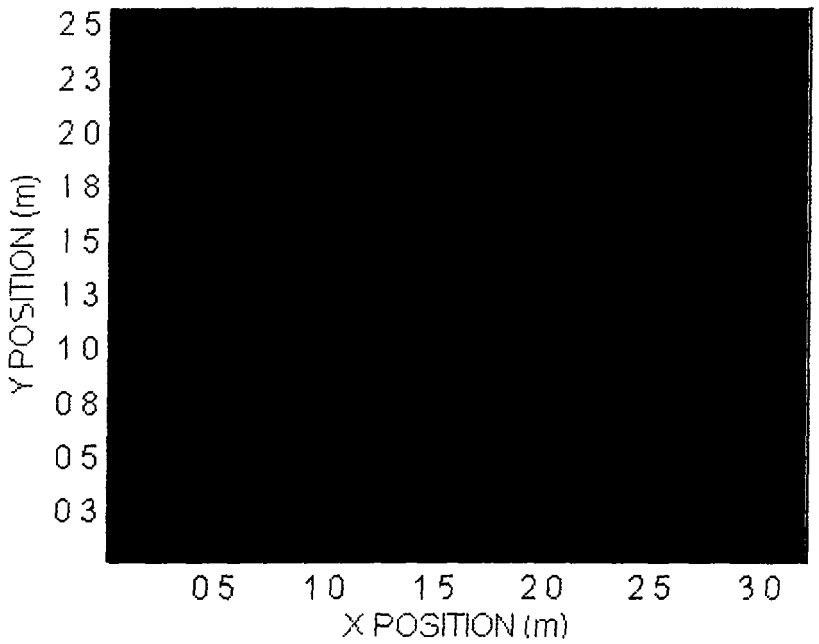

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	30	153	0	29 0	54
2	1	0	38	0	3 0	5
3	1	0	0	0	0	0
4	1	0	0	0	0	0
1	2	30	115	0	22 0	62
2	2	42	115	0	28 0	65
3	2	17	76	0	5 0	6
4	2	0	0	0	0	0
1	3	36	115	0	25 0	26
2	3	34	96	0	24 0	23
3	3	18	93	0	25 0	37
4	3	70	115	0	24 0	1

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ *The max is compared to the* $DCGL_{EMC}$ *The standard deviation is calculated from pixels that contain data* All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM1, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290150f was conducted on March 26, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290150f ranged from 0 to 79 dpm/pixel 100 cm^2 data ranged from 0 to 158 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

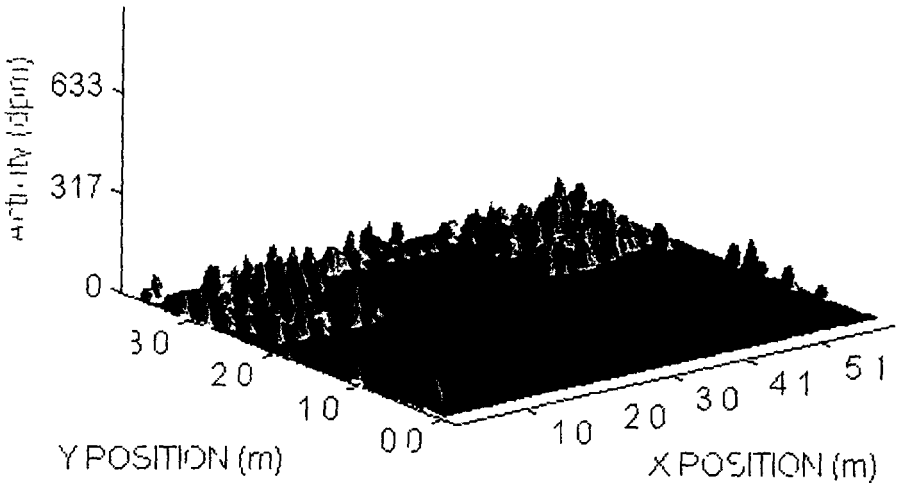

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

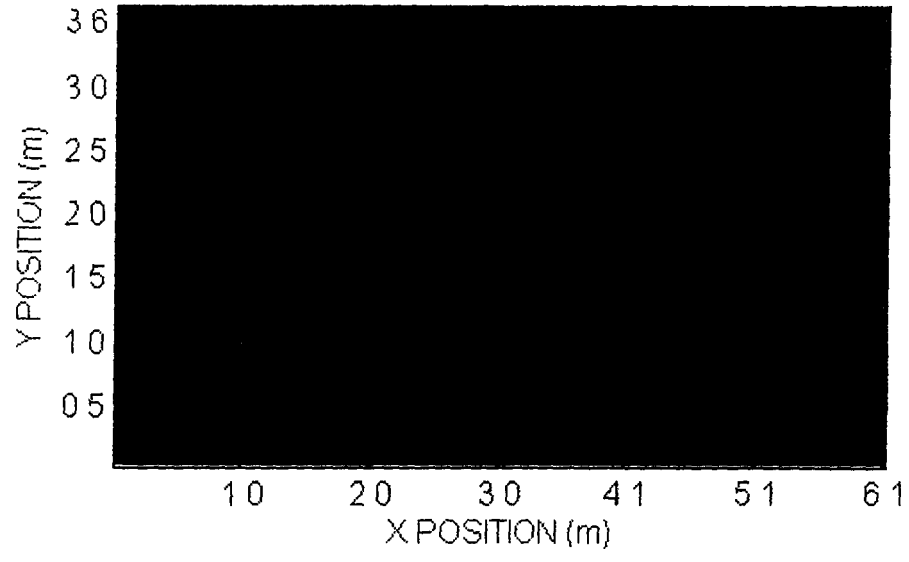

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	30	158	0	15 0	10
2	1	0	0	0	0	0
3	1	0	0	0	0	0
4	1	0	0	0	0	0
5	1	0	0	0	0	0
6	1	0	62	0	3 0	10
1	2	0	62	0	7 0	10
2	2	0	0	0	0	0
3	2	0	0	0	0	0
4	2	0	0	0	0	0
5	2	0	0	0	0	0
6	2	20	96	0	13 0	10
1	3	8	102	0	17 0	82
2	3	14	137	0	26 0	72
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	24	137	0	23 0	63
6	3	9	102	0	20 0	73
1	4	11	102	0	24 0	60
2	4	16	125	0	30 0	56
3	4	16	68	0	14 0	29
4	4	12	102	0	15 0	28
5	4	17	137	0	22 0	56
6	4	18	113	0	25 0	60

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290151f was conducted on March 26, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290151f ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid. Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

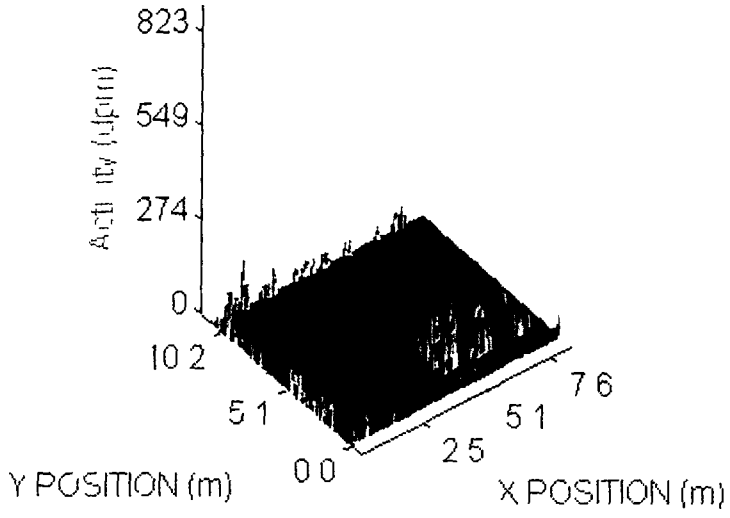

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

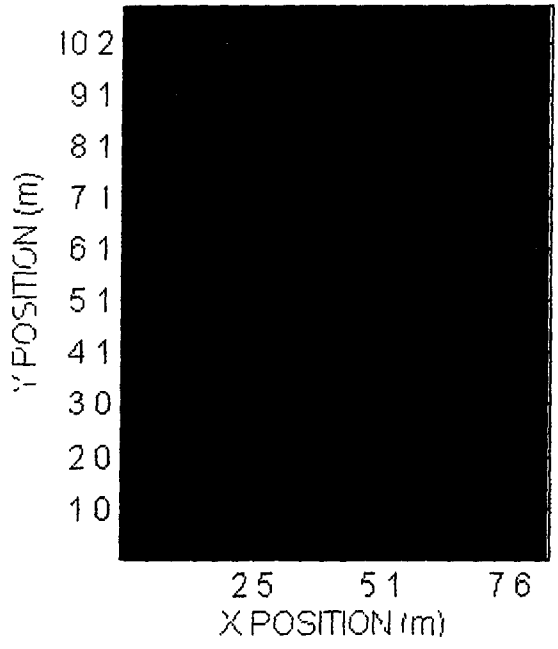

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	12	68	0	11 0	26
2	1	12	68	0	9 0	18
3	1	20	68	0	10 0	10
4	1	20	68	0	10 0	10
5	1	11	68	0	8 0	9
6	1	0	0	0	0	9
7	1	20	102	0	11 0	10
8	1	10	34	0	5 0	10
9	1	10	68	0	7 0	2
1	2	20	102	0	10 0	10
2	2	0	0	0	0	0
3	2	0	0	0	0	0
4	2	0	0	0	0	0
5	2	85	137	0	20 0	6
6	2	20	102	0	13 0	10
7	2	20	68	0	9 0	10
8	2	33	68	0	12 0	9
9	2	0	0	0	0	0
1	3	10	68	0	8 0	10
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	1	80	0	7 0	0
6	3	0	0	0	0	0
7	3	0	0	0	0	0
8	3	0	0	0	0	0
9	3	0	0	0	0	0
1	4	10	34	0	5 0	10
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	0	0	0	0	0
5	4	17	68	0	10 0	6
6	4	20	137	0	17 0	10
7	4	10	34	0	5 0	10
8	4	0	31	0	3 0	9
9	4	0	0	0	0	0
1	5	22	67	0	11 0	9
2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	0	0	0	0	0
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	0	0	0	0	0
8	5	0	0	0	0	0
9	5	0	0	0	0	0

1	6	0	0	0	0	8
2	6	0	0	0	0	0
3	6	0	0	0	0	0
4	6	0	0	0	0	0
5	6	0	0	0	0	0
6	6	0	0	0	0	0
7	6	0	0	0	0	0
8	6	0	0	0	0	0
9	6	0	0	0	0	0
1	7	0	34	0	4 0	10
2	7	0	0	0	0	0
3	7	0	0	0	0	0
4	7	0	0	0	0	0
5	7	0	0	0	0	0
6	7	0	0	0	0	0
7	7	0	0	0	0	0
8	7	0	0	0	0	0
9	7	0	0	0	0	0
1	8	30	68	0	13 0	10
2	8	0	0	0	0	0
3	8	0	0	0	0	0
4	8	0	0	0	0	0
5	8	0	0	0	0	0
6	8	0	0	0	0	0
7	8	0	0	0	0	0
8	8	0	0	0	0	0
9	8	0	0	0	0	0
1	9	10	68	0	7 0	10
2	9	0	0	0	0	0
3	9	0	0	0	0	0
4	9	0	0	0	0	0
5	9	0	0	0	0	0
6	9	0	0	0	0	0
7	9	0	0	0	0	0
8	9	0	0	0	0	0
9	9	0	0	0	0	0
1	10	10	47	0	7 0	10
2	10	0	0	0	0	0
3	10	0	0	0	0	0
4	10	0	0	0	0	0
5	10	0	0	0	0	0
6	10	0	0	0	0	0
7	10	0	0	0	0	0
8	10	0	0	0	0	0
9	10	0	0	0	0	0
1	11	9	68	0	13 0	24
2	11	12	137	0	16 0	20

3	11	8	68	0	11 0	20
4	11	8	51	0	8 0	17
5	11	0	34	0	5 0	9
6	11	0	34	0	5 0	9
7	11	0	34	0	4 0	10
8	11	7	68	0	11 0	10
9	11	0	0	0	0	2

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290152w was conducted on March 26, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290152w ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

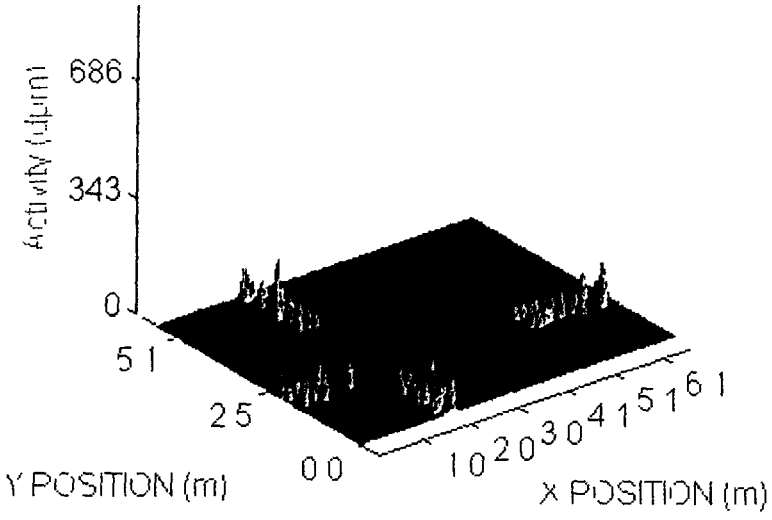

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

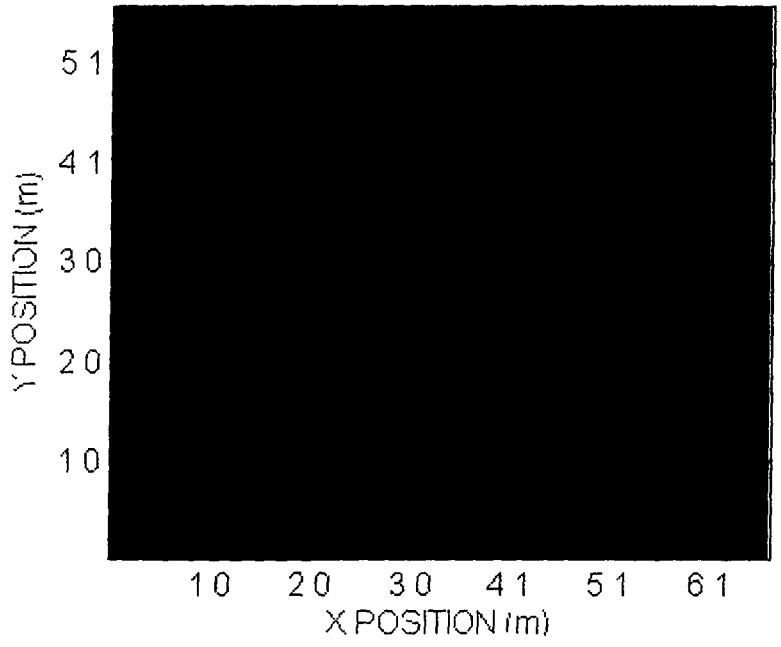

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	0	0	0	0	0
2	1	15	68	0	12 0	20
3	1	20	137	0	18 0	20
4	1	0	0	0	0	0
5	1	0	0	0	0	0
6	1	0	0	0	0	0
7	1	0	0	0	0	0
1	2	10	68	0	11 0	20
2	2	3	68	0	6 0	32
3	2	6	34	0	5 0	16
4	2	0	0	0	0	0
5	2	0	68	0	6 0	6
6	2	9	68	0	10 0	30
7	2	12	102	0	16 0	18
1	3	15	102	0	11 0	20
2	3	6	68	0	8 0	16
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	0	34	0	3 0	4
6	3	5	34	0	5 0	20
7	3	5	63	0	9 0	12
1	4	0	0	0	0	0
2	4	0	34	0	0	4
3	4	0	34	0	3 0	2
4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	0	0	0	0	0
7	4	0	0	0	0	0
1	5	0	0	0	0	0
2	5	20	171	0	17 0	20
3	5	20	60	0	10 0	10
4	5	0	0	0	0	0
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	0	0	0	0	0

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	6	0	0	0	0	0
2	6	20	102	0	13 0	10
3	6	10	34	0	6 0	5
4	6	0	0	0	0	0
5	6	0	0	0	0	0
6	6	0	0	0	0	0
7	6	0	0	0	0	0

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290153f was conducted on March 27, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290153f ranged from 0 to 206 dpm/pixel 100 cm^2 data ranged from 0 to 206 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

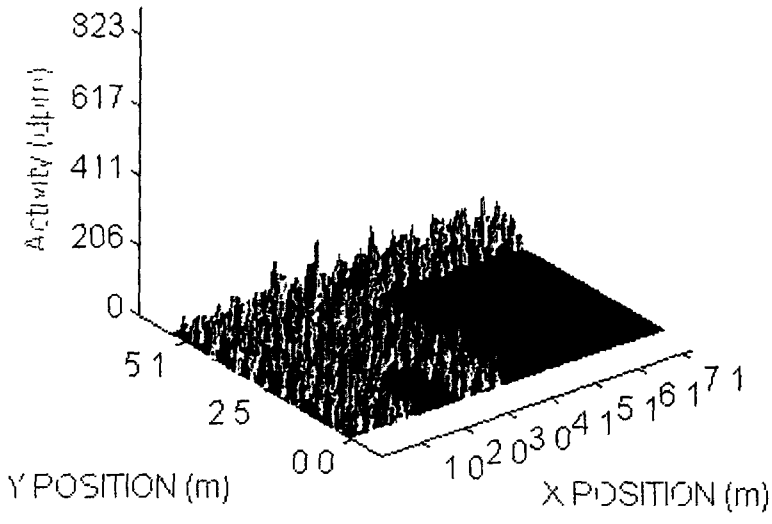

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

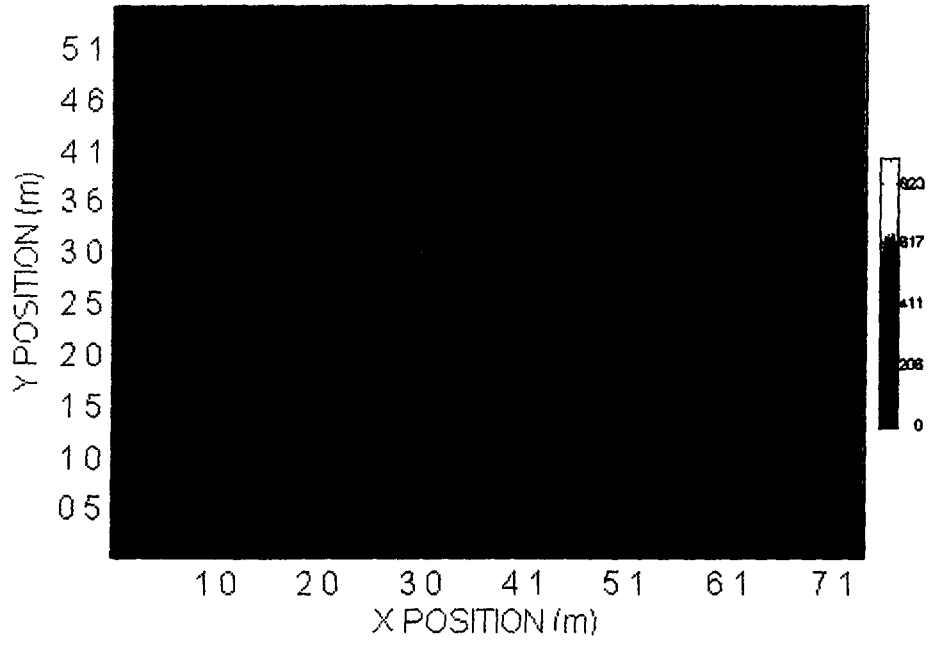

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	17	205	0	30 0	100
2	1	16	102	0	19 0	60
3	1	12	68	0	13 0	30
4	1	14	137	0	15 0	60
5	1	0	0	0	0	0
6	1	0	0	0	0	0
7	1	0	0	0	0	0
8	1	0	0	0	0	0
1	2	8	171	0	16 0	100
2	2	12	137	0	25 0	68
3	2	10	102	0	15 0	44
4	2	18	133	0	20 0	60
5	2	0	0	0	0	0
6	2	0	0	0	0	0
7	2	0	0	0	0	0
8	2	0	0	0	0	0
1	3	18	171	0	29 0	100
2	3	15	171	0	27 0	100
3	3	15	171	0	28 0	100
4	3	18	100	0	18 0	60
5	3	0	0	0	0	0
6	3	0	0	0	0	0
7	3	0	0	0	0	0
8	3	0	0	0	0	0
1	4	12	102	0	23 0	100
2	4	17	137	0	29 0	100
3	4	19	137	0	29 0	100
4	4	12	137	0	20 0	64
5	4	0	0	0	0	0
6	4	0	0	0	.0	0
7	4	0	0	0	0	0
8	4	0	0	0	0	0
1	5	12	102	0	24 0	100
2	5	12	102	0	20 0	100
3	5	15	205	0	29 0	100
4	5	10	135	0	20 0	91
5	5	6	68	0	15 0	70
6	5	6	102	0	16 0	70
7	5	8	137	0	22 0	70
8	5	17	102	0	28 0	21
1	6	4	34	0	11 0	40
2	6	7	68	0	17 0	40
3	6	13	123	0	27 0	40
4	6	9	101	0	20 0	40
5	6	18	137	0	21 0	40

6	6	12	102	0	22 0	40
7	6	18	102	0	29 0	40
8	6	2	34	0	9 0	12

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290154f was conducted on March 26, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290154f ranged from 0 to 116 dpm/pixel 100 cm^2 data ranged from 0 to 184 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

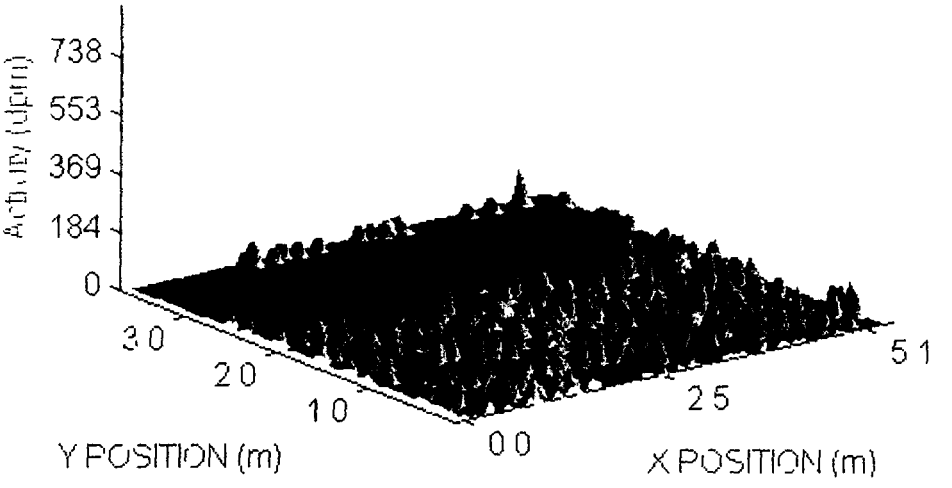

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

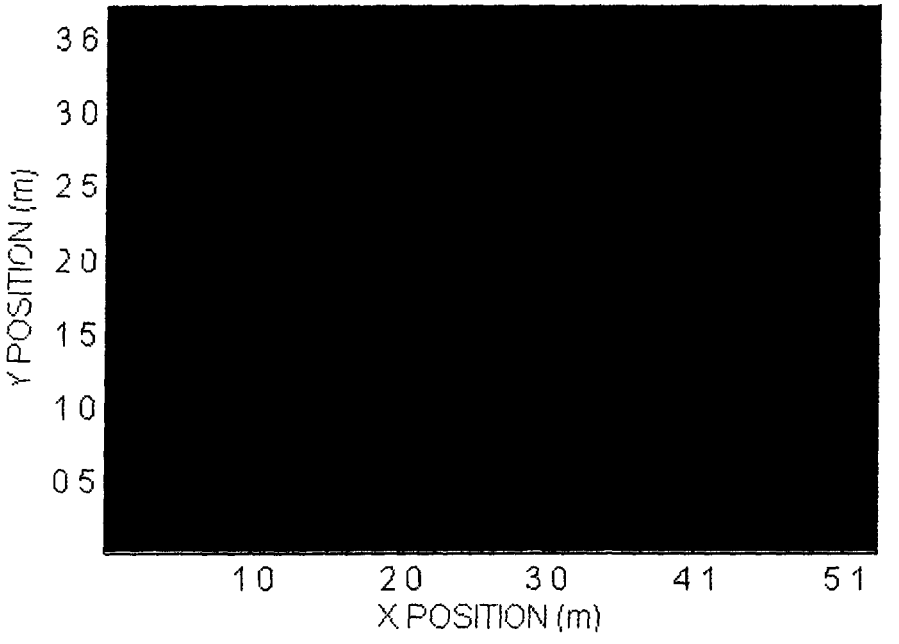

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	20	184	0	30 0	100
2	1	15	102	0	23 0	100
3	1	14	137	0	27 0	100
4	1	9	102	0	18 0	100
5	1	15	137	0	23 0	100
6	1	8	102	0	26 0	20
1	2	14	137	0	22 0	100
2	2	9	135	0	21 0	100
3	2	12	102	0	23 0	100
4	2	13	171	0	22 0	100
5	2	14	118	0	25 0	100
6	2	11	68	0	20 0	20
1	3	15	68	0	12 0	19
2	3	20	68	0	10 0	10
3	3	20	68	0	11 0	10
4	3	0	51	0	4 0	10
5	3	20	68	0	9 0	10
6	3	20	34	0	16 0	11
1	4	0	0	0	0	15
2	4	14	68	0	10 0	10
3	4	7	34	0	7 0	10
4	4	7	51	0	7 0	10
5	4	14	102	0	10 0	10
6	4	8	34	0	12 0	7

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290155f was conducted on March 27, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290155f ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

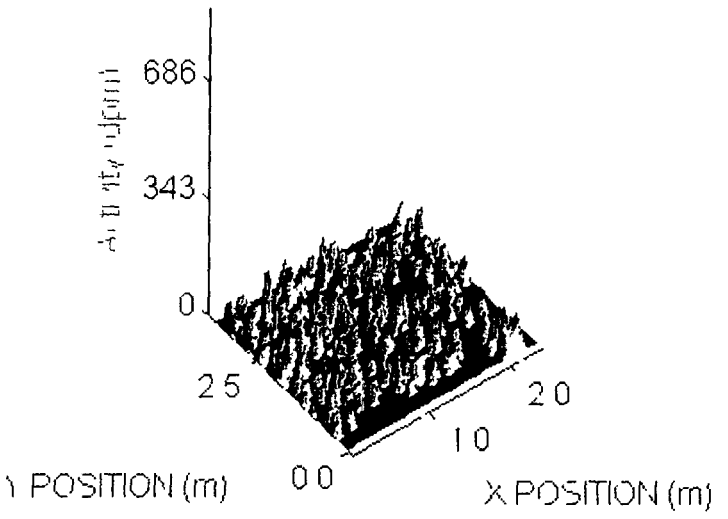

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

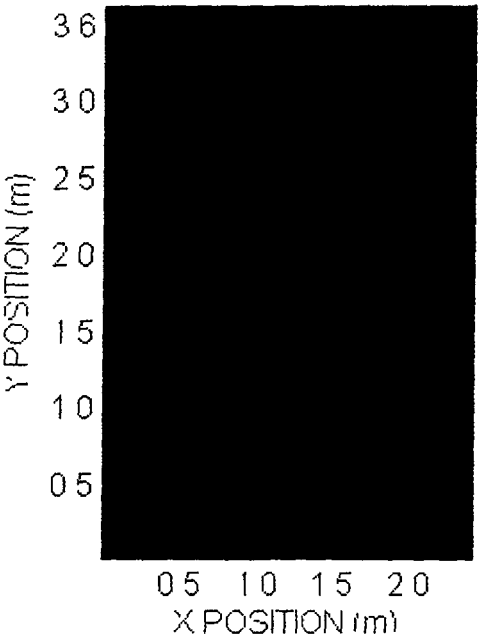

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	16	96	0	17 0	64
2	1	16	102	0	20 0	64
3	1	15	137	0	30 0	40
1	2	15	102	0	22 0	100
2	2	15	128	0	25 0	100
3	2	9	102	0	17 0	40
1	3	20	171	0	31 0	100
2	3	12	102	0	21 0	100
3	3	13	102	0	23 0	40
1	4	14	102	0	20 0	60
2	4	11	137	0	20 0	60
3	4	12	81	0	23 0	24

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290156f was conducted on March 27, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290156f ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 240 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

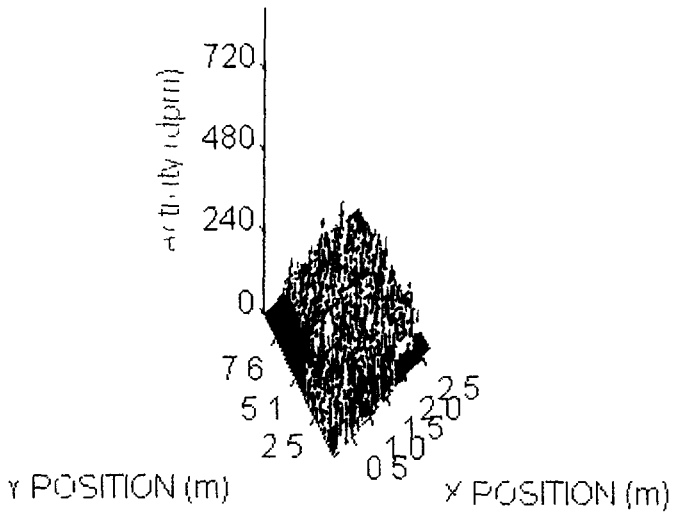

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

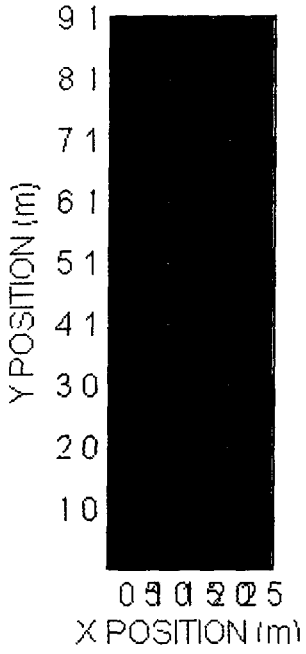

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	33	171	0	40 0	100
2	1	19	137	0	27 0	81
3	1	0	34	0	4 0	7
1	2	15	102	0	22 0	100
2	2	14	137	0	25 0	100
3	2	12	102	0	23 0	70
1	3	18	136	0	27 0	100
2	3	9	102	0	20 0	100
3	3	15	102	0	23 0	64
1	4	23	240	0	31 0	100
2	4	16	137	0	25 0	100
3	4	9	68	0	20 0	50
1	5	10	128	0	20 0	40
2	5	10	102	0	20 0	100
3	5	11	137	0	19 0	69
1	6	16	68	0	19 0	40
2	6	15	136	0	24 0	100
3	6	13	102	0	24 0	70
1	7	12	137	0	15 0	40
2	7	13	102	0	26 0	100
3	7	9	98	0	20 0	70
1	8	12	102	0	19 0	40
2	8	16	102	0	24 0	100
3	8	6	68	0	16 0	58
1	9	12	98	0	16 0	40
2	9	8	102	0	19 0	100
3	9	14	102	0	19 0	40

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729015ff was conducted on March 17, 1999 by SMITH as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729015ff ranged from 0 to 99 dpm/pixel 100 cm^2 data ranged from 0 to 129 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

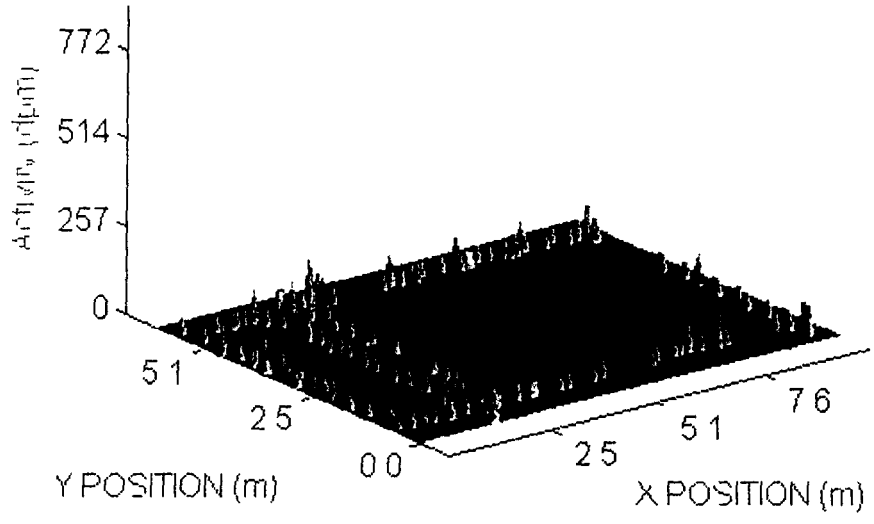

Figure 1. Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

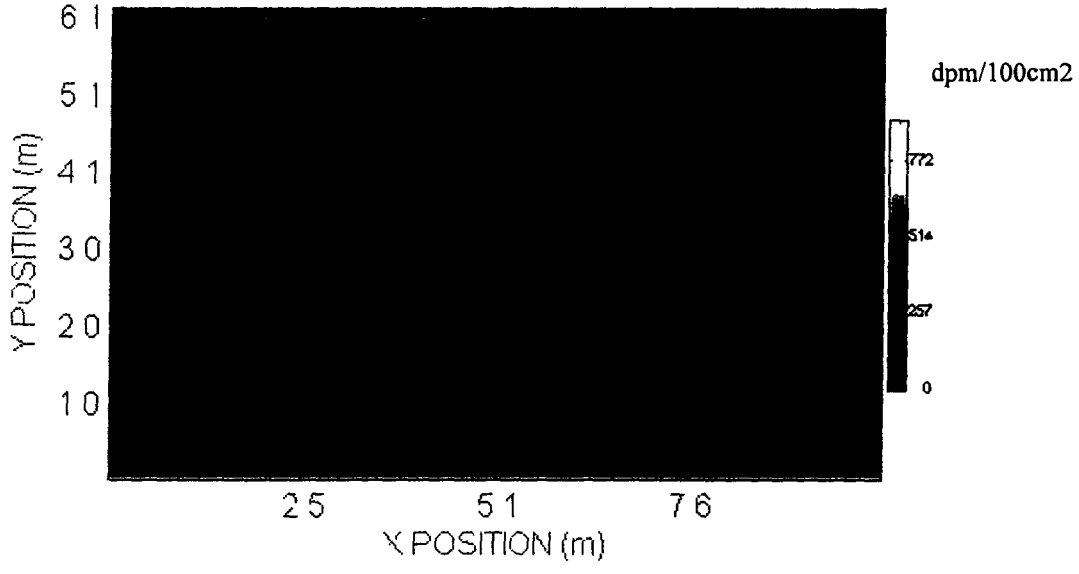

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	12	85	0	11 0	16
2	1	42	98	0	18 0	17
3	1	12	85	0	11 0	16
4	1	5	42	0	8 0	20
5	1	5	42	0	8 0	20
6	1	0	42	0	6 0	20
7	1	10	42	0	9 0	20
8	1	15	128	0	13 0	20
9	1	0	0	0	0	20
10	1	12	83	0	14 0	20
1	2	5	85	0	8 0	20
2	2	20	121	0	11 0	10
3	2	0	42	0	4 0	10
4	2	0	0	0	0	0
5	2	0	0	0	0	0
6	2	0	0	0	0	0
7	2	0	0	0	0	0
8	2	0	0	0	0	0
9	2	0	0	0	0	0
10	2	0	42	0	6 0	10
1	3	25	128	0	17 0	20
2	3	10	42	0	7 0	10
3	3	20	128	0	13 0	10
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	0	0	0	0	0
7	3	0	0	0	0	0
8	3	0	0	0	0	0
9	3	0	0	0	0	0
10	3	18	85	0	9 0	10
1	4	15	128	0	14 0	20
2	4	20	42	0	9 0	10
3	4	20	85	0	10 0	10
4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	0	0	0	0	0
7	4	0	0	0	0	0
8	4	0	0	0	0	0
9	4	0	0	0	0	0
10	4	9	42	0	7 0	10
1	5	5	42	0	8 0	20
2	5	20	85	0	11 0	10
3	5	20	128	0	11 0	10
4	5	0	0	0	0	0
5	5	0	0	0	0	0

6	5	0	0	0	0	0
7	5	0	0	0	0	0
8	5	0	0	0	0	0
9	5	0	0	0	0	0
10	5	0	0	0	0	10
1	6	3	42	0	7 0	34
2	6	16	85	0	12 0	24
3	6	12	85	0	10 0	18
4	6	20	128	0	15 0	20
5	6	5	85	0	9 0	20
6	6	10	42	0	9 0	20
7	6	10	85	0	11 0	20
8	6	10	84	0	10 0	20
9	6	10	85	0	11 0	20
10	6	12	85	0	13 0	22
1	7	0	0	0	0	0
2	7	0	0	0	0	0
3	7	0	0	0	0	1
4	7	0	0	0	0	0
5	7	0	0	0	0	0
6	7	0	0	0	0	0
7	7	0	0	0	0	0
8	7	0	0	0	0	0
9	7	0	0	0	0	0
10	7	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

300

Introduction

Survey 72901604 was conducted on April 3, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901604 ranged from 0 to 34 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

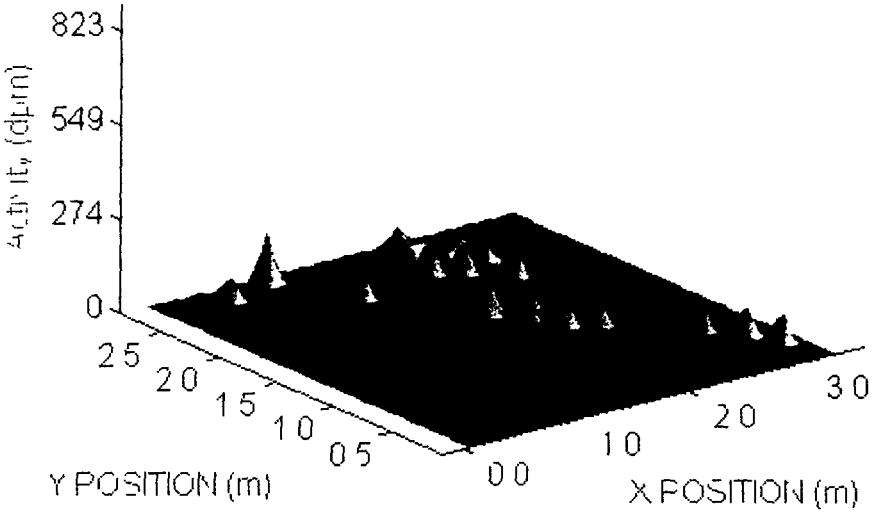

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

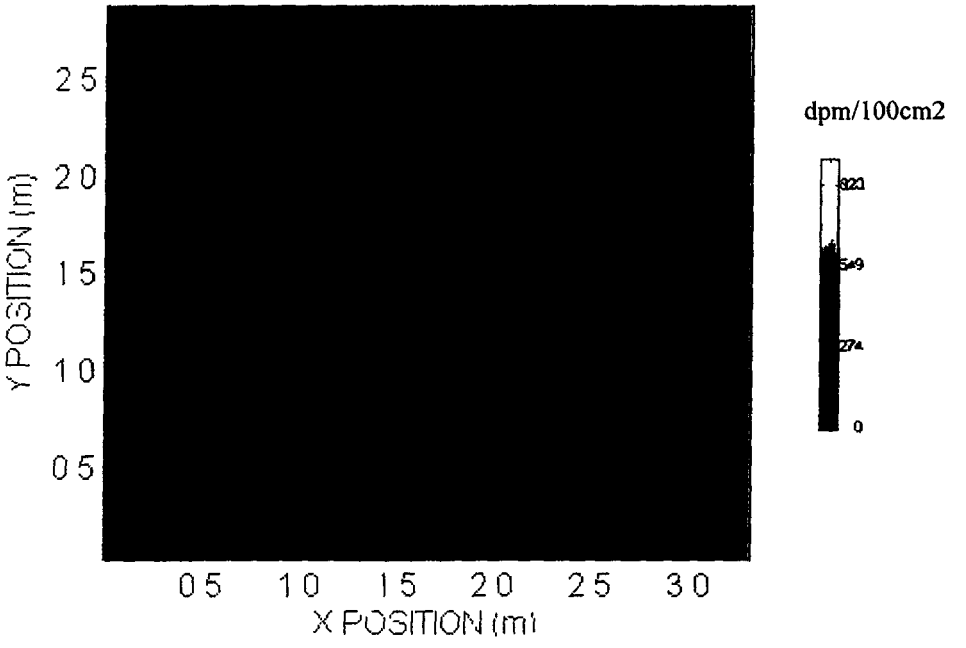

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

302

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	0	0	0	0	0
2	1	0	0	0	0	0
3	1	0	68	0	40	38
4	2	12	68	0	110	11
1	2	0	0	0	0	0
2	2	4	68	0	9.0	41
3	2	12	68	0	100	18
4	3	0	0	0	0	0
1	3	0	68	0	40	30
2	3	2	137	0	90	40
3	3	10	68	0	11.0	50
4	3	0	0	0	0	1

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729016f was conducted on March 23, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729016f ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

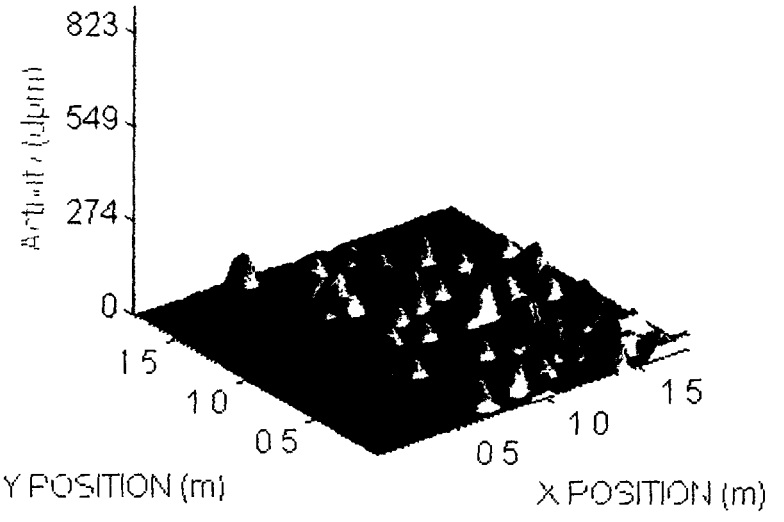

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

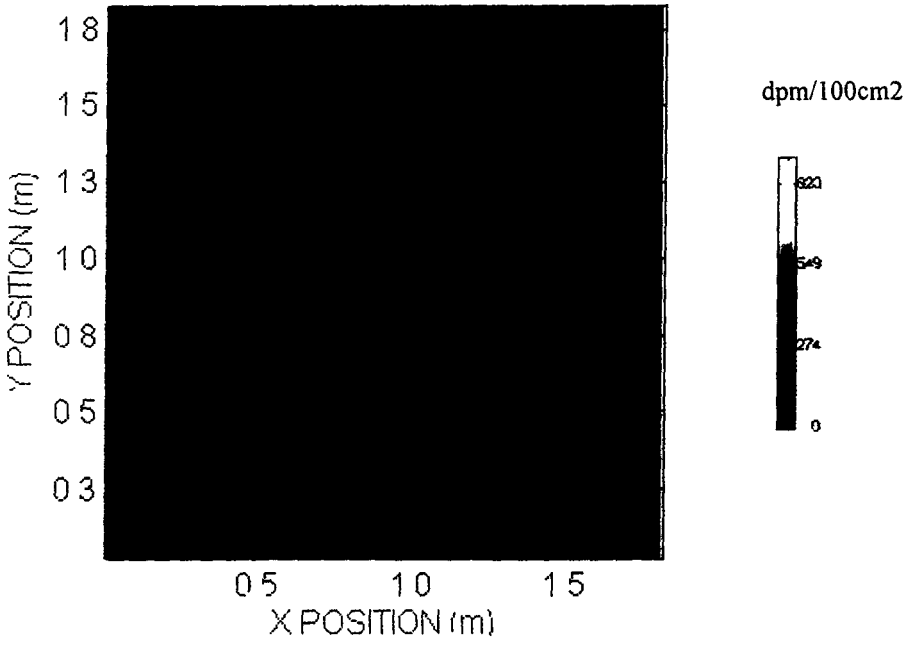

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	6	85	0	14 0	40
2	1	17	137	0	25 0	80
1	2	6	102	0	13 0	32
2	2	7	68	0	16 0	64

Table 1 The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter. The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$ The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data All unıts (ı e mean, max, mın and standard devıatıon) are ın dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729016fc was conducted on March 17, 1999 by STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM1 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729016fc ranged from 0 to 128 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

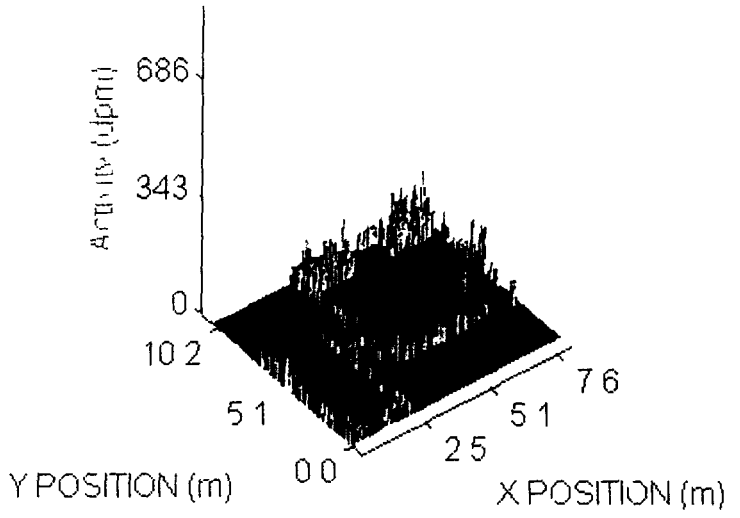

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

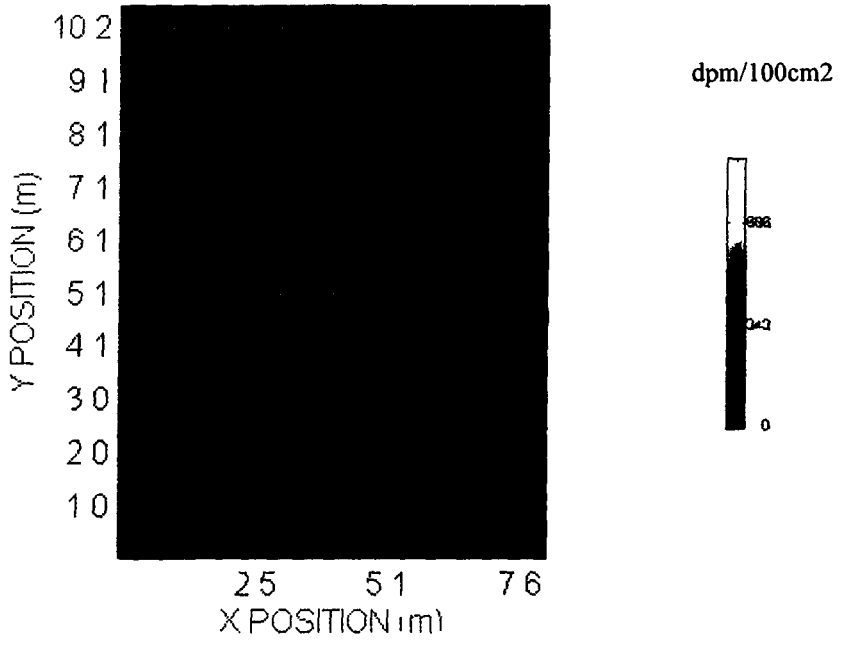

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

310

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	44	85	0	13 0	9
2	1	2	85	0	9 0	0
3	1	10	42	0	8 0	10
4	1	0	0	0	0	0
5	1	0	0	0	0	0
6	1	0	0	0	0	0
7	1	0	0	0	0	0
8	1	0	0	0	0	0
1	2	0	85	0	6 0	10
2	2	0	0	0	0	0
3	2	0	85	0	8 0	10
4	2	0	0	0	0	0
5	2	0	0	0	0	0
6	2	0	0	0	0	0
7	2	0	0	0	0	0
8	2	0	0	0	0	0
1	3	10	42	0	8 0	10
2	3	0	0	0	0	0
3	3	0	41	0	5 0	10
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	0	0	0	.0	0
7	3	0	0	0	0	0
8	3	0	0	0	0	0
1	4	10	85	0	10 0	10
2	4	0	0	0	0	0
3	4	0	42	0	4 0	10
4	4	18	128	0	16 0	17
5	4	10	85	0	10 0	10
6	4	30	171	0	19 0	10
7	4	0	42	0	5 0	10
8	4	0	85	0	6 0	18
1	5	10	85	0	10 0	10
2	5	0	0	0	0	0
3	5	20	85	0	12 0	10
4	5	10	42	0	7 0	10
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	0	0	0	0	0
8	5	0	42	0	4 0	10
1	6	20	85	0	13 0	10
2	6	0	0	0	0	0
3	6	0	85	0	5 0	10
4	6	20	85	0	11 0	10
5	6	0	0	0	0	0

6	6	0	0	0	0	0
7	6	0	0	0	0	0
8	6	30	128	0	15 0	10
1	7	10	84	0	9 0	10
2	7	0	0	0	0	0
3	7	10	85	0	8 0	10
4	7	20	85	0	12 0	10
5	7	0	0	0	0	0
6	7	0	0	0	0	0
7	7	0	0	0	0	0
8	7	20	128	0	15 0	10
1	8	0	42	0	4 0	1
2	8	0	0	0	0	0
3	8	0	42	0	0	1
4	8	20	42	0	10 0	10
5	8	0	0	0	0	0
6	8	0	0	0	0	0
7	8	0	0	0	0	0
8	8	10	38	0	6 0	10
1	9	0	0	0	0	0
2	9	0	0	0	0	0
3	9	0	42	0	0	0
4	9	22	85	0	9 0	9
5	9	0	0	0	0	0
6	9	0	0	0	0	0
7	9	0	0	0	0	0
8	9	10	85	0	10 0	10
1	10	0	0	0	0	0
2	10	0	0	0	0	0
3	10	0	42	0	0	0
4	10	12	85	0	22 0	91
5	10	12	171	0	25 0	81
6	10	0	0	0	0	0
7	10	14	155	0	26 0	81
8	10	15	171	0	24 0	82
1	11	0	0	0	0	0
2	11	0	0	0	0	0
3	11	0	0	0	0	0
4	11	19	113	0	28 0	40
5	11	13	85	0	24 0	38
6	11	14	85	0	19 0	20
7	11	16	85	0	22 0	38
8	11	20	128	0	32 0	35

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM1, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729018fc was conducted on March 17, 1999 by SMITH as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729018fc ranged from 0 to 86 dpm/pixel 100 cm^2 data ranged from 0 to 129 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

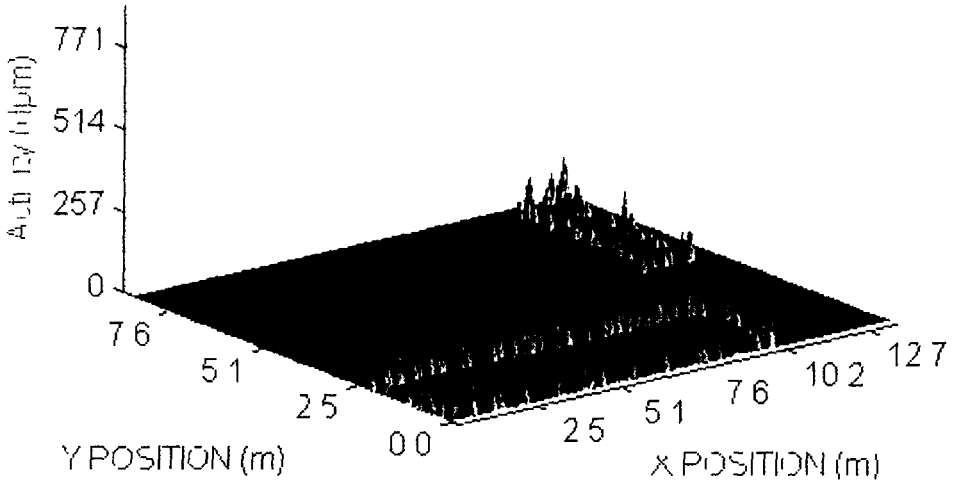

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

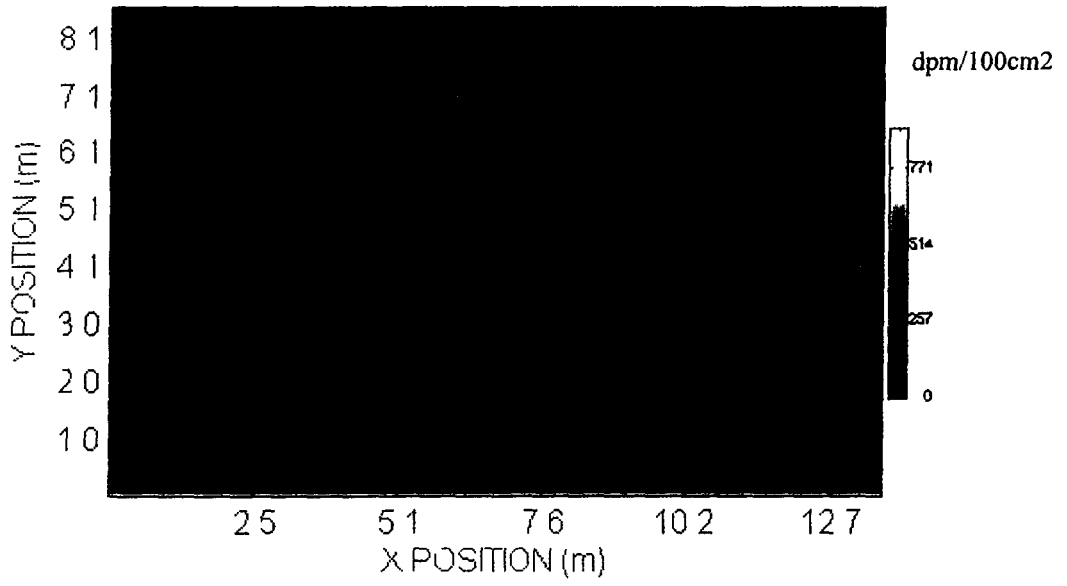

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	12	85	0	14 0	34
2	1	5	64	0	8 0	20
3	1	10	81	0	10 0	20
4	1	5	79	0	9 0	20
5	1	20	127	0	16 0	20
6	1	5	42	0	8 0	20
7	1	5	84	0	9 0	20
8	1	10	42	0	10 0	20
9	1	10	85	0	12 0	20
10	1	8	85	0	10 0	28
11	1	0	42	0	5 0	0
12	1	0	0	0	0	0
13	1	0	0	0	0	0
14	1	0	0	0	0	0
1	2	10	85	0	9 0	20
2	2	0	0	0	0	0
3	2	0	0	0	0	0
4	2	0	0	0	0	0
5	2	0	0	0	0	0
6	2	0	0	0	0	0
7	2	0	0	0	0	0
8	2	0	0	0	0	0
9	2	0	0	0	0	0
10	2	10	85	0	8 0	10
11	2	1	42	0	5 0	0
12	2	0	0	0	0	0
13	2	0	0	0	0	0
14	2	0	0	0	0	0
1	3	12	85	0	14 0	24
2	3	0	42	0	6 0	20
3	3	10	85	0	9 0	20
4	3	5	42	0	8 0	20
5	3	10	85	0	12 0	20
6	3	10	85	0	11 0	20
7	3	5	85	0	8 0	20
8	3	10	42	0	10 0	20
9	3	10	61	0	9 0	20
10	3	10	85	0	10 0	20
11	3	0	42	0	4 0	0
12	3	0	0	0	0	0
13	3	0	0	0	0	0
14	3	0	0	0	0	0
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	0	0

4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	0	0	0	0	0
7	4	0	0	0	0	0
8	4	0	0	0	0	0
9	4	0	0	0	0	0
10	4	0	0	0	0	0
11	4	0	0	0	0	0
12	4	0	0	0	0	0
13	4	0	0	0	0	0
14	4	0	0	0	0	0
1	5	0	0	0	0	0
2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	0	0	0	0	0
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	0	0	0	0	0
8	5	0	0	0	0	0
9	5	0	0	0	0	0
10	5	0	0	0	0	0
11	5	0	42	0	0	4
12	5	4	84	0	10 0	23
13	5	12	85	0	13 0	17
14	5	0	0	0	0	0
1	6	0	0	0	0	0
2	6	0	0	0	0	0
3	6	0	0	0	0	0
4	6	0	0	0	0	0
5	6	0	0	0	0	0
6	6	0	0	0	0	0
7	6	0	0	0	0	0
8	6	0	0	0	0	0
9	6	0	0	0	0	0
10	6	0	0	0	0	0
11	6	0	0	0	0	0
12	6	10	40	0	4 0	10
13	6	10	21	0	5 0	10
14	6	0	0	0	0	0
1	7	0	0	0	0	0
2	7	0	0	0	0	0
3	7	0	0	0	0	0
4	7	0	0	0	0	0
5	7	0	0	0	0	0
6	7	0	0	0	0	0
7	7	0	0	0	0	0
8	7	0	0	0	0	0

9	7	0	0	0	0	0
10	7	0	0	0	0	0
11	7	0	0	0	0	0
12	7	20	42	0	8 0	10
13	7	20	128	0	14 0	10
14	7	0	0	0	0	0
1	8	0	0	0	0	0
2	8	0	0	0	0	0
3	8	0	0	0	0	0
4	8	0	0	0	0	0
5	8	0	0	0	0	0
6	8	0	0	0	0	0
7	8	0	0	0	0	0
8	8	0	0	0	0	0
9	8	0	0	0	0	0
10	8	0	0	0	0	0
11	8	0	0	0	0	0
12	8	10	42	0	7 0	10
13	8	20	85	0	11 0	10
14	8	0	0	0	0	0
1	9	0	0	0	0	0
2	9	0	0	0	0	0
3	9	0	0	0	0	0
4	9	0	0	0	0	0
5	9	0	0	0	0	0
6	9	0	0	0	0	0
7	9	0	0	0	0	0
8	9	0	0	0	0	0
9	9	0	0	0	0	0
10	9	0	0	0	0	0
11	9	0	0	0	0	0
12	9	8	85	0	10 0	13
13	9	14	85	0	20 0	23
14	9	16	128	0	33 0	6

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729019fc was conducted on March 17, 1999 by SMITH as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729019fc ranged from 0 to 86 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

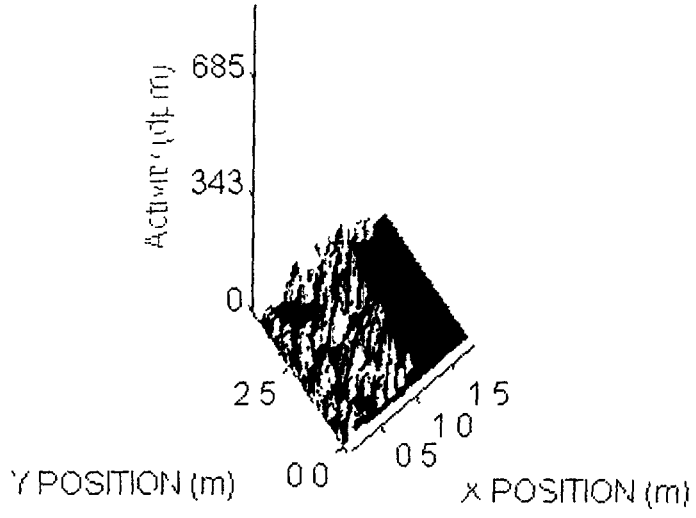

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel.

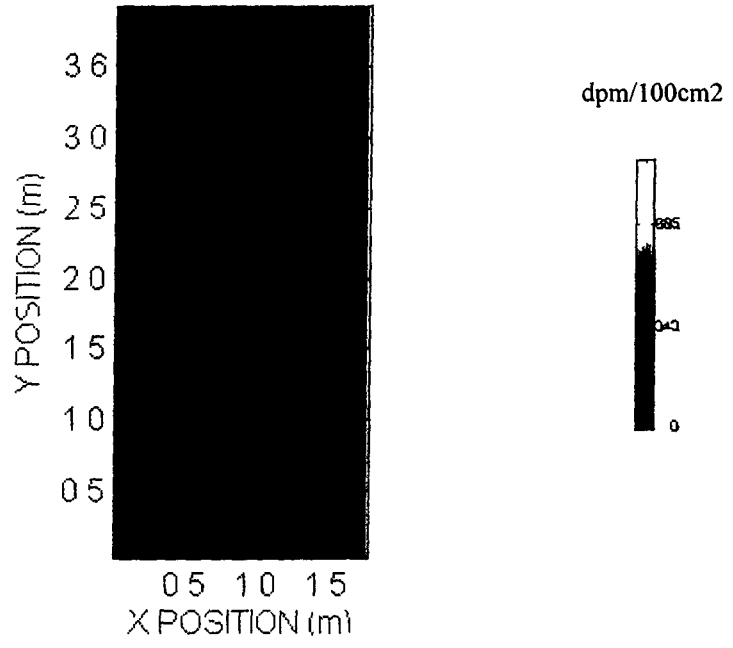

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	11	171	0	25 0	100
2	1	0	42	0	4 0	10
1	2	19	128	0	28 0	100
2	2	8	82	0	10 0	10
1	3	19	169	0	28 0	100
2	3	24	85	0	13 0	10
1	4	9	85	0	21 0	90
2	4	14	85	0	18 0	30

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729019ff was conducted on February 26, 1999 by CHETE as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM1 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729019ff ranged from 0 to 154 dpm/pixel 100 cm^2 data ranged from 0 to 218 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

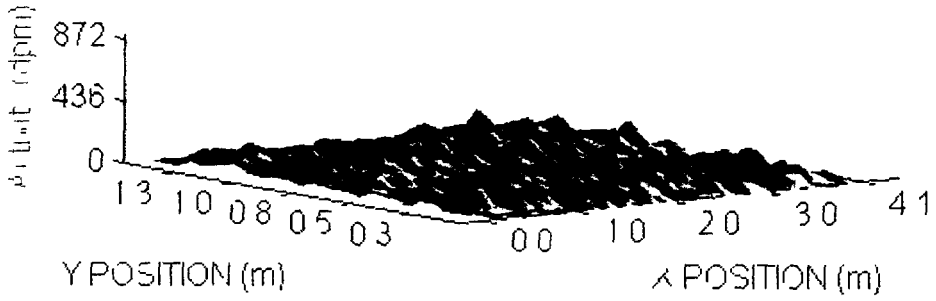

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

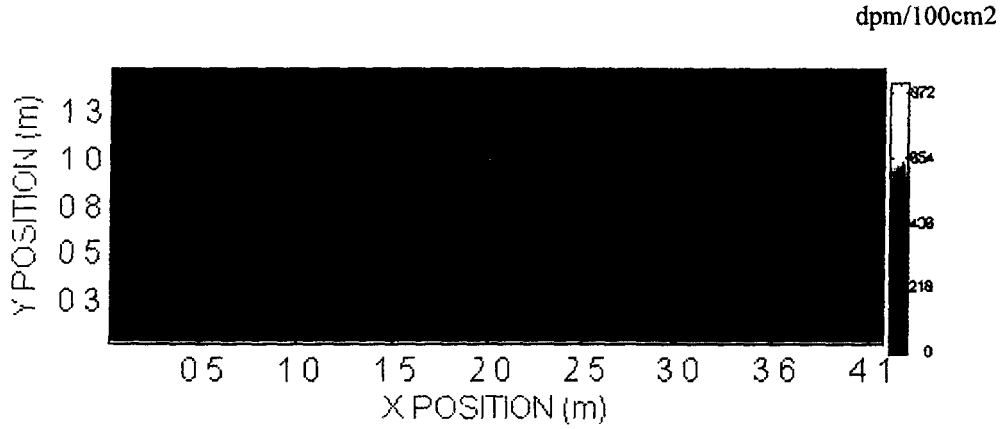

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	34	153	0	33 0	90
2	1	34	211	0	40 0	90
3	1	28	217	0	37 0	90
4	1	28	192	0	33 0	90
1	2	35	115	0	23 0	40
2	2	22	76	0	23 0	40
3	2	29	217	0	44 0	40
4	2	36	115	0	29 0	40

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM1, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901300 was conducted on April 1, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901300 ranged from 0 to 218 dpm/pixel 100 cm^2 data ranged from 0 to 310 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

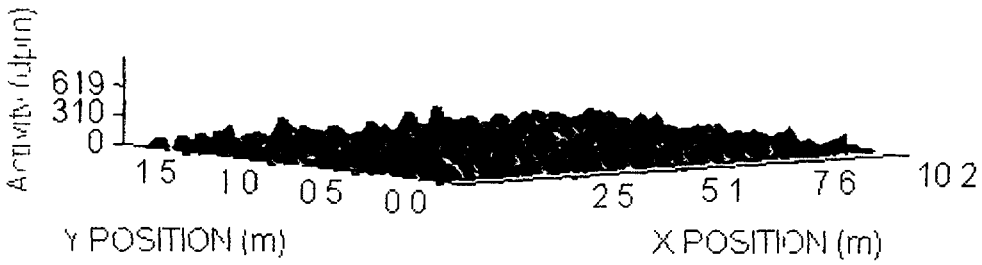

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

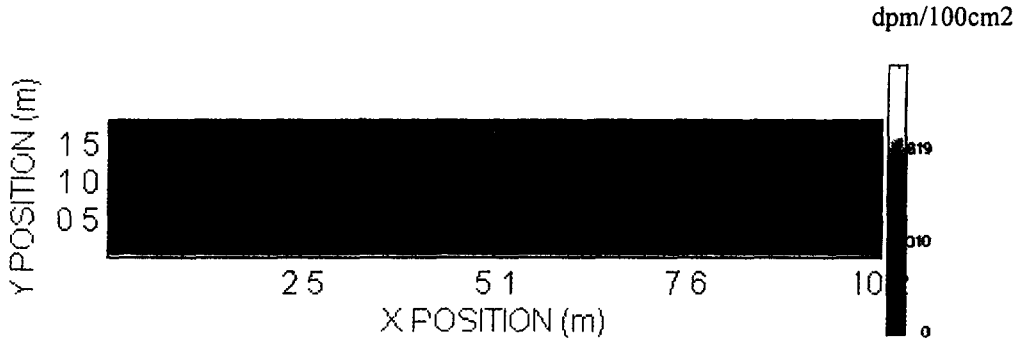

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	12	169	0	34 0	100
2	1	22	202	0	41 0	100
3	1	17	204	0	39 0	100
4	**1**	**28**	**309**	**0**	**56.0**	**100**
5	1	21	190	0	40 0	100
6	1	10	189	0	32 0	100
7	1	17	111	0	37 0	100
8	1	12	196	0	35 0	100
9	1	15	196	0	38 0	100
10	1	28	221	0	39 0	100
1	2	22	289	0	49 0	80
2	2	11	196	0	35 0	80
3	2	14	194	0	37 0	80
4	2	20	212	0	44 0	80
5	2	17	202	0	40 0	80
6	2	18	294	0	48 0	80
7	2	16	111	0	37 0	80
8	2	13	100	0	33 0	80
9	2	20	219	0	42 0	80
10	2	19	218	0	31 0	80

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

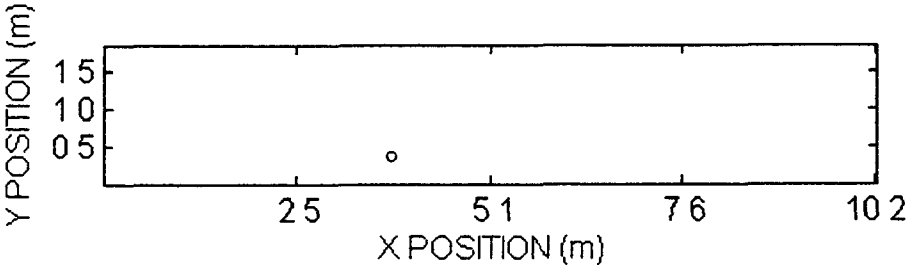

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$.

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Introduction

Survey 72901300 was conducted on April 1, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901300 ranged from 0 to 290 dpm/pixel 100 cm^2 data ranged from 0 to 389 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

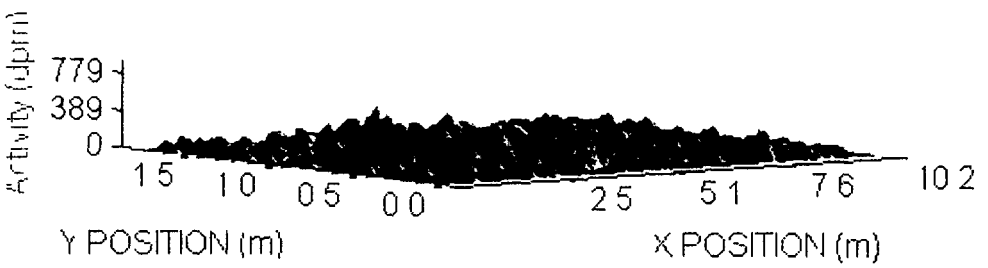

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

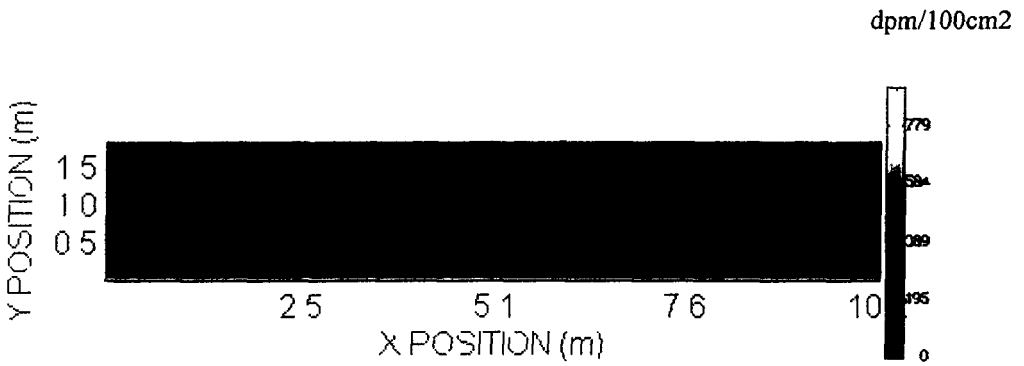

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	10	185	0	31 0	100
2	1	10	294	0	30 0	100
3	1	15	188	0	35 0	100
4	1	10	198	0	33 0	100
5	1	21	202	0	46 0	100
6	1	13	217	0	34 0	100
7	1	12	194	0	33 0	100
8	1	10	202	0	31 0	100
9	1	22	290	0	51 0	100
10	1	16	185	0	30 0	100
1	2	14	199	0	37 0	80
2	2	12	106	0	32 0	80
3	2	14	289	0	43 0	80
4	**2**	**17**	**389**	**0**	**46.0**	**80**
5	2	20	212	0	46 0	80
6	2	12	213	0	40 0	80
7	2	23	193	0	42 0	80
8	2	22	242	0	46 0	80
9	2	15	189	0	38 0	80
10	2	12	135	0	25 0	80

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were the $DCGL_{EMC}$

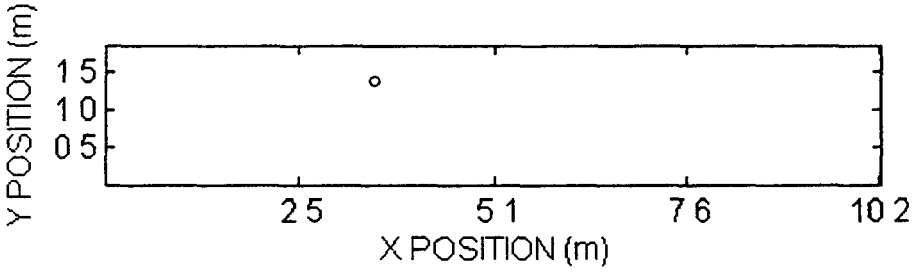

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$.

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Introduction

Survey 72901301 was conducted on April 1, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901301 ranged from 0 to 199 dpm/pixel 100 cm^2 data ranged from 0 to 295 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

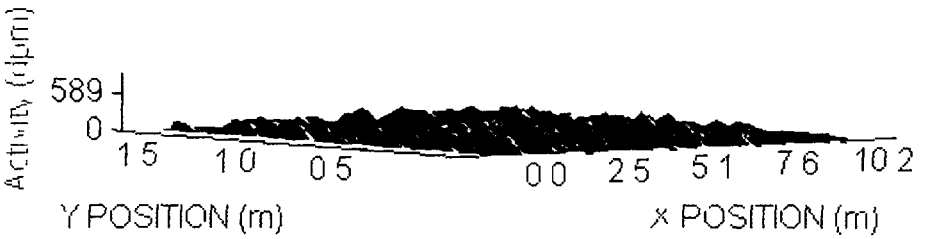

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

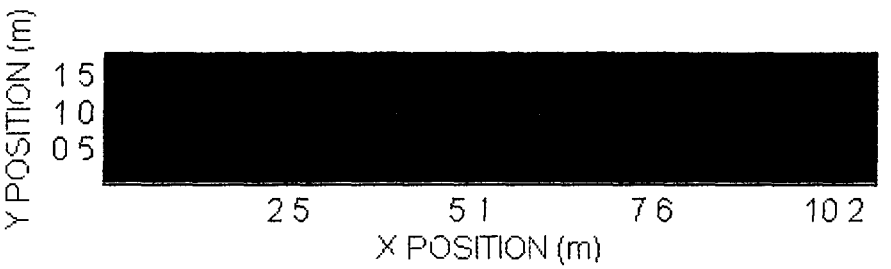

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	16	198	0	39 0	100
2	1	17	213	0	40 0	100
3	1	10	177	0	29 0	100
4	1	14	203	0	41 0	100
5	1	17	200	0	39 0	100
6	1	15	192	0	36 0	100
7	1	15	208	0	46 0	100
8	1	19	198	0	45 0	100
9	1	23	273	0	45 0	100
10	1	26	280	0	54 0	100
11	1	12	123	0	30 0	50
1	2	16	207	0	40 0	80
2	2	19	181	0	46 0	80
3	2	22	186	0	43 0	80
4	2	23	196	0	44 0	80
5	2	18	197	0	47 0	80
6	2	16	210	0	43 0	80
7	2	22	208	0	44 0	80
8	2	30	294	0	55 0	80
9	2	17	284	0	41 0	80
10	2	15	190	0	36 0	80
11	2	13	100	0	28 0	40

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901301 was conducted on April 1, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901301 ranged from 0 to 213 dpm/pixel 100 cm^2 data ranged from 0 to 374 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

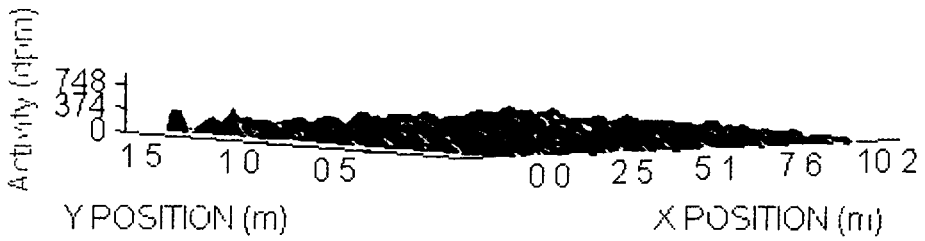

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

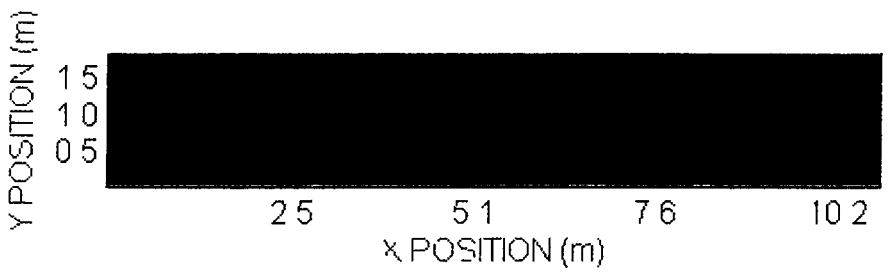

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	14	204	0	38 0	100
2	1	11	196	0	34 0	100
3	1	9	125	0	29 0	100
4	1	8	188	0	27 0	100
5	**1**	**15**	**309**	**0**	**38.0**	**100**
6	1	14	195	0	37 0	100
7	1	10	126	0	30 0	100
8	1	15	199	0	38 0	100
9	1	5	187	0	23 0	100
10	1	9	104	0	28 0	100
11	1	21	144	0	37 0	50
1	**2**	**24**	**374**	**0**	**59.0**	**80**
2	2	16	143	0	37 0	80
3	2	17	206	0	42 0	80
4	2	16	199	0	39 0	80
5	2	16	215	0	36 0	80
6	2	13	178	0	36 0	80
7	2	10	193	0	34 0	80
8	2	10	103	0	30 0	80
9	2	18	187	0	40 0	80
10	2	12	188	0	34 0	80
11	2	11	126	0	26 0	40

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

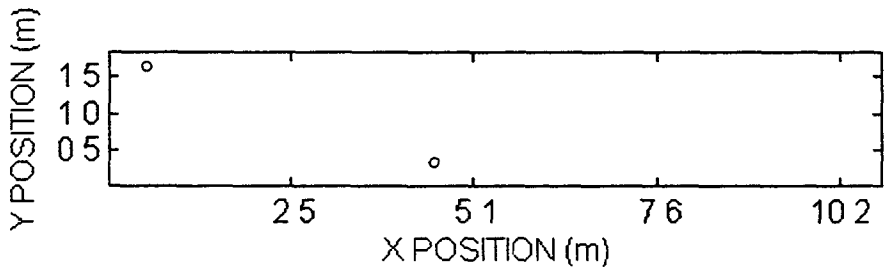

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$.

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Introduction

Survey 72901600 was conducted on March 29, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels. These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901600 ranged from 0 to 46 dpm/pixel 100 cm^2 data ranged from 0 to 154 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

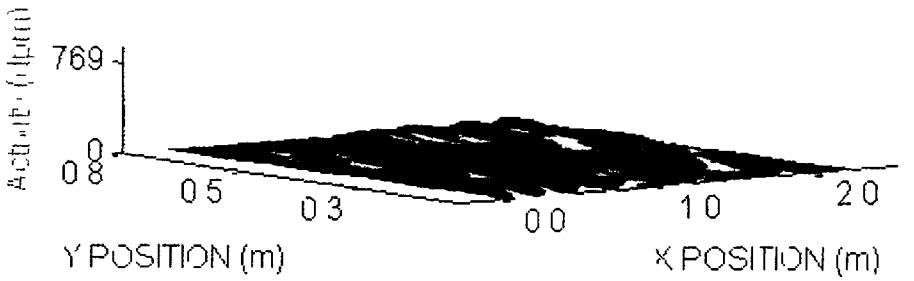

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

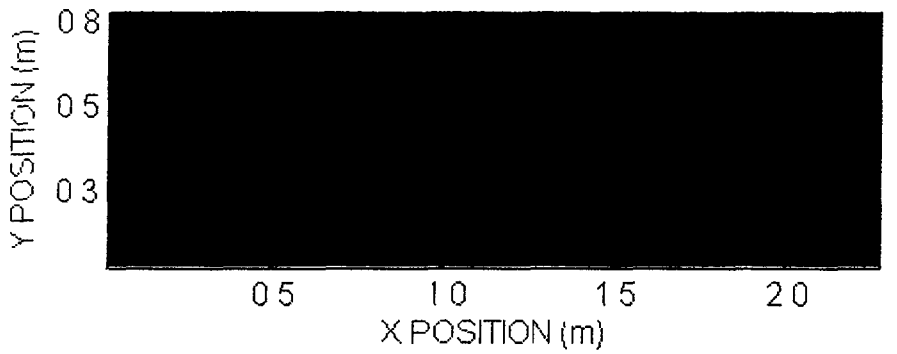

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	10	92	0	23 0	67
2	1	12	153	0	25 0	58
3	1	9	61	0	22 0	14

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901601 was conducted on March 29, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901601 ranged from 0 to 46 dpm/pixel 100 cm^2 data ranged from 0 to 154 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

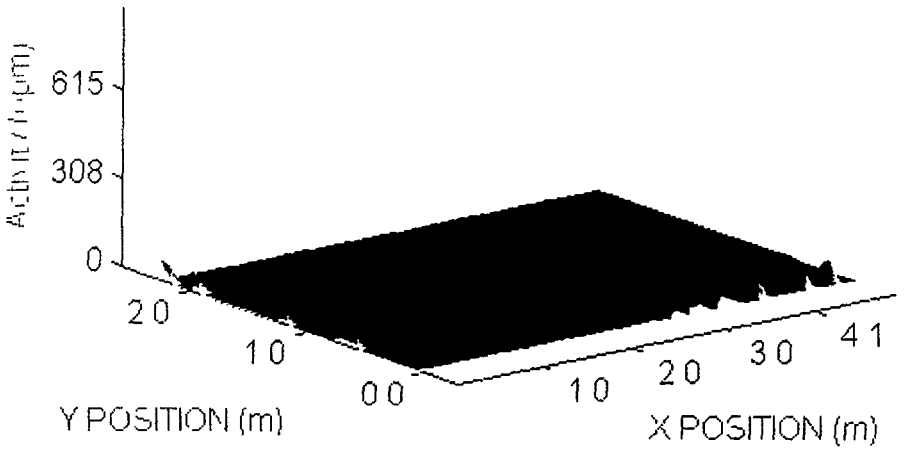

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

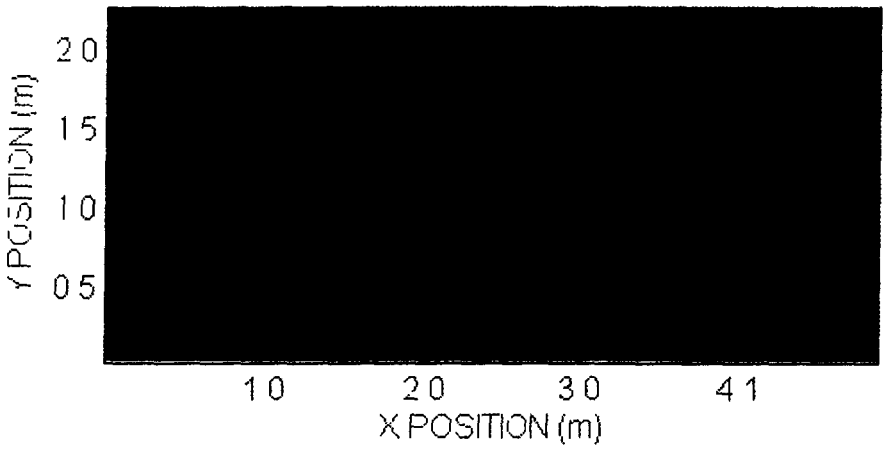

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	20	61	0	8 0	5
2	1	0	0	0	0	0
3	1	25	123	0	12 0	4
4	1	20	153	0	21 0	20
5	1	9	61	0	9 0	9
1	2	10	61	0	8 0	10
2	2	0	0	0	0	0
3	2	0	0	0	0	0
4	2	0	0	0	0	0
5	2	0	0	0	0	0
1	3	0	61	0	0	2
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901602 was conducted on March 29, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901602 ranged from 0 to 31 dpm/pixel 100 cm^2 data ranged from 0 to 62 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

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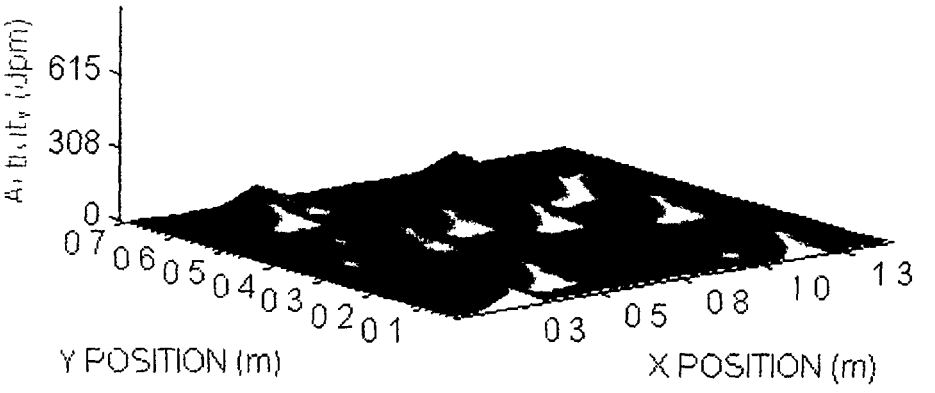

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

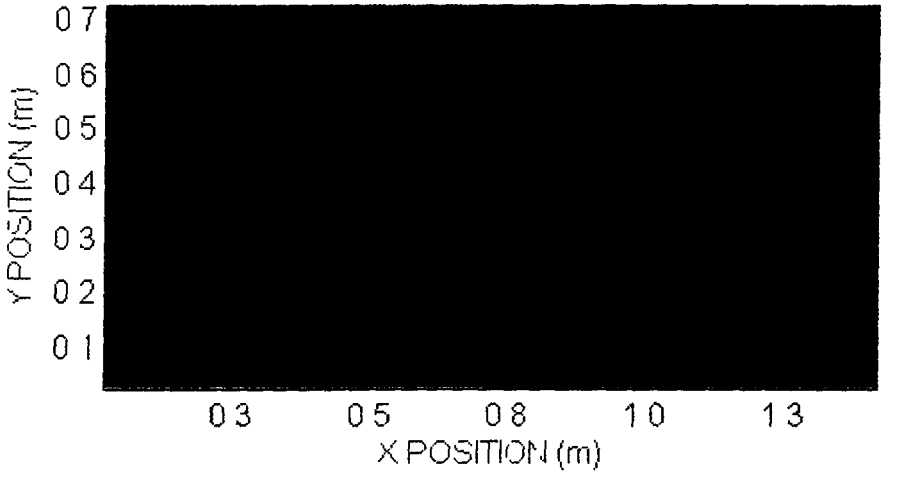

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	8	61	0	21 0	70
2	1	13	61	0	25 0	28

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901603 was conducted on March 29, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901603 ranged from 0 to 15 dpm/pixel 100 cm^2 data ranged from 0 to 31 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

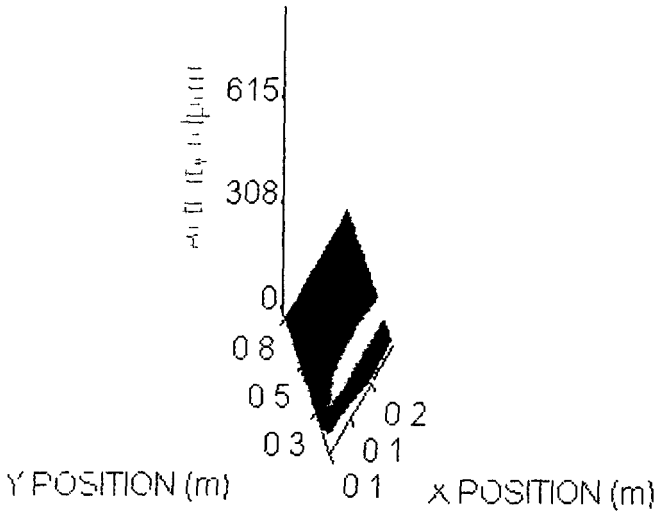

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

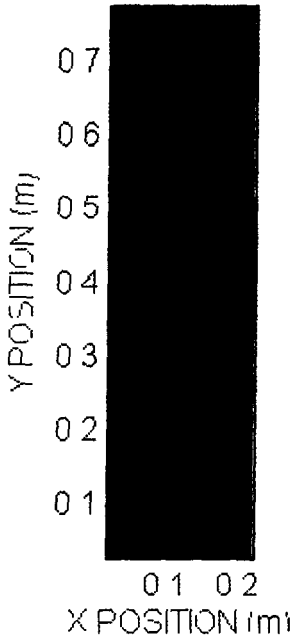

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	4	30	0	11 0	14

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901800 was conducted on April 1, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 30% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901800 ranged from 0 to 183 dpm/pixel 100 cm^2 data ranged from 0 to 268 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

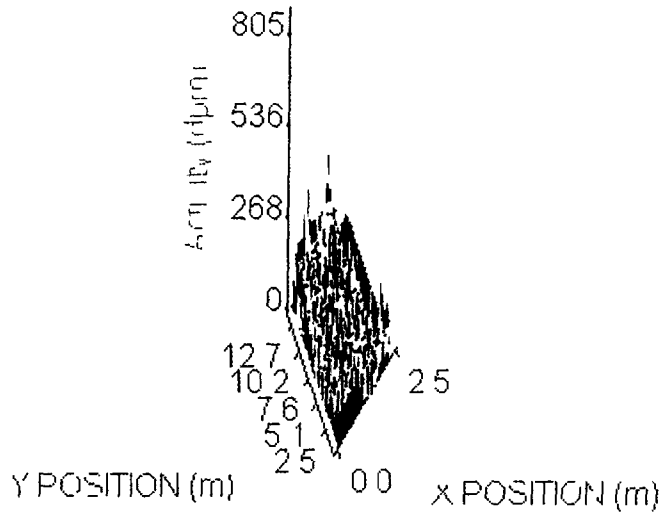

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

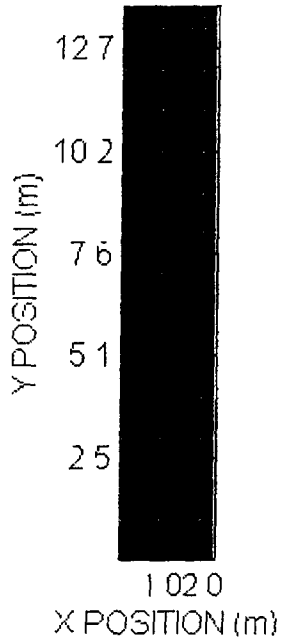

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	0	0	0	0	0
2	1	16	177	0	35 0	74
3	1	18	160	0	40 0	30
1	2	0	0	0	0	0

X	Y	Mean	Max	Min	STD	100cm^2 Areas
2	2	16	225	0	34 0	80
3	2	33	183	0	47 0	30
1	3	26	192	0	27 0	60
2	3	20	151	0	29 0	60
3	3	20	60	0	10 0	3
1	4	13	265	0	31 0	100
2	4	12	158	0	30 0	70
3	4	0	0	0	0	0
1	5	13	204	0	34 0	100
2	5	7	144	0	24 0	70
3	5	0	0	0	0	0
1	6	15	200	0	32 0	100
2	6	11	169	0	31 0	70
3	6	0	0	0	0	0
1	7	16	155	0	38 0	100
2	7	12	176	0	31 0	70
3	7	0	0	0	0	0
1	8	13	151	0	29 0	100
2	8	13	169	0	30 0	71
3	8	0	0	0	0	0
1	9	16	183	0	36 0	100
2	9	12	183	0	31 0	80
3	9	0	0	0	0	0
1	10	16	158	0	34 0	100
2	10	15	238	0	29 0	80
3	10	0	0	0	0	0
1	11	14	156	0	31 0	100
2	11	10	149	0	28 0	80
3	11	0	0	0	0	0
1	12	12	149	0	28 0	100
2	12	13	192	0	32 0	80
3	12	0	0	0	0	0
1	13	25	261	0	46 0	100
2	13	24	173	0	39 0	80
3	13	0	0	0	0	0
1	14	22	264	0	41 0	46
2	14	76	268	0	50 0	32
3	14	0	0	0	0	0

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72901800 was conducted on April 1, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 30% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72901800 ranged from 0 to 198 dpm/pixel 100 cm^2 data ranged from 0 to 238 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

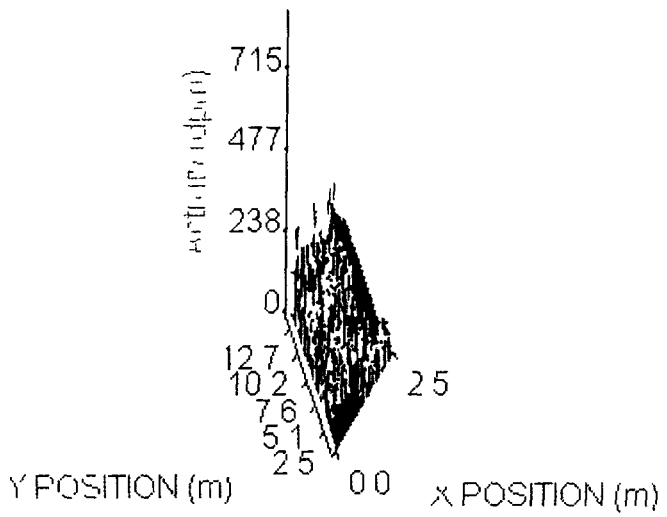

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

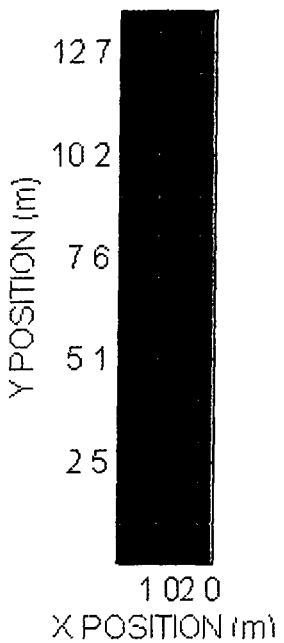

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	0	0	0	0	0
2	1	7	175	0	22 0	74
3	1	11	95	0	29 0	30
1	2	0	0	0	0	0

X	Y	Mean	Max	Min	STD	100cm^2 Areas
2	2	9	210	0	29 0	80
3	2	13	123	0	30 0	30
1	3	24	144	0	26 0	60
2	3	18	159	0	28 0	60
3	3	20	60	0	10 0	3
1	4	18	161	0	38 0	100
2	4	11	169	0	27 0	70
3	4	0	0	0	0	0
1	5	7	73	0	21 0	100
2	5	10	216	0	36 0	70
3	5	0	0	0	0	0
1	6	17	154	0	32 0	100
2	6	6	137	0	23 0	70
3	6	0	0	0	0	0
1	7	12	203	0	33 0	100
2	7	11	198	0	33 0	70
3	7	0	0	0	0	0
1	8	12	234	0	35 0	100
2	8	6	174	0	22 0	71
3	8	0	0	0	0	0
1	9	14	237	0	36 0	100
2	9	15	195	0	33 0	80
3	9	0	0	0	0	0
1	10	17	171	0	40 0	100
2	10	7	137	0	23 0	80
3	10	0	0	0	0	0
1	11	10	153	0	24 0	100
2	11	14	139	0	27 0	80
3	11	0	0	0	0	0
1	12	16	165	0	33 0	100
2	12	21	142	0	34 0	80
3	12	0	0	0	0	0
1	13	19	238	0	50 0	100
2	13	11	172	0	25 0	80
3	13	0	0	0	0	0
1	14	14	106	0	33 0	46
2	14	48	173	0	35 0	32
3	14	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290250f was conducted on March 27, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290250f ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

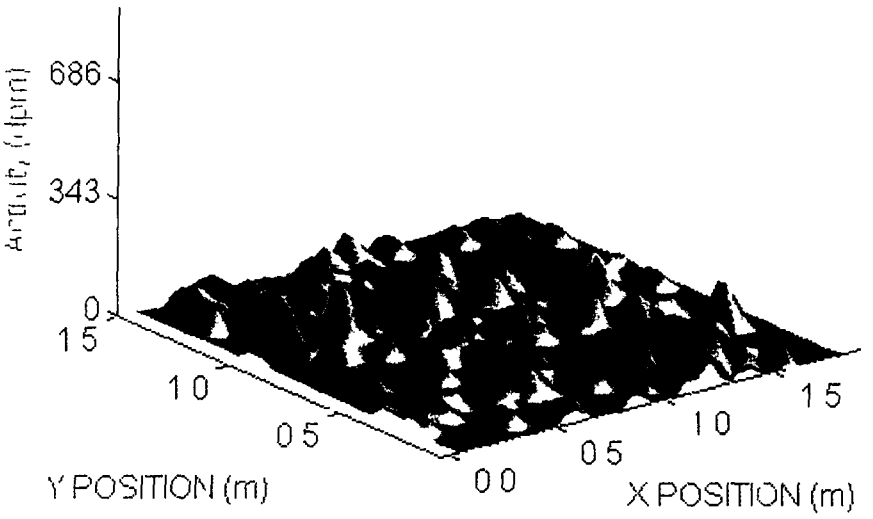

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

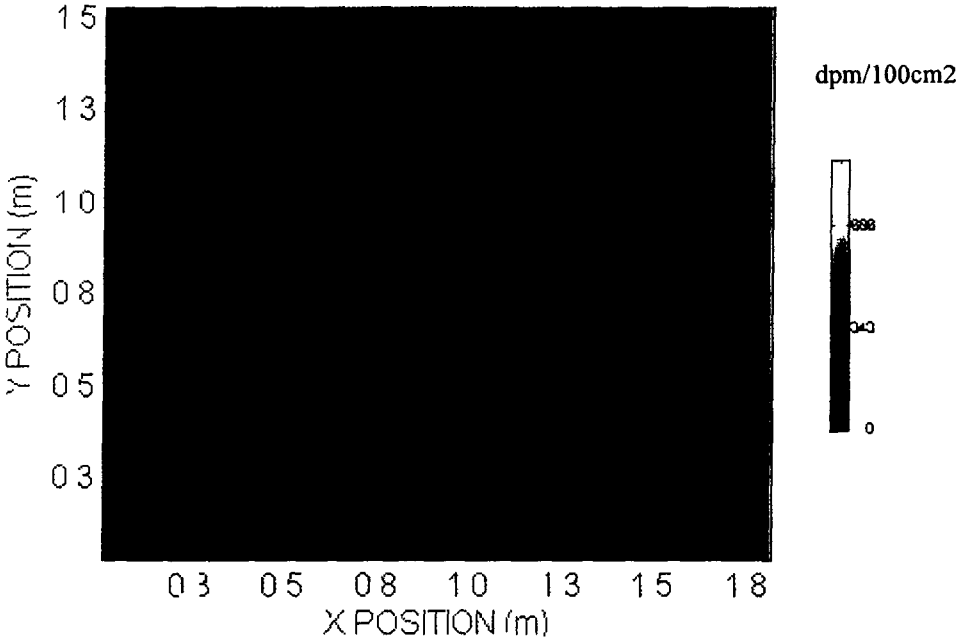

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	18	171	0	27 0	100
2	1	20	137	0	27 0	80
1	2	34	171	0	40 0	50
2	2	10	68	0	17 0	40

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729027f was conducted on March 22, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729027f ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 103 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

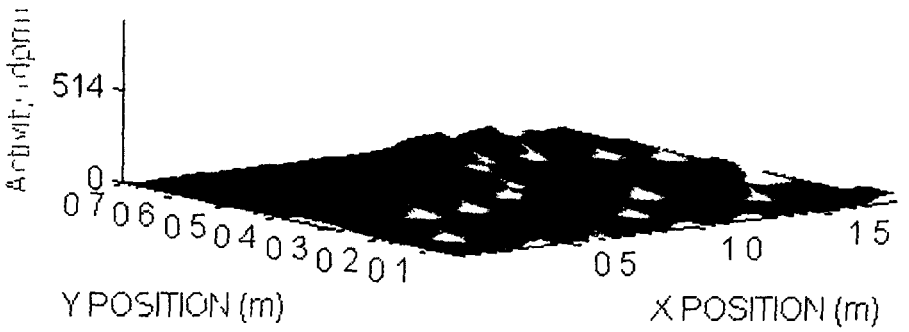

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

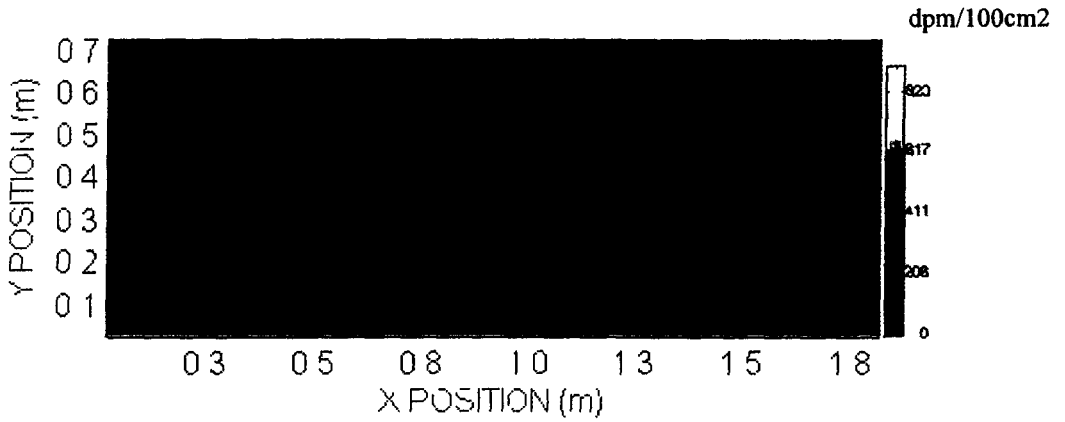

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	7	68	0	17 0	70
2	1	12	102	0	24 0	56

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729027wn was conducted on March 22, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729027wn ranged from 0 to 122 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

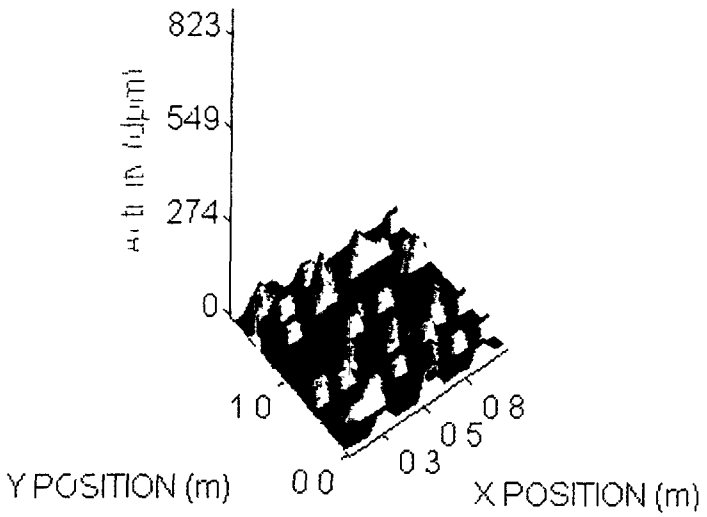

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

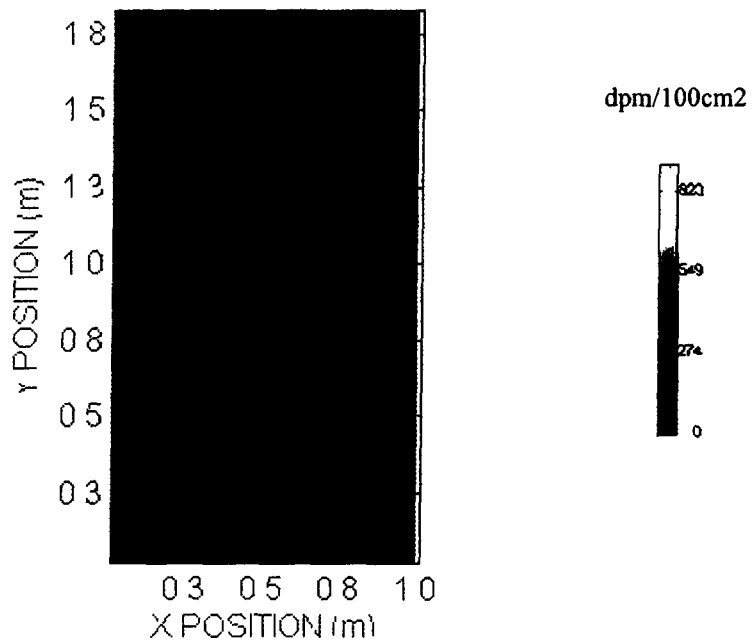

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	11	102	0	20 0	100
1	2	11	137	0	25 0	80

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729027ws was conducted on March 22, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729027ws ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

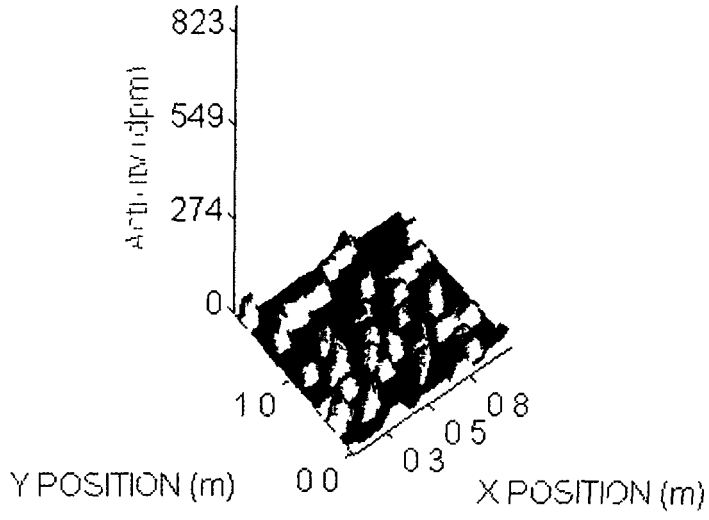

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

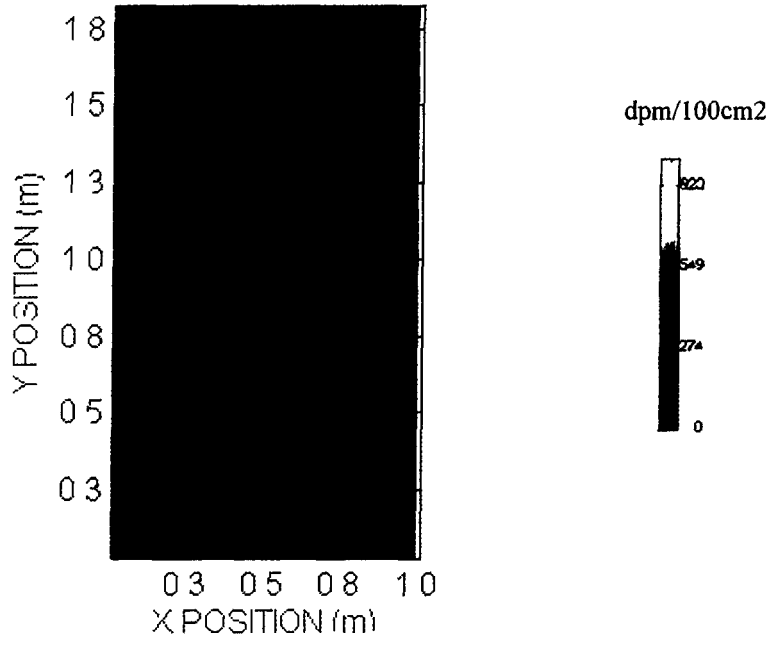

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	15	137	0	24 0	100
1	2	11	102	0	22 0	80

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729027ww was conducted on March 22, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729027ww ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

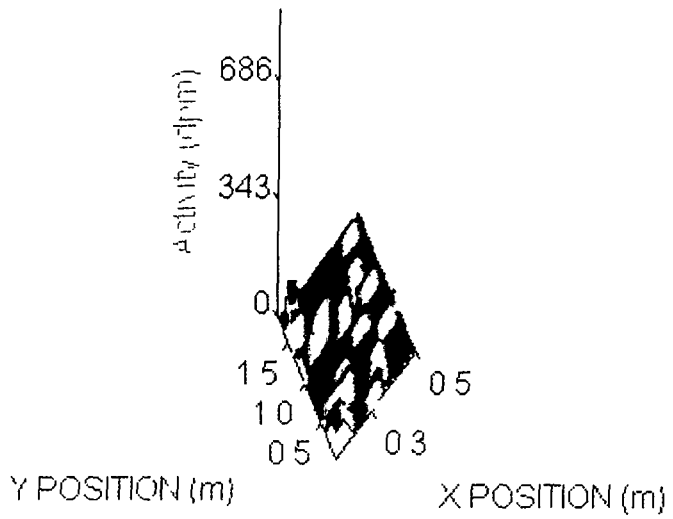

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

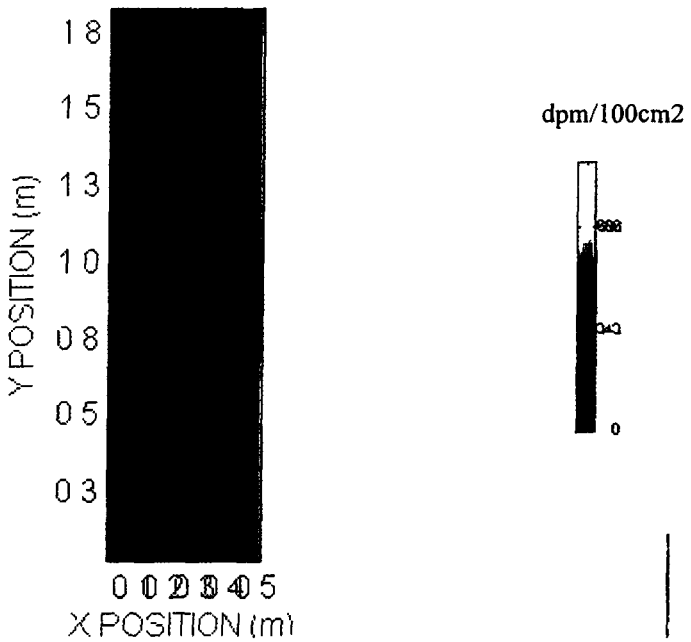

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	13	102	0	24 0	50
1	2	17	171	0	35 0	40

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729028f was conducted on March 22, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729028f ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 103 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

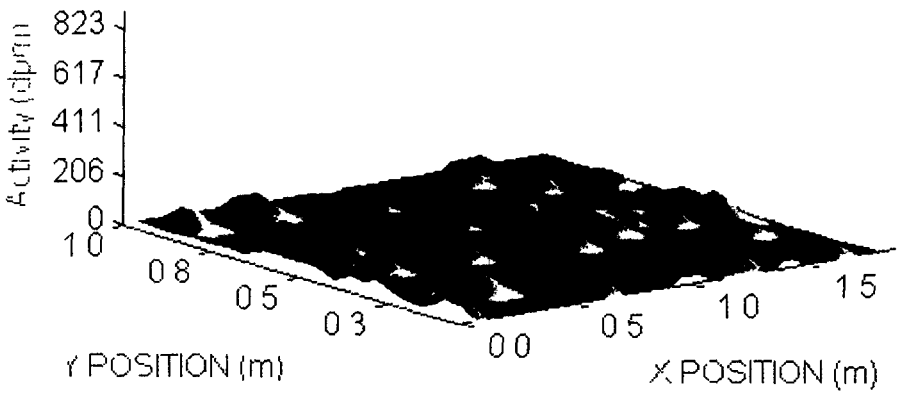

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

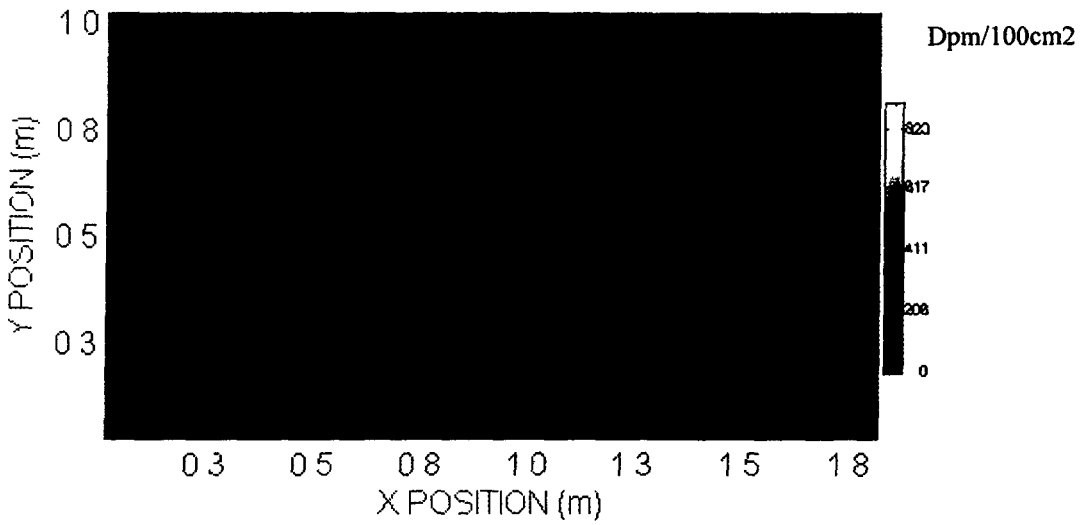

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	8	98	0	19 0	100
2	1	11	102	0	20 0	80

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729029f was conducted on March 22, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729029f ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

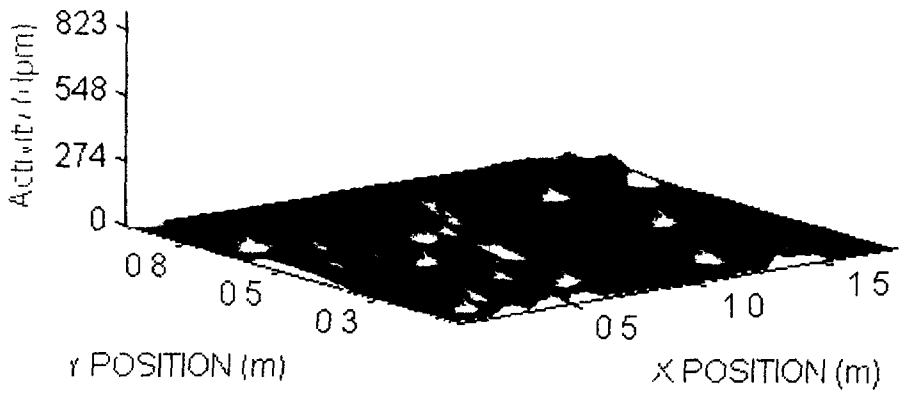

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

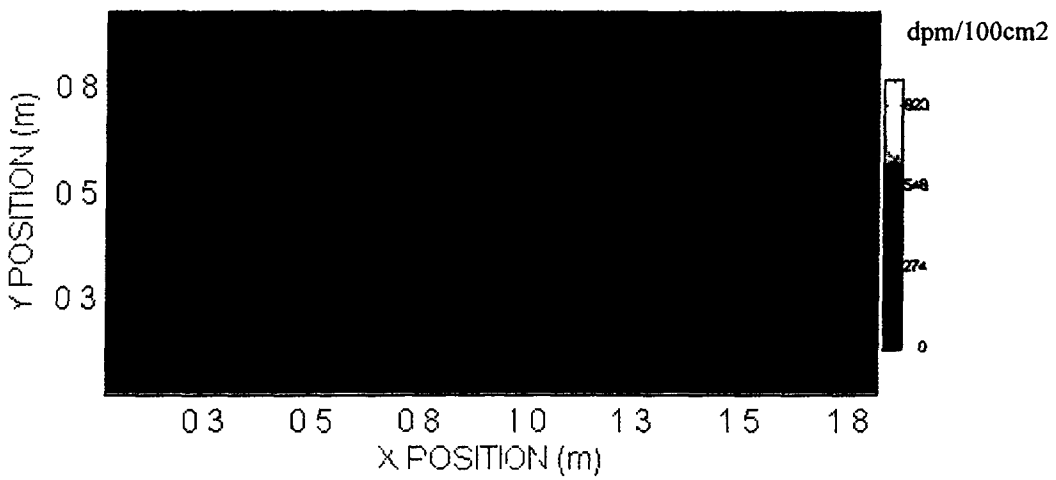

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	16	137	0	27 0	90
2	1	4	68	0	15 0	72

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729029wn was conducted on March 22, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729029wn ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

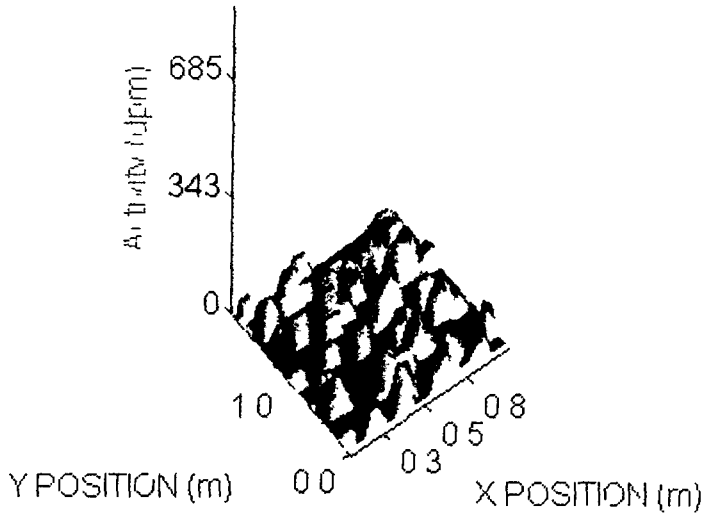

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

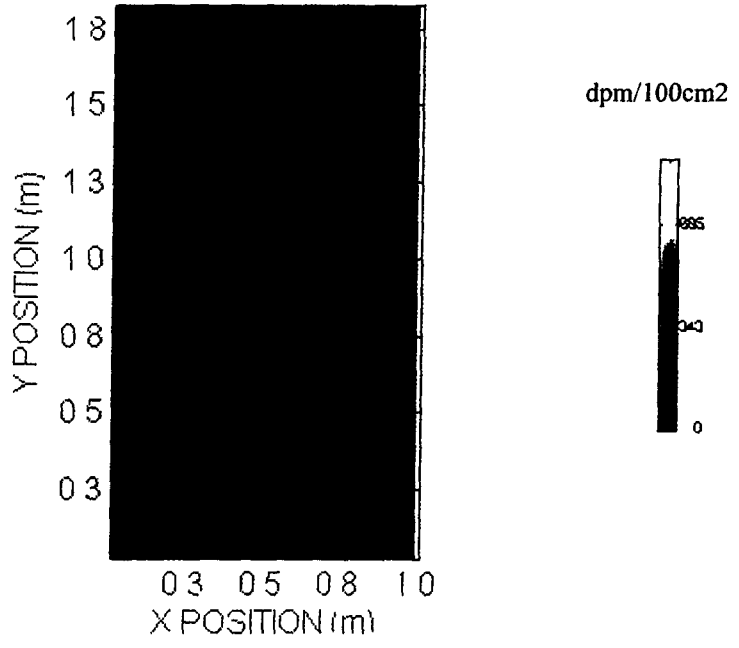

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	20	171	0	29 0	100
1	2	18	135	0	29 0	80

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72902300 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902300 ranged from 0 to 173 dpm/pixel 100 cm^2 data ranged from 0 to 323 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

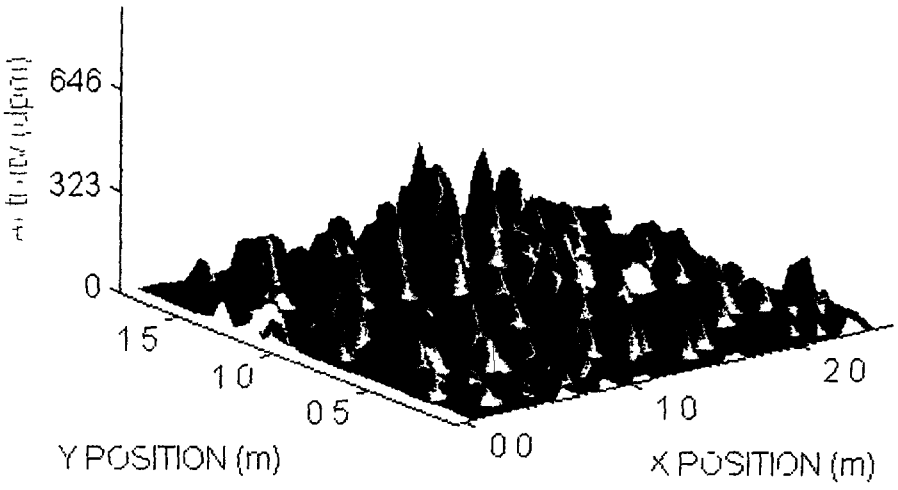

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

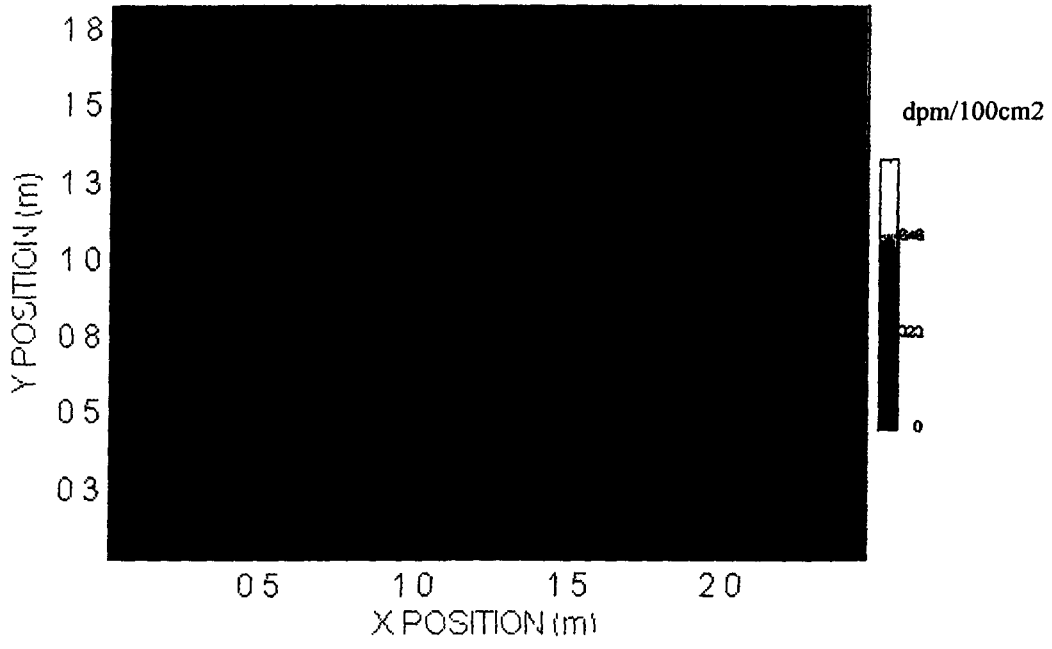

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	22	214	0	43 0	100
2	1	14	170	0	32 0	100
3	1	20	169	0	39 0	40
1	2	21	173	0	37 0	80
2	**2**	**33**	**322**	**0**	**65.0**	**80**
3	2	17	129	0	35 0	32

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

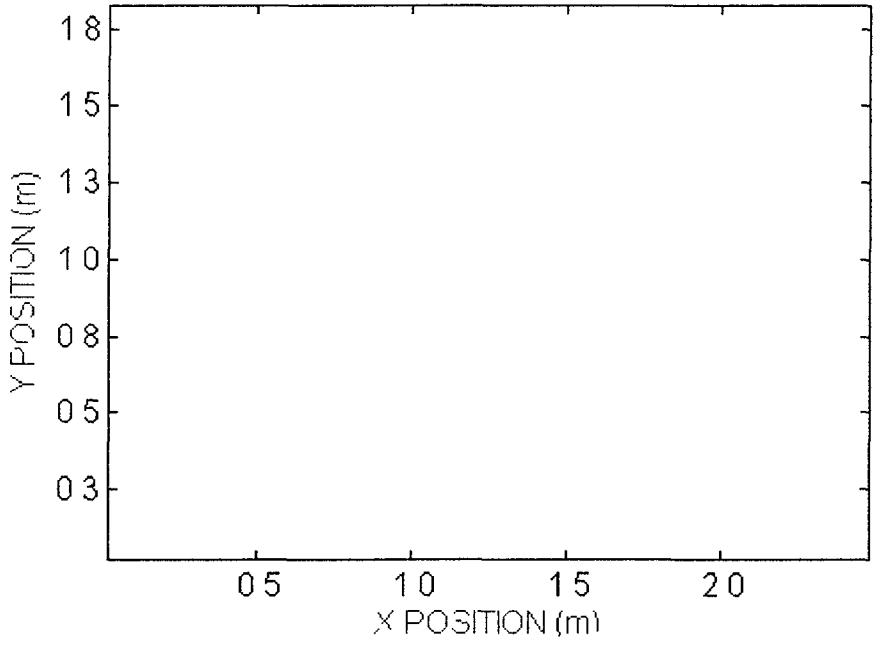

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

Introduction

Survey 72902300 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902300 ranged from 0 to 232 dpm/pixel 100 cm^2 data ranged from 0 to 232 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

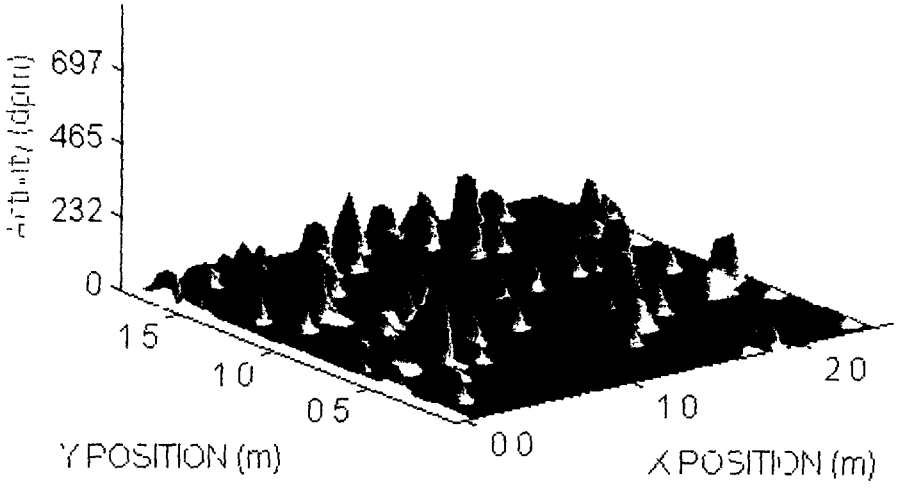

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dp per pixel

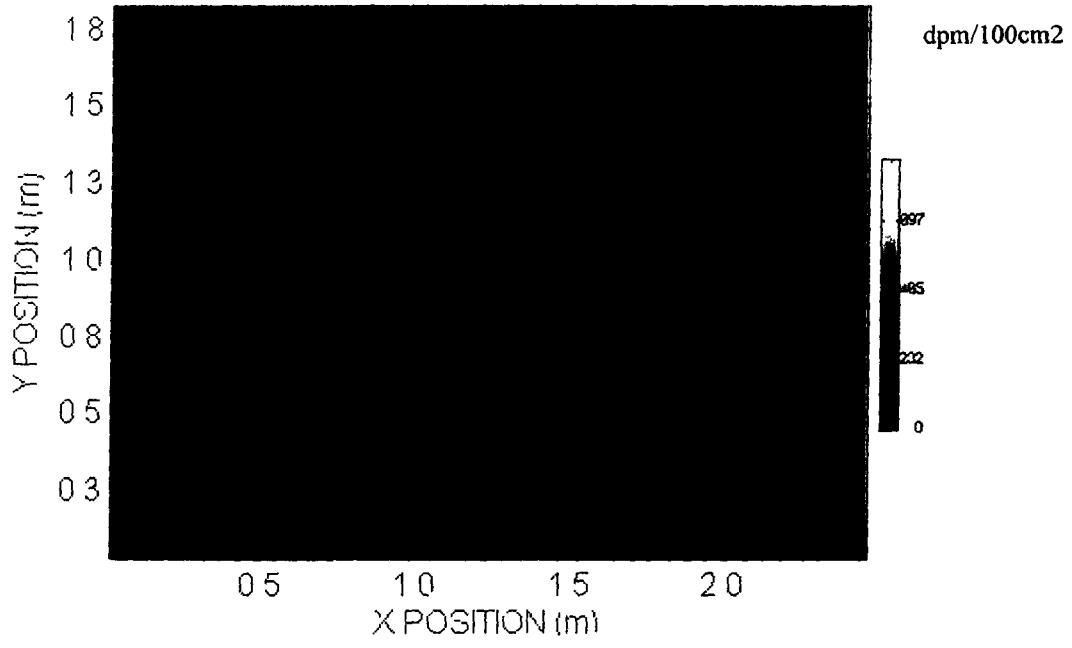

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	10	222	0	29 0	100
2	1	9	163	0	29 0	100
3	1	9	150	0	26 0	40
1	2	21	222	0	36 0	80
2	2	20	232	0	43 0	80
3	2	21	205	0	46 0	32

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72902301 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902301 ranged from 0 to 215 dpm/pixel 100 cm^2 data ranged from 0 to 330 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

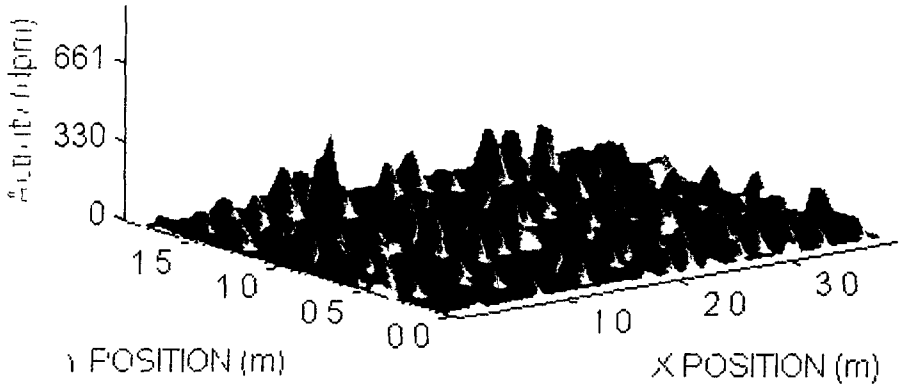

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

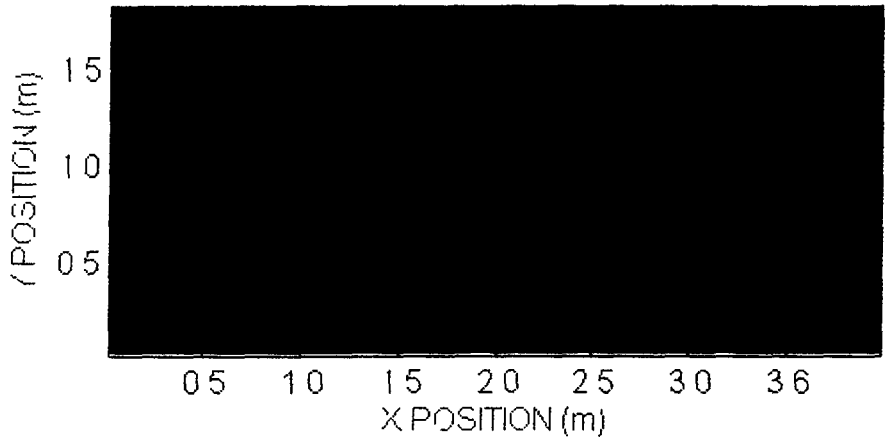

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	16	148	0	33 0	100
2	1	14	217	0	41 0	100
3	1	19	211	0	38 0	100
4	1	24	173	0	42 0	90
1	2	13	131	0	29 0	80
2	**2**	**16**	**330**	**0**	**50.0**	**80**
3	2	17	213	0	35 0	80
4	2	25	215	0	43 0	72

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over $1m^2$
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over $1m^2$
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

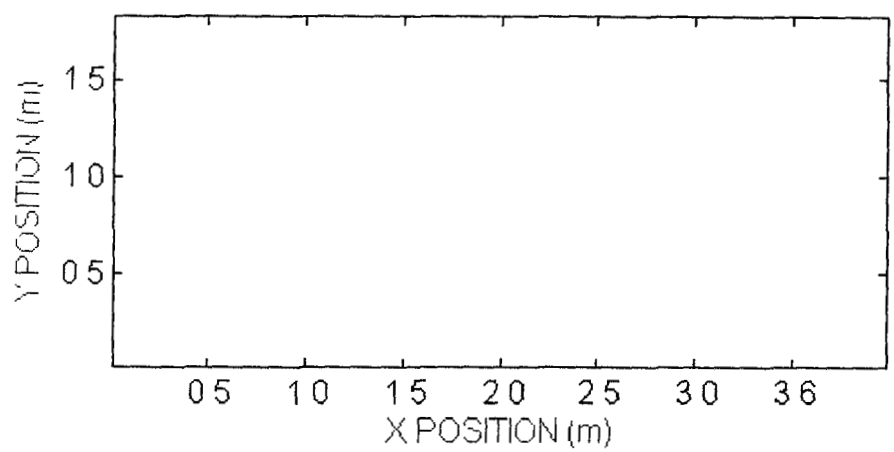

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

Introduction

Survey 72902301 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902301 ranged from 0 to 240 dpm/pixel 100 cm^2 data ranged from 0 to 240 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

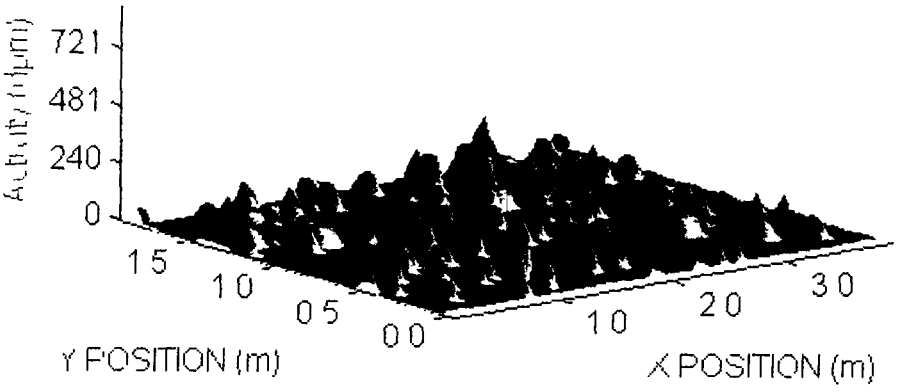

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

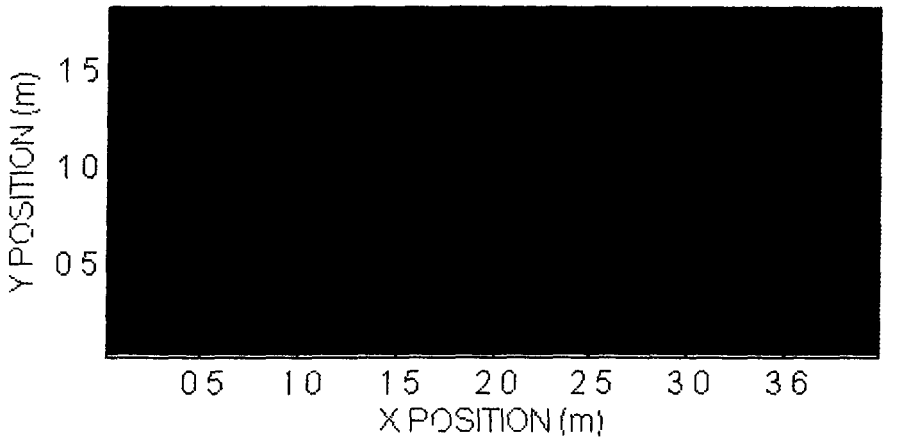

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	10	148	0	29 0	100
2	1	13	240	0	38 0	100
3	1	8	76	0	23 0	100
4	1	10	176	0	28 0	90
1	2	18	191	0	35 0	80
2	2	9	110	0	28 0	80
3	2	27	214	0	47 0	80
4	2	15	220	0	36 0	72

Table 1. The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$. The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data. All unıts (ı.e mean, max, mın and standard devıatıon) are ın dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1 m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72902302 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902302 ranged from 0 to 182 dpm/pixel 100 cm^2 data ranged from 0 to 289 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

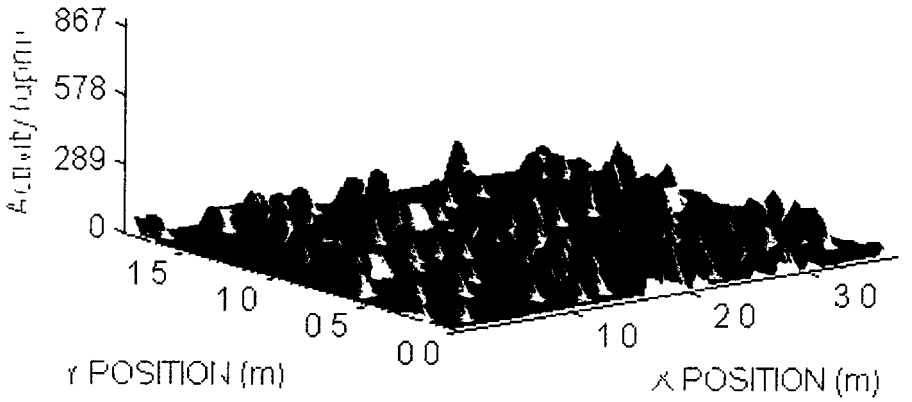

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

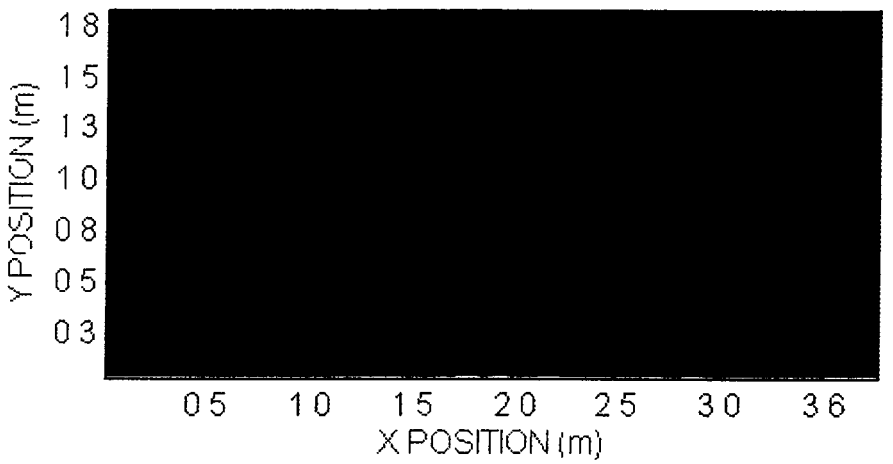

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	15	164	0	33 0	100
2	1	36	289	0	58 0	100
3	1	20	249	0	43 0	100
4	1	21	170	0	45 0	70
1	2	17	171	0	38 0	80
2	2	24	170	0	44 0	80
3	2	9	173	0	32 0	80
4	2	20	167	0	37 0	56

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72902302 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902302 ranged from 0 to 170 dpm/pixel 100 cm^2 data ranged from 0 to 251 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

4 20

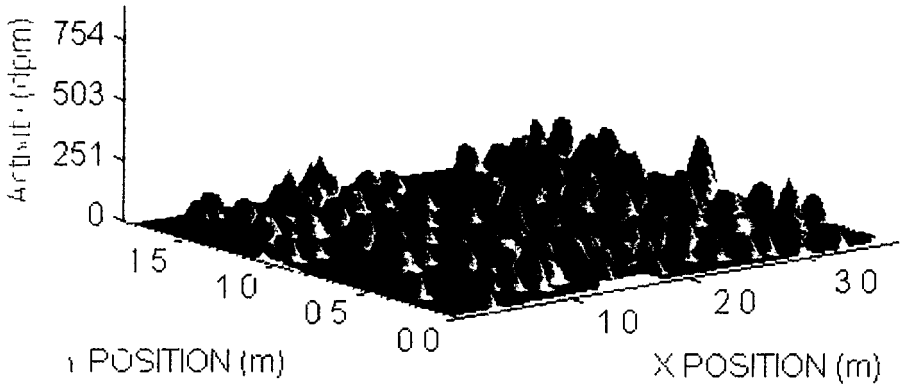

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

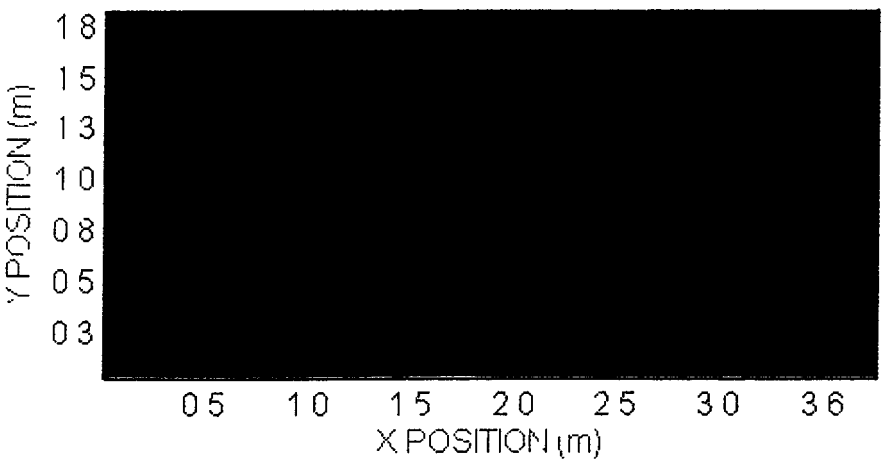

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

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X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	9	225	0	30 0	100
2	1	26	203	0	47 0	100
3	1	16	173	0	36 0	100
4	1	30	241	0	46 0	70
1	2	16	156	0	32 0	80
2	2	17	171	0	38 0	80
3	2	14	251	0	41 0	80
4	2	35	180	0	53 0	56

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72902303 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902303 ranged from 0 to 199 dpm/pixel 100 cm^2 data ranged from 0 to 216 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

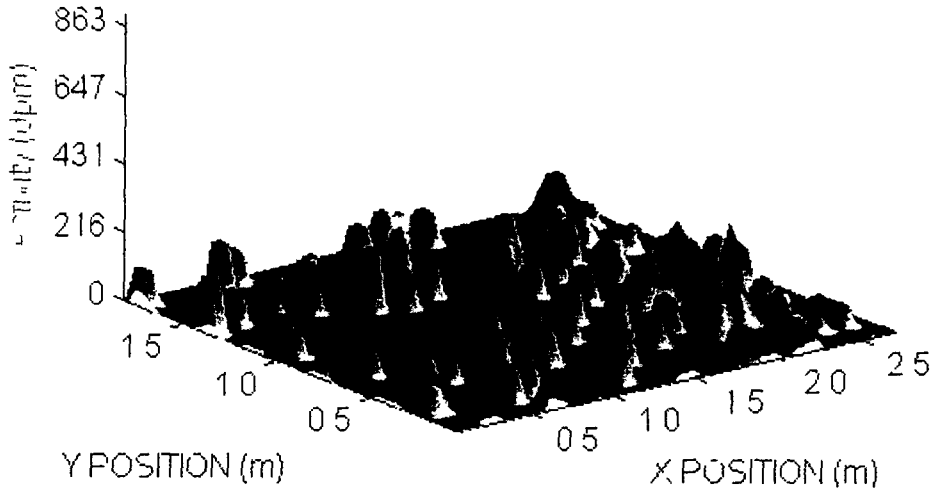

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

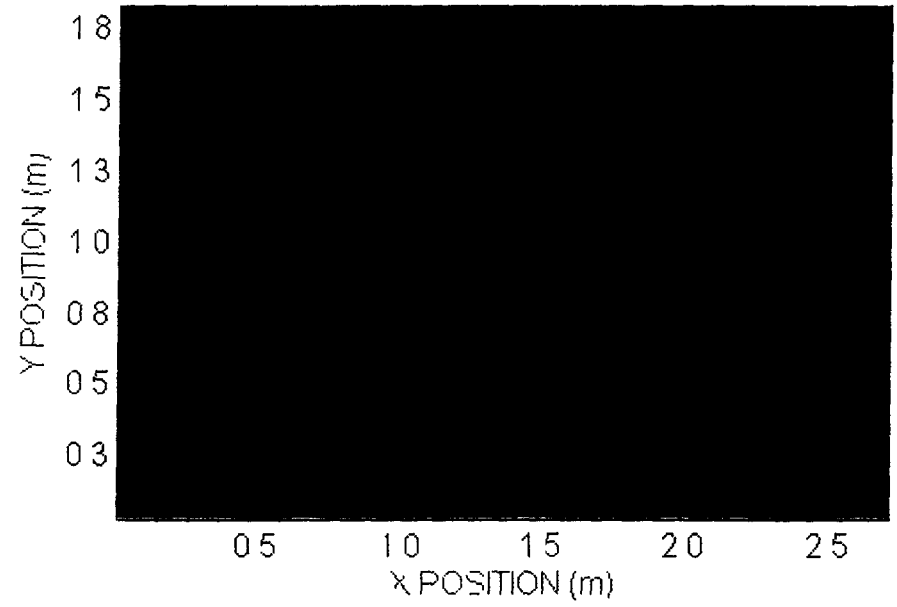

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	11	188	0	34 0	100
2	1	17	198	0	39 0	100
3	1	20	215	0	36 0	70
1	2	19	180	0	43 0	80
2	2	14	198	0	37 0	80
3	2	20	119	0	31 0	56

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

4Z6

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 72902303 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902303 ranged from 0 to 143 dpm/pixel 100 cm^2 data ranged from 0 to 295 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

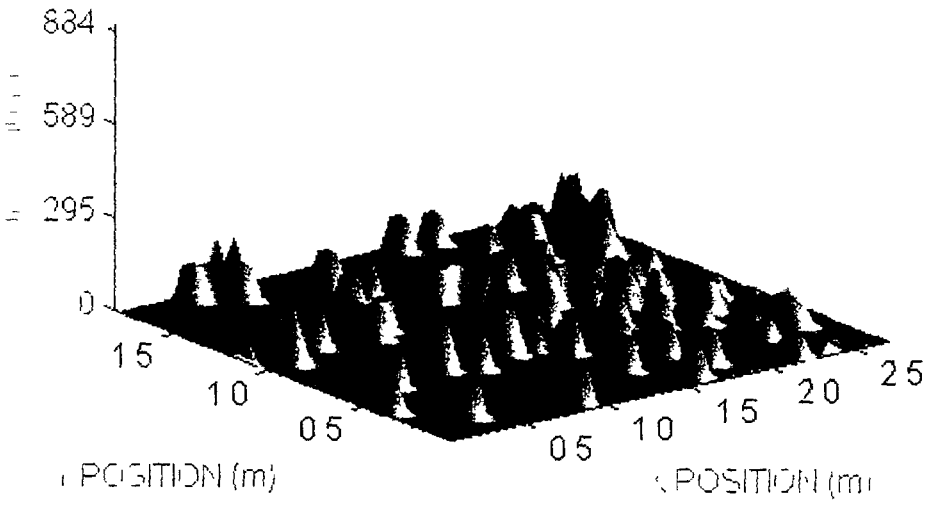

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel.

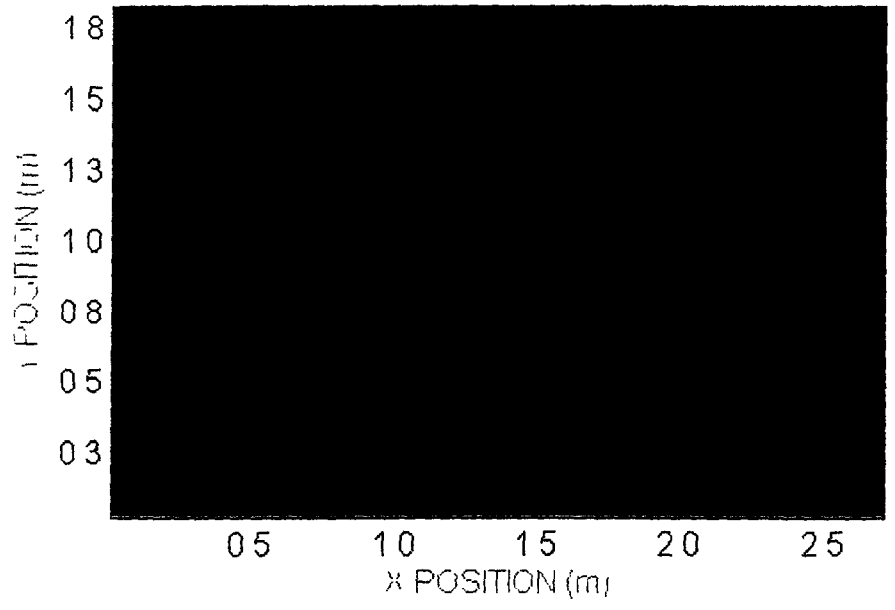

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

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X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	7	192	0	24 0	100
2	1	14	294	0	34 0	100
3	1	15	119	0	27 0	70
1	2	14	194	0	37 0	80
2	2	14	191	0	37 0	80
3	2	23	203	0	46 0	56

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

(Recount) Date 04-12-1999 Time 16 25 45 72902303-4

431

Introduction

Survey 72902304 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902304 ranged from 0 to 194 dpm/pixel 100 cm^2 data ranged from 0 to 194 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

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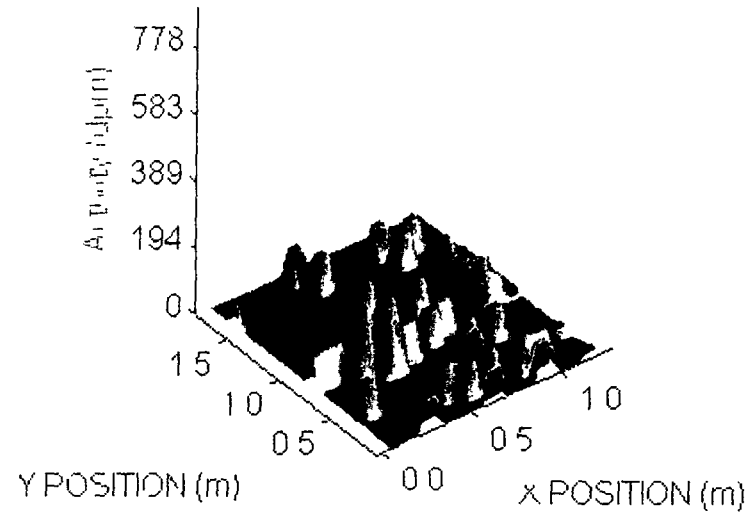

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

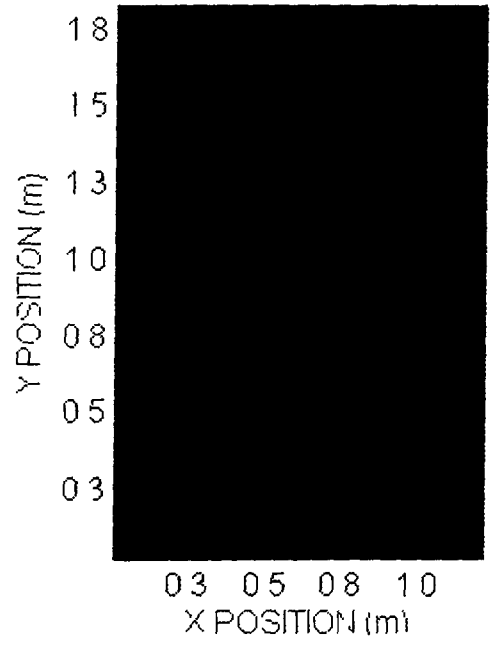

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	21	194	0	40 0	100
2	1	10	153	0	23 0	20
1	2	8	97	0	26 0	80
2	2	21	83	0	35 0	16

Table 1 The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$ The max ıs compared to the $DCGL_{EMC}$. The standard devıatıon ıs calculated from pıxels that contaın data All unıts (ı e mean, max, mın and standard devıatıon) are ın dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72902304 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902304 ranged from 0 to 140 dpm/pixel 100 cm^2 data ranged from 0 to 190 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

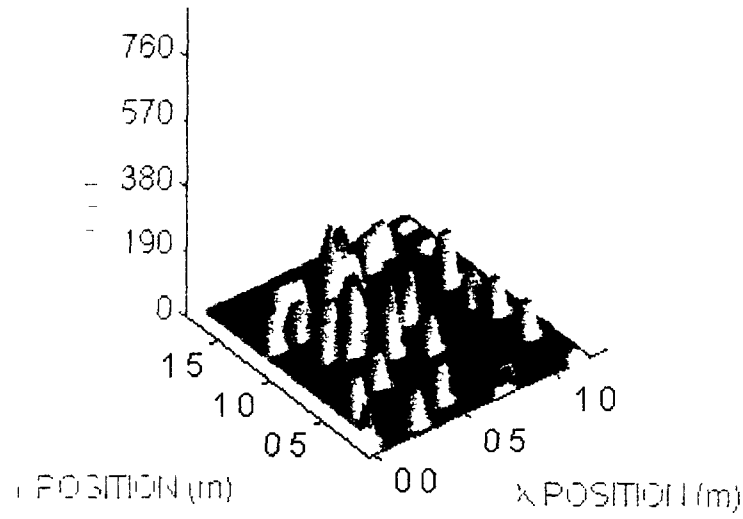

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

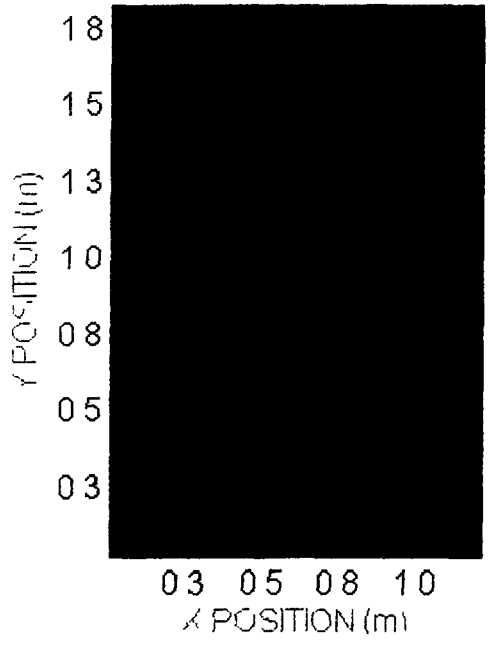

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	10	189	0	31 0	100
2	1	14	89	0	30 0	20
1	2	17	176	0	35 0	80
2	2	11	139	0	34 0	16

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72902305 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs. To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902305 ranged from 0 to 191 dpm/pixel 100 cm^2 data ranged from 0 to 289 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

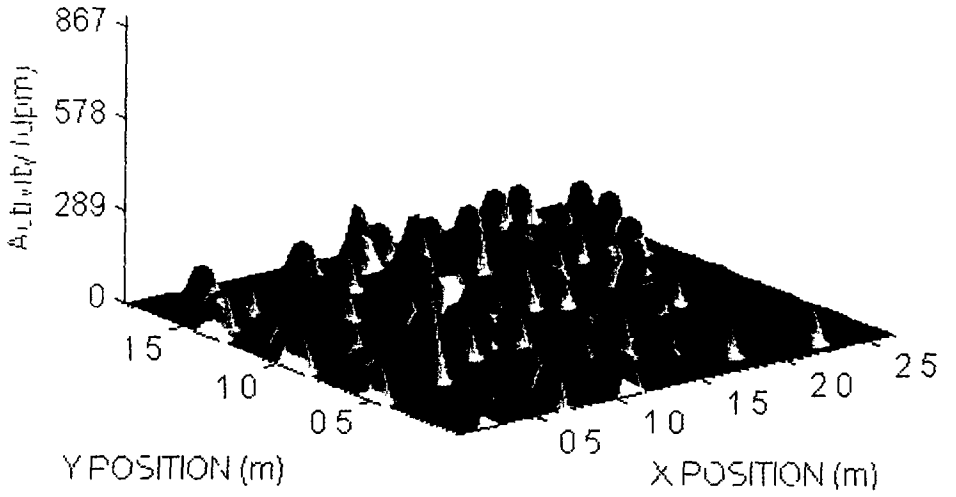

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

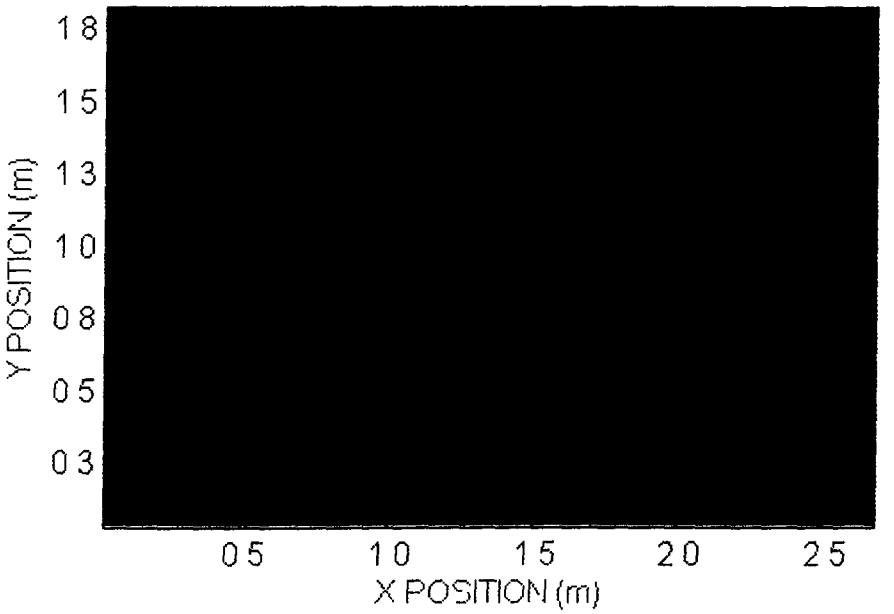

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	14	289	0	36 0	100
2	1	13	182	0	33 0	100
3	1	6	178	0	28 0	60
1	2	12	95	0	31 0	80
2	2	22	190	0	44 0	80
3	2	19	115	0	39 0	48

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

443

Introduction

Survey 72902305 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902305 ranged from 0 to 114 dpm/pixel 100 cm^2 data ranged from 0 to 192 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

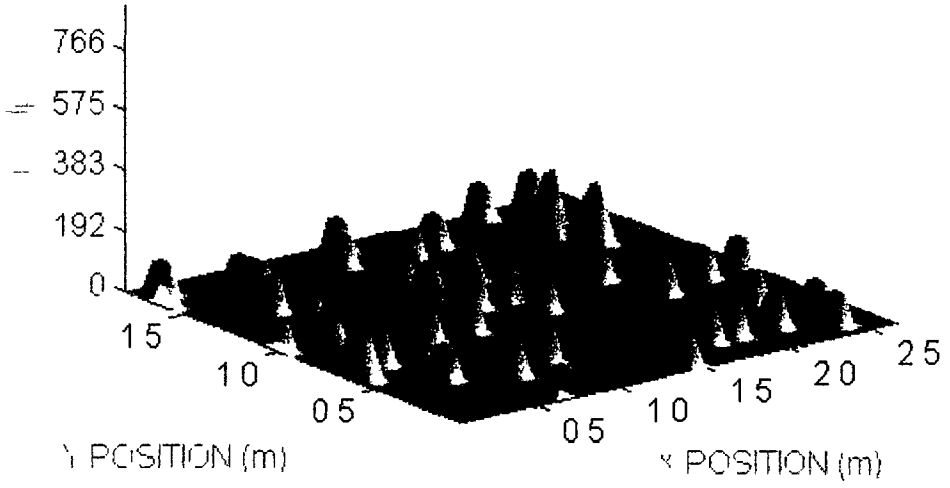

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

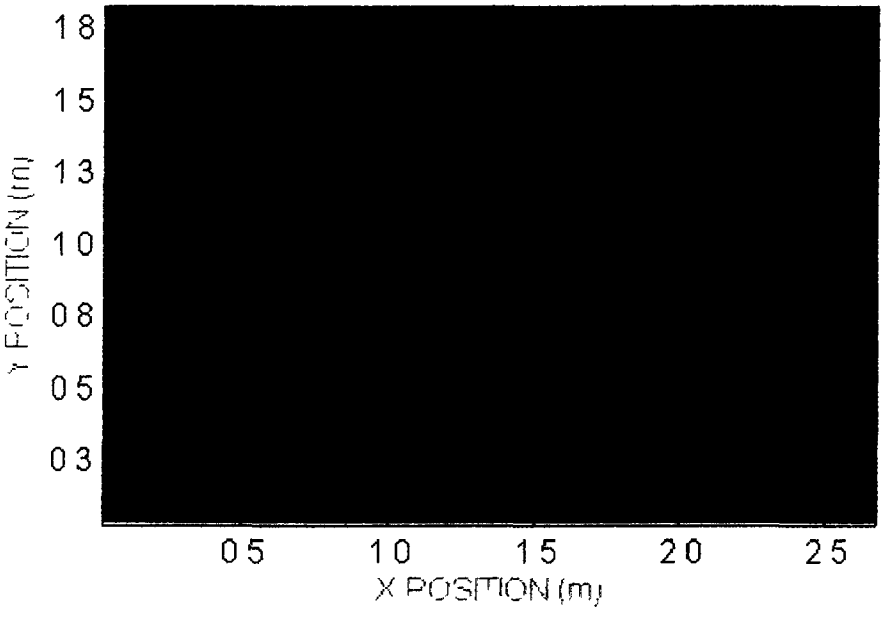

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	13	191	0	37 0	100
2	1	3	92	0	17 0	100
3	1	11	113	0	30 0	60
1	2	9	98	0	27 0	80
2	2	13	94	0	32 0	80
3	2	11	187	0	35 0	48

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

(Recount) Date 04-12-1999 Time 16 28 02 72902305-4

447

Introduction

Survey 72902306 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902306 ranged from 0 to 200 dpm/pixel 100 cm^2 data ranged from 0 to 310 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

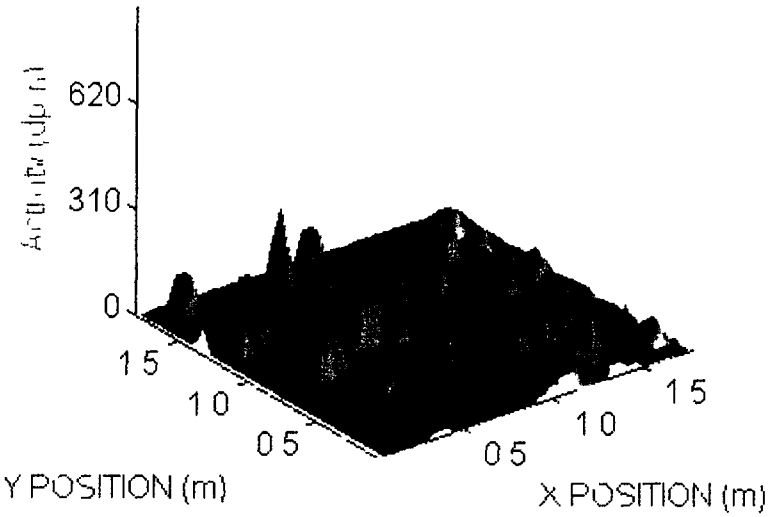

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

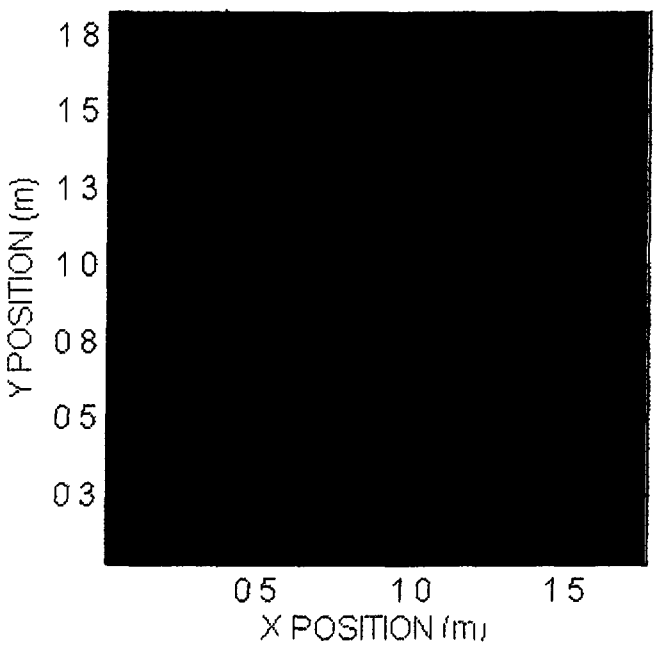

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	**1**	**13**	**309**	**0**	**33.0**	**100**
2	1	14	194	0	36 0	70
1	2	24	222	0	43 0	80
2	2	11	199	0	35 0	56

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

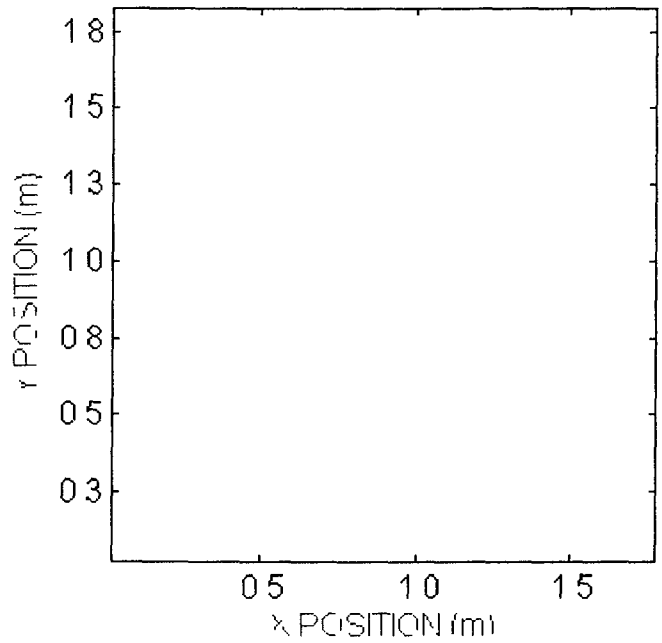

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

Introduction

Survey 72902306 was conducted on March 31, 1999 by PILKINGTON/STANLEY as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72902306 ranged from 0 to 210 dpm/pixel 100 cm^2 data ranged from 0 to 210 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

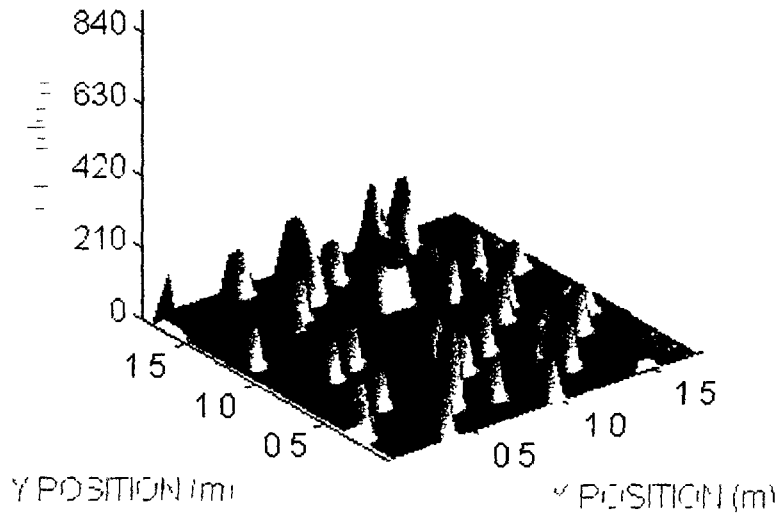

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

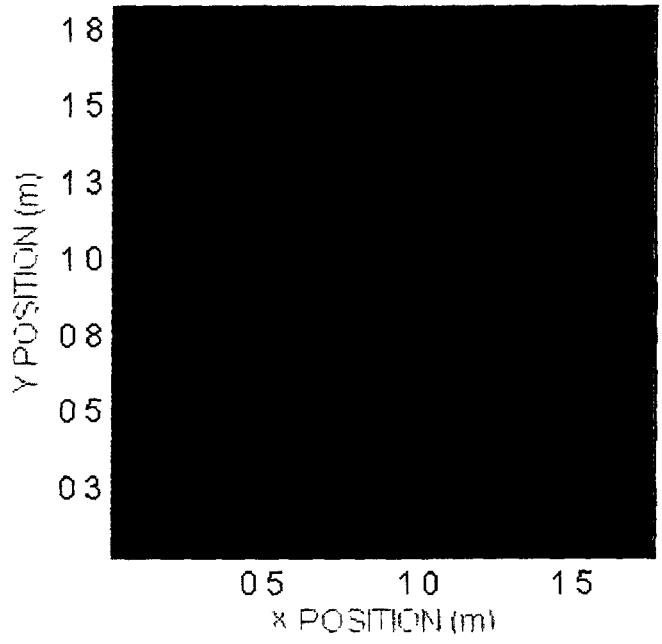

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	12	210	0	36 0	100
2	1	14	105	0	32 0	70
1	2	15	203	0	44 0	80
2	2	22	204	0	40 0	56

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 72903001 was conducted on April 5, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903001 ranged from 0 to 206 dpm/pixel 100 cm^2 data ranged from 0 to 274 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids. Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid. Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs.

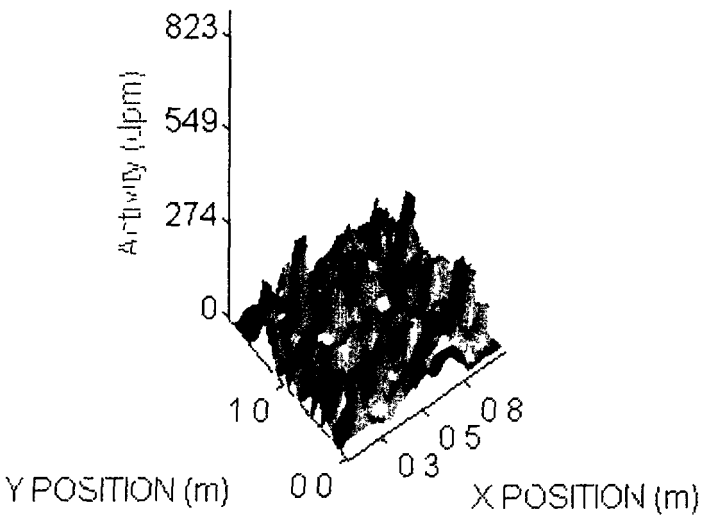

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

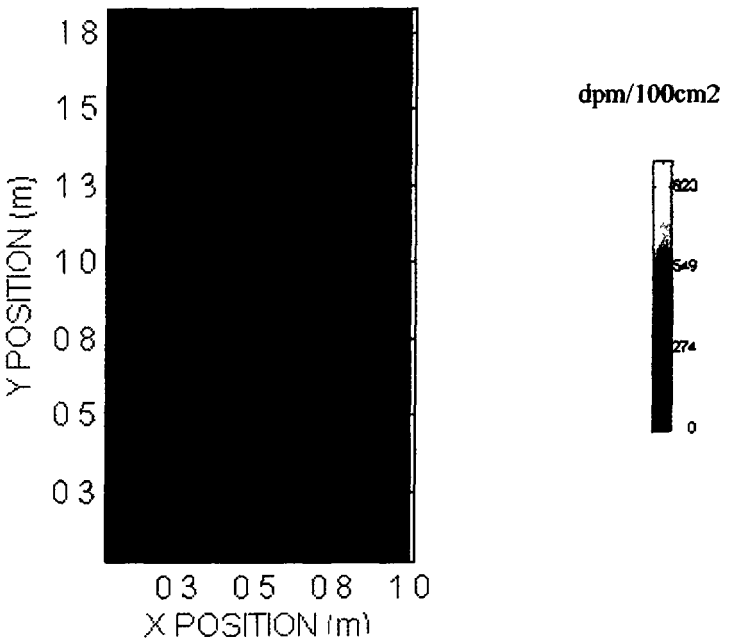

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	46	236	0	46 0	100
1	2	44	274	0	51 0	80

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72903002 was conducted on April 5, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903002 ranged from 0 to 171 dpm/pixel 100 cm^2 data ranged from 0 to 308 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

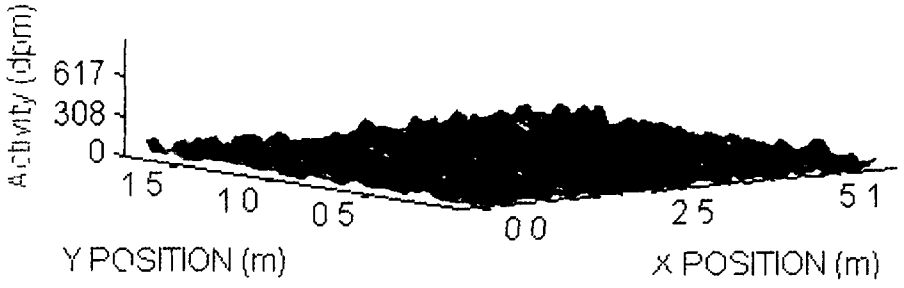

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

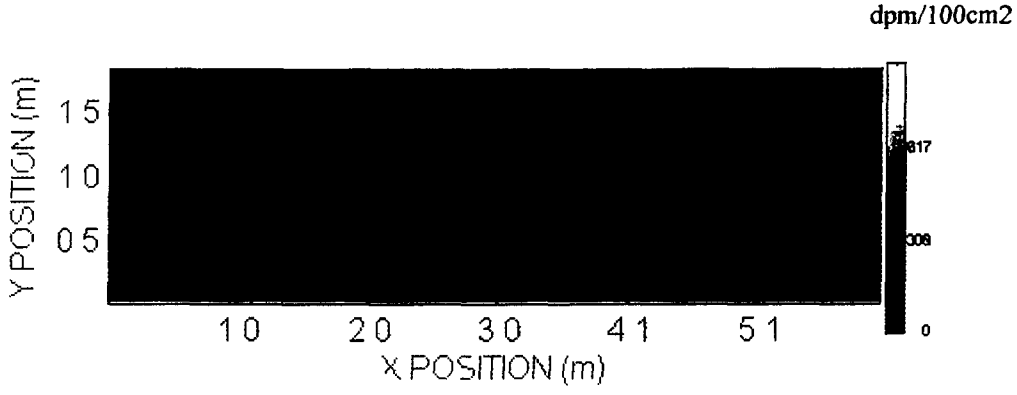

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	41	171	0	42 0	100
2	1	26	137	0	34 0	80
3	1	55	205	0	29 0	20
4	1	44	205	0	50 0	100
5	1	40	240	0	39 0	100
6	1	50	171	0	38 0	90
1	2	35	171	0	42 0	80
2	2	31	137	0	36 0	64
3	2	40	102	0	21 0	16
4	**2**	**39**	**308**	**0**	**51.0**	**80**
5	2	40	137	0	30 0	80
6	2	53	240	0	47 0	72

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2.

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

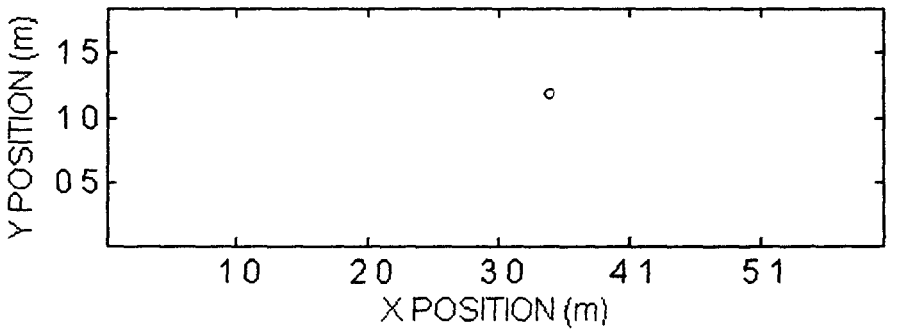

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

Introduction

Survey 72903003 was conducted on April 6, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903003 ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 240 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

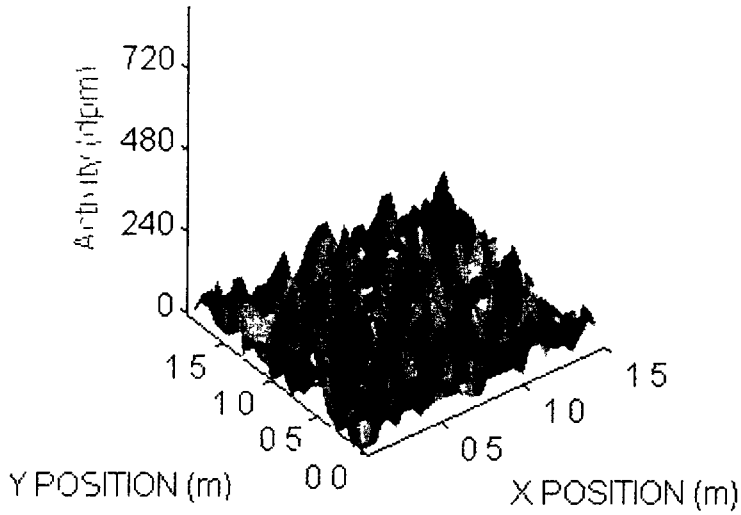

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

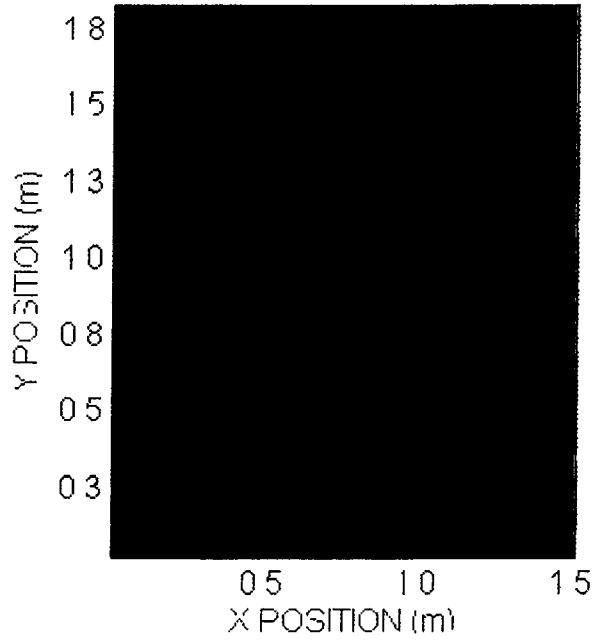

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	52	199	0	43 0	100
2	1	47	205	0	43 0	50
1	2	58	226	0	48 0	80
2	2	64	239	0	53 0	40

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1 m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 72903008 was conducted on April 5, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903008 ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 240 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

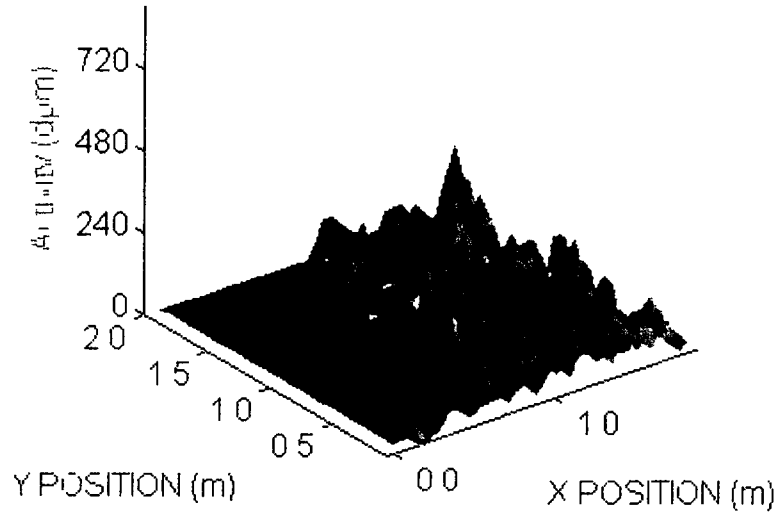

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

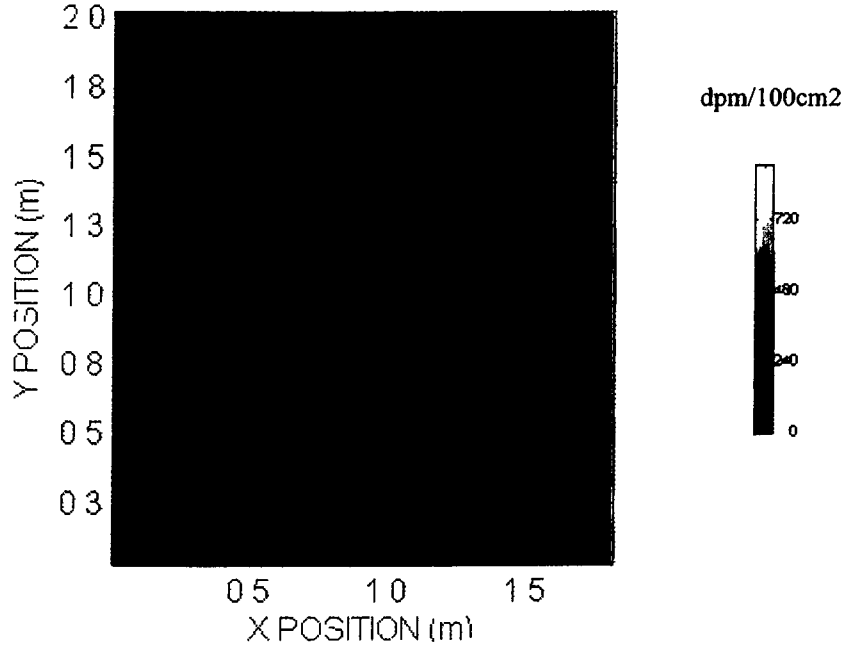

Figure 2. Meter grid overland onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	69	240	0	42 0	36
2	1	70	240	0	56 0	80
1	2	35	170	0	21 0	20
2	2	45	240	0	47 0	80

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72903017 was conducted on April 3, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903017 ranged from 0 to 130 dpm/pixel 100 cm^2 data ranged from 0 to 210 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

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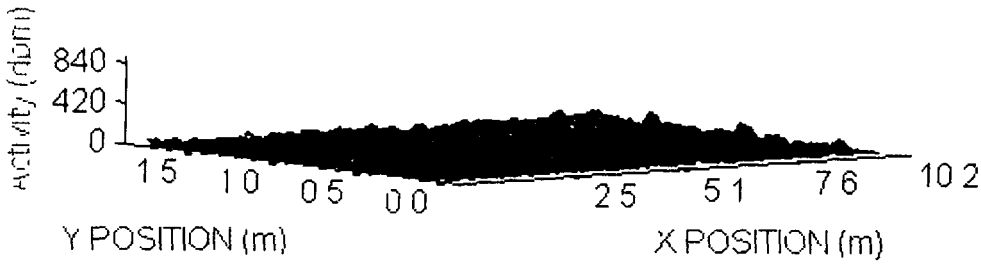

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

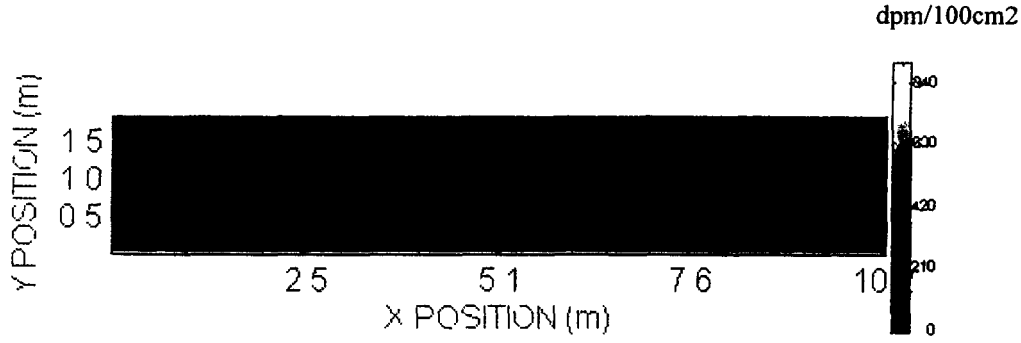

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	22	137	0	29 0	100
2	1	19	134	0	28 0	100
3	1	22	210	0	34 0	100
4	1	17	165	0	23 0	100
5	1	30	164	0	36 0	100
6	1	22	137	0	28 0	100
7	1	23	122	0	27 0	90
8	1	16	137	0	25 0	100
9	1	10	102	0	22.0	80
10	1	18	205	0	32 0	100
1	2	25	171	0	33 0	80
2	2	18	137	0	27 0	80
3	2	20	127	0	27 0	80
4	2	20	134	0	27.0	80
5	2	19	133	0	26.0	80
6	2	22	137	0	28 0	80
7	2	18	137	0	22 0	72
8	2	16	102	0	24.0	80
9	2	11	129	0	19.0	64
10	2	23	137	0	32.0	80

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria.

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72903018 was conducted on April 3, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels. Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered.

Total measured activity for 72903018 ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 206 dpm/100 cm^2. An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid. Figure 2 shows the grid pattern. Bold text denotes grids which exceed DCGLs

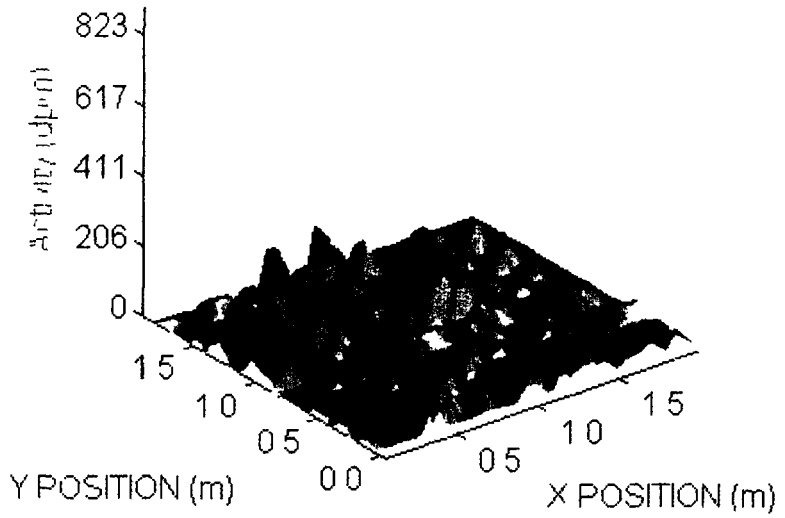

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

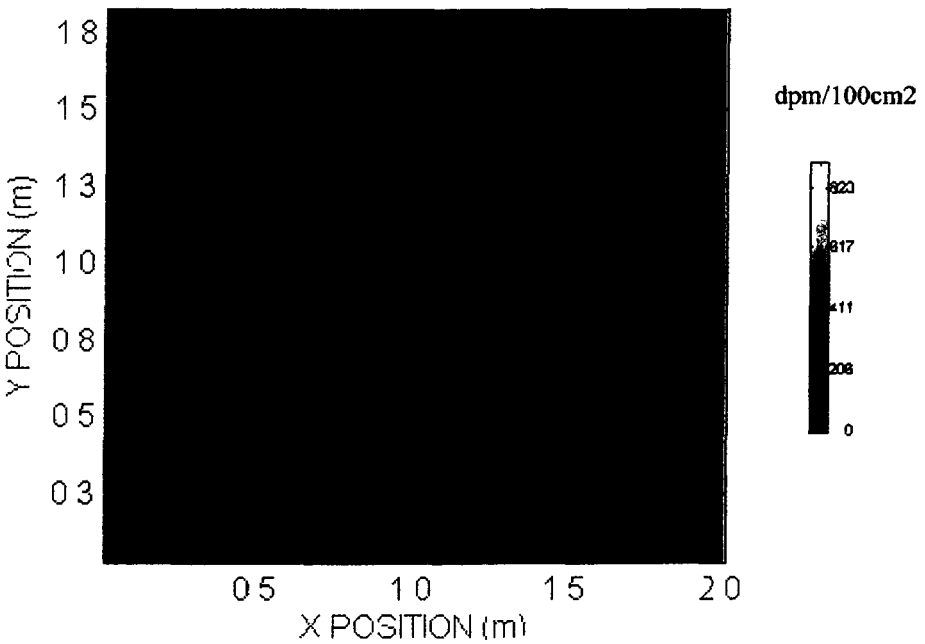

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	17	205	0	29 0	100
2	1	16	102	0	22 0	100
1	2	29	205	0	39 0	80
2	2	22	171	0	36 0	80

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria.

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1 m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 72903019 was conducted on April 3, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 35%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels. These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903019 ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2. An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid. Table 1 also reports the number of 100 cm^2 areas containing data for each grid. Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs.

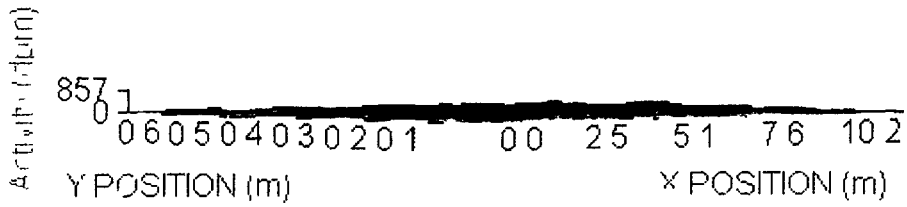

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

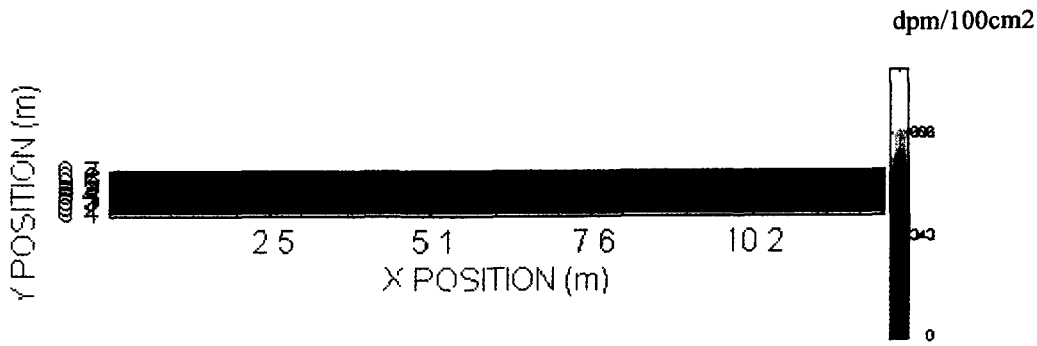

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	16	133	0	26 0	60
2	1	15	102	0	22 0	60
3	1	15	102	0	24 0	60
4	1	21	137	0	29 0	60
5	1	13	137	0	26 0	60
6	1	19	137	0	26 0	60
7	1	15	102	0	22 0	60
8	1	14	137	0	24 0	60
9	1	16	171	0	27 0	54
10	1	0	0	0	0	0
11	1	10	137	0	24 0	56
12	1	17	171	0	33 0	70

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria.

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1 m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729031w was conducted on March 3, 1999 by CHETE as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729031w ranged from 0 to 129 dpm/pixel 100 cm^2 data ranged from 0 to 214 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

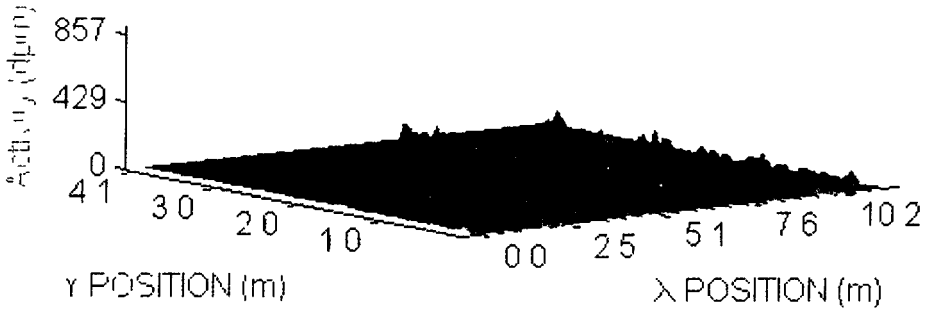

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

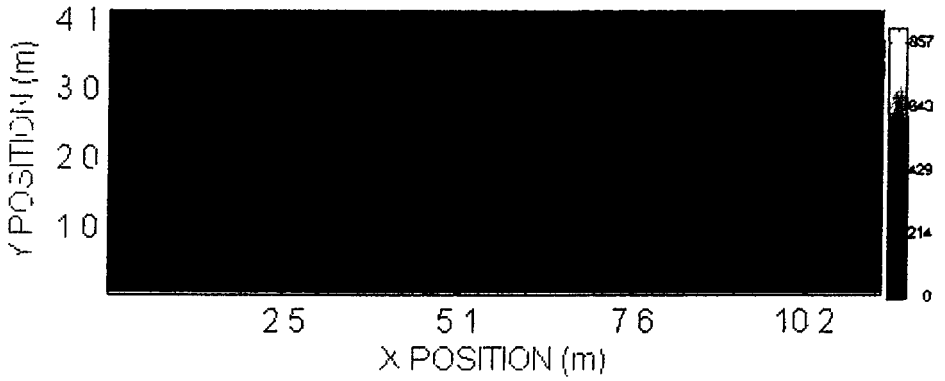

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	11	85	0	21 0	93
2	1	13	85	0	22 0	100
3	1	15	171	0	28 0	100
4	1	13	171	0	27 0	96
5	1	11	122	0	21 0	83
6	1	8	85	0	17 0	90
7	1	10	85	0	21 0	90
8	1	6	95	0	15 0	81
9	1	12	85	0	24 0	90
10	1	13	128	0	24 0	90
11	1	9	85	0	18 0	76
1	2	12	128	0	25 0	90
2	2	11	128	0	24 0	100
3	2	11	85	0	21.0	100
4	2	17	128	0	27 0	100
5	2	14	122	0	22 0	90
6	2	20	169	0	29 0	100
7	2	18	167	0	25 0	100
8	2	14	179	0	27 0	90
9	2	15	128	0	25 0	100
10	2	16	85	0	24 0	100
11	2	12	85	0	21 0	80
1	3	11	85	0	7 0	9
2	3	26	214	0	30 0	55
3	3	10	85	0	9 0	10
4	3	0	85	0	0	10
5	3	26	213	0	28 0	45
6	3	0	42	0	4 0	10
7	3	5	85	0	10 0	20
8	3	10	85	0	14 0	45
9	3	10	85	0	10 0	10
10	3	0	42	0	4 0	10
11	3	21	141	0	20.0	35
1	4	0	42	0	0	0
2	4	14	85	0	19 0	45
3	4	0	0	0	0	0
4	4	0	42	0	0	0
5	4	12	85	0	14 0	32
6	4	0	0	0	0	0
7	4	0	42	0	0	0
8	4	18	128	0	26 0	40
9	4	0	0	0	0	0
10	4	0	0	0	0	0
11	4	24	128	0	18 0	27
1	5	0	0	0	0	0

2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	0	0	0	0	0
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	0	0	0	0	0
8	5	16	85	0	27 0	4
9	5	0	0	0	0	0
10	5	0	0	0	0	0
11	5	0	0	0	0	0

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1 m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729031na was conducted on March 3, 1999 by CHETE as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered.

Total measured activity for 729031na ranged from 0 to 129 dpm/pixel 100 cm^2 data ranged from 0 to 257 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

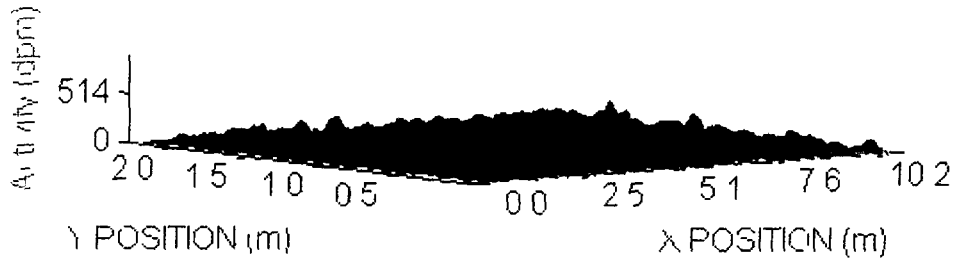

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

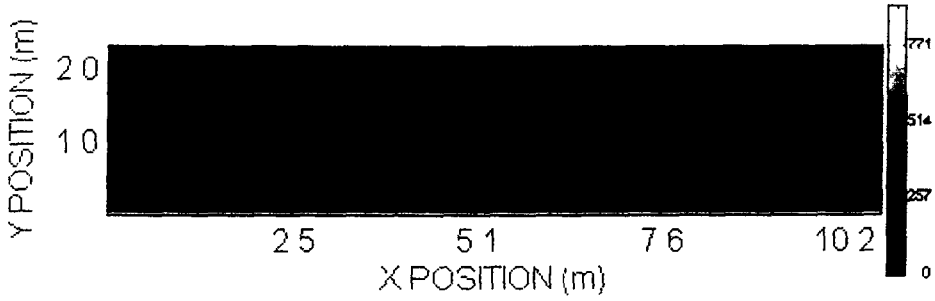

Figure 2 Meter grid overland onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	28	214	0	35 0	77
2	1	23	171	0	32 0	100
3	1	24	171	0	33 0	90
4	1	21	214	0	33 0	100
5	1	20	128	0	29 0	100
6	1	23	128	0	29 0	100
7	1	18	128	0	26 0	100
8	1	25	171	0	33 0	95
9	1	23	128	0	30 0	96
10	1	25	171	0	32 0	90
11	1	24	128	0	35 0	36
1	2	32	171	0	26 0	60
2	2	31	171	0	39 0	100
3	2	26	214	0	34 0	80
4	2	31	171	0	38.0	100
5	2	22	171	0	30 0	100
6	2	16	85	0	25 0	100
7	2	13	128	0	21 0	100
8	2	17	85	0	24 0	90
9	2	30	213	0	39 0	100
10	2	36	257	0	38 0	100
11	2	27	171	0	35 0	40
1	3	26	115	0	28 0	18
2	3	21	128	0	29 0	30
3	3	31	171	0	37 0	24
4	3	22	128	0	24 0	30
5	3	21	171	0	33 0	30
6	3	14	85	0	25 0	30
7	3	13	85	0	20 0	30
8	3	10	85	0	24 0	27
9	3	14	85	0	28 0	30
10	3	19	128	0	30 0	30
11	3	21	85	0	28 0	12

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 729031nb was conducted on March 3, 1999 by CHETE as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729031nb ranged from 0 to 171 dpm/pixel 100 cm^2 data ranged from 0 to 214 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS .The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

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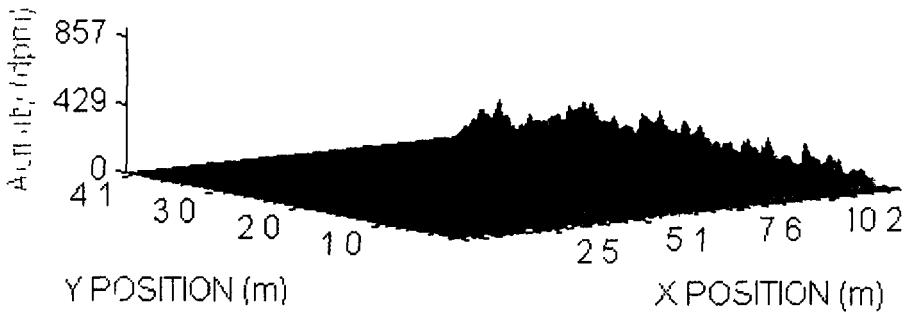

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

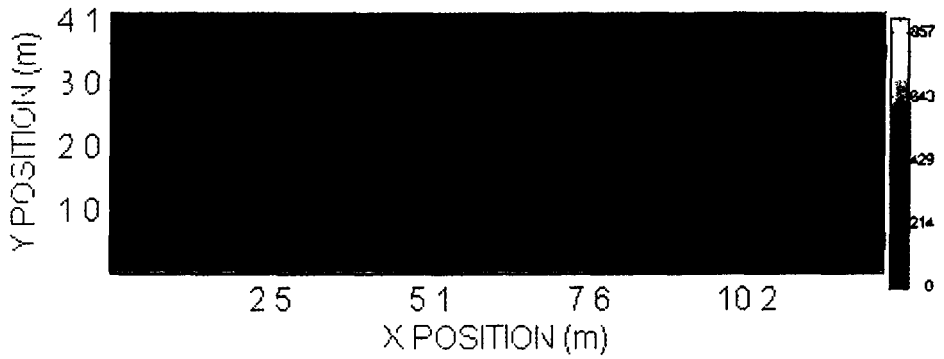

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	34	171	0	33 0	50
2	1	25	171	0	36 0	80
3	1	25	128	0	32 0	100
4	1	29	166	0	33 0	90
5	1	24	171	0	34 0	99
6	1	28	171	0	36 0	90
7	1	23	171	0	31 0	90
8	1	21	128	0	35 0	90
9	1	23	171	0	33 0	85
10	1	20	171	0	35 0	80
11	1	24	214	0	35 0	80
12	1	29	214	0	38 0	80
13	1	12	42	0	20 0	8
1	2	0	0	0	0	0
2	2	44	171	0	30 0	60
3	2	27	214	0	37 0	100
4	2	28	171	0	33 0	80
5	2	37	214	0	38 0	100
6	2	22	125	0	29 0	100
7	2	29	171	0	38 0	100
8	2	20	171	0	32 0	100
9	2	28	171	0	35 0	100
10	2	26	128	0	32 0	100
11	2	32	207	0	34 0	100
12	2	26	214	0	31 0	100
13	2	25	128	0	41 0	10
1	3	0	0	0	0	0
2	3	18	85	0	13 0	18
3	3	18	85	0	18 0	30
4	3	24	128	0	16 0	24
5	3	18	125	0	21 0	30
6	3	24	128	0	22 0	30
7	3	15	85	0	14 0	30
8	3	24	123	0	21 0	30
9	3	24	171	0	19 0	30
10	3	32	214	0	39 0	93
11	3	27	166	0	26 0	37
12	3	38	214	0	46 0	86
13	3	34	107	0	35 0	10
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	.0	0
4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	0	0	0	0	0

(Primary) Date 04-14-1999 Time 07 52 06 729031nb-3

7	4	0	0	0	0	0
8	4	0	0	0	0	0
9	4	0	0	0	0	0
10	4	39	214	0	42 0	90
11	4	50	214	0	20 0	10
12	4	32	214	0	38 0	80
13	4	55	128	0	41 0	10
1	5	0	0	0	0	0
2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	0	0	0	0	0
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	0	0	0	0	0
8	5	0	0	0	0	0
9	5	0	0	0	0	0
10	5	21	85	0	22 0	9
11	5	80	85	0	27 0	1
12	5	12	42	0	20 0	8
13	5	21	21	21	0	1

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 729032sa was conducted on March 8, 1999 by CHETE as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729032sa ranged from 0 to 171 dpm/pixel 100 cm^2 data ranged from 0 to 386 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs.

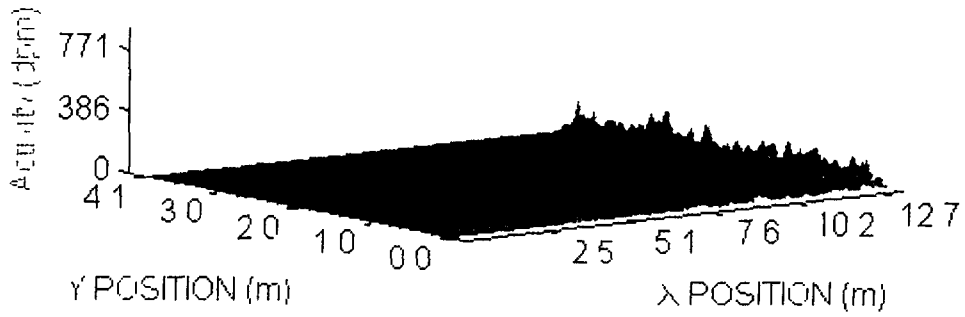

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

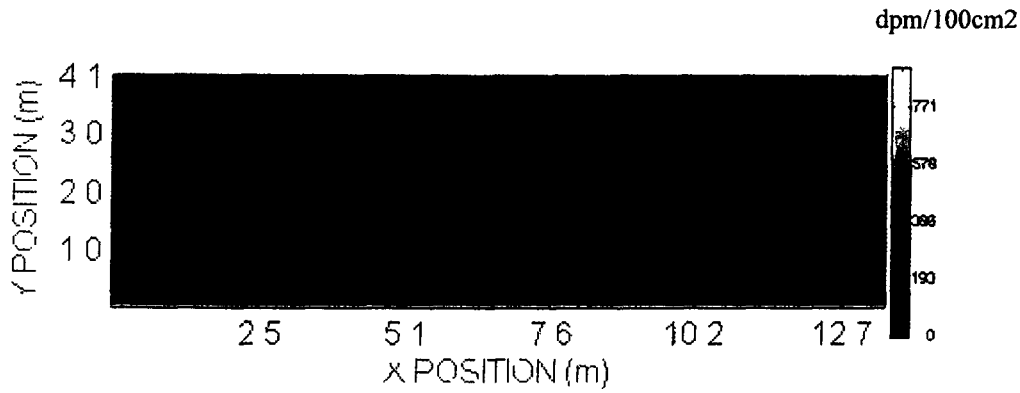

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	50	214	0	41 0	56
2	1	62	295	0	64 0	80
3	**1**	**57**	**385**	**0**	**70.0**	**80**
4	1	33	214	0	43 0	84
5	1	36	257	0	43 0	90
6	1	37	214	0	46 0	90
7	1	43	214	0	50 0	90
8	1	45	171	0	43 0	98
9	1	42	178	0	42 0	88
10	1	45	171	0	39 0	100
11	1	34	257	0	42 0	100
12	1	39	214	0	37.0	100
13	1	51	171	0	45 0	100
14	1	62	128	0	38 0	11
1	2	60	299	0	45 0	60
2	2	53	249	0	51 0	100
3	2	63	257	0	51 0	100
4	2	38	193	0	42 0	100
5	2	34	171	0	35 0	100
6	2	43	255	0	40 0	100
7	2	39	214	0	41 0	100
8	2	37	132	0	37 0	100
9	2	27	156	0	34 0	80
10	2	37	171	0	43 0	100
11	2	40	171	0	39 0	100
12	2	42	171	0	44 0	100
13	2	35	171	0	36 0	100
14	2	58	128	0	34 0	10
1	3	24	85	0	14 0	12
2	3	50	171	0	32 0	20
3	3	25	128	0	19 0	20
4	3	10	79	0	10 0	20
5	3	30	128	0	19 0	20
6	3	15	85	0	13 0	20
7	3	20	109	0	14 0	20
8	3	15	128	0	14 0	20
9	3	24	123	0	17 0	16
10	3	20	128	0	18 0	20
11	3	15	85	0	14.0	20
12	3	25	121	0	18 0	20
13	3	38	214	0	49 0	76
14	3	50	85	0	28 0	10
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	0	0

4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	0	0	0	0	0
7	4	0	0	0	0	0
8	4	0	0	0	0	0
9	4	0	0	0	0	0
10	4	0	0	0	0	0
11	4	0	0	0	0	0
12	4	0	0	0	0	0
13	4	23	184	0	36 0	70
14	4	42	85	0	28 0	10

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

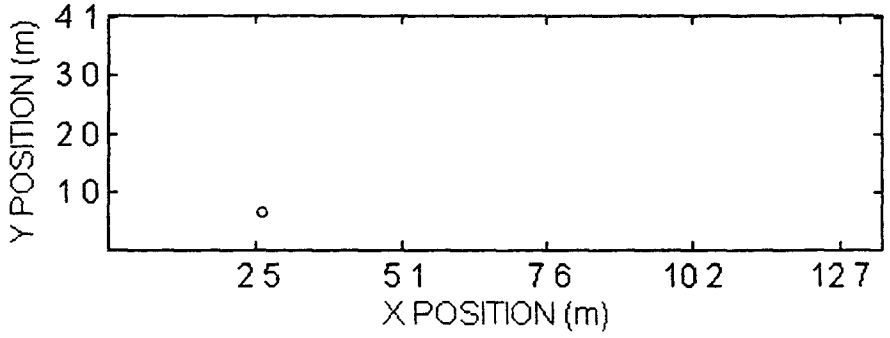

Figure 3. Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

Introduction

Survey 729032sb was conducted on March 8, 1999 by CHETE as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729032sb ranged from 0 to 129 dpm/pixel 100 cm^2 data ranged from 0 to 300 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids. Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

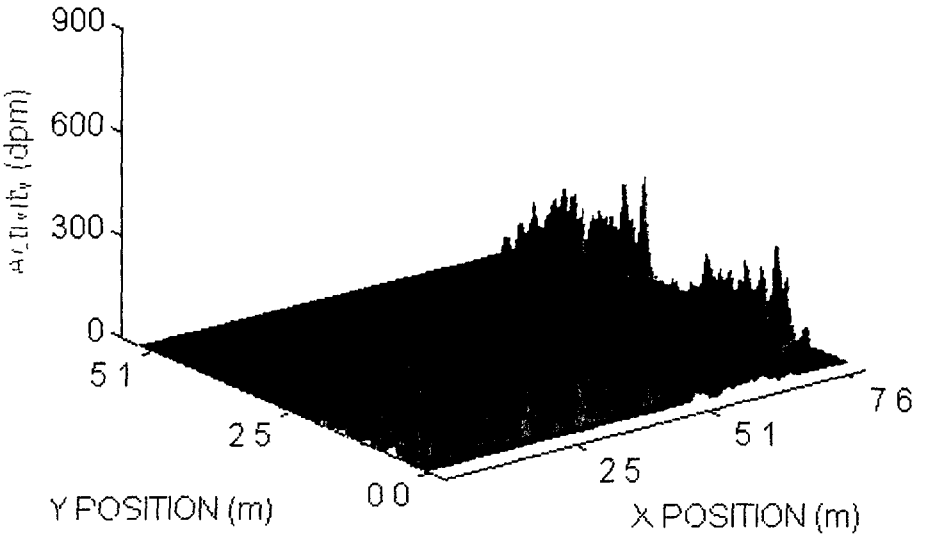

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

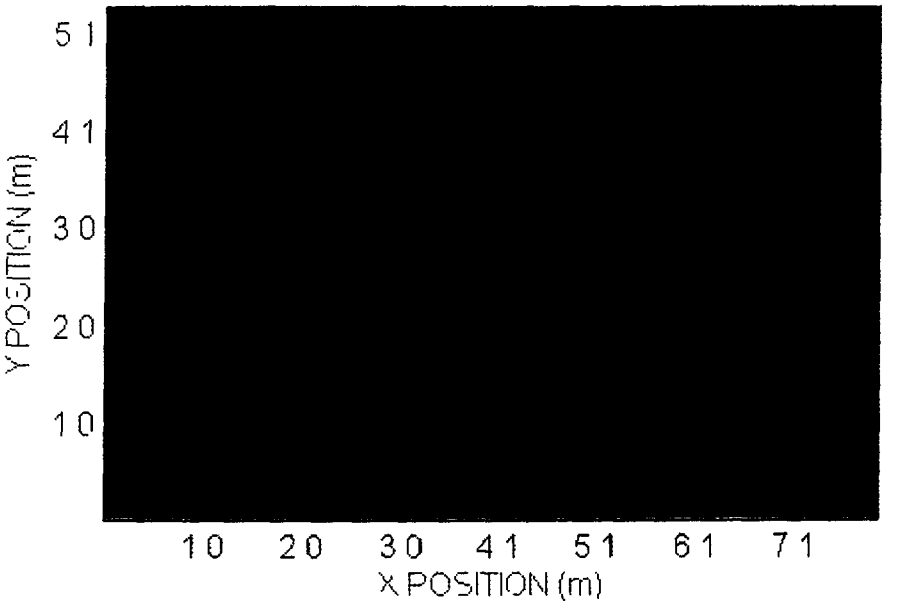

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	60	171	0	43 0	60
2	1	54	257	0	46 0	52
3	1	34	257	0	44 0	70
4	1	52	257	0	58 0	70
5	1	34	238	0	40 0	70
6	1	41	206	0	40 0	100
7	1	37	257	0	37 0	74
8	1	49	128	0	24 0	12
1	2	32	171	0	41 0	100
2	2	31	214	0	38 0	88
3	2	49	254	0	40 0	100
4	2	46	214	0	45 0	100
5	2	57	219	0	48 0	100
6	2	20	128	0	31 0	80
7	2	23	171	0	37 0	74
8	2	55	257	0	53 0	74
1	3	10	85	0	7 0	10
2	3	48	107	0	19 0	13
3	3	22	128	0	23 0	50
4	3	28	128	0	29 0	50
5	3	32	171	0	30 0	50
6	3	0	0	0	0	0
7	3	40	128	0	11 0	5
8	3	38	171	0	35 0	40
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	0	0	0	0	0
7	4	50	171	0	21 0	10
8	**4**	**72**	**300**	**0**	**55.0**	**40**
1	5	0	0	0	0	0
2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	0	0	0	0	0
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	50	166	0	29 0	20
8	5	45	171	0	44 0	80
1	6	0	0	0	0	0
2	6	0	0	0	0	0
3	6	0	0	0	0	0
4	6	0	0	0	0	0
5	6	0	0	0	0	0

6	6	0	0	0	0	0
7	6	20	85	0	19 0	4
8	6	40	128	0	45 0	16

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

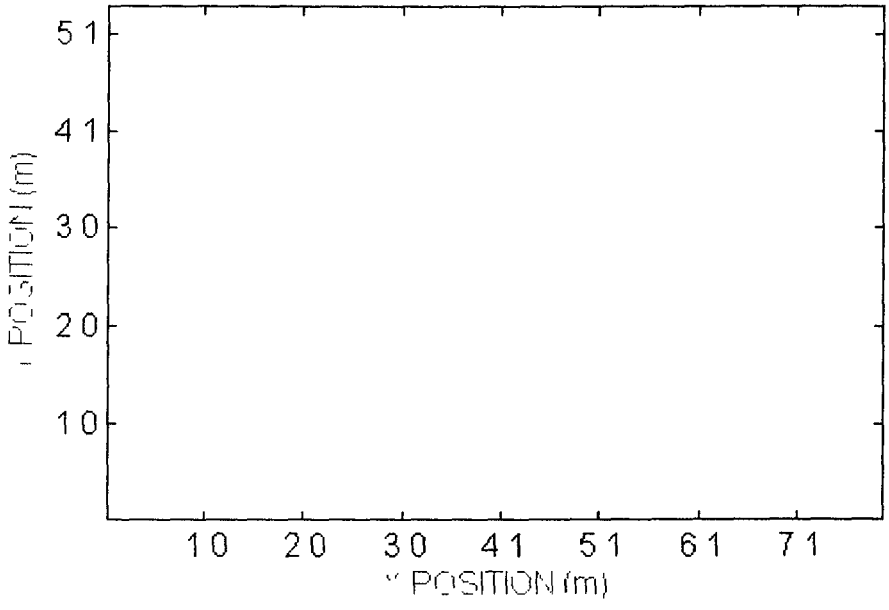

Figure 3 Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

Introduction

Survey 729035u was conducted on March 15, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels. Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729035u ranged from 0 to 129 dpm/pixel. 100 cm^2 data ranged from 0 to 257 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids. Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

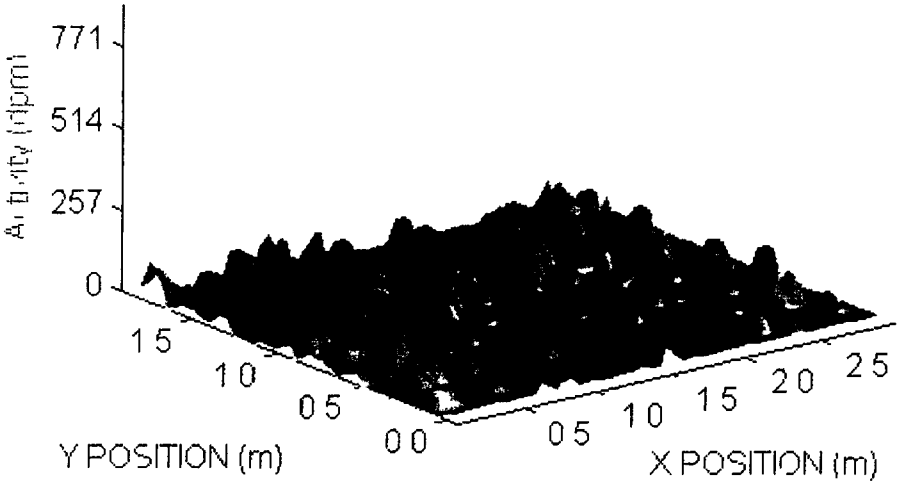

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

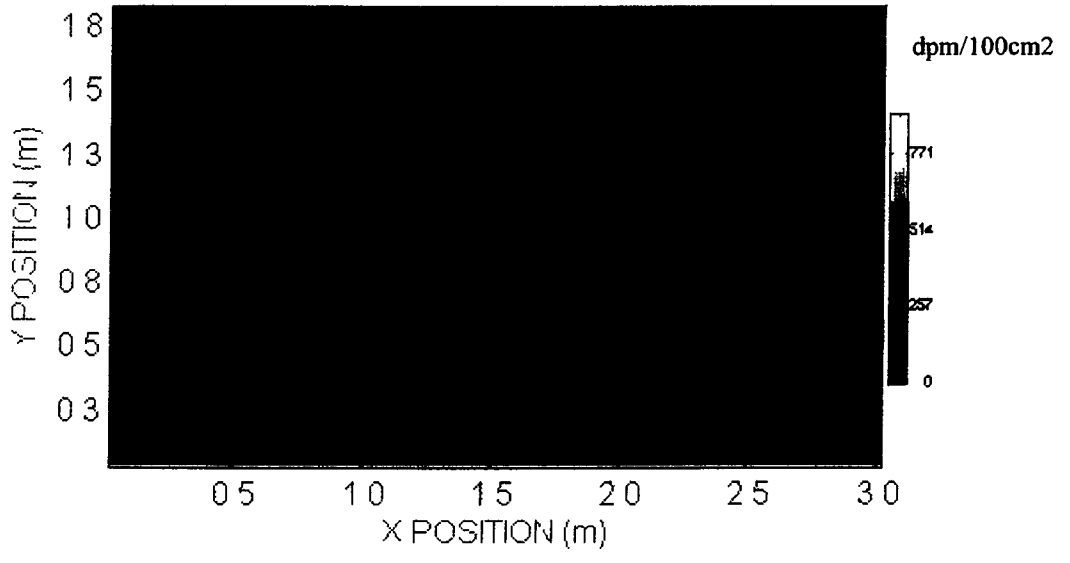

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

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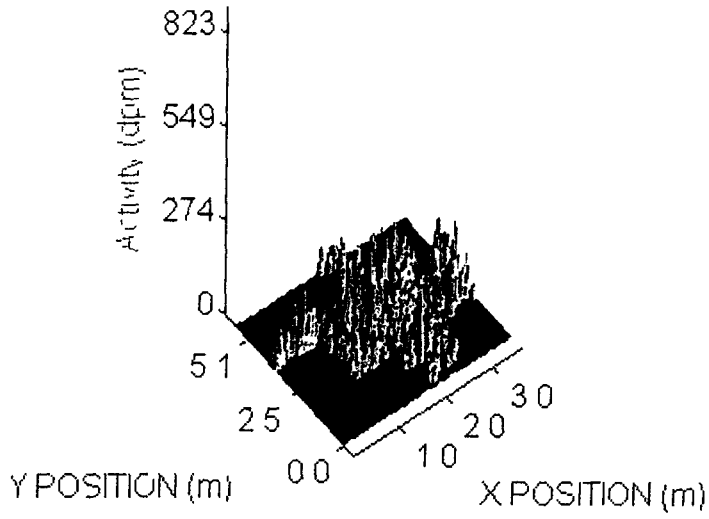

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

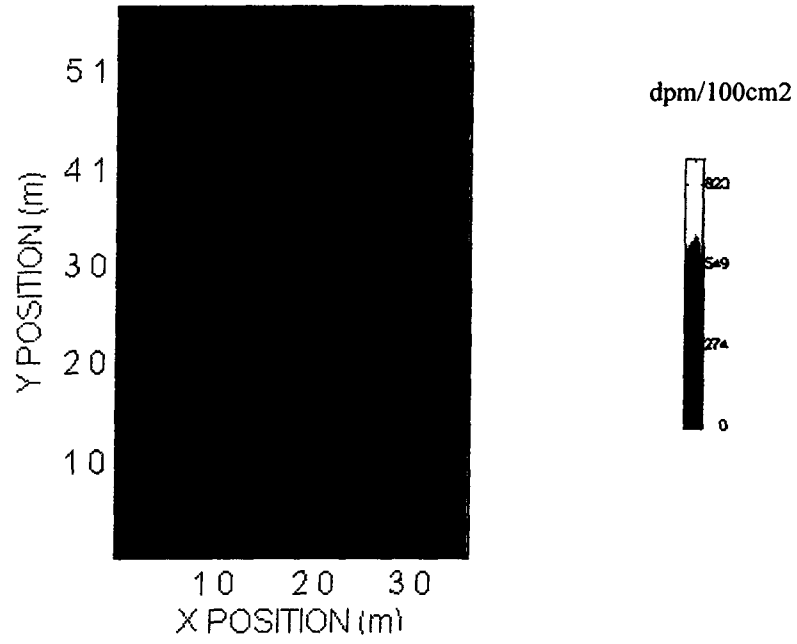

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	0	0	0	0	0
2	1	0	34	0	4 0	20
3	1	4	102	0	11 0	70
4	1	0	0	0	0	0
1	2	0	63	0	0	0
2	2	30	136	0	25 0	36
3	2	26	205	0	41 0	76
4	2	10	102	0	10 0	12
1	3	0	97	0	0	0
2	3	44	274	0	52 0	100
3	3	29	120	0	28 0	100
4	3	30	171	0	32 0	60
1	4	36	171	0	29 0	30
2	4	25	205	0	32 0	92
3	4	32	193	0	32 0	97
4	4	46	137	0	37 0	39
1	5	0	0	0	0	0
2	5	15	68	0	13 0	20
3	5	12	137	0	26 0	70
4	5	0	0	0	0	0
1	6	0	0	0	0	0
2	6	10	68	0	10 0	12
3	6	4	102	0	14 0	42
4	6	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 729011eu was conducted on March 23, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011eu ranged from 0 to 103 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

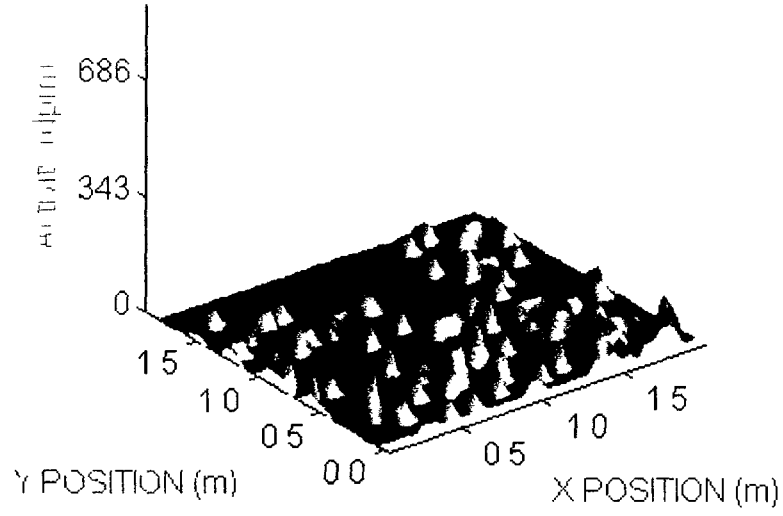

Figure 1. Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

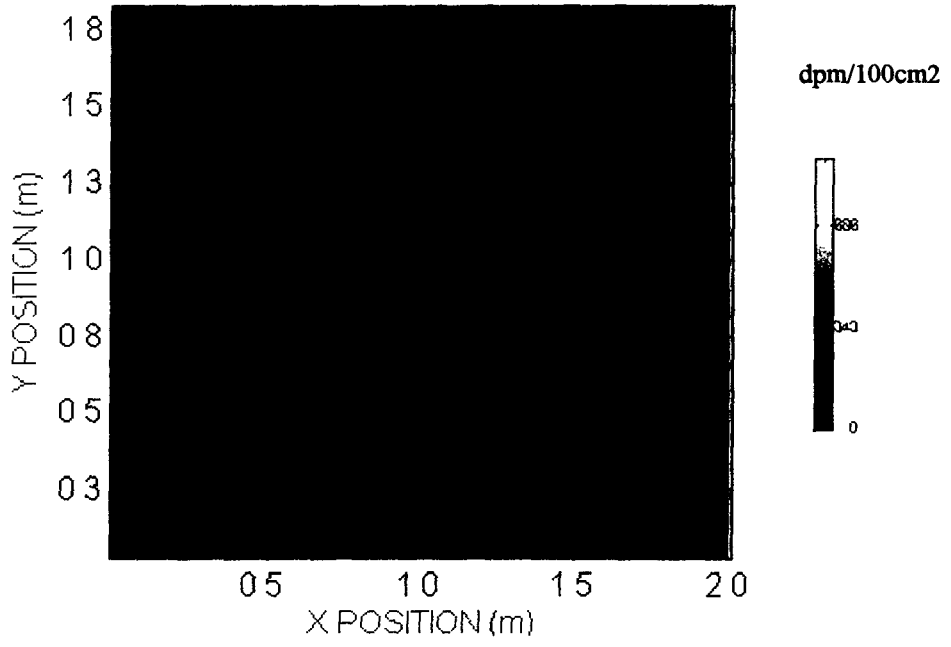

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	14	171	0	29 0	100
2	1	16	137	0	25 0	100
1	2	7	68	0	15 0	80
2	2	5	68	0	13 0	80

Table 1 The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$ The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data. All unıts (ı e mean, max, mın and standard devıatıon) are ın dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011n was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels. These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011n ranged from 0 to 179 dpm/pixel 100 cm^2 data ranged from 0 to 251 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

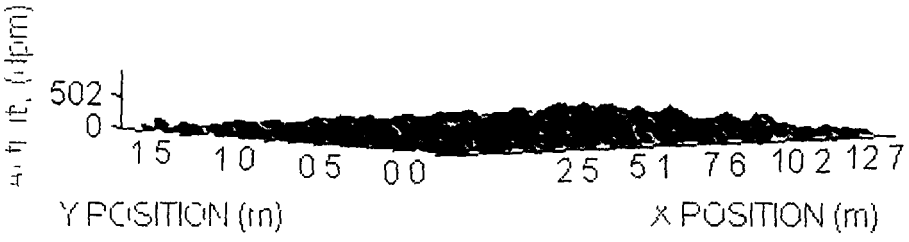

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

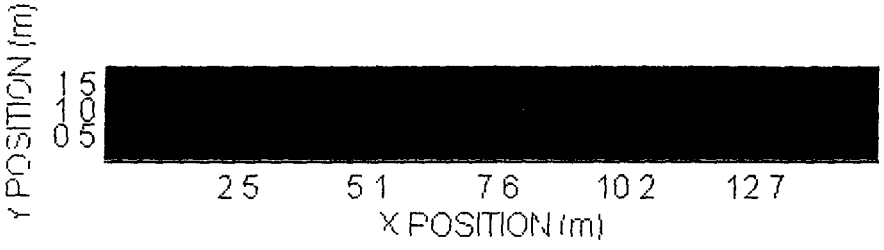

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	14	212	0	37 0	100
2	1	13	83	0	28 0	100
3	1	7	94	0	23 0	100
4	1	17	235	0	36 0	100
5	1	15	96	0	18 0	30
6	1	12	137	0	29 0	80
7	1	10	181	0	27 0	100
8	1	14	179	0	37 0	100
9	1	14	173	0	35 0	100
10	1	8	175	0	27 0	70
11	1	16	177	0	29 0	50
12	1	13	172	0	33 0	100
13	1	16	146	0	33 0	100
14	1	12	251	0	36 0	100
15	1	11	157	0	28 0	80
1	2	12	158	0	31 0	80
2	2	11	148	0	27 0	80
3	2	7	86	0	22 0	80
4	2	7	139	0	23 0	80
5	2	9	71	0	15 0	24
6	2	17	221	0	37 0	64
7	2	13	170	0	34 0	80
8	2	6	86	0	22 0	80
9	2	13	169	0	32 0	80
10	2	4	135	0	20 0	56
11	2	10	171	0	19 0	40
12	2	11	239	0	30 0	80
13	2	17	227	0	41 0	80
14	2	21	246	0	44 0	80
15	2	17	149	0	35 0	64

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011n was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011n ranged from 0 to 198 dpm/pixel 100 cm^2 data ranged from 0 to 224 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

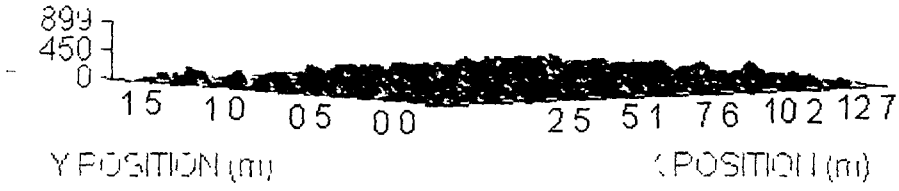

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

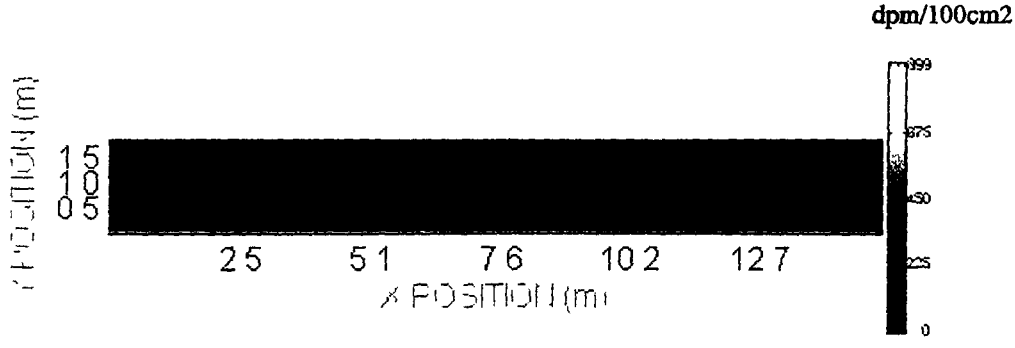

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	5	82	0	20 0	100
2	1	9	105	0	26 0	100
3	1	11	168	0	28 0	100
4	1	6	139	0	21 0	100
5	1	3	78	0	10 0	30
6	1	7	197	0	27 0	80
7	1	12	197	0	38 0	100
8	1	10	156	0	29 0	100
9	1	6	175	0	25 0	100
10	1	5	88	0	19 0	70
11	1	4	88	0	14 0	50
12	1	12	172	0	34 0	100
13	1	11	175	0	32 0	100
14	1	11	174	0	32 0	100
15	1	11	224	0	32 0	80
1	2	4	87	0	19 0	80
2	2	15	173	0	36 0	80
3	2	6	94	0	22 0	80
4	2	4	87	0	19 0	80
5	2	6	78	0	12 0	24
6	2	3	98	0	17 0	64
7	2	14	184	0	35 0	80
8	2	8	92	0	24 0	80
9	2	8	84	0	24 0	80
10	2	10	175	0	26 0	56
11	2	22	197	0	33 0	40
12	2	17	136	0	34 0	80
13	2	19	169	0	37 0	80
14	2	7	169	0	26 0	80
15	2	11	93	0	26 0	64

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011nu was conducted on March 22, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011nu ranged from 0 to 117 dpm/pixel 100 cm^2 data ranged from 0 to 137 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

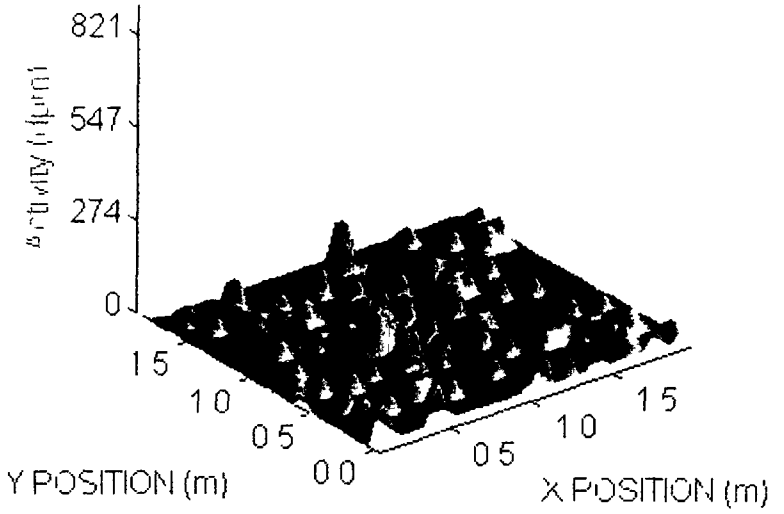

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

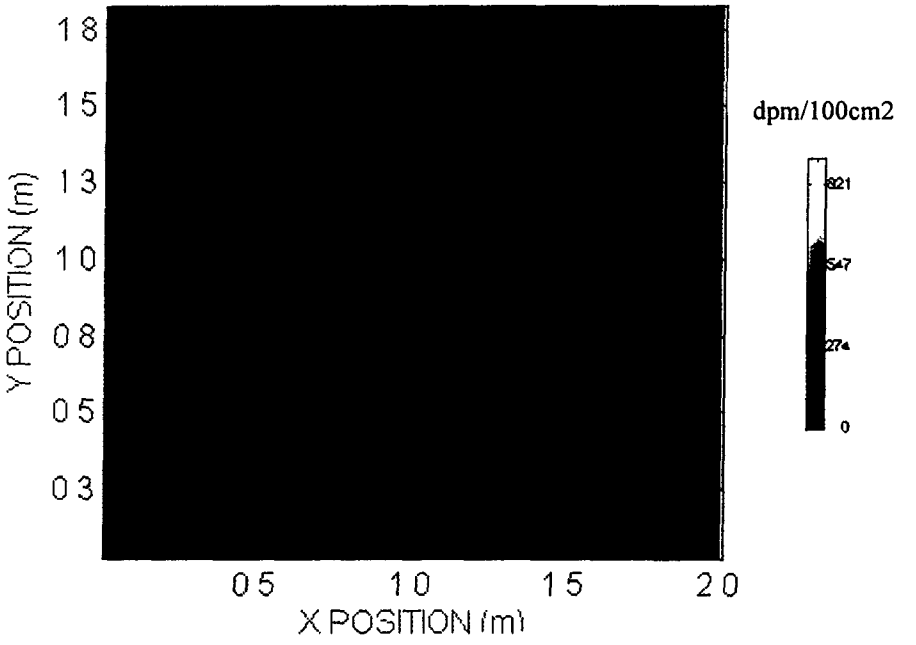

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	13	120	0	24 0	100
2	1	11	68	0	18 0	100
1	2	11	136	0	21 0	80
2	2	13	116	0	26 0	80

Table 1. The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL. When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$ The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data All unıts (ı e mean, max, mın and standard devıatıon) are ın dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 729011su was conducted on March 23, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011su ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

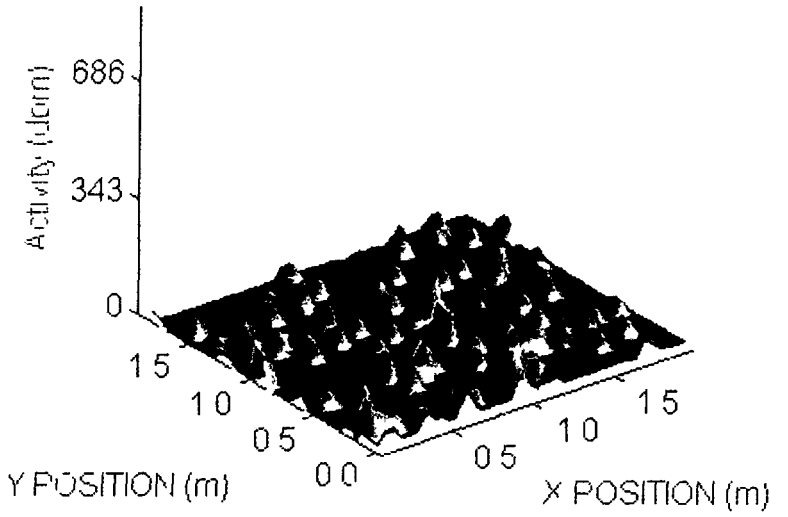

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

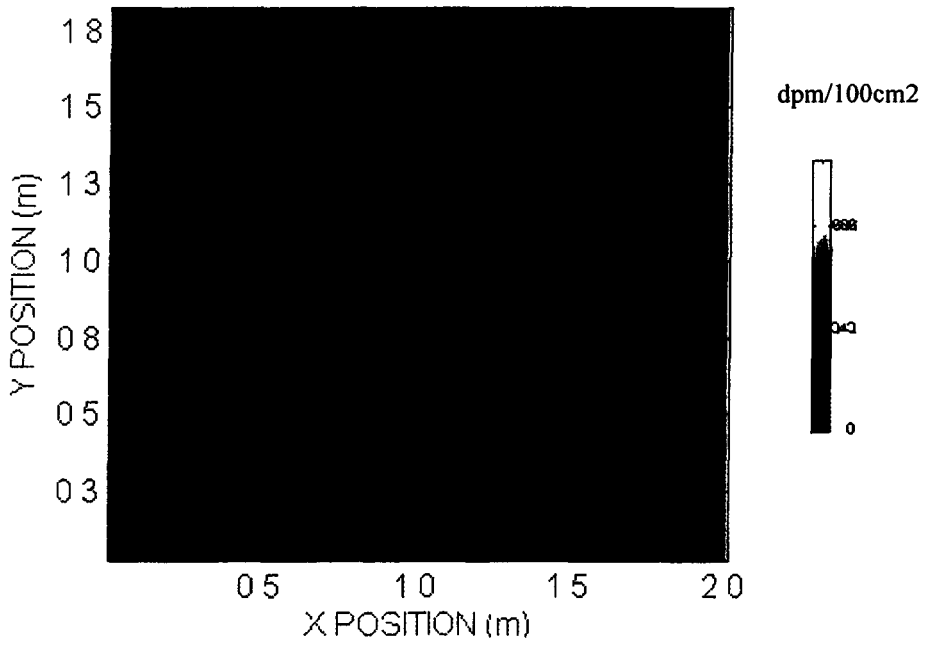

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	13	130	0	23 0	100
2	1	12	137	0	23 0	100
1	2	10	102	0	19 0	80
2	2	13	171	0	23 0	80

Table 1 The X and Y columns reference the grıds of Fıgures 1 and 2. Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$. The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data All unıts (ı.e mean, max, mın and standard devıatıon) are ın dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729011tc was conducted on March 17, 1999 by SMITH as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011tc ranged from 0 to 171 dpm/pixel 100 cm^2 data ranged from 0 to 379 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

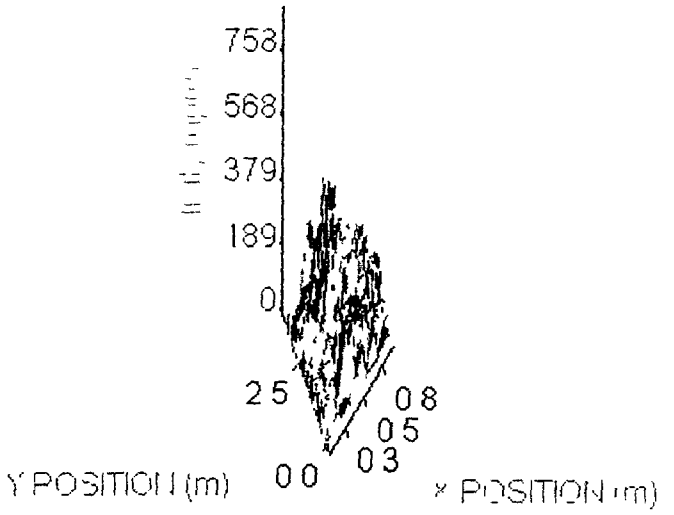

Figure 1. Image plot of surface activity showing 25 cm² pixels The vertical scale is in dpm per pixel

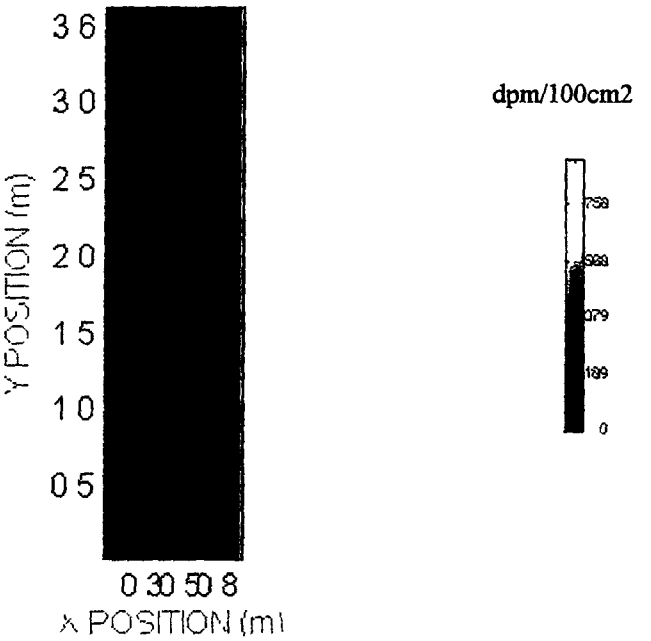

Figure 2 Meter grid overlaid onto image plot of 25 cm² pixels. The color scale is in dpm per 100cm²

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	47	257	0	45 0	90
1	2	33	265	0	45 0	90
1	**3**	**61**	**378**	**0**	**63.0**	**90**
1	4	62	293	0	63 0	54

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the $DCGL_{EMC}$ Figure 3 details which zones were above the $DCGL_{EMC}$

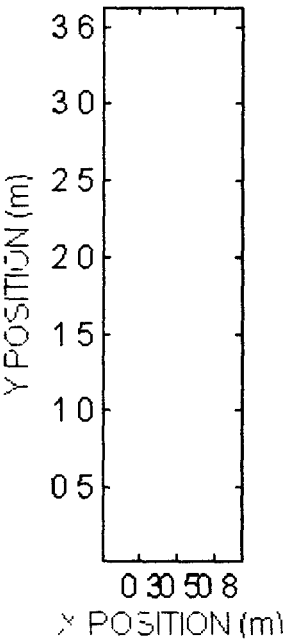

Figure 3. Yellow pixels correspond to the upper left coordinate of a 100cm^2 area exceeding the $DCGL_{EMC}$

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Introduction

Survey 729011wu was conducted on March 23, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729011wu ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 103 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

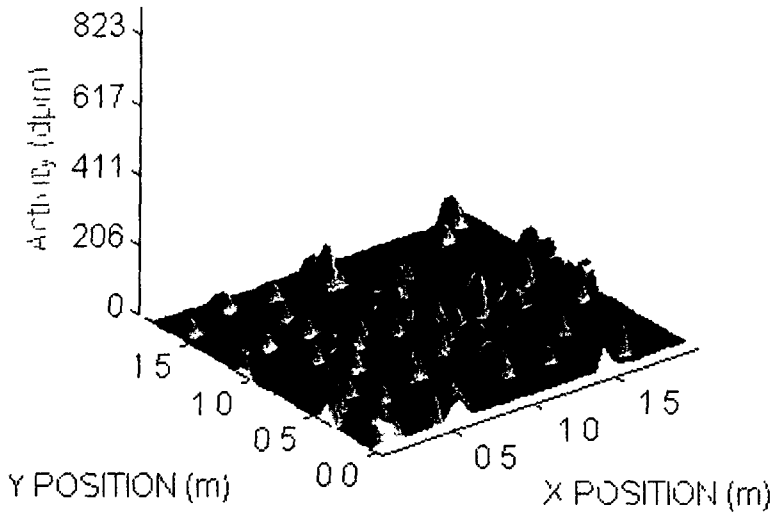

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

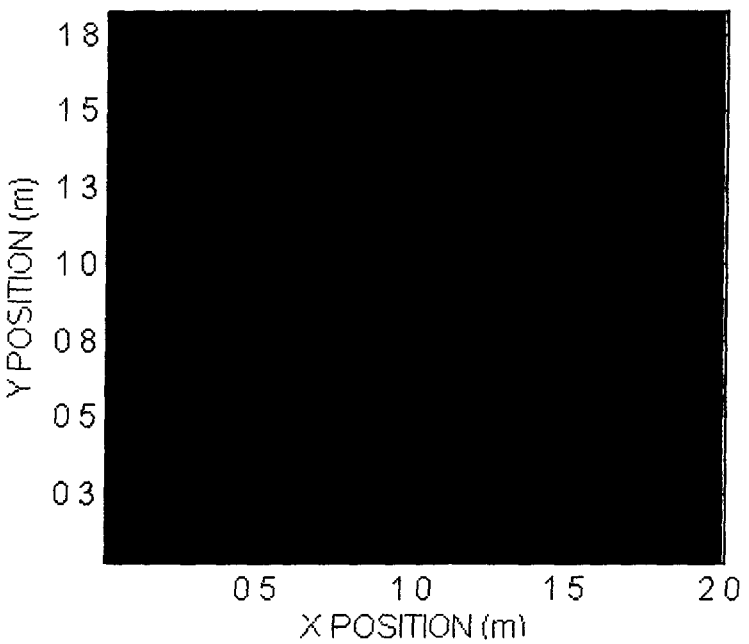

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	10	102	0	21 0	100
2	1	11	102	0	23 0	100
1	2	8	102	0	18 0	80
2	2	12	102	0	21 0	80

Table 1 The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$ The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data All unıts (ı.e mean, max, mın and standard devıatıon) are ın dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729012c was conducted on March 25, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012c ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 198 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

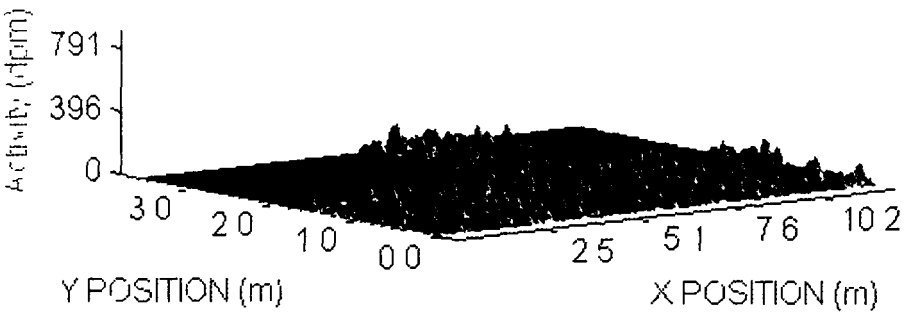

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

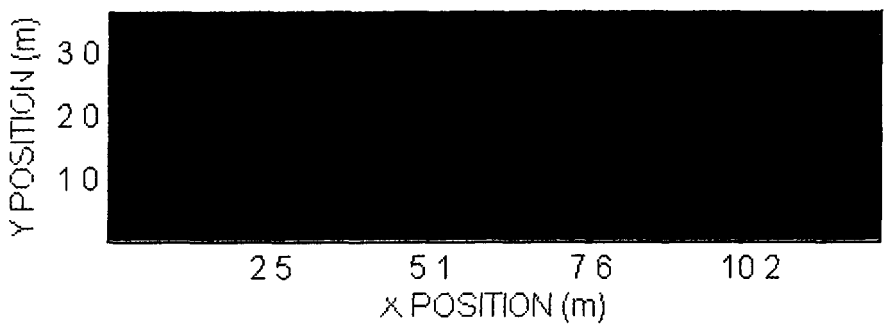

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	21	137	0	27 0	100
2	1	0	63	0	0	0
3	1	16	102	0	25 0	100
4	1	21	102	0	27 0	100
5	1	23	188	0	34 0	100
6	1	20	137	0	32 0	100
7	1	20	137	0	27 0	100
8	1	22	137	0	30 0	100
9	1	1	137	0	9 0	0
10	1	20	171	0	31 0	90
11	1	0	61	0	0	0
12	1	20	137	0	25 0	99
1	2	17	136	0	26 0	80
2	2	0	93	0	0	0
3	2	17	137	0	29 0	80
4	2	21	171	0	33 0	80
5	2	15	166	0	28 0	80
6	2	20	137	0	29 0	80
7	2	21	137	0	29 0	100
8	2	24	162	0	32 0	100
9	2	30	137	0	20 0	18
10	2	18	160	0	32 0	72
11	2	0	123	0	0	0
12	2	21	158	0	31 0	80
1	3	0	0	0	0	0
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	2	68	0	12 0	0
7	3	24	137	0	32 0	100
8	3	23	171	0	28 0	100
9	3	17	197	0	29 0	90
10	3	0	0	0	0	0
11	3	0	0	0	0	0
12	3	0	0	0	0	0
1	4	0	0	0	0	0
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	3	102	0	12 0	0
7	4	30	171	0	37 0	60
8	4	18	102	0	28 0	60
9	4	21	137	0	30 0	54

10	4	0	0	0	0	0
11	4	0	0	0	0	0
12	4	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729012f was conducted on March 27, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012f ranged from 0 to 124 dpm/pixel 100 cm^2 data ranged from 0 to 220 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

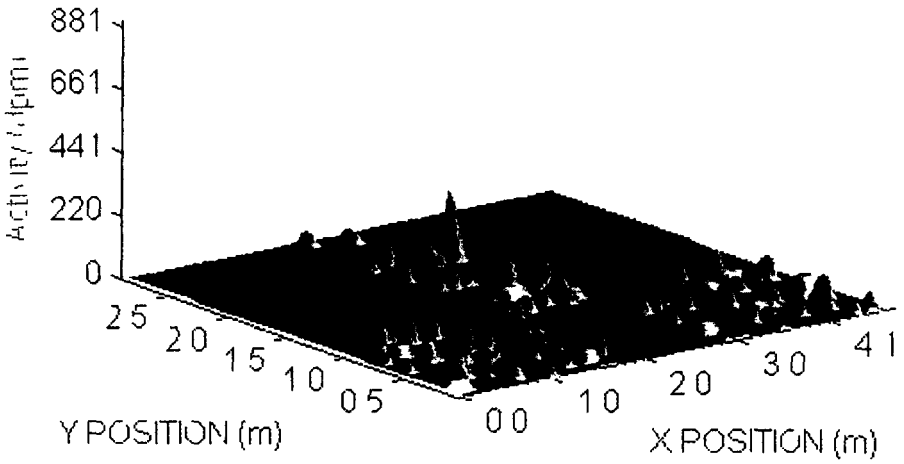

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

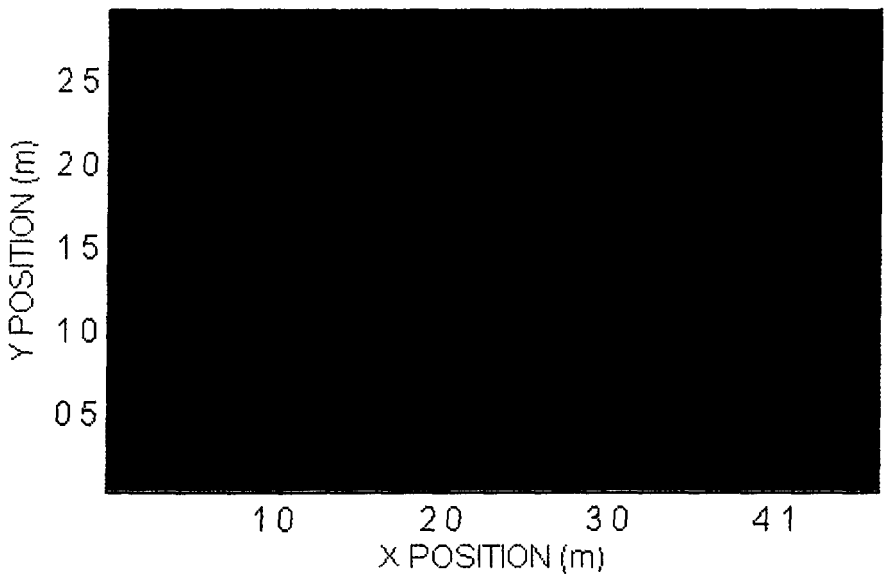

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	8	68	0	15 0	100
2	1	11	171	0	23 0	80
3	1	10	68	0	8 0	20
4	1	9	137	0	22 0	100
5	1	9	99	0	21 0	60
1	2	20	68	0	11 0	10
2	2	8	68	0	9 0	26
3	2	9	102	0	19 0	74
4	2	10	102	0	12 0	10
5	2	0	34	0	4 0	6
1	3	0	0	0	0	0
2	3	5	59	0	8 0	18
3	3	8	220	0	29 0	72
4	3	0	0	0	0	0
5	3	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over $1m^2$
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over $1m^2$
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729012n was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012n ranged from 0 to 69 dpm/pixel 100 cm^2 data ranged from 0 to 133 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

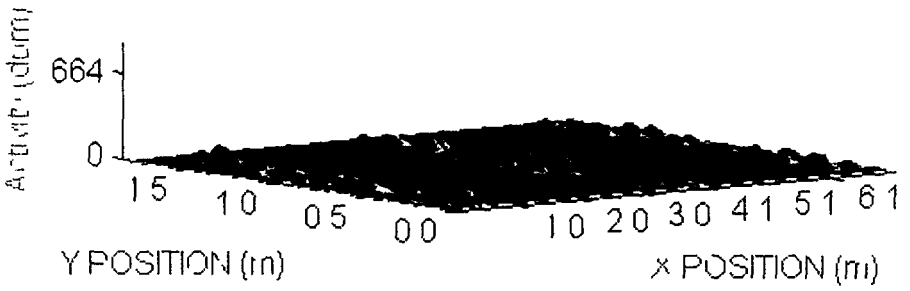

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

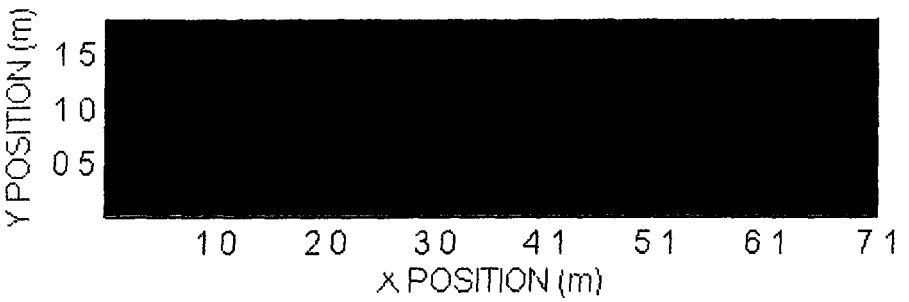

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	12	68	0	21 0	100
2	1	0	0	0	0	0
3	1	0	0	0	0	0
4	1	10	132	0	21 0	80
5	1	5	68	0	8 0	20
6	1	0	0	0	0	0
7	1	4	68	0	12 0	70
1	2	8	102	0	21 0	80
2	2	0	0	0	0	0
3	2	0	0	0	0	0
4	2	9	102	0	21 0	64
5	2	5	68	0	9 0	16
6	2	0	0	0	0	0
7	2	4	68	0	13 0	56

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729012s was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012s ranged from 0 to 122 dpm/pixel 100 cm^2 data ranged from 0 to 171 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

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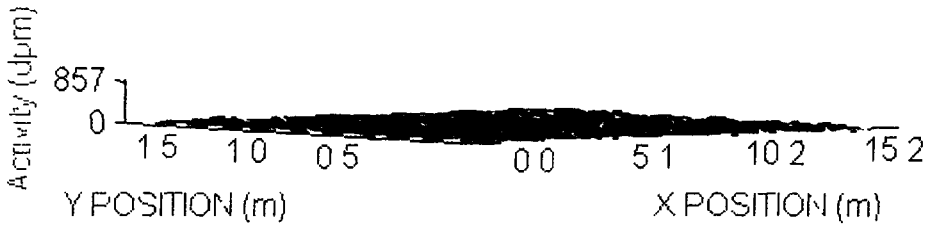

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

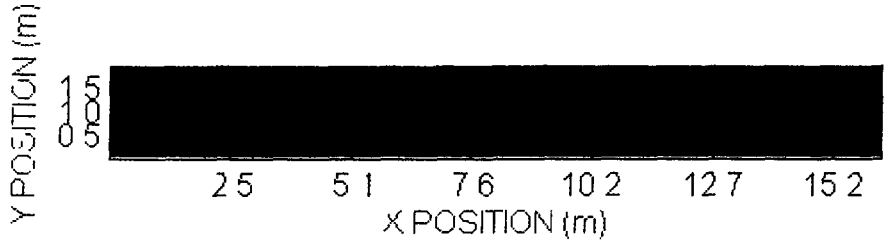

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	20	171	0	30 0	100
2	1	14	137	0	25 0	100
3	1	19	137	0	25 0	100
4	1	8	137	0	21 0	100
5	1	7	102	0	17 0	100
6	1	10	102	0	21 0	100
7	1	9	94	0	19 0	80
8	1	9	97	0	18 0	100
9	1	10	68	0	18 0	100
10	1	8	102	0	18 0	100
11	1	14	123	0	24 0	100
12	1	11	68	0	20 0	100
13	1	9	102	0	20 0	100
14	1	9	102	0	18 0	100
15	1	11	171	0	23 0	100
16	1	10	101	0	20 0	90
1	2	16	171	0	33 0	81
2	2	19	171	0	29 0	90
3	2	25	137	0	33 0	88
4	2	9	113	0	19 0	80
5	2	8	155	0	20 0	80
6	2	10	130	0	26 0	80
7	2	10	137	0	23 0	64
8	2	8	102	0	18 0	80
9	2	5	73	0	13 0	80
10	2	5	68	0	15 0	80
11	2	12	102	0	21 0	80
12	2	12	101	0	21 0	80
13	2	9	102	0	20 0	80
14	2	7	68	0	13 0	80
15	2	7	68	0	17 0	80
16	2	8	102	0	20 0	72

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729012w was conducted on March 19, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729012w ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 164 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

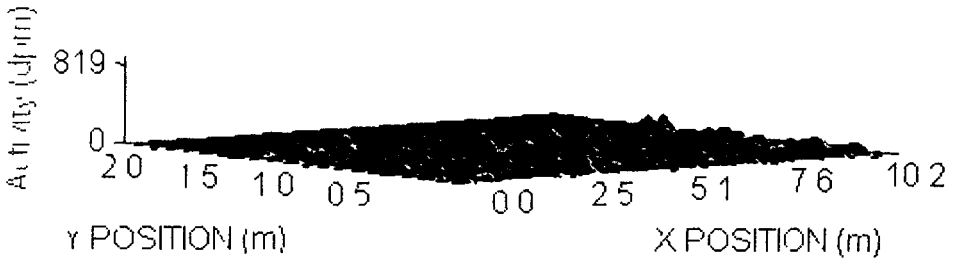

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

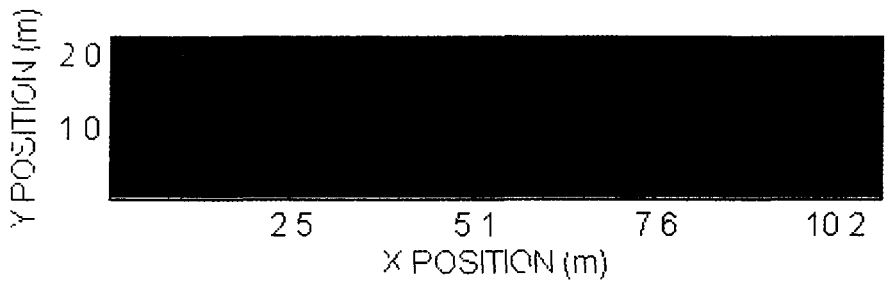

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	11	102	0	24 0	100
2	1	8	102	0	21 0	100
3	1	8	68	0	17 0	100
4	1	10	129	0	21 0	80
5	1	12	102	0	19 0	50
6	1	6	68	0	14 0	100
7	1	8	68	0	16 0	100
8	1	10	131	0	20 0	100
9	1	11	102	0	23 0	95
10	1	9	102	0	19 0	86
11	1	13	102	0	25 0	54
1	2	9	135	0	22 0	80
2	2	7	137	0	21 0	80
3	2	6	102	0	15 0	80
4	2	16	102	0	18 0	64
5	2	10	137	0	19 0	40
6	2	7	102	0	16 0	80
7	2	7	153	0	21 0	80
8	2	6	68	0	17 0	80
9	2	8	102	0	22 0	82
10	2	3	68	0	12 0	82
11	2	10	163	0	29 0	48
1	3	0	0	0	0	0
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	0	0	0	0	0
7	3	0	0	0	0	0
8	3	0	0	0	0	0
9	3	0	0	0	0	2
10	3	0	0	0	0	2
11	3	0	0	0	0	0

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290120p was conducted on March 17, 1999 by SMITH as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290120p ranged from 0 to 113 dpm/pixel 100 cm^2 data ranged from 0 to 241 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

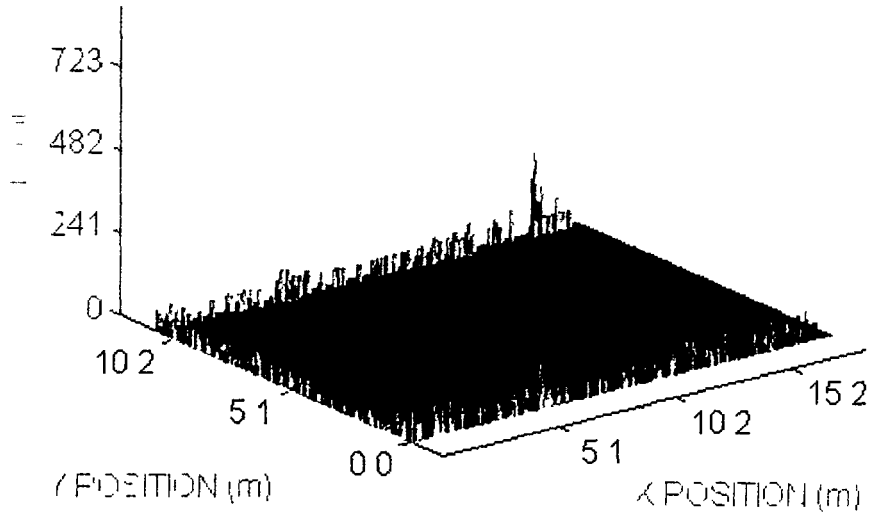

Figure 1. Image plot of surface activity showing 25 cm² pixels. The vertical scale is in dpm per pixel

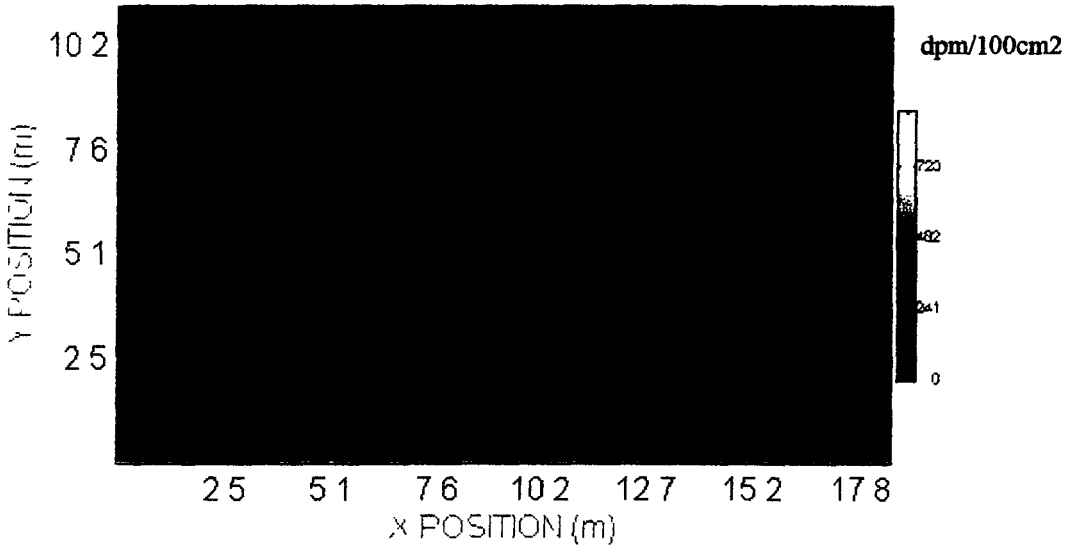

Figure 2. Meter grid overlaid onto image plot of 25 cm² pixels. The color scale is in dpm per 100cm².

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X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	16	128	0	17 0	28
2	1	15	85	0	13 0	20
3	1	10	85	0	11 0	20
4	1	5	42	0	8 0	20
5	1	10	128	0	9 0	20
6	1	25	128	0	17 0	20
7	1	5	42	0	8 0	20
8	1	10	85	0	11 0	20
9	1	0	42	0	5 0	20
10	1	10	85	0	9 0	20
11	1	10	85	0	11 0	20
12	1	20	85	0	16 0	20
13	1	15	128	0	16 0	20
14	1	10	85	0	10 0	20
15	1	10	85	0	10 0	20
16	1	10	85	0	12 0	20
17	1	20	85	0	15 0	20
18	1	10	85	0	11 0	20
19	1	0	0	0	0	1
1	2	20	64	0	9 0	10
2	2	0	0	0	0	0
3	2	0	0	0	0	0
4	2	0	0	0	0	0
5	2	0	0	0	0	0
6	2	0	0	0	0	0
7	2	0	0	0	0	0
8	2	0	0	0	0	0
9	2	0	0	0	0	0
10	2	0	0	0	0	0
11	2	0	0	0	0	0
12	2	0	0	0	0	0
13	2	0	0	0	0	0
14	2	0	0	0	0	0
15	2	0	0	0	0	0
16	2	0	0	0	0	0
17	2	0	0	0	0	0
18	2	0	0	0	0	0
19	2	0	0	0	0	0
1	3	0	21	0	4 0	10
2	3	0	0	0	0	0
3	3	0	0	0	0	0
4	3	0	0	0	0	0
5	3	0	0	0	0	0
6	3	0	0	0	0	0
7	3	0	0	0	0	0

8	3	0	0	0	0	0
9	3	0	0	0	0	0
10	3	0	0	0	0	0
11	3	0	0	0	0	0
12	3	0	0	0	0	0
13	3	0	0	0	0	0
14	3	0	0	0	0	0
15	3	0	0	0	0	0
16	3	0	0	0	0	0
17	3	0	0	0	0	0
18	3	0	0	0	0	0
19	3	0	0	0	0	0
1	4	10	84	0	70	10
2	4	0	0	0	0	0
3	4	0	0	0	0	0
4	4	0	0	0	0	0
5	4	0	0	0	0	0
6	4	0	0	0	0	0
7	4	0	0	0	0	0
8	4	0	0	0	0	0
9	4	0	0	0	0	0
10	4	0	0	0	0	0
11	4	0	0	0	0	0
12	4	0	0	0	0	0
13	4	0	0	0	0	0
14	4	0	0	0	0	0
15	4	0	0	0	0	0
16	4	0	0	0	0	0
17	4	0	0	0	0	0
18	4	0	0	0	0	0
19	4	0	0	0	0	0
1	5	6	64	0	70	18
2	5	0	0	0	0	0
3	5	0	0	0	0	0
4	5	0	0	0	0	0
5	5	0	0	0	0	0
6	5	0	0	0	0	0
7	5	0	0	0	0	0
8	5	0	0	0	0	0
9	5	0	0	0	0	0
10	5	0	0	0	0	0
11	5	0	0	0	0	0
12	5	0	0	0	0	0
13	5	0	0	0	0	0
14	5	0	0	0	0	0
15	5	0	0	0	0	0
16	5	0	0	0	0	0

17	5	0	0	0	0	0
18	5	0	0	0	0	0
19	5	0	0	0	0	0
1	6	5	42	0	7 0	20
2	6	0	0	0	0	0
3	6	0	0	0	0	0
4	6	0	0	0	0	0
5	6	0	0	0	0	0
6	6	0	0	0	0	0
7	6	0	0	0	0	0
8	6	0	0	0	0	0
9	6	0	0	0	0	0
10	6	0	0	0	0	0
11	6	0	0	0	0	0
12	6	0	0	0	0	0
13	6	0	0	0	0	0
14	6	0	0	0	0	0
15	6	0	0	0	0	0
16	6	0	0	0	0	0
17	6	0	0	0	0	0
18	6	0	0	0	0	0
19	6	0	0	0	0	0
1	7	20	64	0	10 0	10
2	7	0	0	0	0	0
3	7	0	0	0	0	0
4	7	0	0	0	0	0
5	7	0	0	0	0	0
6	7	0	0	0	0	0
7	7	0	0	0	0	0
8	7	0	0	0	0	0
9	7	0	0	0	0	0
10	7	0	0	0	0	0
11	7	0	0	0	0	0
12	7	0	0	0	0	0
13	7	0	0	0	0	0
14	7	0	0	0	0	0
15	7	0	0	0	0	0
16	7	0	0	0	0	0
17	7	0	0	0	0	0
18	7	0	0	0	0	0
19	7	0	0	0	0	0
1	8	20	42	0	9 0	10
2	8	0	0	0	0	0
3	8	0	0	0	0	0
4	8	0	0	0	0	0
5	8	0	0	0	0	0
6	8	0	0	0	0	0

7	8	0	0	0	0	0
8	8	0	0	0	0	0
9	8	0	0	0	0	0
10	8	0	0	0	0	0
11	8	0	0	0	0	0
12	8	0	0	0	0	0
13	8	0	0	0	0	0
14	8	0	0	0	0	0
15	8	0	0	0	0	0
16	8	0	0	0	0	0
17	8	0	0	0	0	0
18	8	0	0	0	0	0
19	8	0	0	0	0	0
1	9	0	42	0	4 0	10
2	9	0	0	0	0	0
3	9	0	0	0	0	0
4	9	0	0	0	0	0
5	9	0	0	0	0	0
6	9	0	0	0	0	0
7	9	0	0	0	0	0
8	9	0	0	0	0	0
9	9	0	0	0	0	0
10	9	0	0	0	0	0
11	9	0	0	0	0	0
12	9	0	0	0	0	0
13	9	0	0	0	0	0
14	9	0	0	0	0	0
15	9	0	0	0	0	0
16	9	0	0	0	0	0
17	9	0	0	0	0	0
18	9	0	0	0	0	0
19	9	0	0	0	0	0
1	10	5	42	0	8 0	20
2	10	0	0	0	0	0
3	10	0	0	0	0	0
4	10	0	0	0	0	0
5	10	0	0	0	0	0
6	10	0	0	0	0	0
7	10	0	0	0	0	0
8	10	0	0	0	0	0
9	10	0	0	0	0	0
10	10	0	0	0	0	0
11	10	0	0	0	0	0
12	10	0	0	0	0	0
13	10	0	0	0	0	0
14	10	0	0	0	0	0
15	10	0	0	0	0	0

16	10	0	0	0	0	0
17	10	0	0	0	0	0
18	10	0	0	0	0	0
19	10	0	0	0	0	0
1	11	16	84	0	14 0	25
2	11	5	42	0	8 0	17
3	11	0	42	0	4 0	20
4	11	8	42	0	10 0	20
5	11	4	42	0	7 0	25
6	11	15	85	0	19 0	27
7	11	8	85	0	9 0	22
8	11	4	42	0	8 0	20
9	11	0	42	0	6 0	20
10	11	4	42	0	8 0	20
11	11	8	42	0	10 0	20
12	11	8	79	0	9 0	22
13	11	12	85	0	13 0	25
14	11	8	85	0	11 0	25
15	11	8	78	0	10 0	20
16	11	4	85	0	10 0	20
17	11	24	241	0	29 0	20
18	11	8	85	0	11 0	20
19	11	0	0	0	0	4

Table 1. The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290121F was conducted on March 18, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290121F ranged from 0 to 169 dpm/pixel 100 cm^2 data ranged from 0 to 255 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

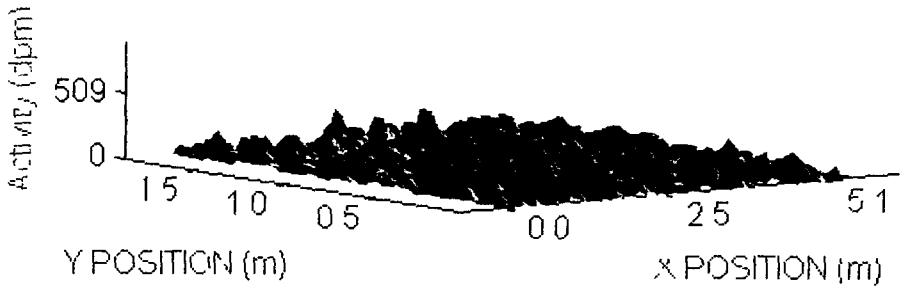

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

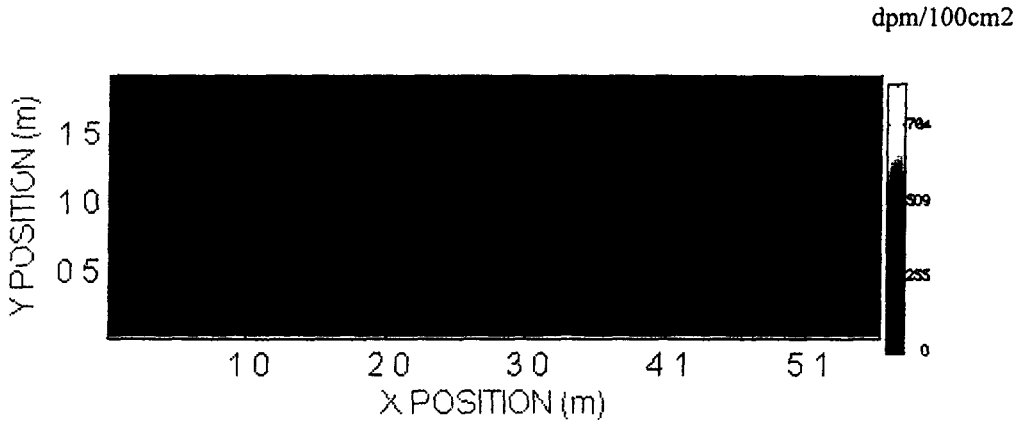

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	31	181	0	38 0	100
2	1	34	244	0	38 0	100
3	1	30	244	0	42 0	100
4	1	31	176	0	39 0	100
5	1	30	248	0	40 0	100
6	1	25	170	0	40 0	50
1	2	31	181	0	36 0	90
2	2	30	136	0	34 0	90
3	2	32	254	0	39 0	90
4	2	32	216	0	42 0	90
5	2	26	138	0	32 0	90
6	2	27	131	0	36 0	45

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 7290121F was conducted on March 18, 1999 by OLSEN as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 25% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 7290121F ranged from 0 to 148 dpm/pixel 100 cm^2 data ranged from 0 to 239 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed DCGLs

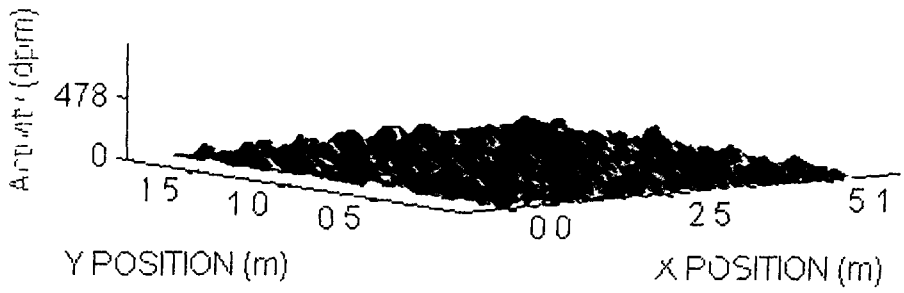

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

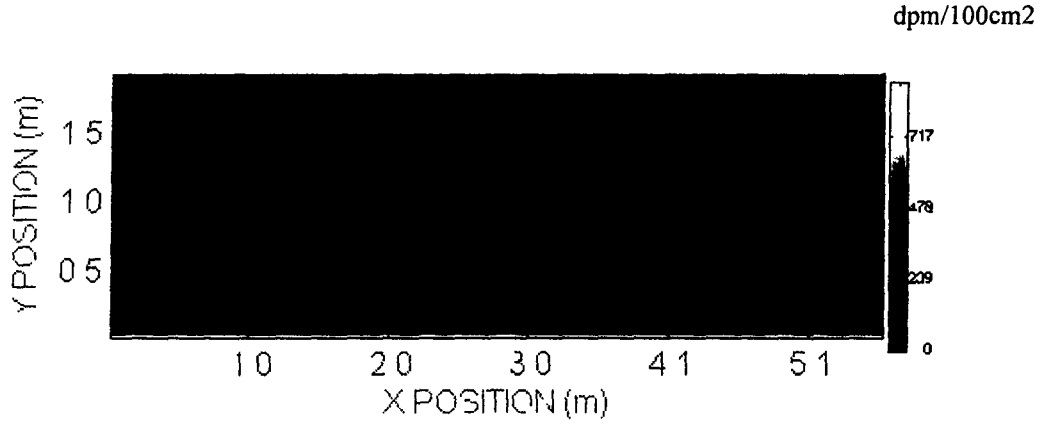

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	31	178	0	36 0	100
2	1	36	239	0	38 0	100
3	1	35	197	0	46 0	100
4	1	27	217	0	38 0	100
5	1	24	165	0	34 0	100
6	1	29	131	0	34 0	50
1	2	24	136	0	33 0	90
2	2	22	131	0	32 0	90
3	2	19	172	0	32 0	90
4	2	26	176	0	34 0	90
5	2	19	135	0	29 0	90
6	2	26	178	0	34 0	45

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i e mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729013s was conducted on February 26, 1999 by CHETE as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM1 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729013s ranged from 0 to 77 dpm/pixel 100 cm^2 data ranged from 0 to 167 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

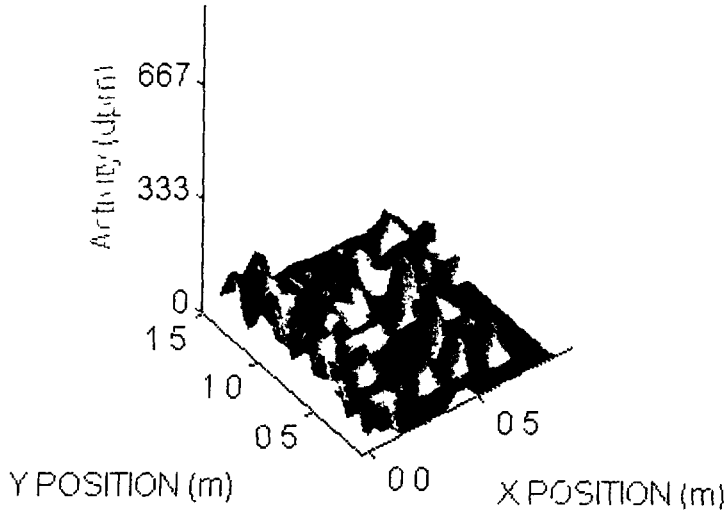

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

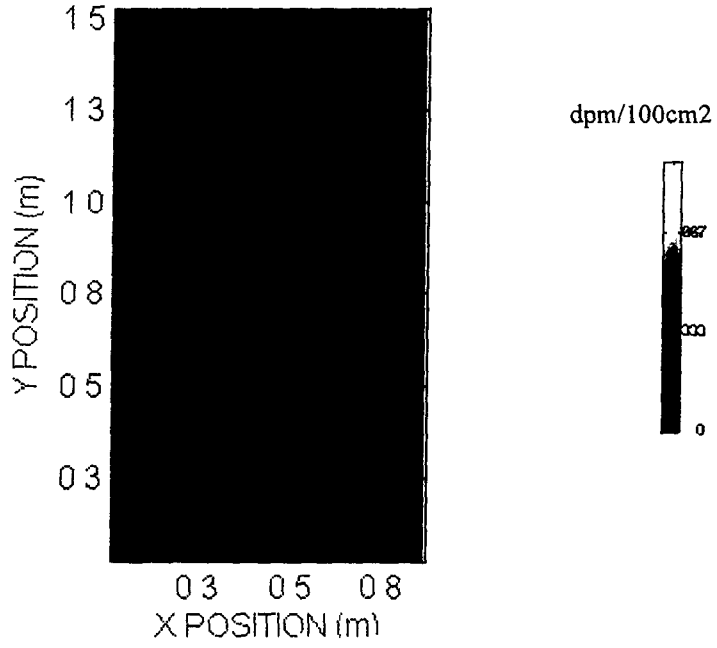

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	24	166	0	34 0	72
1	2	39	153	0	38 0	34

Table 1 The X and Y columns reference the grıds of Fıgures 1 and 2 Bold text denotes grıds whıch exceed the applıcable DCGL When "100" ıs ındıcated ın the "100cm^2 Areas", then the grıd ıs a full square meter The mean ıs the average of all measurements ın the grıd, and ıs compared to the $DCGL_W$ The max ıs compared to the $DCGL_{EMC}$ The standard devıatıon ıs calculated from pıxels that contaın data All unıts (ı e mean, max, mın and standard devıatıon) are ın dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM1, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729014e was conducted on February 26, 1999 by CHETE as part of the 72902 survey Data was gathered using SRA Surface Contamination Monitor, SCM1 The Position Sensitive Proportional Counter was operating with an efficiency of 39% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729014e ranged from 0 to 115 dpm/pixel 100 cm^2 data ranged from 0 to 154 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

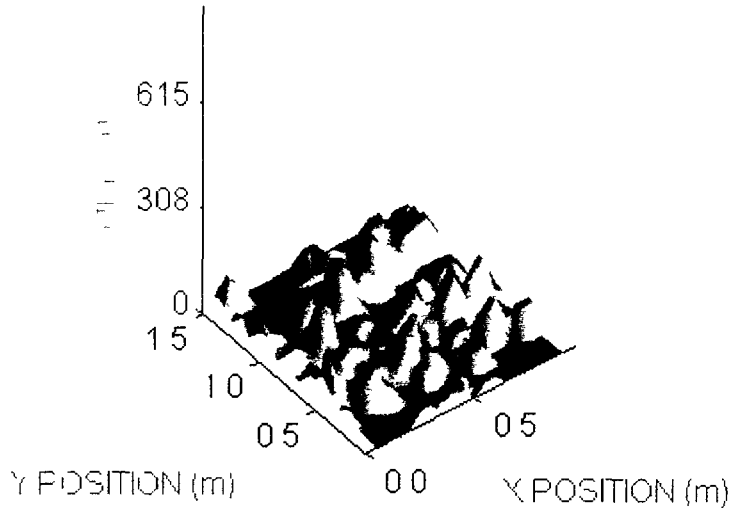

Figure 1. Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

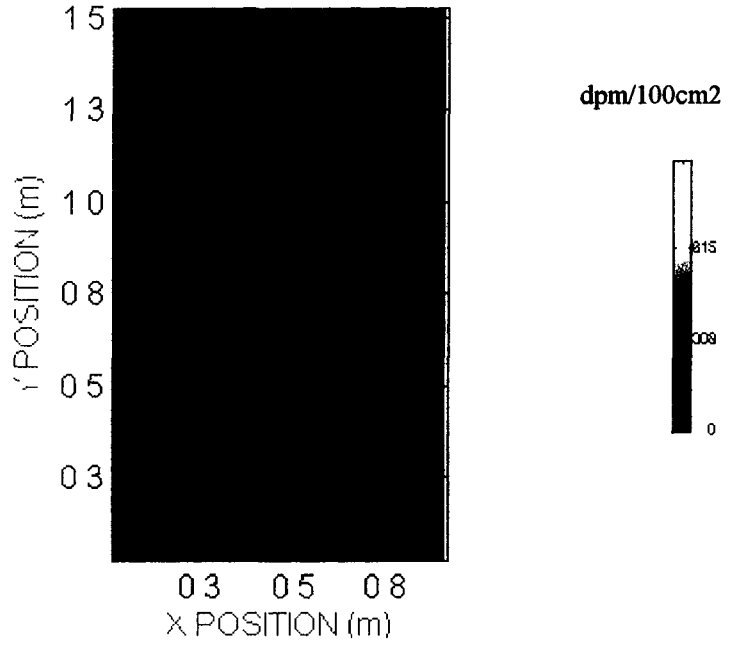

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Mın	STD	100cm^2 Areas
1	1	26	153	0	35 0	88
1	2	32	128	0	32 0	39

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM1, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
100 dpm/100 cm^2, averaged over 1m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

Introduction

Survey 729015f was conducted on March 24, 1999 by PILKINGTON/STANLEY as part of the 72901 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels. Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 729015f ranged from 0 to 274 dpm/pixel 100 cm^2 data ranged from 0 to 308 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	21	128	0	29 0	100
2	1	16	257	0	35 0	100
3	1	18	128	0	29 0	100
1	2	45	214	0	49 0	80
2	2	37	171	0	42 0	80
3	2	25	171	0	36 0	80

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400.5 Criteria
100 dpm/100 cm^2, averaged over 1 m^2
300 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 100 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 300 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

511

Introduction

Survey 72903004 was conducted on April 5, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903004 ranged from 0 to 103 dpm/pixel 100 cm^2 data ranged from 0 to 236 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

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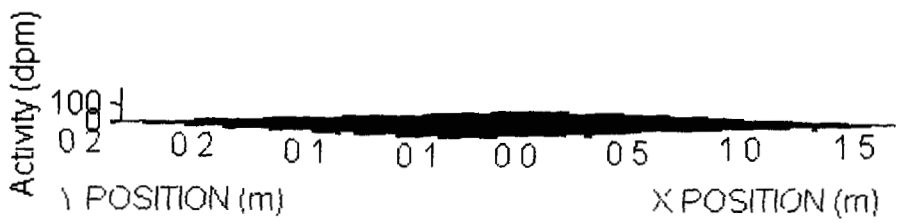

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

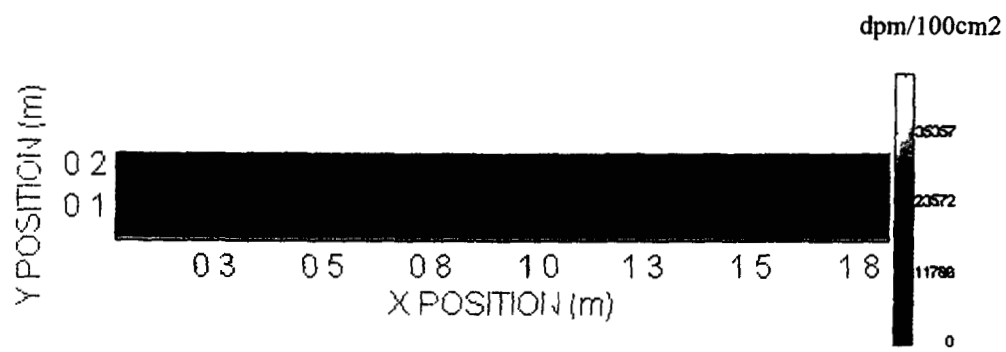

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2

513

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	92	235	0	52 0	20
2	1	75	171	0	57 0	16

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
5000 dpm/100 cm^2, averaged over 1 m^2
15000 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 5000 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 15000 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

515

Introduction

Survey 72903005 was conducted on April 5, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903005 ranged from 0 to 206 dpm/pixel 100 cm^2 data ranged from 0 to 377 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

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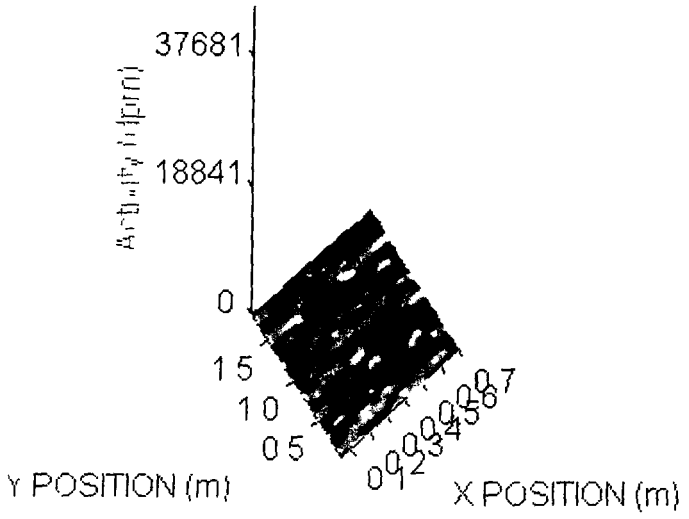

Figure 1 Image plot of surface activity showing 25 cm^2 pixels. The vertical scale is in dpm per pixel

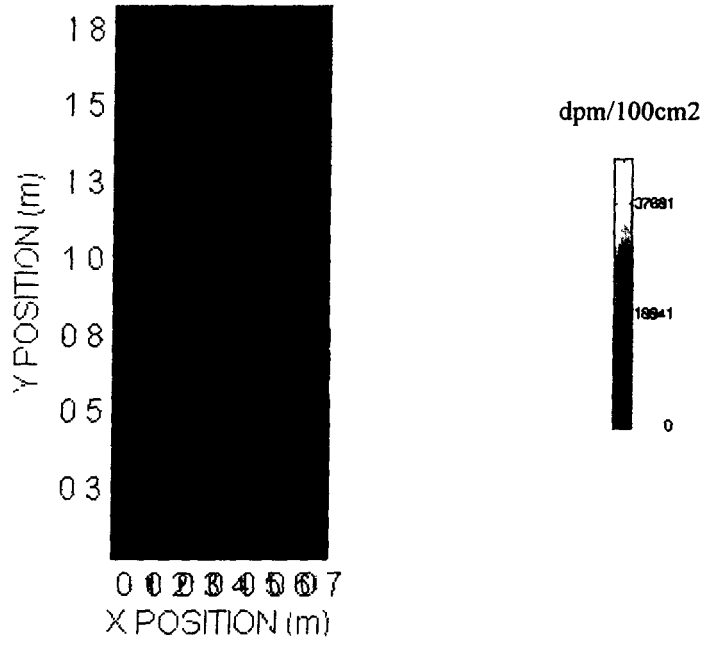

Figure 2 Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	67	274	0	62 0	70
1	2	89	376	0	77 0	56

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data. All units (i e mean, max, min and standard deviation) are in dpm/100cm^2

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
5000 dpm/100 cm^2, averaged over 1 m^2
15000 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 5000 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 15000 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

519

Introduction

Survey 72903006 was conducted on April 5, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903006 ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 274 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

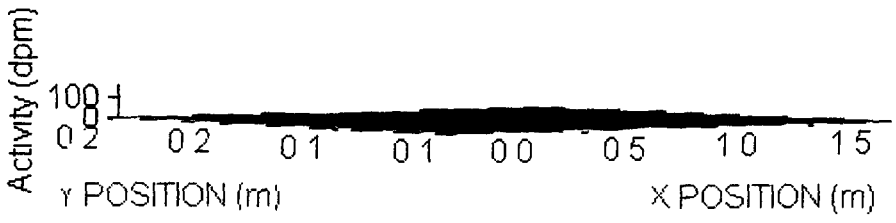

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel

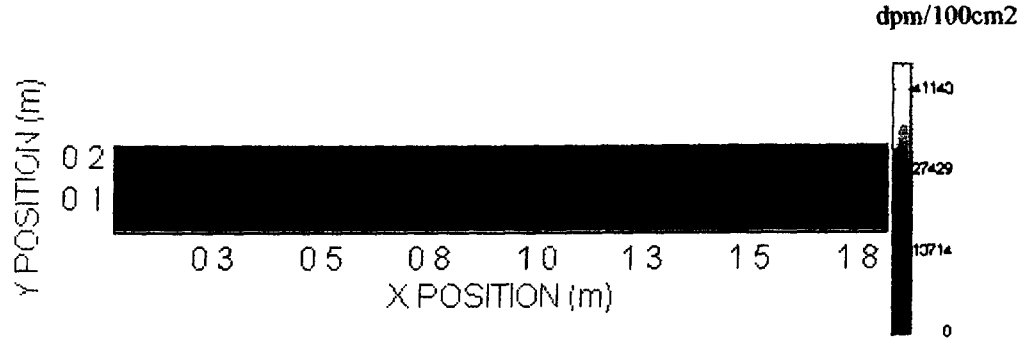

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	66	274	0	66 0	20
2	1	66	240	0	65 0	16

Table 1. The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL. When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$. The standard deviation is calculated from pixels that contain data. All units (i.e. mean, max, min and standard deviation) are in dpm/100cm^2.

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
5000 dpm/100 cm^2, averaged over 1m^2
15000 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 5000 dpm/100 cm^2, averaged over 1m^2
$DCGL_{EMC}$ = 15000 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 72903009 was conducted on April 6, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903009 ranged from 0 to 137 dpm/pixel 100 cm^2 data ranged from 0 to 240 dpm/100 cm^2. An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

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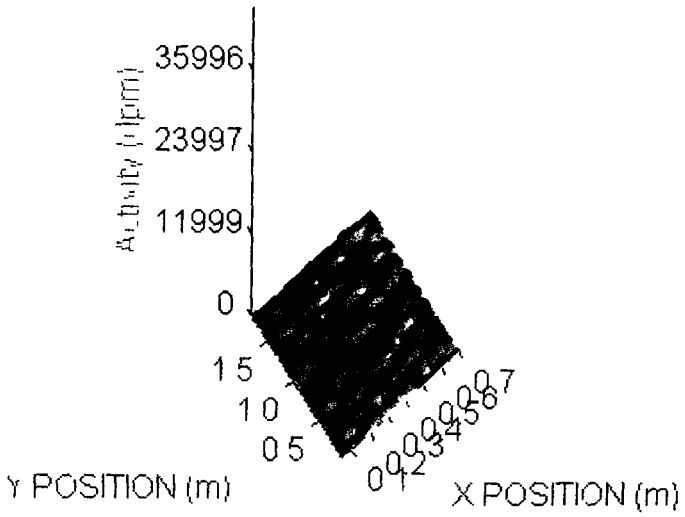

Figure 1 Image plot of surface activity showing 25 cm² pixels. The vertical scale is in dpm per pixel.

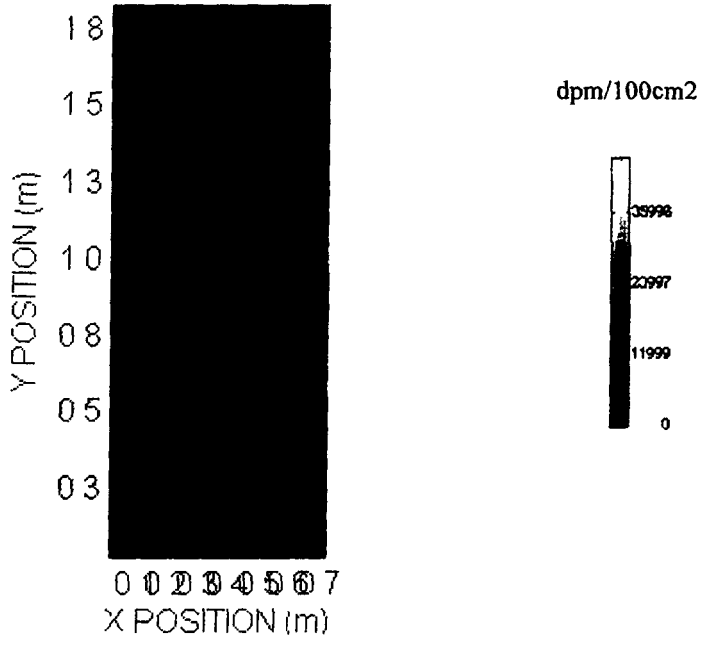

Figure 2 Meter grid overlaid onto image plot of 25 cm² pixels. The color scale is in dpm per 100cm²

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X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	67	218	0	53 0	70
1	2	83	239	0	54 0	56

Table 1 The X and Y columns reference the grids of Figures 1 and 2 Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter. The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$ The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i e. mean, max, min and standard deviation) are in dpm/100cm^2

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COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
5000 dpm/100 cm^2, averaged over 1 m^2
15000 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 5000 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 15000 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$

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Introduction

Survey 72903010 was conducted on April 6, 1999 by OLSEN as part of the 72903 survey Data was gathered using SRA Surface Contamination Monitor, SCM2 The Position Sensitive Proportional Counter was operating with an efficiency of 35% The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report

Surface Activity Levels

The SCM measures and records activity in 25 cm^2 areas called pixels Each square meter contains 400 individual pixels These pixels are summed into 100 cm^2 areas for comparison to the DCGLs To evaluate the measured activity levels against the DCGLs, consecutive 100 cm^2 sums are offset by 25 cm^2 pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered

Total measured activity for 72903010 ranged from 0 to 206 dpm/pixel 100 cm^2 data ranged from 0 to 377 dpm/100 cm^2 An interpolated surface plot of the data is provided in Figure 1 A light source is simulated to add definition via shadows to the artifacts in the image

Square Meter Data

Conventional statistics are provided by SIMS The survey is divided into meter grids Table 1 reports the 100 cm^2 data for mean, min, max, and standard deviation for each grid Table 1 also reports the number of 100 cm^2 areas containing data for each grid Figure 2 shows the grid pattern Bold text denotes grids which exceed either DCGL

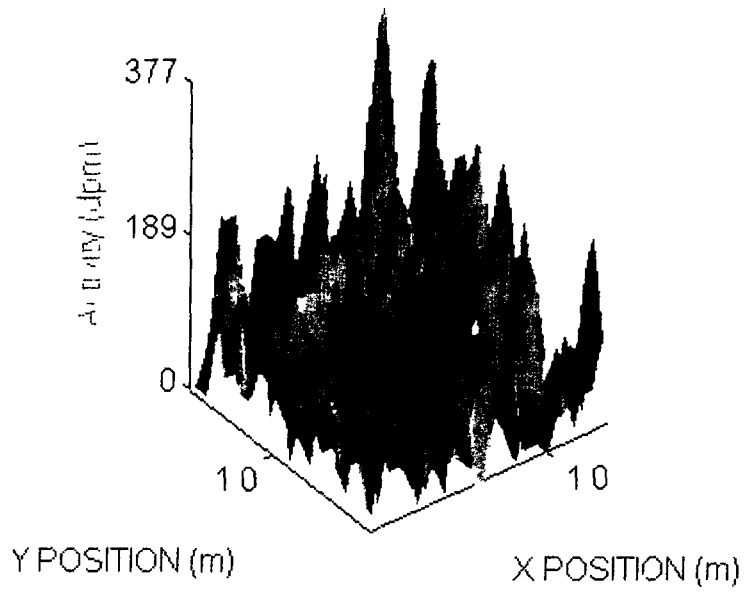

Figure 1 Image plot of surface activity showing 25 cm^2 pixels The vertical scale is in dpm per pixel.

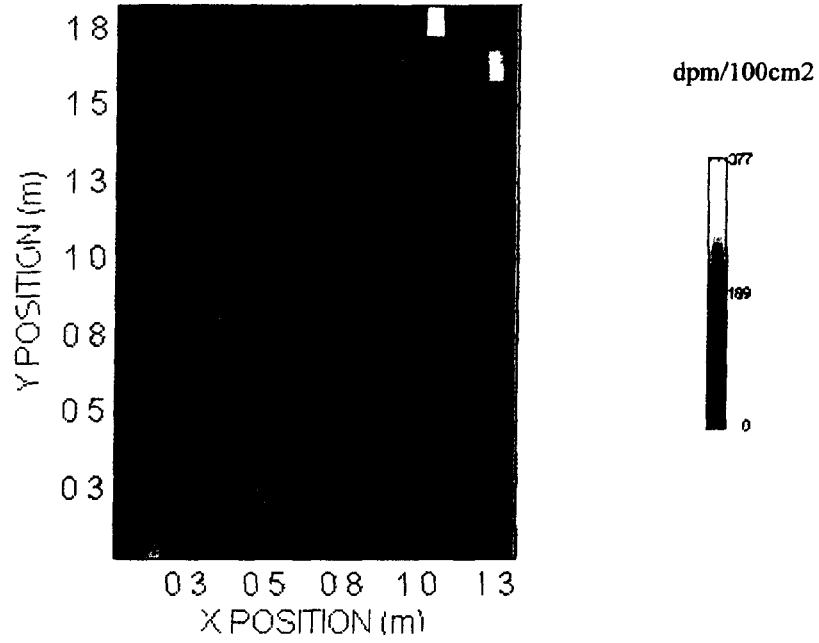

Figure 2. Meter grid overlaid onto image plot of 25 cm^2 pixels. The color scale is in dpm per 100cm^2.

X	Y	Mean	Max	Min	STD	100cm^2 Areas
1	1	76	274	0	61 0	100
2	1	70	236	0	65 0	30
1	2	87	274	0	61 0	80
2	2	125	377	0	96 0	24

Table 1 The X and Y columns reference the grids of Figures 1 and 2. Bold text denotes grids which exceed the applicable DCGL When "100" is indicated in the "100cm^2 Areas", then the grid is a full square meter The mean is the average of all measurements in the grid, and is compared to the $DCGL_W$. The max is compared to the $DCGL_{EMC}$ The standard deviation is calculated from pixels that contain data All units (i.e mean, max, min and standard deviation) are in dpm/100cm^2

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria The DCGLs were calculated by adding an observed background of 0 dpm/100 cm^2 to the survey criteria

DOE Order 5400 5 Criteria
5000 dpm/100 cm^2, averaged over 1 m^2
15000 dpm/100 cm^2, maximum in 100 cm^2

Total Activity Limits
$DCGL_W$ = 5000 dpm/100 cm^2, averaged over 1 m^2
$DCGL_{EMC}$ = 15000 dpm/100 cm^2, maximum in 100 cm^2

The survey results indicate that surface activity levels averaged over one square meter were below the $DCGL_W$

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the $DCGL_{EMC}$