

MONSERCO

37-00030-02
030-05980

CHARACTERIZATION

SURVEY OF

SAFETY LIGHT CORPORATION SITE

AT

BLOOMSBURG, PENNSYLVANIA

U.S.A.

Report Number Monserco/96/NB/1821

APPENDIX 20

by

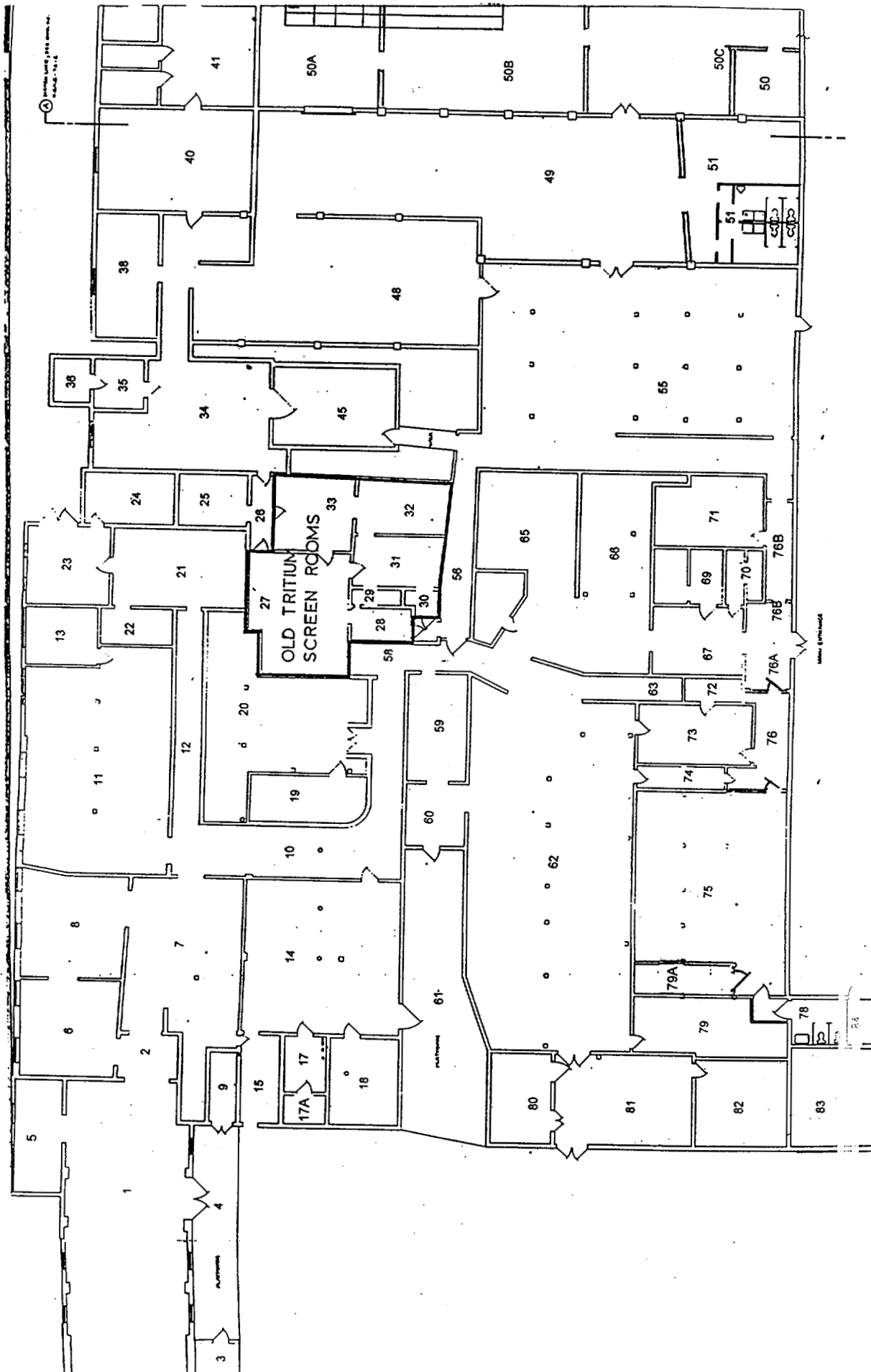
 **MONSERCO LIMITED**

APPENDIX 20

Building Radiological Survey Results

SECTION 1

Etching Building





Etching Building 1
East Wall Loading Dock.



Etching Building 1
Looking south-west, Loading and Storage area.

Figure 1.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 1, Stores (Shipping Area)

Prepared: 5/22/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	walls	M00905	0.7	cps	898.17 dpm/100cm ²
LB122	floor	B2814	11	cps	7328.35 dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0.004	513	----	----	----	----	----	----				
S wall	2	0.005	770	----	<60	<12	<120	----	----				
S wall	3	0.007	1411	----	----	----	----	----	----				
S wall	4	0.003	1796	----	----	----	----	----	----				
E wall	5	0.005	770	----	----	----	----	----	----				
E wall	6	0.001	1411	----	----	----	----	----	----				
E wall	7	0.004	898	----	<60	<12	<120	----	----				
E wall	8	0.004	1925	----	----	----	----	----	----				
E wall	9	0	1026	----	----	----	----	----	----				
E wall	10	0.003	1540	----	----	----	----	----	----				
E wall	11	0.001	898	----	----	----	----	----	----				
E wall	12	0.001	1796	----	----	----	----	----	----				
E wall	13	0.003	----	----	----	----	----	----	----				
E wall	14	0.008	1155	----	<60	<12	<120	----	----				
NE corner	15	0.006	1540	----	----	----	----	----	----				
N wall	16	0.002	513	----	<60	<12	<120	----	----				
N wall	17	0	513	----	----	----	----	----	----				
N wall	18	0.001	----	----	----	----	----	----	----				
NW corner	19	0	257	----	----	----	----	----	----				
W wall	20	0.002	1026	----	----	----	----	----	----				
W wall	21	0	1155	----	<60	<12	<120	----	----				
W wall	22	0.003	513	----	----	----	----	----	----				
W wall	23	0.002	1411	----	----	----	----	----	----				
W wall	24	0.001	1155	----	----	----	----	----	----				
W wall	25	----	----	----	----	----	----	----	----				
W wall	26	----	----	----	----	----	----	----	----				
W wall	27	----	----	----	----	----	----	----	----				
W wall	28	0.004	1026	----	----	----	----	----	----				
W wall	29	0.003	1411	----	<60	<12	<120	----	----				
W wall	30	0.005	1411	----	----	----	----	----	----				
W wall	31	0.003	1283	----	----	----	----	----	----				
W wall	32	----	----	----	----	----	----	----	----				

Figure 1.1
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW floor, r1	33	0.003	----	1188	<60	<12	<120	----	----				
Floor	34	0.002	----	2575	----	----	----	----	----				
Floor	35	0.003	----	1915	----	----	----	----	----				
Floor	36	----	----	----	----	----	----	----	----				
Floor, r2	37	0.001	----	0	----	----	----	----	----				
Floor	38	0.002	----	594	----	----	----	----	----				
Floor	39	0.005	----	66	<60	<12	<120	----	----				
Floor	40	0.005	----	1254	----	----	----	----	----				
Floor, r3	41	0.002	----	264	----	----	----	----	----				
Floor	42	0.003	----	264	----	----	----	----	----				
Floor	43	0.005	----	132	----	----	----	----	----				
Floor	44	0.002	----	594	----	----	----	----	----				
Floor, r4	45	0.003	----	726	<60	<12	<120	----	----				
Floor	46	0.001	----	1915	----	----	----	----	----				
Floor	47	0.002	----	594	----	----	----	----	----				
Floor	48	----	----	594	----	----	----	----	----				
Floor, r5	49	0.002	----	462	----	----	----	----	----				
Floor	50	0.002	----	528	----	----	----	----	----				
Floor	51	0.001	----	1254	----	----	----	----	----				
Floor	52	0.001	----	1254	----	----	----	----	----				
Floor, r6	53	0.001	----	66	----	----	----	----	----				
Floor	54	0.001	----	0	<60	<12	<120	----	----				
Floor	55	0	----	0	----	----	----	----	----				
Floor	56	0.002	----	1254	----	----	----	----	----				
Floor, r7	57	0.001	----	858	----	----	----	----	----				
Floor	58	0.003	----	1254	----	----	----	----	----				
Floor	59	0	----	198	----	----	----	----	----				
Floor	60	0.001	----	264	----	----	----	----	----				
Floor, r8	61	0.003	----	396	----	----	----	----	----				
Floor	62	0.001	----	264	----	----	----	----	----				
Floor	63	0.003	----	0	----	----	----	----	----				
Floor	64	0	----	528	----	----	----	----	----				
Floor, r9	65	----	----	0	<60	<12	<120	----	----				
Floor	66	0.001	----	0	----	----	----	----	----				
Floor	67	0.002	----	66	----	----	----	----	----				
Floor	68	0.001	----	0	----	----	----	----	----				
Floor, r10	69	0.001	----	66	----	----	----	----	----				
Floor	70	0.005	----	0	----	----	----	----	----				
Floor	71	0.002	----	0	----	----	----	----	----				
Floor	72	----	----	----	----	----	----	----	----				
Floor, r11	73	----	----	66	----	----	----	----	----				
Floor	74	0.001	----	2575	<60	<12	<120	----	----				
Floor	75	0	----	132	----	----	----	----	----				
Floor	76	0.002	----	1915	----	----	----	----	----				

Figure 1.1
SURVEY RESULTS

EXPOSURE RATE		FIXED AVERAGE CONTAMINATION				LOOSE CONTAMINATION				HOT SPOTS				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)	
Floor, r12	77	0.001	-----	2575	-----	-----	-----	-----	-----					
Floor	78	0.003	-----	462	-----	-----	-----	-----	-----					
Floor	79	0.002	-----	858	-----	-----	-----	-----	-----					
Ceiling	80	0	513	-----	<60	<12	<120	-----	-----					

**Figure 1.2
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 2, Metal Storage

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls	M 00905	0.8	cps	1026.48	dpm/100cm ²
LB122	Floor	M00384	10	cps	6668.13	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0	411	----	<60	<12	<120	----	----				
S. Wall	2	0.001	642	----	<60	<12	<120	----	----				
SE corner	3	0.003	513	----	<60	<12	<120	----	----				
E. Wall	4	0.004	1540	----	<60	<12	<120	----	----				
NE corner	5	0.003	642	----	<60	<12	<120	----	----				
N. Wall	6	0.002	770	----	<60	<12	<120	----	----				
W. Wall	7	0.003	513	----	<60	<12	<120	----	----				
Floor, r1	8	0.002	----	8517	<60	<12	<120	----	----			yes	
Floor	9	0.003	----	10497	<60	<12	<120	----	----			yes	
Floor	10	0.001	----	2575	<60	<12	<120	----	----				
Floor	11	0.002	----	5876	<60	<12	<120	----	----			yes	
ceiling	12	0.002	770	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	8	----	----	----	<60	<12	<120	----	----				
Hot spot	9	----	----	----	<60	<12	<120	----	----				
Hot spot	10	----	----	----	<60	<12	<120	----	----				
Hot spot	11	----	----	----	<60	<12	<120	----	----				

Figure 1.3
SURVEY RESULTS

MONSERO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 3, Paint Stripping

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	1.2	cps	1539.71	dpm/100cm ²
LB122	Floor	B4097	10	cps	6602.11	dpm/100cm ²
BICRON	all	B708T	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.002	2310	----	<60	<12	<120	7185	----	x=0.5m, y=1.3m			
		----	----	----	----	----	----	47218	----	x=0.5m, t=1.6m			yes
		----	----	----	----	----	----	8725	----	x=0.3m, y=1.7m			
E. Wall	2	0.001	1668	----	<60	<12	<120	11291	----	x=0.7m, y=0.3m			
		----	----	----	----	----	----	8084	----	x=0.9m, y=0.8m			
		----	----	----	----	----	----	75446	----	x=0.9m, y=1.8m			yes
E. Wall	3	0.002	513	----	<60	<12	<120	----	----				
E. Wall	4	0	385	----	<60	<12	<120	----	----				
N. Wall	5	0	2310	----	<60	<12	<120	3593	----	x=1.5m, y=1.5m			
		----	----	----	----	----	----	7314	----	x=0.6m, y=1.3m			
		----	----	----	----	----	----	11291	----	x=1.4m, y=1.5m			
W. Wall	6	0.001	385	----	<60	<12	<120	----	----				
W. Wall	7	0.12	385	----	<60	<12	<120	----	----				
W. Wall	8	0	257	----	<60	<12	<120	----	----				
Floor, r1	9	0.07	----	0	<60	<12	<120	----	----				
Floor	10	0.07	----	0	<60	<12	<120	----	----				
Floor, r2	11	0.006	----	860	<60	<12	<120	----	----				
Floor	12	0.02	----	2641	<60	<12	<120	----	10563	x=2.0m, y=1.0m			
		----	----	----	----	----	----	----	21787	x=2.0m, y=2.0m			yes
Floor, r3	13	0.008	----	19806	<60	<12	<120	----	49516	x=0.8m, y=0.4m		yes	yes
		----	----	----	----	----	----	----	16505	x=2.0m, y=0.1m			yes
Floor	14	0.008	----	9903	<60	<12	<120	----	22447	95% Obstructed		yes	yes
ceiling	15	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	3	----	----	----	<60	<12	<120	----	----				
Hot spot	3	----	----	----	<60	<12	<120	----	----				
Hot spot	12	----	----	----	<60	<12	<120	----	----				

Figure 1.3
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Hot spot	13	----	----	----	219000	<12	<120	----	----		yes		
box W.wall		0.11	0	----	<60	<12	<120	----	----				
fireplace		0.004	1026	----	<60	<12	<120	----	----				
H.S. door		----	----	----	<60	17	<120	----	----				
electric panel		----	----	----	<60	43	<120	----	----				

Figure 1.4
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 4, Loading Dock

Prepared: 8/12/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	2	cps	2566.19	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u>	<u>Historically Present</u>	<u>Currently Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S End	1	0.003	642	----	----	----	----	----	----				
S Center	2	0.002	1540	----	120	<12	<120	----	----				
		----	4491	----	----	----	----	----	----				
N Center	3	0	0	----	----	----	----	----	----				
N End	4	0.001	642	----	----	----	----	7699	----	x=8m, y=0.1m			

ROOM # 5 NOT SURVEYED

ROOM # 6 NOT SURVEYED



Etching Building - Room #7
East wall active, safe now used for storage of Acids

FIGURE 1.7 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 7, Dry Chemical Storage

Prepared: 5/22/96

Background

Instrument	Location	Serial #	Average Background			
HP260	walls	E2176	1	cps	1283.10	dpm/100cm ²
LB122	floor	M00384	11	cps	7262.32	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION	LOOSE CONTAMINATION				HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.001	0	----	----	----	----	----	----				
S wall	2	0	642	----	<60	<12	<120	----	----				
W wall	3	0	1283	----	----	----	----	----	----				
W wall	4	0.003	1925	----	----	----	----	----	----				
W wall	5	0.005	1283	----	<60	<12	<120	----	----				
W wall	6	0.004	642	----	----	----	----	----	----				
S wall	7	0.005	2566	----	----	----	----	----	----				
E wall	8	0.006	2566	----	----	----	----	----	----				
E wall	9	0.004	2566	----	<60	<12	<120	----	----				
E wall	10	0.003	1925	----	----	----	----	----	----				
S wall	11	0.002	642	----	----	----	----	----	----				
E wall	12	0	1283	----	----	----	----	----	----				
E wall	13	0.002	1283	----	----	----	----	----	----				
E wall	14	0.006	642	----	----	----	----	----	----				
E wall	15	0.005	2566	----	----	----	----	----	----				
E wall	16	0.003	2566	----	----	----	----	----	----				
E wall	17	0.005	----	----	----	----	----	----	----				
N wall	18	0.003	2566	----	----	----	----	----	----				
N wall	19	0.002	1283	----	----	----	----	----	----				
E wall	20	0.003	1283	----	----	----	----	----	----				
N wall	21	0.002	1283	----	<60	<12	<120	----	----				
N wall	22	0.003	2566	----	----	----	----	----	----				
W wall	23	0	642	----	----	----	----	----	----				
W wall	24	0.001	1283	----	----	----	----	----	----				
W wall	25	0.002	2566	----	----	----	----	----	----				
W wall	26	0.003	2566	----	----	----	----	----	----				
W wall	27	0.007	2566	----	----	----	----	----	----				
W wall	28	0.004	1283	----	----	----	----	----	----				
Floor, r1	29	0.003	----	330	<60	<12	<120	----	----				
Floor	30	0.004	----	330	----	<12	<120	----	----				
Floor	31	0.002	----	660	----	<12	<120	----	----				
Floor	32	0.003	----	660	----	<12	<120	----	----				

**FIGURE 1.7
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor, r2	33	0.002	----	5942	----	<12	<120	----	----			yes	
Floor	34	0.002	----	990	----	<12	<120	----	----				
Floor	35	0.005	----	1981	----	<12	<120	----	----				
Floor	36	0.002	----	1651	----	<12	<120	----	----				
Floor, r3	37	0.004	----	1783	----	<12	<120	----	----				
Floor	38	0.003	----	1320	----	<12	<120	----	----				
Floor	39	0.003	----	1122	----	<12	<120	----	----				
Floor	40	0.002	----	1254	----	<12	<120	----	----				
Floor, r4	41	0.063	----	924	----	<12	<120	----	----				
Floor	42	0.001	----	990	----	<12	<120	----	----				
Floor	43	0.002	----	990	----	<12	<120	----	----				
Floor	44	0.002	----	990	----	<12	<120	----	----				
Floor, r5	45	0.002	----	990	----	<12	<120	----	----				
Floor	46	0	----	990	----	<12	<120	----	----				
Floor	47	0.003	----	660	----	<12	<120	----	----				
Floor	48	0.001	----	660	----	<12	<120	----	----				
Floor, r6	49	0.007	----	990	----	<12	<120	----	----				
Floor	50	0.004	----	990	----	<12	<120	----	----				
Floor	51	0.003	----	990	----	<12	<120	----	----				
N ceiling	52	0.004	642	----	<60	<12	<120	----	----				
S ceiling	53	0	1283	----	<60	<12	<120	----	----				

Equipment & Fixtures

E wall safe		----	----	----	<60	<12	<120	----	----				
-------------	--	------	------	------	-----	-----	------	------	------	--	--	--	--

ROOM # 8 NOT SURVEYED

**FIGURE 1.9
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 9, Inactive Boiler Room

Prepared: 5/22/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.08	uSv/h	0.01	mrem/h

Box 2

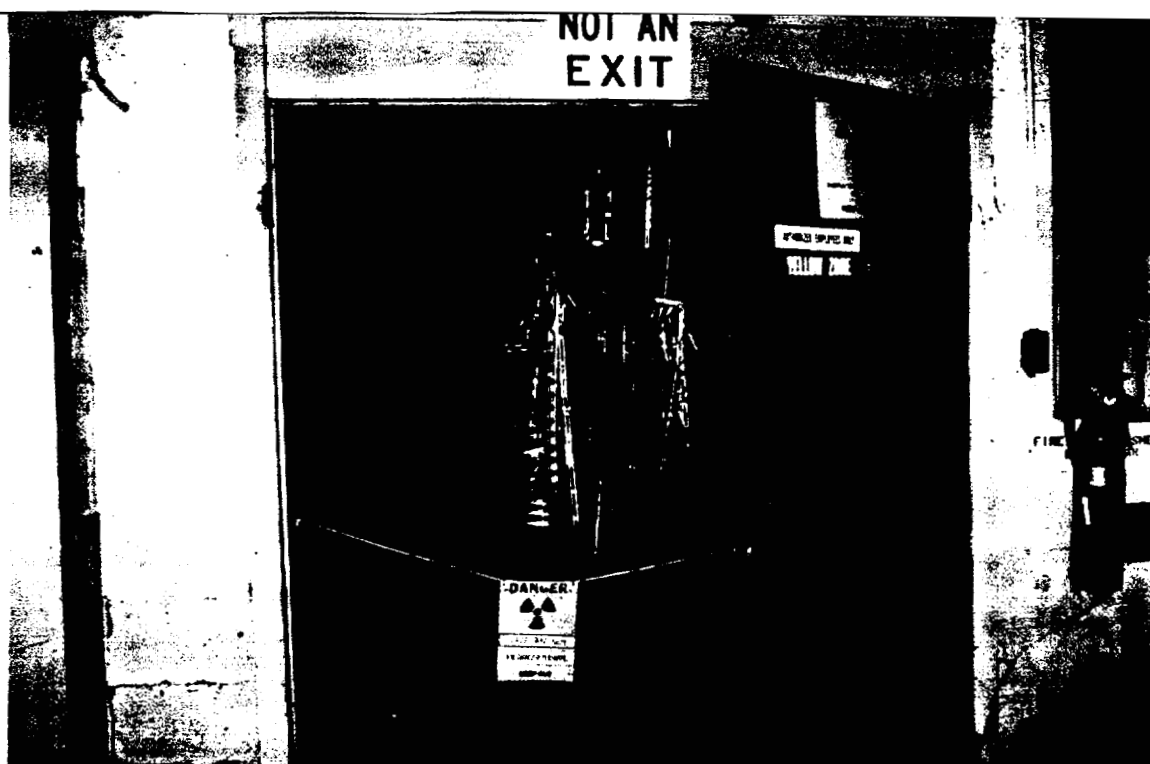
Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.004	1283	----	<60	<12	<120	7699	----	x=2, y=0.3			
E. Wall	2	0.004	1283	----	<60	<12	<120	----	----				
E. Wall	3	0.004	1283	----	<60	<12	<120	----	----				
N. Wall	4	0.006	1283	----	<60	<12	<120	----	----				
W. Wall	5	----	----	----	<60	<12	<120	----	----				
W. Wall	6	0.005	1283	----	<60	<12	<120	----	----				
Floor, r1	7	0.005	6415	----	<60	<12	<120	----	----			yes	
Floor	8	0.005	6415	----	<60	<12	<120	----	----			yes	
ceiling	9	0.004	385	----	<60	<12	<120	----	----				

Equipment & Fixtures

shelves E. wall	10	0.003	385	----	<60	<12	<120	----	----				
electrical box	11	0.008	3849	----	<60	<12	<120	----	----				



Etching Building Room 10
Corridor looking into Room #11



Etching Building Room 10
Corridor

**FIGURE 1.10
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 10, Hall

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1.1	cps	1411.41	dpm/100cm ²
LB122	Floor	M00384	7	cps	4489.44	dpm/100cm ²
BICRON	all	B708T	6	urem/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.003	1796	----	<60	<12	<120	----	----				
S. Wall	2	0.002	1796	----	<60	<12	<120	----	----				
S. Wall	3	0.003	1796	----	240	<12	<120	----	----				
S. Wall	4	0.006	1796	----	<60	<12	<120	----	----				
S. Wall	5	0.005	513	----	<60	<12	<120	----	----				
S. Wall	6	0.002	513	----	240	<12	<120	----	----				
S. Wall	7	0.002	513	----	<60	<12	<120	----	----				
S. Wall	8	0.001	128	----	<60	<12	<120	----	----				
S. Wall	9	0	128	----	600	<12	<120	----	----				
E. Wall	10	0.002	0	----	120	<12	<120	----	----				
E. Wall	11	0.001	0	----	<60	<12	<120	----	----				
E. Wall	12	0.001	0	----	<60	<12	<120	----	----				
E. Wall	13	0	513	----	<60	<12	<120	----	----				
E. Wall	14	0	0	----	<60	<12	<120	----	----				
E. Wall	15	0	0	----	<60	<12	<120	----	----				
E. Wall	16	0.001	1155	----	<60	<12	<120	3847876	----	Back of cabinet			yes
N. Wall	17	0.001	257	----	60	<12	<120	----	----				
N. Wall	18	0.003	642	----	<60	<12	<120	57611	----	x=1.4m, y=1.4m			yes
W. Wall	19	0.004	0	----	<60	<12	<120	----	----				
W. Wall	20	----	----	----	<60	<12	<120	----	----				
W. Wall	21	0.001	0	----	<60	<12	<120	----	----				
W. Wall	22	0	1155	----	<60	<12	<120	----	----				
rounded corner	23	0	0	----	<60	<12	<120	----	----				
N. Wall	24	0.001	0	----	<60	<12	<120	----	----				
N. Wall	25	0	513	----	<60	<12	<120	----	----				
N. Wall	26	0.001	1155	----	<60	<12	<120	----	----				
N. Wall	27	0	513	----	<60	<12	<120	----	----				
N. Wall	28	0	513	----	<60	<12	<120	----	----				
N. Wall	29	0.001	0	----	<60	<12	<120	----	----				
W. Wall	30	0.002	128	----	<60	<12	<120	----	----				
Floor, r1	31	0.001	----	1783	<60	<12	<120	----	----				
Floor	32	0.002	----	2443	<60	<12	<120	----	----				
Floor	33	0.007	----	2113	<60	<12	<120	----	5414	x=6cm, y=6cm			
Floor, r2	34	0.001	----	2113	<60	<12	<120	----	----				

**FIGURE 1.10
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	35	0.002	----	1452	<60	<12	<120	----	162544	x=0.5m, y=2m (drain)			yes
Floor	36	0.002	----	2641	<60	<12	<120	----	----				
Floor, r3	37	0.002	----	1122	<60	<12	<120	----	----				
Floor	38	0.002	----	462	<60	<12	<120	----	----				
Floor	39	0.002	----	1585	<60	<12	<120	----	----				
Floor, r4	40	0	----	2113	<60	<12	<120	----	----				
Floor	41	0.002	----	1452	<60	<12	<120	----	----				
Floor	42	0.002	----	462	<60	<12	<120	----	7526	x=2.0m, y=2.0m			
ceiling	43	0.002	----	----	<60	<12	<120	----	----				
ceiling	44	0.002	----	----	<60	<12	<120	----	----				

Equipment & Fixtures

Cabinet	16	----	----	----	<60	<12	<120	3847876	----	Back of cabinet			yes
Hot spot	34	----	----	----	<60	<12	<120	----	----				
Hot spot	35	----	----	----	<60	<12	<120	----	----				
Hot spot	35	----	----	----	<60	<12	<120	----	----				
Hot spot	35	----	----	----	<60	<12	<120	----	----				
Hot spot	42	----	----	----	<60	<12	<120	----	----				
pipe		0.001	----	----	<60	<12	<120	----	----				



Etching Building Room #11
Caved in Ceiling.



Etching Building Room #11
Equipment in Room.

ROOM # 11 NOT SURVEYED



Etching Building Room 12
Hallway leading to #3 rooms

**FIGURE 1.12
SURVET RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 12

Prepared: 5/22/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	0.8	cps	1026.48	dpm/100cm ²
LB122	Floor	M00384	8	cps	5545.77	dpm/100cm ²
BICRON	all	B708T	6	urem/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.002	552	----	<60	<12	<120	----	----				
E. Wall	2	0	1257	----	<60	<12	<120	----	----				
E. Wall	3	0.002	321	----	<60	<12	<120	----	----				
E. Wall	4	0	885	----	<60	<12	<120	----	----				
E. Wall	5	0	128	----	<60	<12	<120	----	----				
E. Wall	6	0	0	----	<60	<12	<120	----	----				
E. Wall	7	0.001	0	----	<60	<12	<120	----	----				
E. Wall	8	0	0	----	<60	<12	<120	----	----				
E. Wall	9	0.001	513	----	<60	<12	<120	----	----				
N. Wall	10	0.001	128	----	<60	<12	<120	----	----				
W. Wall	11	0	128	----	<60	<12	<120	----	----				
W. Wall	12	0.001	128	----	<60	<12	<120	----	----				
W. Wall	13	0.003	0	----	<60	<12	<120	----	----				
W. Wall	14	0.001	128	----	<60	<12	<120	----	----				
W. Wall	15	0	128	----	<60	<12	<120	----	----				
W. Wall	16	0	128	----	<60	<12	<120	----	----				
W. Wall	17	0	128	----	<60	<12	<120	----	----				
Floor, r1	18	0.002	----	1717	<60	<12	<120	----	----				
Floor	19	0.002	----	1056	<60	<12	<120	----	----				
Floor, r2	20	0.004	----	1056	<60	<12	<120	----	----				
Floor	21	0.001	----	726	<60	<12	<120	----	----				
Floor, r3	22	0.001	----	726	<60	<12	<120	----	----				
Floor	23	0.001	----	726	<60	<12	<120	----	----				
Floor, r4	24	0.003	----	2377	<60	<12	<120	----	----				
Floor	25	0.002	----	528	<60	<12	<120	----	----				
ceiling	26	0	128	----	<60	<12	<120	----	----				

Equipment & Fixtures

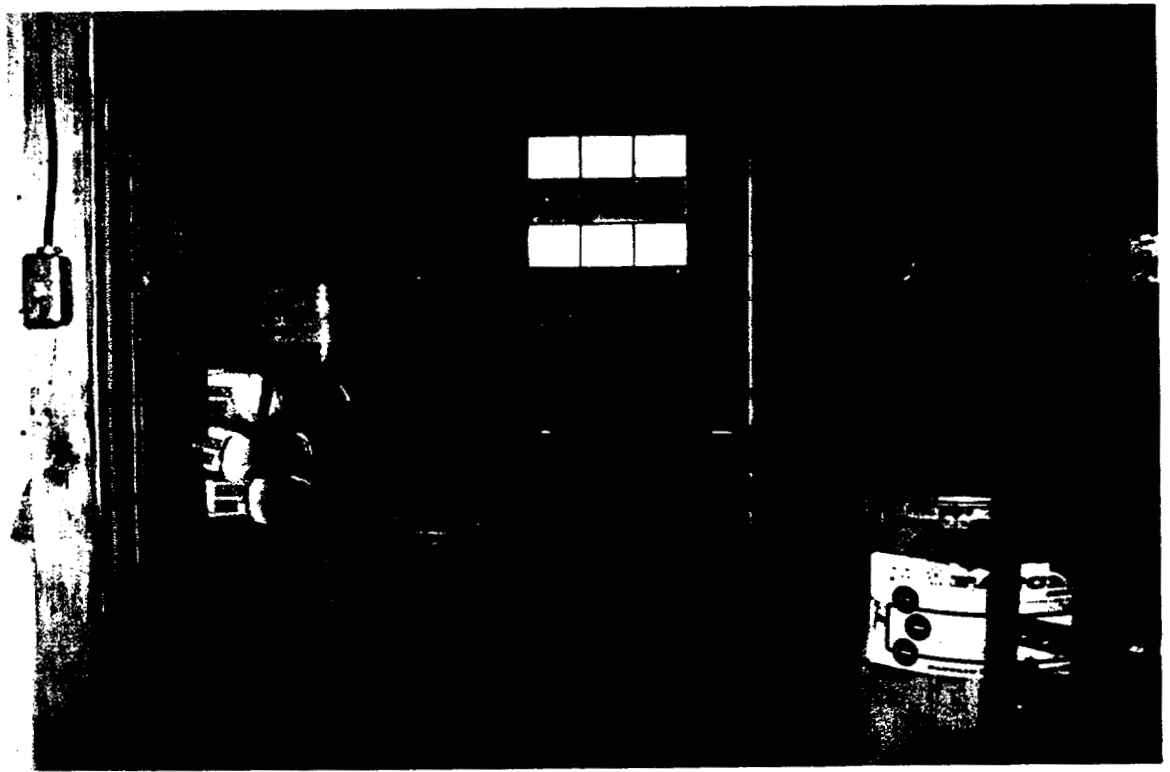
pipe	0	128	----	<60	<12	<120	----	----					
------	---	-----	------	-----	-----	------	------	------	--	--	--	--	--

ROOM # 13 NOT SURVEYED



Etching Building Room 14

Chemical storage room, south wall active door



Etching Building Room #14
Looking south , chemical storage room.



Etching Building Room #14

Westwall

**FIGURE 1.14
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 14, Screen Making Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	1	cps	1283.10	dpm/100cm ²
LB122	Floor	B4097	7	cps	4555.46	dpm/100cm ²
BICRON	all	B708T	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

A	B	EXPOSURE	FIXED AVERAGE		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		RATE	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON	HP260	LB122	TRITIUM	ALPHA	BETA	HP260	LB122	DESCRIPTION	LOOSE > 1,000	AVERAGE > 5,000	HOT SPOT > 15,000
		(mrem/h)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)		(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)
S. Wall	1	0.063	0	----	<60	<12	<120	----	----				
S. Wall	2	0.001	0	----	<60	<12	<120	----	----				
S. Wall	3	0	267	----	<60	<12	<120	----	----				
S. Wall	4	0	0	----	<60	<12	<120	----	----				
E. Wall	5	0	770	----	<60	<12	<120	----	----				
E. Wall	6	0	0	----	<60	<12	<120	----	----				
E. Wall	7	0	0	----	<60	<12	<120	----	----				
E. Wall	8	0.001	0	----	<60	<12	<120	----	----				
E. Wall	9	0.001	0	----	<60	<12	<120	----	----				
N. Wall	10	0.002	0	----	<60	<12	<120	----	----				
N. Wall	11	0.004	385	----	<60	<12	<120	----	----				
N. Wall	12	0.004	513	----	<60	<12	<120	----	----				
N. Wall	13	0	0	----	<60	<12	<120	----	----				
W. Wall	14	0.004	1283	----	<60	<12	<120	----	----				
W. Wall	15	0.003	1925	----	<60	<12	<120	----	----				
W. Wall	16	0.002	1925	----	<60	<12	<120	----	----				
W. Wall	17	0.004	1283	----	<60	<12	<120	----	----				
Floor, r1	18	0	----	1518	<60	<12	<120	----	----				
Floor	19	0	----	858	<60	<12	<120	----	----				
Floor	20	0.001	----	660	2340	<12	<120	----	----		yes		
Floor	21	0	----	462	<60	<12	<120	----	----				
Floor, r2	22	0.002	----	1386	<60	<12	<120	----	----				
Floor	23	0.001	----	1518	<60	<12	<120	----	----				
Floor	24	0.001	----	330	<60	<12	<120	----	----				
Floor	25	0	----	726	<60	<12	<120	----	----				
Floor, r3	26	0.003	----	1122	<60	<12	<120	----	----				
Floor	27	0	----	66	<60	<12	<120	----	----				
Floor	28	0	----	0	<60	<12	<120	----	----				
Floor	29	0	----	0	<60	<12	<120	----	----				
Floor, r4	30	0.002	----	0	<60	<12	<120	----	----				
Floor	31	0.003	----	198	<60	<12	<120	----	----				
Floor	32	0.002	----	0	<60	<12	<120	----	----				
Floor	33	0.001	----	0	<60	<12	<120	----	----				

**FIGURE 1.14
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Ceiling	34	0	0	----	<60	<12	<120	----	----					
Ceiling	35	0.001	0	----	<60	<12	<120	----	----					

Equipment & Fixtures

Scales	24	0	----	----	<60	<12	<120	----	----					
Dryer	25	0	----	----	<60	<12	<120	----	----					
Steel rods	25	0	----	----	<60	<12	<120	----	----					
Fire extinguisher	31	0	----	----	<60	<12	<120	----	----					
Cabinet	33	0.002	1283	----	<60	<12	<120	----	----					
Bookshelves		0.002	----	----	<60	<12	<120	----	----					
Heating pipes		0	----	----	<60	<12	<120	----	----					
Hose		0	----	----	<60	<12	<120	----	----					
Hand truck		----	----	----	----	<12	<120	----	----					
Cabinet		0.003	----	----	<60	<12	<120	----	----					
Hot spot		0	----	----	<60	<12	<120	----	----					

**FIGURE 1.15
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 15, Janitor Supply

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E2176	1	cps	1283.10	dpm/100cm ²
LB122	Floor	B2814	7	cps	4291.37	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

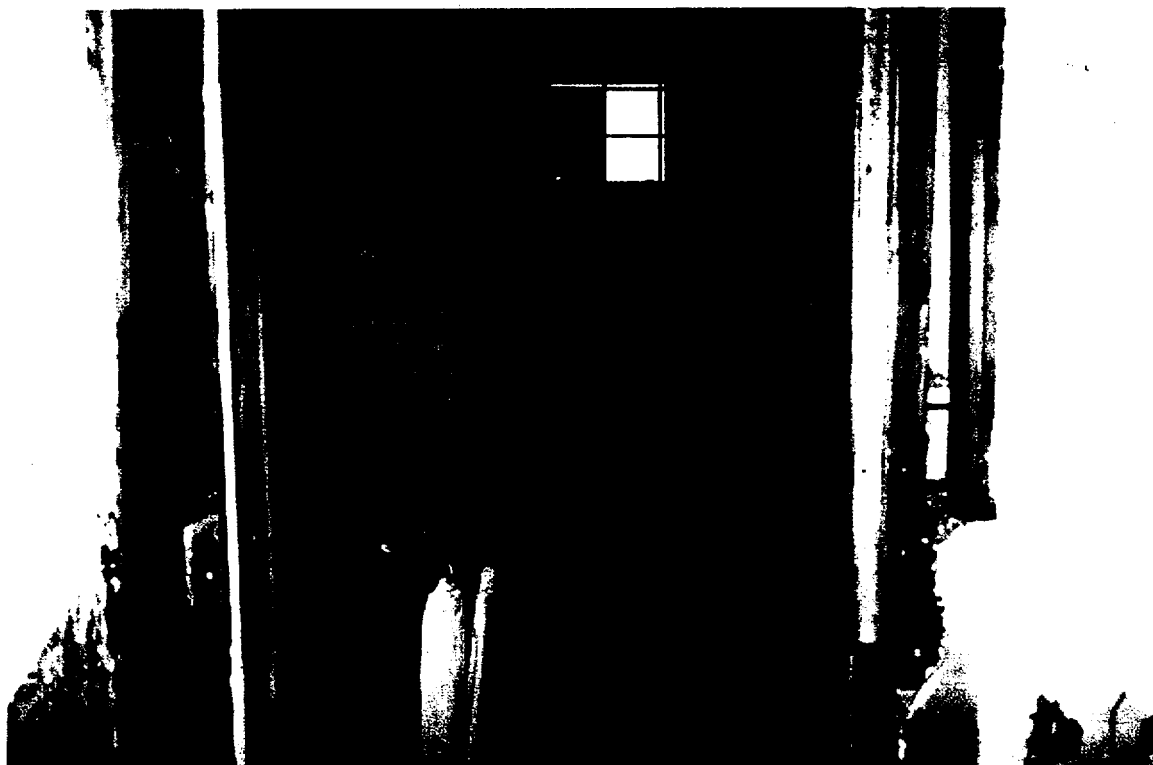
Isotope Present	Historically Present	Currently Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.001	385	----	<60	<12	<120	----	----				
E. Wall	2	0.002	385	----	<60	<12	<120	----	----				
E. Wall	3	0.002	513	----	<60	<12	<120	----	----				
E. Wall	4	0	385	----	<60	<12	<120	----	----				
N. Wall	5	0.003	385	----	<60	<12	<120	----	----				
W. Wall	6	0.003	385	----	<60	<12	<120	----	----				
E. Wall	7	0.004	770	----	<60	<12	<120	----	----				
Floor, r1	8	0.003	----	0	<60	14	<120	----	----				
Floor	9	0.003	----	264	<60	<12	<120	----	----				
Floor	10	0.003	----	2311	<60	<12	<120	----	----				
ceiling	11	0.002	257	----	<60	<12	<120	----	----				

Equipment & Fixtures

barrel	8	0.002	0	----	<60	<12	<120	----	----				
eavesthrough	8 & 9	0.002	385	----	<60	<12	<120	----	----				

The number # 16 was not attributed to any room in the building.



Etching Building Room #17

FIGURE 1.17 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 17, Spray Booth

Prepared: 5/22/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	walls	E2176	1	cps	1283.10 dpm/100cm ²
LB122	Floor	M00384	7	cps	4489.44 dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	0	----	<60	<12	<120	----	----				
E. Wall	2	0	0	----	<60	<12	<120	----	----				
N. Wall	3	0	0	----	420	<12	<120	----	----				
W. Wall	4	0	0	----	<60	<12	<120	----	----				
Floor, rl	5	0	----	2113	<60	<12	<120	----	----				
Ceiling	6	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Metal table	2	----	----	----	<60	<12	<120	----	----				
Metal cabinet	3	----	----	----	<60	<12	<120	----	----				
Door		----	----	----	<60	<12	<120	----	----				

**FIGURE 1.17A
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 17A, Screen Laminating Room

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1	cps	1283.10	dpm/100cm ²
LB122	Floor	M00384	7	cps	4489.44	dpm/100cm ²
BICRON	all	B412S	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u>	<u>Historically</u>	<u>Currently</u>
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	0	----	<60	<12	<120	----	----				
E. Wall	2	0	0	----	<60	<12	<120	----	----				
N. Wall	3	0	0	----	<60	<12	<120	----	----				
W. Wall	4	0	0	----	<60	<12	<120	----	----				
Floor, r1	5	0	----	5414	<60	<12	<120	----	----			yes	
Ceiling	6	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Air vent	2	----	----	----	<60	<12	<120	----	----				
Heating pipe	4	----	----	----	<60	<12	<120	----	----				

**FIGURE 1.18
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 18, Prototype Vacuum Metallizing

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls	E2176	1	cps	1283.10	dpm/100cm ²
LB122	Floor	M00884	6	cps	3961.27	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.002	1630	----	<60	<12	<120	----	----				
S. Wall	2	0.003	719	----	<60	<12	<120	----	----				
E. Wall	3	0.003	667	----	<60	<12	<120	----	----				
E. Wall	4	0.003	770	----	<60	<12	<120	----	----				
E. Wall	5	0.001	693	----	<60	<12	<120	----	----				
N. Wall	6	0.002	321	----	<60	<12	<120	----	----				
N. Wall	7	0	757	----	<60	<12	<120	----	----				
W. Wall	8	0	590	----	<60	<12	<120	----	----				
W. Wall	9	0.001	642	----	<60	<12	<120	----	----				
W. Wall	10	0.002	1283	----	<60	<12	<120	----	----				
Floor, r1	11	0.001	----	528	----	----	----	----	----				
Floor	12	0.002	----	----	----	----	----	----	----				
Floor, r2	13	0.001	----	528	----	----	----	----	----				
Floor	14	0.002	----	528	----	----	----	----	----				
Floor, r3	15	0.002	----	660	<60	<12	<120	----	----				
Floor	16	0.002	----	660	----	----	----	----	----				
ceiling	17	0.003	898	----	----	----	----	----	----				
ceiling	18	0.003	642	----	----	----	----	----	----				
ceiling	19	0.002	0	----	----	----	----	----	----				
ceiling	20	0.002	642	----	<60	<12	<120	----	----				
ceiling	21	0.001	0	----	----	----	----	----	----				
ceiling	22	0	0	----	----	----	----	----	----				



Etching Building Room 19

Hot spot electric box of Room 20

**FIGURE 1.19
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 19, Electrical Shop

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls		1	cps	1283.10	dpm/100cm ²
LB122	Floor		7	cps	4621.48	dpm/100cm ²
BICRON	all	B708T	0.05	uSv/h	0.01	mrem/h

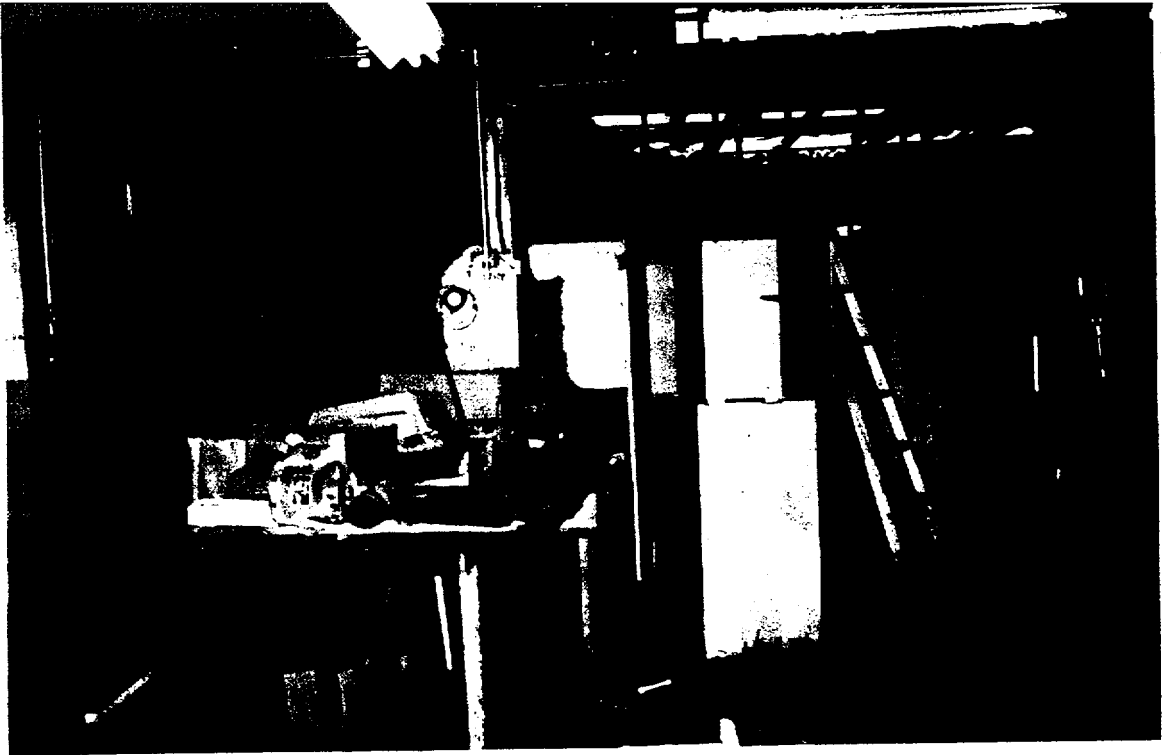
Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

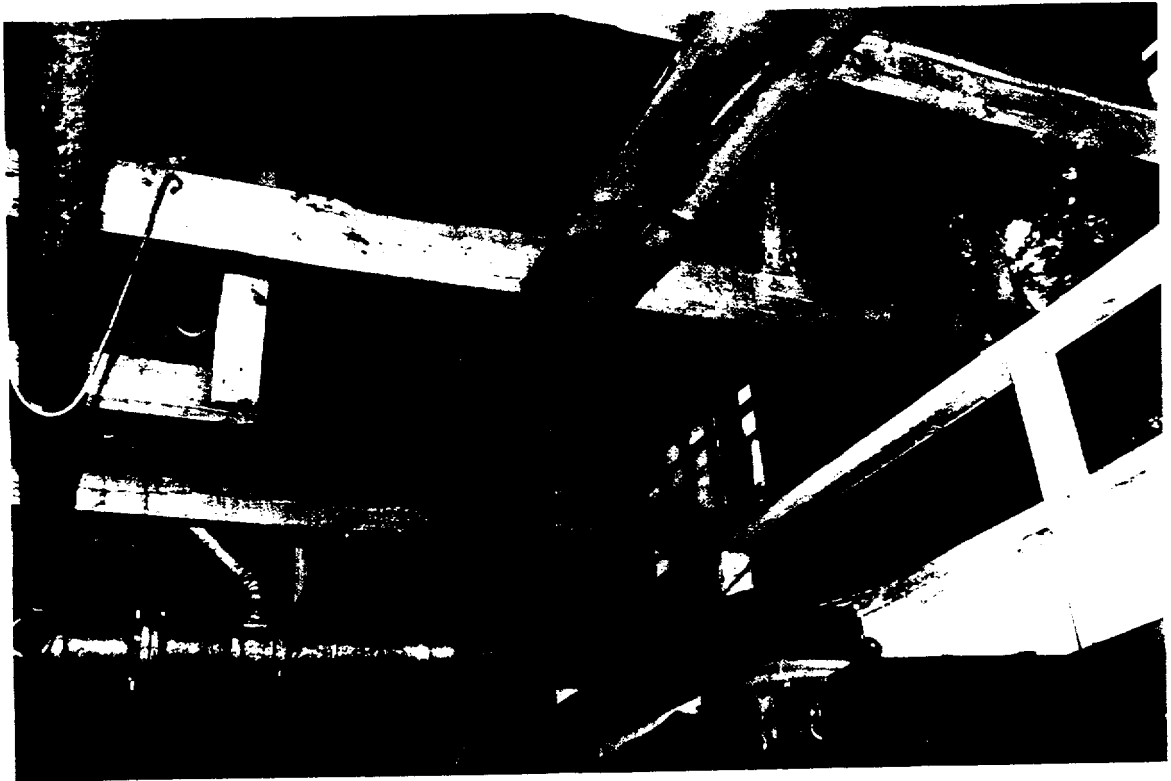
EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	----	257	----	<60	<12	<120	----	----				
S. Wall	2	----	0	----	<60	<12	<120	----	----				
S. Wall	3	0.003	513	----	<60	<12	<120	----	----				
E. Wall	4	0	513	----	120	<12	<120	----	----				
E. Wall	5	0.002	1540	----	<60	<12	<120	----	----				
N. Wall	6	0.002	385	----	<60	<12	<120	----	----				
N. Wall	7	0	642	----	300	<12	<120	----	----				
N. Wall	8	----	385	----	<60	<12	<120	----	----				
N. Wall	9	----	257	----	<60	<12	<120	----	----				
W. Wall	10	----	257	----	----	<12	<120	----	----				
W. Wall	11	----	385	----	<60	<12	<120	----	----				
Floor, r1	12	0.004	----	462	<60	<12	<120	----	----				
Floor	13	0.003	----	594	<60	<12	<120	----	----				
Floor	14	0.007	----	792	<60	<12	<120	----	----				
Floor	15	0.005	----	858	<60	<12	<120	----	----				
ceiling	16	0.001	128	----	<60	17	<120	----	----				

Equipment & Fixtures

Power box	5	----	----	----	<60	<12	<120	----	----				
Shelves	7	----	----	----	<60	<12	<120	----	----				
Hot spot	8	----	----	----	<60	<12	<120	----	----				
filing cabinet		0.002	----	----	<60	<12	<120	----	----				



Etching Building Room #20
Plumbing Storage Area



Etching Building Room #20
Ceiling Area

**FIGURE 1.20
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 20, Maintenance Department

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	1	cps	1283.10	dpm/100cm ²
LB122	Floor	4097	4	cps	2640.85	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.002	770	----	<60	<12	<120	----	----				
S wall	2	0.002	1026	----	----	----	----	----	----				
E wall	3	0.003	1283	----	<60	<12	<120	----	----				
E wall	4	0	257	----	<60	<12	<120	----	----				
S wall	5	0.001	513	----	<60	<12	<120	----	----				
S wall	6	0.003	0	----	----	----	----	----	----				
S wall	7	0.002	513	----	<60	<12	<120	----	----				
S wall	8	0	513	----	----	----	----	----	----				
E wall	9	0	770	----	<60	<12	<120	----	----				
S wall	10	0.001	257	----	<60	<12	<120	----	----				
N wall	11	0	128	----	<60	<12	<120	----	----				
N wall	12	0.002	0	----	<60	<12	<120	----	----				
S wall	13	0.001	1026	----	<60	<12	<120	----	----				
E wall	14	0.002	1026	----	<60	<12	<120	23096	----	x=1m, y=1m			yes
N wall	15	0.005	770	----	----	----	----	50041	----	Shelf			yes
N wall	16	0.001	1026	----	<60	<12	<120	768574	----	Cardboard Box			yes
N wall	17	0	385	----	----	----	----	----	----				
N wall	18	0.001	257	----	----	----	----	----	----				
N wall	19	0	257	----	----	----	----	----	----				
E wall	20	0.001	513	----	<60	<12	<120	----	----				
SE corner	21	0.001	257	----	<60	<12	<120	----	----				
W wall	22	0	0	----	<60	<12	<120	----	----				
SW corner	23	0	0	----	----	----	----	----	----				
W wall	24	0	0	----	<60	<12	<120	----	----				
W wall	25	0	0	----	----	----	----	----	----				
W wall	26	0	0	----	----	----	----	----	----				
W wall	27	0.002	513	----	<60	<12	<120	----	----				
W wall	28	0.002	513	----	----	----	----	----	----				
W wall	29	0	257	----	----	----	----	----	----				
W wall	30	0.001	513	----	----	----	----	----	----				
Floor,r1	31	0.001	----	396	----	----	----	----	----				
Floor	32	0.001	----	198	----	----	----	----	----				

**FIGURE 1.20
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	33	0	----	0	<60	<12	<120	----	----					
Floor	34	0.001	----	0	----	----	----	----	----					
Floor, r2	35	0	----	0	<60	<12	<120	----	----					
Floor	36	0.001	----	66	----	----	----	----	----					
Floor	37	0.001	----	132	----	----	----	----	----					
Floor	38	0.005	----	330	----	----	----	----	----					
Floor, r3	39	0.001	----	396	----	----	----	----	----					
Floor	40	0.002	----	330	<60	<12	<120	----	----					
Floor	41	0.002	----	132	----	----	----	----	----					
Floor	42	0.001	----	132	----	----	----	----	----					
Floor	43	0.004	----	198	----	----	----	----	----					
Floor, r4	44	0.002	----	330	<60	<12	<120	----	----					
Floor	45	0.002	----	198	----	----	----	----	----					
Floor	46	0.002	----	66	----	----	----	----	----					
Floor	47	0.001	----	396	----	----	----	----	----					
Floor	48	0	----	198	----	----	----	----	----					

Equipment & Fixtures

Pipe	6	----	----	----	<60	<12	<120	----	----					
Ledge	14	----	----	----	<60	<12	<120	----	----					
Shelf	15	----	----	----	<60	<12	<120	----	----					
Instrument	19	----	----	----	<60	<12	<120	----	----					
Cupboard	25	----	----	----	<60	<12	<120	----	----					
Pipe on ceiling		----	----	----	<60	<12	<120	----	----					
Celing beam		----	----	----	<60	<12	<120	----	----					

ROOM # 21 NOT SURVEYED



Etching Building Room 22

Looking west.

ROOM # 22 NOT SURVEYED



Etching Building Room #23
Looking west

ROOM # 23 NOT SURVEYED

ROOM # 24 NOT SURVEYED

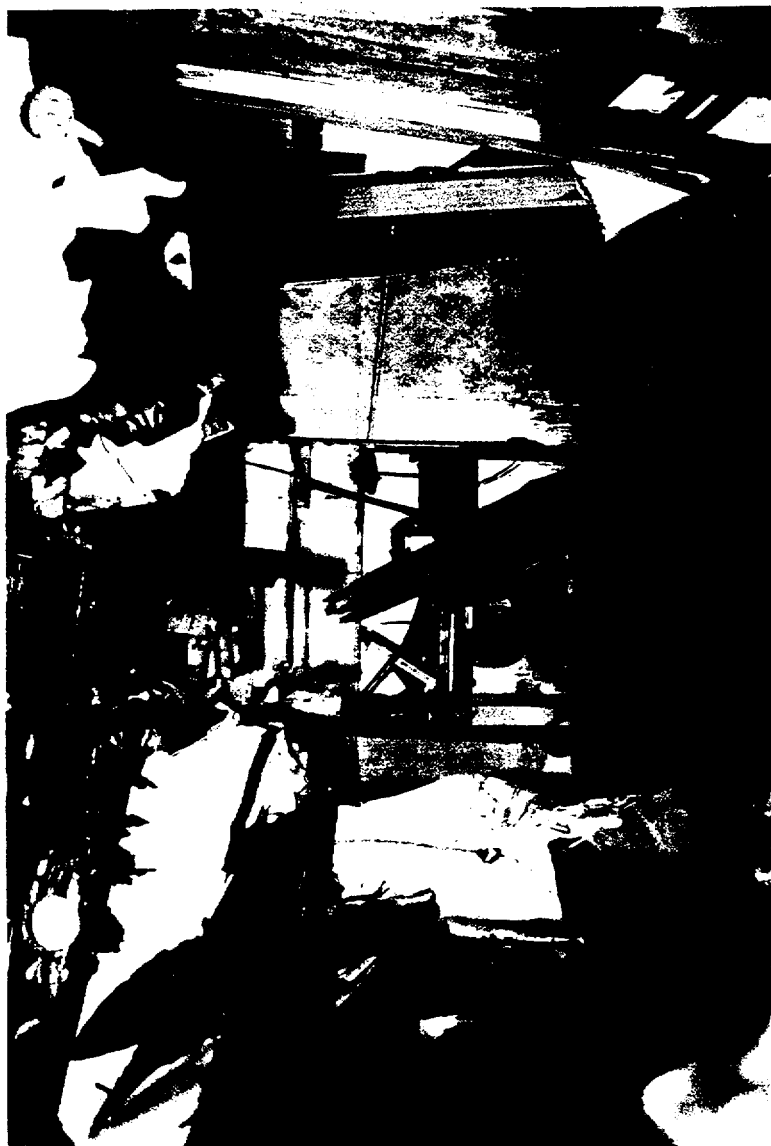
ROOM # 25 NOT SURVEYED



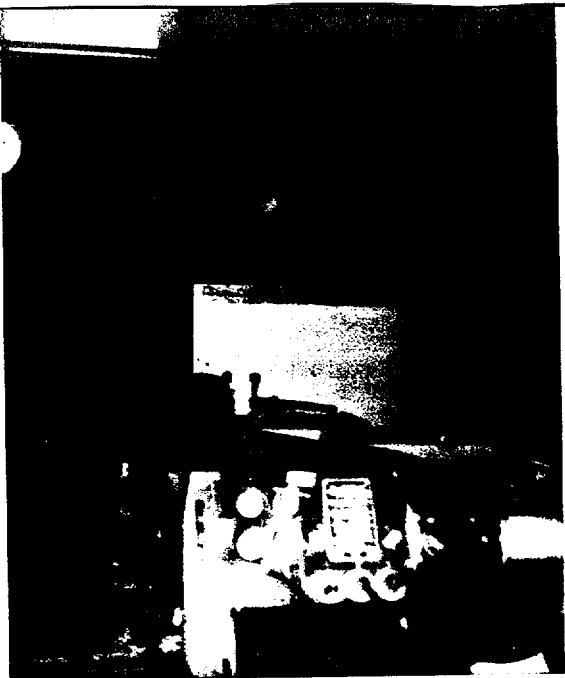
Etching Building, Room # 26
Hallway beside H-3 screening rooms

ROOM # 26 NOT SURVEYED

ROOM #27 NOT SURVEYED



ETCHING BUILDING - Abandoned H-3 Screening Rooms



ROOM # 28 NOT SURVEYED

ROOM # 29 NOT SURVEYED

ROOM # 30 NOT SURVEYED

ROOM # 31 NOT SURVEYED

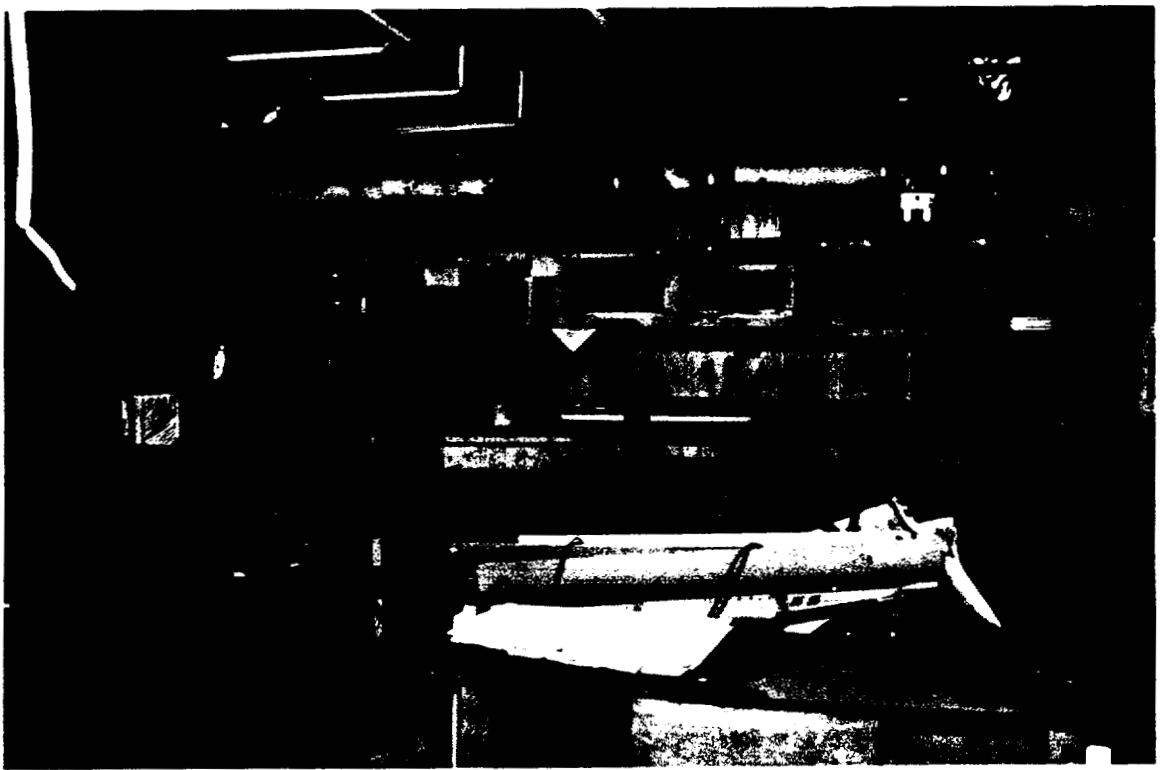


Etching Building Room #32

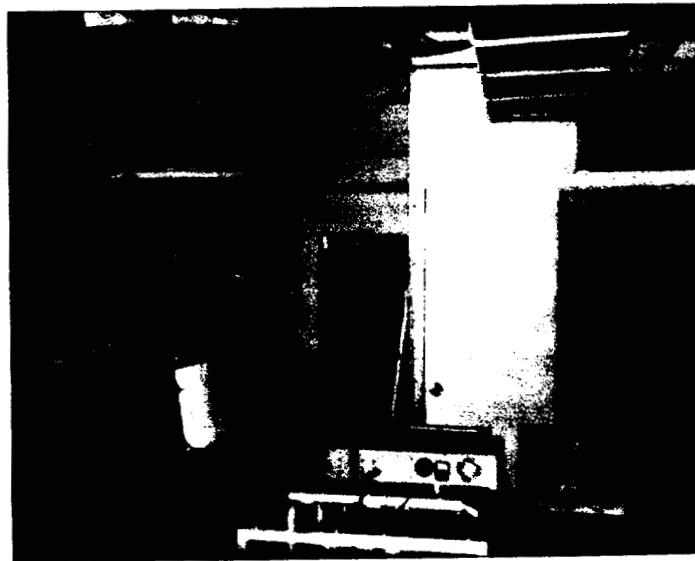
East Wall.

ROOM # 32 NOT SURVEYED

ROOM # 33 NOT SURVEYED



Etching Building Room #34
South Wall



Etching Building Room #34
West Wall.

**FIGURE 1.34
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 34, Lab

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	1	cps	1283.10	dpm/100cm ²
LB122	Floor	2424	3	cps	1980.63	dpm/100cm ²
BICRON	all	B703T	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotopes Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K	L	M	N	
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)	
SW corner	1	0.003	0	----	<60	<12	<120	----	----					
S. Wall	2	0.002	0	----	<60	<12	<120	----	----					
S. Wall	3	0.001	0	----	<60	<12	<120	----	----					
S. Wall	4	0.002	0	----	<60	<12	<120	----	----					
S. Wall	5	0.002	0	----	<60	<12	<120	----	----					
S. Wall	6	0.004	0	----	<60	<12	<120	----	----					
S. Wall	7	0	0	----	<60	<12	<120	----	----					
S. Wall	8	0	0	----	<60	<12	<120	----	----					
E. Wall	9	0.002	0	----	<60	<12	<120	----	----					
E. Wall	10	0.002	0	----	<60	<12	<120	----	----					
E. Wall	11	0	0	----	<60	<12	<120	----	----					
E. Wall	12	----	----	----	----	<12	<120	----	----					
N. Wall	13	----	----	----	----	<12	<120	----	----					
N. Wall	14	0.001	0	----	<60	<12	<120	----	----					
N. Wall	15	0	0	----	<60	<12	<120	----	----					
N. Wall	16	0.003	0	----	<60	<12	<120	----	----					
N. Wall	17	0	0	----	<60	<12	<120	----	----					
N. Wall	18	0	0	----	<60	<12	<120	----	----					
W. Wall	19	0	0	----	<60	<12	<120	----	----					
W. Wall	20	0	0	----	<60	<12	<120	----	----					
S. Wall	21	0.001	0	----	<60	<12	<120	----	----					
E. Wall	22	0.003	0	----	<60	<12	<120	----	----					
W. Wall	23	0.003	0	----	<60	<12	<120	----	----					
W. Wall	24	0.001	0	----	<60	<12	<120	----	----					
S. Floor,r1	25	0.001	----	660	<60	<12	<120	----	----					
S. Floor	26	0.002	----	660	<60	<12	<120	----	----					
S. Floor	27	0.003	----	660	<60	<12	<120	----	----					
mid Floor, r2	28	0.001	----	0	<60	<12	<120	----	----					
mid Floor	29	0.001	----	660	<60	<12	<120	----	----					
mid Floor	30	0	----	660	<60	<12	<120	----	----					
mid Floor,r3	31	0	----	660	<60	<12	<120	----	----					
mid Floor	32	0	----	660	<60	<12	<120	----	----					
mid Floor	33	0	----	660	<60	<12	<120	----	----					
mid Floor	34	0.002	----	660	<60	<12	<120	----	----					

**FIGURE 1.34
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
N. Floor, r4	35	0	----	0	<60	<12	<120	----	----				
N. Floor	36	0	----	660	<60	<12	<120	----	----				
W. Floor	37	0.002	----	660	<60	<12	<120	----	----				

Equipment & Fixtures

Conveyor		0.001	1283	----	<60	<12	<120	----	----				
Pressure washer		0.001	0	----	<60	<12	<120	----	----				
Cabinet (E wall)		0.001	0	----	<60	<12	<120	----	----				
Dryer (S wall)		0.001	1283	----	<60	<12	<120	----	----				
Table (W wall)		0.002	0	----	<60	<12	<120	----	----				



Etching Building Room 35

Spray Booth

**FIGURE 1.35
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 35

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	1	cps	1283.10	dpm/100cm ²
LB122	Floor	2424	3	cps	1980.63	dpm/100cm ²
BICRON	all	B703T	0.06	uSv/h	0.01	mrem/h

Box 2

<u>Gamma Spectroscopy Isotope Information</u>		
Isotope	Historically	Currently
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0.001	0	----	<60	<12	<120	----	----				
E. Wall	2	0.003	0	----	<60	<12	<120	----	----				
E. Wall	3	0.002	0	----	<60	<12	<120	----	----				
N. Wall	4	0.003	0	----	<60	<12	<120	----	----				
W. Wall	5	0.002	0	----	<60	<12	<120	----	----				
W. Wall	6	0.002	0	----	<60	<12	<120	----	----				
Floor, r1	7	0.001	----	0	<60	<12	<120	----	----				
Floor	8	0.001	----	0	<60	<12	<120	----	----				
ceiling	9	0	642	----	<60	<12	<120	----	----				

**FIGURE 1.36
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 36

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1	cps	1283.10	dpm/100cm ²
LB122	Floor	2424	3	cps	1980.63	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0.004	0	----	<60	<12	<120	----	----				
S. Wall	2	0.003	0	----	<60	<12	<120	----	----				
S. Wall	3	0.002	0	----	<60	<12	<120	----	----				
E. Wall	4	0.002	0	----	<60	<12	<120	----	----				
E. Wall	5	0.003	0	----	<60	<12	<120	----	----				
N. Wall	6	0.003	0	----	<60	<12	<120	6415	----	Above pipe			
N. Wall	7	0.002	0	----	<60	<12	<120	----	----				
N. Wall	8	0.004	0	----	<60	<12	<120	----	----				
N. Wall	9	0.003	0	----	<60	<12	<120	----	----				
W. Wall	10	0.004	0	----	<60	<12	<120	----	----				
W. Wall	11	0.003	----	0	<60	<12	<120	----	----				
Floor, r1	12	0.004	----	0	<60	<12	<120	----	----				
Floor	13	0.003	----	0	<60	<12	<120	----	----				
Floor, r2	14	0.002	----	0	<60	<12	<120	----	----				
Floor	15	0.004	----	0	<60	<12	<120	----	----				
Floor, r3	16	0.002	----	0	<60	<12	<120	----	----				
Floor	17	0.003	----	0	<60	<12	<120	----	----				
Floor, r4	18	0.003	----	0	<60	<12	<120	----	----				
Floor	19	0.002	----	0	<60	<12	<120	----	----				
ceiling	20	0.001	0	----	<60	<12	<120	----	----				

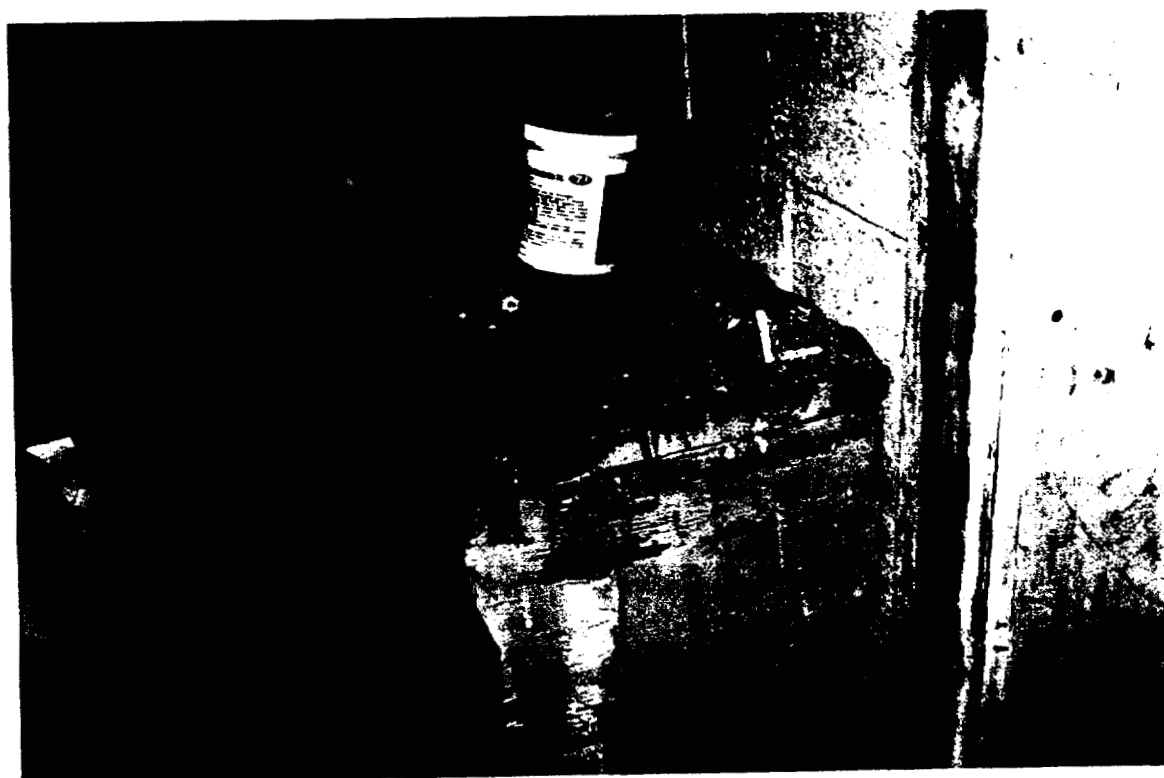
Equipment & Fixtures

machine		0.003	0	----	<60	<12	<120	----	----				
machine		0.001	0	----	<60	<12	<120	----	----				

The number #37 was not attributed to any room in the building.



Etching Building Room 38
Equipment stored in this room.



Etching Building Room 38
Contaminated table on north wall to left of door.

**FIGURE 1.38
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 38, Watch Dial

Prepared: 5/31/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1.1	cps	1411.41	dpm/100cm ²
LB122	Floor	2424	3	cps	1980.63	dpm/100cm ²
BICRON	all	B708T	4.5	urem/h	0.005	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u> <u>Present</u>	<u>Historically</u> <u>Present</u>	<u>Currently</u> <u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.000	1155	----	<60	<12	<120	----	----				
S. Wall	2	0.002	770	----	<60	<12	<120	----	----				
S. Wall	3	0.005	1540	----	<60	<12	<120	----	----				
E. Wall	4	0.001	385	----	960	<12	<120	----	----				
E. Wall	5	0.005	1155	----	<60	<12	<120	----	----				
E. Wall	6	0.009	2438	----	<60	<12	<120	----	----				
E. Wall	7	0.010	1411	----	<60	14	<120	----	----				
E. Wall	8	0.003	257	----	<60	<12	<120	----	----				
N. Wall	9	0.003	1540	----	<60	<12	<120	----	----				
N. Wall	10	0.002	1796	----	<60	<12	<120	----	----				
N. Wall	11	0.002	1540	----	<60	<12	<120	----	----				
W. Wall	12	0.001	1283	----	<60	<12	<120	----	----				
W. Wall	13	0.002	1668	----	<60	<12	<120	----	----				
W. Wall	14	0.003	1411	----	<60	<12	<120	----	----				
W. Wall	15	0.003	1925	----	<60	<12	<120	----	----				
W. Wall	16	0.003	2181	----	<60	<12	<120	----	----				
Floor, r1	17	0.003	2438	----	<60	<12	<120	----	----				
Floor	18	0.007	----	----	<60	<12	<120	----	----				
Floor	19	----	----	----	60	<12	<120	----	----				
Floor	20	0.002	----	----	<60	<12	<120	----	----				
Floor, r2	21	0.004	----	----	<60	<12	<120	----	----				
Floor	22	0.009	----	660	<60	<12	<120	----	----				
Floor	23	0.006	----	----	300	<12	<120	----	----				
Floor	24	0.005	2438	----	<60	<12	<120	----	----				
Floor, r3	25	0.008	----	660	<60	<12	<120	----	----				
Floor	26	0.009	----	660	<60	<12	<120	----	----				
Floor	27	0.021	----	660	<60	<12	<120	----	----				
Floor, r4	28	0.036	----	0	<60	<12	<120	----	----				
Floor	29	0.021	----	2641	<60	<12	<120	----	----				
Floor	30	0.008	----	2641	<60	<12	<120	----	----				
Floor, r5	31	0.008	----	0	<60	<12	<120	----	----				
Floor	32	0.010	----	0	<60	<12	<120	----	----				

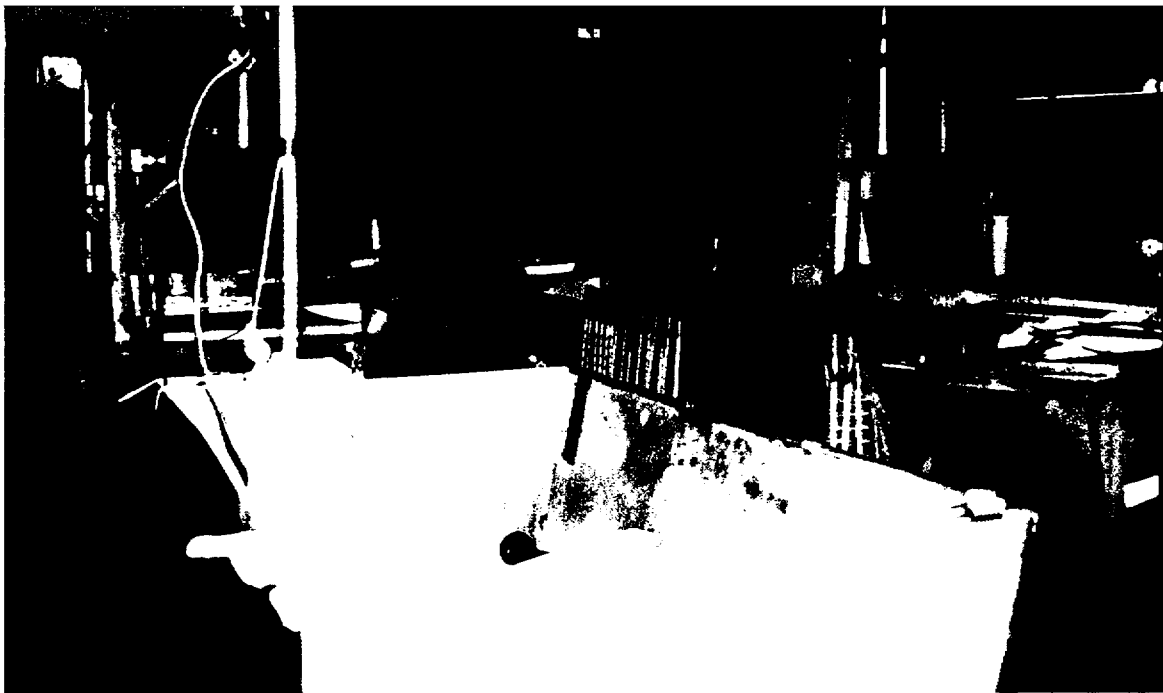
**FIGURE 1.38
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	33	0.006	----	0	<60	<12	<120	----	----					
Ceiling	34	----	513	----	----	<12	<120	----	----					

Equipment & Fixtures

Brushing mac.		0.010	----	----	<60	<12	<120	----	----					
Drill press		0.007	----	----	<60	<12	<120	----	----					
Fan		0.005	----	----	<60	<12	<120	----	----					
Roller		0.005	----	----	<60	<12	<120	----	----					

The number #39 was not attributed to any room in the building.



Etching Building, Room 40: Acid dipping tanks looking at north-west corner.

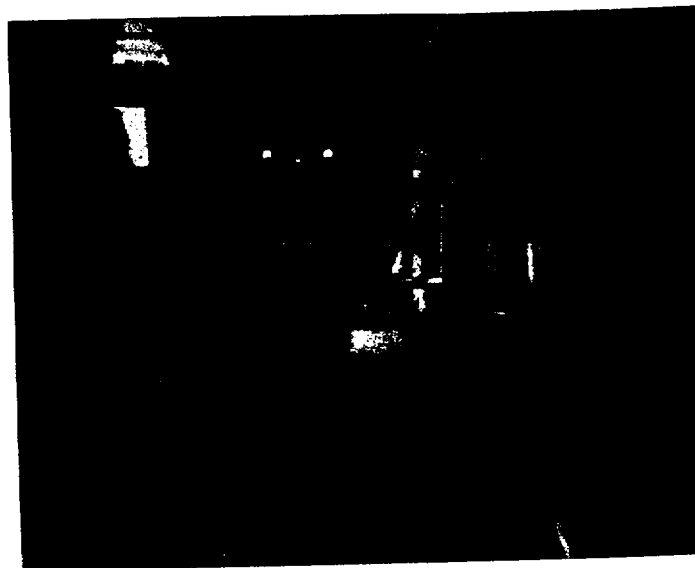


Etching Building, Room 40:

Floor between dipping tanks.



Etching Building Room #40
West wall.



Etching Building Room #40
South wall.

**FIGURE 1.40
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 40, Plating

Prepared: 5/22/96

Box 1

<u>Background</u>					
Instrument	Location	Serial #	Average Background		
HP260	walls	E1826	0.6	cps	769.86 dpm/100cm ²
LB122	Floor		5	cps	3301.06 dpm/100cm ²
BICRON	all	B708T	5	urem/h	0.005 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u>	<u>Historically Present</u>	<u>Currently Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

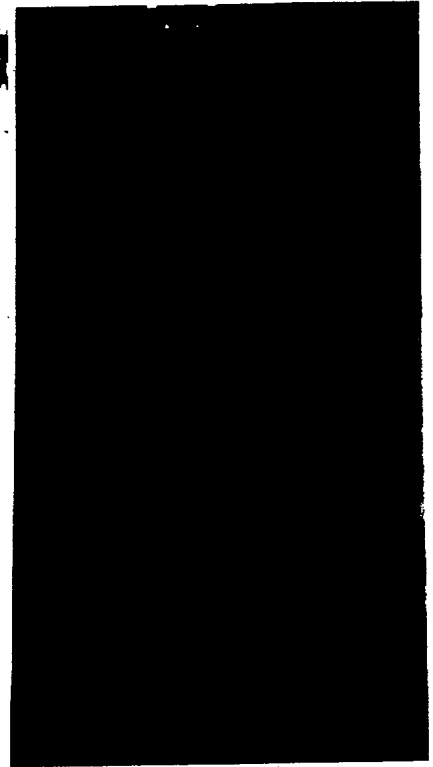
A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. Wall	1	0.0001	128	----	<60	<12	<120	----	----				
S. Wall	2	0.0002	642	----	<60	<12	<120	----	----				
S. Wall	3	0.0002	128	----	<60	<12	<120	----	----				
S. Wall	4	0.0001	128	----	<60	<12	<120	----	----				
S. Wall	5	0.0001	770	----	<60	<12	<120	----	----				
S. Wall	6	0.0000	513	----	<60	<12	<120	----	----				
S.E. Wall	7	0.0000	513	----	<60	<12	<120	----	----				
S.E. Wall	8	0.0001	513	----	<60	<12	<120	13344	----	Wood bracket			
E. Wall	9	0.0001	513	----	<60	<12	<120	----	----				
E. Wall	10	0.0002	513	----	<60	<12	<120	----	----				
E. Wall	11	0.0003	513	----	<60	<12	<120	----	----				
N.E. Wall	12	0.0001	898	----	<60	<12	<120	----	----				
N. Wall	13	0.0002	898	----	<60	<12	<120	----	----				
N. Wall	14	0.0004	1155	----	240	<12	<120	----	----				
N. Wall	15	0.0002	----	----	180	<12	<120	----	----				
N. Wall	16	0.0000	513	----	<60	<12	<120	----	----				
N.W. Wall	17	0.0002	1155	----	<60	<12	<120	----	----				
N.W. Wall	18	0.0001	1155	----	<60	<12	<120	----	----				
N.W. Wall	19	0.0002	2053	----	<60	<12	<120	----	----				
W. Wall	20	0.0001	1796	----	<60	<12	<120	----	----				
W. Wall	21	0.0000	----	990	<60	<12	<120	----	----				
Floor, r1	22	0.0002	----	792	<60	<12	<120	----	----				
Floor	23	0.0003	----	660	<60	<12	<120	----	----				
Floor	24	0.0003	----	858	<60	<12	<120	----	----				
Floor, r2	25	0.0002	----	264	<60	<12	<120	----	----				
Floor	26	0.0002	----	132	<60	<12	<120	----	----				
Floor	27	0.0002	----	0	<60	<12	<120	----	----				
Floor	28	0.0001	----	462	<60	<12	<120	----	----				
Floor, r3	29	0.0001	----	3301	<60	<12	<120	----	----				
Floor	30	0.0002	----	462	<60	<12	<120	----	----				
Floor	31	0.0002	----	528	<60	<12	<120	----	----				
Floor	32	0.0001	----	330	<60	<12	<120	----	----				
Floor, r4	33	0.0002	----	396	<60	<12	<120	----	----				
Floor	34	0.0000	----	528	<60	<12	<120	----	----				

**FIGURE 1.40
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	35	0.0001	----	----	----	<12	<120	----	----				
Floor	36	0.0001	----	----	<60	<12	<120	----	----				
ceiling	37	0.0000	642	----	<60	<12	<120	----	----				

Equipment & Fixtures

Wood bracket		----	----	----	<60	37	<120	13344	----				
Red machine		----	513	----	<60	<12	<120	----	----				
Variable platter		----	1796	----	<60	<12	<120	----	----				
Battery		----	513	----	<60	<12	<120	----	----				
Paper towel disp.		----	513	----	<60	<12	<120	----	----				
Alarm box		----	513	----	<60	<12	<120	----	----				



Etching Building Room # 41

Looking south into abandoned change rooms

**FIGURE 1.41
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Rooms 41A, 41B

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1	cps	1283.10	dpm/100cm ²
LB122	floor	1485	7	cps	4621.48	dpm/100cm ²
BICRON	all	A661T	4.5	urem/h	0.005	mrem/h

Box 2

<u>Gamma Spectroscopy Isotope Information</u>		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0.0005	1925	----	----	----	----	----	----				
S wall	2	0.001	2438	----	<60	<12	<120	----	----				
S wall	3	0.0025	1604	----	----	----	----	----	----				
S wall	4	0.0045	1860	----	----	----	----	----	----				
S wall	5	0.0005	3849	----	----	----	----	----	----				
S wall	6	0.0005	3849	----	----	----	----	----	----				
S wall	7	0.0025	3849	----	----	----	----	----	----				
E wall	8	0	1668	----	<60	<12	<120	----	----				
E wall	9	0.003	2951	----	----	----	----	----	----				
E wall	10	0.003	385	----	----	----	----	----	----				
E wall	11	0.002	1283	----	----	----	----	----	----				
N wall	12	0.0025	1796	----	----	----	----	----	----				
N wall	13	0.002	1925	----	----	----	----	----	----				
N wall	14	0.001	2695	----	----	----	----	----	----				
N wall	15	0.0015	2951	----	<60	<12	<120	----	----				
W wall	16	0.001	128	----	----	----	----	----	----				
W wall	17	0	2566	----	----	----	----	----	----				
N wall	18	0.002	2566	----	----	----	----	----	----				
N wall	19	0.0045	1925	----	----	----	----	----	----				
W wall	20	0.003	2181	----	----	----	----	----	----				
S wall	21	0.0025	2823	----	<60	<12	<120	----	----				
S wall	22	0.0015	2566	----	----	----	----	----	----				
Door jam	23	0.0005	2181	----	----	----	----	----	----				
Door jam	24	0.0015	0	----	----	----	----	----	----				
N wall	25	0.0005	0	----	----	----	----	----	----				
N wall	26	0.003	513	----	----	----	----	----	----				
W wall	27	0.0005	642	----	----	----	----	----	----				
Floor, r1	28	0.002	----	660	----	----	----	----	----				
Floor	29	0.0025	----	594	----	----	----	----	----				
Floor	30	0.0055	----	594	----	----	----	----	----				
Floor	31	0.0025	----	1849	----	----	----	----	----				
Floor	32	0.003	----	1254	----	----	----	----	----				

**FIGURE 1.41
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	33	0.003	----	1254	----	----	----	----	----				
Floor, r2	34	0.003	----	990	----	----	----	----	----				
Floor	35	0	----	----	----	----	----	----	----				
Floor	36	0.0035	----	1320	----	----	----	----	----				
Floor	37	0.002	----	1651	----	----	----	----	----				
Floor	38	0.002	----	1386	----	----	----	----	----				
Floor	39	0.0055	----	1188	----	----	----	----	----				
Floor, r3	40	----	----	----	----	----	----	----	----	Flooded			
Floor	41	0.0005	----	----	----	----	----	----	----				
Floor	42	0.0015	----	0	<60	<12	<120	----	----				
Floor	43	0.001	----	0	----	----	----	----	----				
Floor, r4	44	0.0015	----	1651	----	----	----	----	----				
Floor	45	0.0015	----	396	<60	<12	<120	----	----				
Floor	46	0.0015	----	264	----	----	----	----	----				
Floor	47	0.0025	----	1320	----	----	----	----	----				
Floor, r5	48	0.004	----	----	----	----	----	----	----				
Floor	49	0.0015	----	----	----	----	----	----	----				
Floor	50	0.0045	----	----	----	----	----	----	----				
Floor	51	0.001	----	264	----	----	----	----	----				
Ceiling	52	0.0005	----	----	<60	<12	<120	----	----				

7

**The number #42 was not attributed to any
room in the building.**

The number #43 was not attributed to any room in the building.

The number #44 was not attributed to any room in the building.

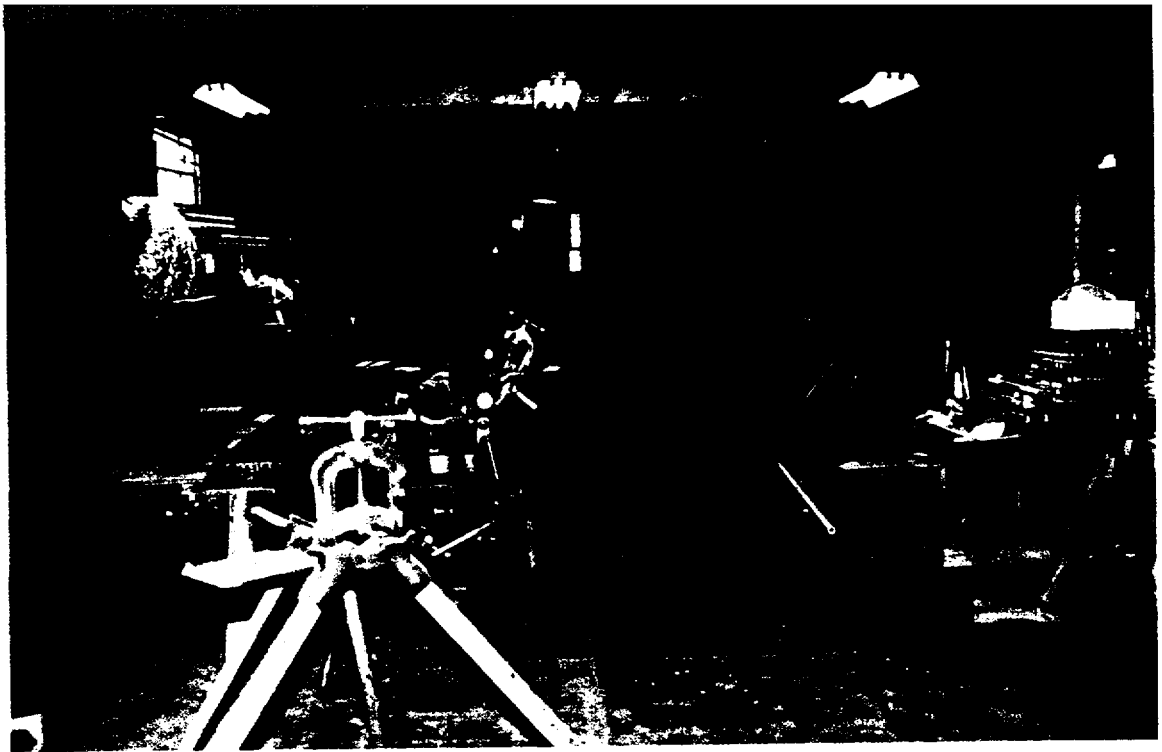


Etching Building - Room 45:
Collapsed Room

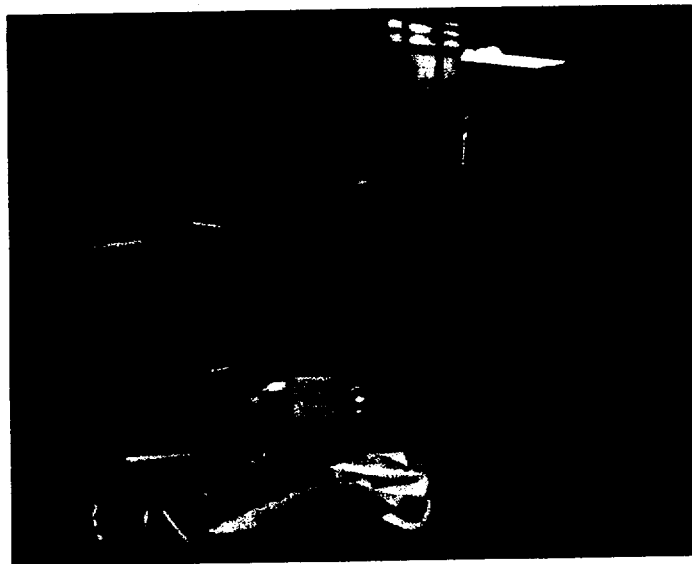
ROOM # 45 NOT SURVEYED

The number #46 was not attributed to any room in the building.

The number #47 was not attributed to any room in the building.



Etching Building Room #48
Looking south at equipment in Carpenter Shop.



Etching Building Room #48
Storage racks on east wall.

**FIGURE 1.48
SURVEY RESULTS**

MONSERO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 48, Watch Dial

Prepared: 5/22/96

Box 1

<u>Background</u>					
Instrument	Location	Serial #	Average Background		
HP260	walls	E1819	1 cps	1283.10	dpm/100cm ²
LB122	floor	M00384	7.80 cps	5149.65	dpm/100cm ²
BICRON	all	B893N	0.05 uSv/h	0.01	mrem/h

Box 2

<u>Gamma Spectroscopy Isotope Information</u>		
<u>Isotope Present</u>	<u>Historically Present</u>	<u>Currently Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. wall	1	0.004	0	----	<60	<12	<120	----	----				
S. Wall	2	0.001	513	----	<60	<12	<120	----	----				
S. Wall	3	0.003	1026	----	<60	<12	<120	21813	----	x=0m, y=1.1m			yes
S. Wall	4	0.002	128	----	<60	<12	<120	----	----				
S. Wall	5	0.001	385	----	<60	<12	<120	----	----				
S. Wall	6	0	257	----	<60	<12	<120	----	----				
S. Wall	7	0.003	0	----	<60	<12	<120	----	----				
S. Wall	8	0.002	128	----	<60	<12	<120	----	----				
S. Wall	9	0.002	385	----	<60	<12	<120	----	----				
S. Wall	10	0.001	842	----	<60	<12	<120	----	----				
S. Wall	11	0.002	513	----	<60	<12	<120	----	----				
S. Wall	12	0.003	128	----	<60	<12	<120	----	----				
E. Wall	13	0.006	513	----	<60	<12	<120	----	----				
E. Wall	14	0.003	842	----	<60	<12	<120	----	----				
E. Wall	15	0.002	842	----	<60	<12	<120	----	----				
E. Wall	16	0.001	385	----	<60	<12	<120	----	----				
E. Wall	17	0.002	385	----	<60	<12	<120	----	----				
N. Wall	18	0	128	----	<60	<12	<120	----	----				
N. Wall	19	0.001	770	----	<60	<12	<120	----	----				
N. Wall	20	0	128	----	<60	<12	<120	----	----				
N. Wall	21	0	128	----	<60	<12	<120	----	----				
N. Wall	22	0.003	3464	----	<60	<12	<120	----	----				
N. Wall	23	0	1668	----	<60	<12	<120	18477	----	x=1.5m, y=0.75m			yes
N. Wall	24	0	842	----	<60	<12	<120	----	----				
N. Wall	25	0	1283	----	<60	<12	<120	----	----				
N. Wall	26	0.002	1411	----	<60	<12	<120	----	----				
N. Wall	27	0.002	770	----	<60	<12	<120	----	----				
N. Wall	28	0.001	1411	----	<60	<12	<120	----	----				
N. Wall	29	0.001	1155	----	<60	<12	<120	32077	----	x=1.2m, y=1.9m			yes
N. Wall	30	0	1798	----	<60	<12	<120	----	----				
W. Wall	31	0	1026	----	<60	<12	<120	----	----				
W. Wall	32	0	1798	----	<60	<12	<120	----	----				

**FIGURE 1.48
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
W. Wall	33	0.009	1411	----	<60	<12	<120	7699	----	Below handle			
W. Wall	34	0.002	1411	----	<60	<12	<120	----	----				
W. Wall	35	0.001	1026	----	<60	<12	<120	----	----				
Floor, r1	36	0.004	----	0	<60	<12	<120	----	----				
Floor	37	0.003	----	396	<60	<12	<120	----	----				
Floor	38	0.002	----	858	<60	<12	<120	----	----				
Floor	39	0.004	----	726	<60	<12	<120	----	----				
Floor	40	0.003	----	0	<60	<12	<120	----	----				
Floor	41	0	----	0	<60	<12	<120	----	----				
Floor	42	0.001	----	0	<60	<12	<120	----	----				
Floor	43	0.002	----	1452	<60	<12	<120	----	----				
Floor	44	0.002	----	330	<60	<12	<120	----	----				
Floor	45	0.001	----	66	<60	<12	<120	----	----				
Floor	46	0.003	----	528	<60	<12	<120	----	----				
Floor	47	0.003	----	1056	<60	<12	<120	----	----				
Floor, r2	48	0.004	----	990	<60	<12	<120	----	----				
Floor	49	0.003	----	990	<60	<12	<120	----	----				
Floor	50	0.003	----	198	<60	<12	<120	----	----				
Floor	51	0.002	----	198	<60	<12	<120	----	----				
Floor	52	0.004	----	66	<60	<12	<120	----	----				
Floor	53	0.003	----	0	<60	<12	<120	----	----				
Floor	54	0.002	----	66	<60	<12	<120	----	----				
Floor	55	0.003	----	132	<60	<12	<120	----	6734	x=1m, y=0.1m			
Floor	56	0.003	----	264	<60	<12	<120	----	----				
Floor	57	0.003	----	0	<60	<12	<120	----	----				
Floor, r3	58	0.006	----	1452	<60	<12	<120	----	6734	x=1m, y=0.1m			
Floor	59	0.006	----	3169	<60	<12	<120	----	----				
Floor	60	0.002	----	3103	<60	<12	<120	----	----				
Floor	61	0.003	----	2113	<60	<12	<120	----	----				
Floor	62	0.003	----	2179	<60	<12	<120	----	----				
Floor	63	0.002	----	2245	<60	<12	<120	----	----				
Floor	64	0.004	----	2179	<60	<12	<120	----	----				
Floor	65	0.002	----	2773	<60	<12	<120	----	----				
Floor	66	0.002	----	2773	<60	<12	<120	----	----				
Floor	67	0.002	----	2113	<60	<12	<120	----	----				
Floor	68	0.002	----	2113	<60	<12	<120	----	----				
Floor, r4	69	0.001	----	2113	<60	<12	<120	----	----				
Floor	70	0.003	----	2773	<60	<12	<120	----	12676	x=0.3m, y=1.25m			
Floor	71	0.002	----	2773	<60	<12	<120	----	----				
Floor	72	0.001	----	2113	<60	<12	<120	----	----				
Floor	73	0.002	----	2773	<60	<12	<120	----	----				
Floor	74	0.001	----	2773	<60	<12	<120	----	----				
Floor	75	0.003	----	2773	<60	<12	<120	----	----				
Floor	76	0.002	----	2773	<60	<12	<120	----	----				
Floor	77	0.005	----	2773	<60	<12	<120	----	----				

**FIGURE 1.48
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	78	0.004	----	2113	<60	<12	<120	----	----				
Floor, r5	79	0.003	----	2773	<60	<12	<120	----	----				
Floor	80	0.001	----	2773	<60	<12	<120	----	----				
Floor	81	0.001	----	----	<60	<12	<120	----	----				
Floor	82	0.003	----	2113	<60	<12	<120	----	----				
Floor	83	0.002	----	2773	<60	<12	<120	----	----				
Floor	84	0.001	----	2773	<60	<12	<120	----	----				
Floor	85	0.002	----	2113	<60	<12	<120	----	----				
Floor	86	0.002	----	2113	<60	<12	<120	----	----				
Floor	87	0.003	----	2773	<60	<12	<120	----	12676	x=0.15m, y=0.5m			
								----	9375	x=0.4m, y=0.75m			
								----	9375	x=0.3m, y=0.5m			
Floor	88	0.002	----	2773	<60	<12	<120	----	----				
Floor	89	0.003	----	2773	<60	<12	<120	----	----				
Ceiling	90	0	257	----	<60	<12	<120	----	----				
Ceiling	91	0.002	257	----	<60	<12	<120	----	----				
Ceiling	92	0.002	257	----	<60	<12	<120	----	----				

Equipment & Fixtures

Planer	45	----	2053	----	<60	<12	<120	----	----				
Hot spot	55	----	----	----	<60	<12	<120	----	6734	x=1m, y=0.1m			
Hot spot	55	----	----	----	<60	<12	<120	----	----				
Hot spot	58	----	----	----	<60	<12	<120	----	6734	x=1m, y=0.1m			
Saw	84	----	1283	----	<60	<12	<120	----	----				
Hot spot	87	----	----	----	<60	<12	<120	----	12676	x=0.15m, y=0.5m			
Hot spot	87	----	----	----	<60	<12	<120	----	9375	x=0.4m, y=0.75m			
Hot spot	87	----	----	----	<60	<12	<120	----	9375	x=0.3m, y=0.5m			
Saw trimmers		----	770	----	<60	<12	<120	----	----				
Cabinet E wall		----	385	----	<60	<12	<120	----	----				
Cabinet N wall		----	385	----	<60	<12	<120	----	----				



Etching Building Room #49
Watch dial area.



Etching Building Room #49
South-east corner.

**FIGURE 1.49
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 49 Watch Dial Press

Prepared: 5/22/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	walls	E1819	1 cps	1283.10	dpm/100cm ²
LB122	Floor		8 cps	4951.58	dpm/100cm ²
BICRON	all	B893N	0.04 uSv/h	0.00	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.001	0	----	<60	<12	<120	----	----				
S. Wall	2	0.036	0	----	<60	<12	<120	----	----				
S. Wall	3	0	385	----	<60	<12	<120	----	----				
S. Wall	4	0	513	----	<60	<12	<120	----	----				
S. Wall	5	0	0	----	<60	<12	<120	----	----				
S. Wall	6	0.001	385	----	<60	<12	<120	----	----				
S. Wall	7	0.001	0	----	<60	<12	<120	----	----				
S. Wall	8	0.002	257	----	<60	<12	<120	----	----				
S. Wall	9	0.001	257	----	<60	<12	<120	----	----				
S. Wall	10	0	1026	----	<60	<12	<120	----	----				
S. Wall	11	0	642	----	<60	<12	<120	----	----				
S. Wall	12	0	385	----	<60	<12	<120	----	----				
S. Wall	13	----	642	----	<60	<12	<120	----	----				
S. Wall	14	0.002	128	----	<60	<12	<120	----	----				
S. Wall	15	0	257	----	120	<12	<120	----	----				
S. Wall	16	0	642	----	<60	<12	<120	----	----				
S. Wall	17	0	205	----	<60	<12	<120	----	----				
E. Wall	18	0.002	257	----	<60	<12	<120	----	----				
E. Wall	19	0.001	1026	----	<60	<12	<120	----	----				
E. Wall	20	0.001	128	----	<60	<12	<120	----	----				
E. Wall	21	0.004	513	----	<60	<12	<120	----	----				
E. Wall	22	0	257	----	<60	<12	<120	----	----				
N.E. corner	23	0	513	----	<60	<12	<120	----	----				
N. Wall	24	0.002	770	----	<60	<12	<120	----	----				
N. Wall	25	0	385	----	<60	<12	<120	----	----				
N. Wall	26	0.001	257	----	<60	<12	<120	----	----				
N. Wall	27	0.001	385	----	<60	<12	<120	----	----				
N. Wall	28	0	257	----	<60	<12	<120	----	----				
N. Wall	29	0.001	770	----	<60	<12	<120	----	----				
N. Wall	30	0.002	385	----	<60	<12	<120	----	----				
N. Wall	31	0.003	385	----	<60	<12	<120	----	----				
N. Wall	32	0.002	513	----	<60	<12	<120	----	----				

**FIGURE 1.49
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
N. Wall	33	0.002	513	----	<60	<12	<120	----	----					
N. Wall	34	0	257	----	<60	<12	<120	----	----					
N. Wall	35	0.002	385	----	<60	<12	<120	----	----					
N. Wall	36	0.002	770	----	<60	<12	<120	----	----					
N.W. corner	37	----	513	----	<60	<12	<120	----	----					
W. Wall	38	0.001	513	----	<60	<12	<120	----	----					
W. Wall	39	0.001	0	----	<60	<12	<120	----	----					
W. Wall	40	0.001	257	----	<60	<12	<120	----	----					
W. Wall	41	0.002	770	----	<60	<12	<120	----	----					
Floor, r1	42	0.002	----	264	<60	<12	<120	----	----					
Floor	43	0.002	----	462	<60	<12	<120	----	----					
Floor	44	0.003	----	264	<60	<12	<120	----	----					
Floor	45	0.001	----	----	<60	<12	<120	----	----					
Floor	46	0.046	----	660	<60	<12	<120	----	----					
Floor	47	0.056	----	330	<60	<12	<120	----	----					
Floor	48	0.076	----	462	<60	<12	<120	----	----					
Floor	49	0.056	----	198	<60	<12	<120	----	----					
Floor	50	0.046	----	264	<60	<12	<120	----	----					
Floor	51	0.066	----	330	<60	<12	<120	----	----					
Floor	52	0.046	----	330	<60	<12	<120	----	----					
Floor	53	0.056	----	462	<60	<12	<120	----	----					
Floor	54	0.046	----	528	<60	<12	<120	----	----					
Floor	55	0.002	----	594	<60	<12	<120	----	----					
Floor	56	0.001	----	462	<60	<12	<120	----	----					
Floor, r2	57	0.002	----	528	<60	<12	<120	----	----					
Floor	58	0.001	----	462	<60	<12	<120	----	----					
Floor	59	0.002	----	396	<60	<12	<120	----	----					
Floor	60	0	----	264	<60	<12	<120	----	----					
Floor	61	0.001	----	330	<60	<12	<120	----	----					
Floor	62	0.003	----	396	<60	<12	<120	----	----					
Floor, r3	63	0.002	----	924	<60	<12	<120	----	----					
Floor	64	0	----	792	<60	<12	<120	----	----					
Floor	65	0.002	----	462	<60	<12	<120	----	----					
Floor	66	0.004	----	462	<60	<12	<120	----	----					
Floor	67	0.001	----	528	<60	<12	<120	----	----					
Floor	68	0.002	----	594	<60	<12	<120	----	----					
Floor	69	0.003	----	594	<60	<12	<120	----	----					
Floor	70	0.001	----	396	<60	<12	<120	----	----					
Floor	71	0.002	----	396	<60	<12	<120	----	----					
Floor	72	0.002	----	396	<60	<12	<120	----	----					
Floor	73	0.003	----	528	<60	<12	<120	----	----					
Floor	74	0.003	----	330	<60	<12	<120	----	----					
Floor	75	0.002	----	198	<60	<12	<120	----	----					
Floor	76	0.002	----	198	<60	<12	<120	----	----					
Floor, r4	77	0.002	----	594	<60	<12	<120	----	----					

**FIGURE 1.49
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	78	0.001	----	198	<60	<12	<120	----	----				
Floor	79	0.001	----	396	<60	<12	<120	----	----				
Floor	80	0.002	----	396	<60	<12	<120	----	----				
Floor	81	0	----	396	<60	<12	<120	----	----				
Floor	82	0	----	594	<60	<12	<120	----	----				
Floor	83	0.001	----	726	1200	<12	<120	----	----		yes		
Floor	84	0	----	726	<60	<12	<120	----	----				
Floor	85	0.001	----	792	<60	<12	<120	----	----				
Floor	86	0.002	----	594	<60	<12	<120	----	----				
Floor	87	0.002	----	594	<60	<12	<120	----	----				
Floor	88	0.001	----	1518	<60	<12	<120	----	----				
Floor	89	0.003	----	726	<60	<12	<120	----	----				
Floor	90	0.007	----	528	<60	<12	<120	----	----				
Floor	91	0.002	----	330	240	<12	<120	----	----				
Floor, r5	92	0.001	----	594	<60	<12	<120	----	----				
Floor	93	0.002	----	528	<60	<12	<120	----	----				
Floor	94	0.002	----	594	<60	<12	<120	----	----				
Floor	95	0.004	----	330	<60	<12	<120	----	----				
Floor	96	0.005	----	528	<60	<12	<120	----	----				
Floor	97	0.001	----	462	<60	<12	<120	----	----				
Floor	98	0.001	----	528	<60	<12	<120	----	----				
Floor	99	0.002	----	528	<60	<12	<120	----	----				
Floor	100	0.002	----	726	<60	<12	<120	----	----				
Floor	101	0.001	----	990	<60	<12	<120	----	----				
Floor	102	0.002	----	858	<60	<12	<120	----	----				
Floor	103	0.001	----	594	<60	<12	<120	----	----				
Floor	104	0.003	----	594	<60	<12	<120	----	----				
ceiling	105	0.002	0	----	<60	<12	<120	----	----				
ceiling	106	0.001	0	----	<60	<12	<120	----	----				
ceiling	107	0.004	257	----	<60	<12	<120	----	----				
ceiling	108	0.001	449	----	<60	<12	<120	----	----				

FIGURE 1.50 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 50

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	1	cps	1283.10	dpm/100cm ²
LB122	Floor	4097	5	cps	3301.06	dpm/100cm ²
BICRON	all	B708T	0.05	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.003	257	----	<60	<12	<120	----	----				
S. Wall	2	0.001	385	----	<60	<12	<120	----	----				
E. Wall	3	0.002	257	----	<60	<12	<120	----	----				
E. Wall	4	0	257	----	<60	<12	<120	----	----				
N. Wall	5	0.002	257	----	<60	<12	<120	----	----				
N. Wall	6	0	128	----	<60	<12	<120	----	----				
W. Wall	7	0.001	0	----	<60	<12	<120	----	----				
W. Wall	8	0.002	128	----	<60	<12	<120	----	----				
Floor, r1	9	0.001	----	0	<60	<12	<120	----	----				
Floor	10	0.002	----	0	<60	<12	<120	----	----				
Floor	11	0.002	----	0	----	----	----	----	----				
Floor	12	0.001	----	0	----	----	----	----	----				
ceiling	13	0.003	385	----	<60	<12	<120	----	----				

Equipment & Fixtures

stove		0.001	0	----	<60	<12	<120	----	----				
-------	--	-------	---	------	-----	-----	------	------	------	--	--	--	--

**FIGURE 1.50A
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 50A Watch Dial

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	0.75	cps	962.32	dpm/100cm ²
LB122	Floor	4097	2.40	cps	1584.51	dpm/100cm ²
BICRON	all	B708T	0.04	uSv/h	0.00	mrem/h

Box 2

<u>Gamma Spectroscopy Isotope Information</u>		
<u>Isotope</u> <u>Present</u>	<u>Historically</u> <u>Present</u>	<u>Currently</u> <u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW Corner	1	0.002	0	----	----	----	----	----	----				
S Wall	2	0.003	321	----	----	----	----	----	----				
S Wall	3	0.002	321	----	<60	<12	<120	----	----				
S Wall	4	0.001	0	----	----	----	----	----	----				
E Wall	5	0	0	----	----	----	----	----	----				
E Wall	6	0.004	0	----	----	----	----	----	----				
E Wall	7	0	321	----	----	----	----	----	----				
E Wall	8	0.001	0	----	----	----	----	----	----				
E Wall	9	0.001	0	----	<60	<12	<120	----	----				
E Wall	10	0.004	----	----	----	----	----	----	----				
E Wall	11	----	----	----	----	----	----	----	----				
E Wall	12	0.001	0	----	<60	<12	<120	----	----				
E Wall	13	0.001	0	----	----	----	----	----	----				
E Wall	14	0.002	321	----	----	----	----	----	----				
E Wall	15	0.001	577	----	----	----	----	----	----				
N Wall	16	0.002	321	----	----	----	----	----	----				
W Wall	17	0.004	----	----	----	----	----	----	----				
W Wall	18	0.003	0	----	<60	<12	<120	----	----				
W Wall	19	0.002	0	----	----	----	----	----	----				
W Wall	20	0.002	0	----	----	----	----	----	----				
W Wall	21	----	----	----	----	----	----	----	----				
W Wall	22	0.002	0	----	<60	<12	<120	----	----				
W Wall	23	0.001	0	----	----	----	----	----	----				
W Wall	24	0.001	0	----	----	----	----	----	----				
W Wall	25	0.003	321	----	----	----	----	----	----				
W Wall	26	0.004	0	----	<60	<12	<120	----	----				
W Wall	27	0.002	321	----	----	----	----	----	----				
W Wall	28	----	----	----	----	----	----	----	----				
Floor,r1	29	0.002	----	0	----	----	----	----	----				
Floor	30	0	----	0	<60	<12	<120	----	----				
Floor	31	0.001	----	0	----	----	----	----	----				
Floor	32	0.001	----	0	<60	<12	<120	----	----				

**FIGURE 1.50A
SURVEY RESULTS**

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE 1	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	33	0	----	0	----	----	----	----	----				
Floor, r2	34	0	----	0	----	----	----	----	----				
Floor	35	0	----	0	----	----	----	----	----				
Floor	36	0.001	----	0	----	----	----	----	----				
Floor	37	0.001	----	0	<60	<12	<120	----	----				
Floor, r3	38	0	----	0	----	----	----	----	----				
Floor	39	0.001	----	0	----	----	----	----	----				
Floor	40	0	----	0	<60	----	----	----	----				
Floor	41	0.001	----	0	<60	----	----	----	----				
Floor,, r4	42	0.001	----	0	<60	----	----	----	----				
Floor	43	0.001	----	0	<60	----	----	----	----				
Floor	44	0.002	----	0	<60	----	----	----	----				
Floor	45	0.002	----	0	<60	<12	<120	----	----				
Floor, r5	46	0.001	----	0	<60	----	----	----	----				
Floor	47	0	----	0	<60	----	----	----	----				
Floor	48	0.001	----	0	<60	----	----	----	----				
Floor	49	0.002	----	0	<60	----	----	----	----				
Floor, r6	50	0	----	0	----	----	----	----	----				
Floor	51	0.001	----	0	<60	<12	<120	----	----				
Floor	52	0.001	----	0	<60	----	----	----	----				
Floor	53	0	----	0	<60	----	----	----	----				
Floor, r7	54	0	----	0	<60	----	----	----	----				
Floor	55	-0.001	----	0	<60	----	----	----	----				
Floor	56	0	----	0	<60	----	----	----	----				
Floor, r8	57	0.002	----	0	<60	<12	<120	----	----				
Floor	58	0	----	0	<60	----	----	----	----				
Floor	59	0.003	----	0	<60	----	----	----	----				
Floor	60	0.001	----	0	<60	----	----	----	----				
Floor, r9	61	0	----	0	<60	----	----	----	----				
Floor	62	0	----	0	<60	----	----	----	----				
Floor	63	0.001	----	0	<60	----	----	----	----				
Floor, r10	64	0.001	----	0	<60	<12	<120	----	----				
Floor	65	0.001	----	0	<60	----	----	----	----				
Floor	66	0.001	----	0	----	----	----	----	----				
Floor	67	0.001	----	0	<60	----	----	----	----				
Floor, r11	68	0.002	----	0	----	----	----	----	----				
Floor	69	0.003	----	0	----	----	----	----	----				
Floor	70	0.001	----	0	<60	----	----	----	----				
Floor	71	0.001	----	0	<60	----	----	----	----				
Ceiling	72	----	----	----	<60	----	----	----	----				
Ceiling	73	----	----	----	<60	<12	<120	----	----				



Etching Building Room 50B

New Area for Making Signs

**FIGURE 1.50B
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 50B Watch Dial

Prepared: 5/22/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	walls	E2176	0.70	cps	898.17 dpm/100cm ²
LB122	Floor	4097	7.40	cps	4885.56 dpm/100cm ²
BICRON	all	B893N	0.04	uSv/h	0.00 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW Corner	1	0.002	128	----	----	----	----	----	----				
S Wall	2	0.004	0	----	----	----	----	----	----				
S Wall	3	0	385	----	<60	----	----	----	----				
S Wall	4	0.001	385	----	----	----	----	----	----				
S Wall	5	0.002	770	----	----	----	----	----	----				
S Wall	6	0.001	385	----	----	----	----	----	----				
S Wall	7	0.001	128	----	----	----	----	----	----				
SE Corner	8	0.001	513	----	----	----	----	----	----				
E Wall	9	0	128	----	----	----	----	----	----				
E Wall	10	0	385	----	<60	----	----	----	----				
E Wall	11	0	0	----	----	----	----	----	----				
E Wall	12	0	513	----	----	----	----	----	----				
E Wall	13	0	642	----	----	----	----	----	----				
E Wall	14	0	642	----	----	----	----	----	----				
NE Corner	15	0	257	----	----	----	----	----	----				
N Wall	16	0	411	----	----	----	----	----	----				
N Wall	17	0	488	----	<60	----	----	----	----				
N Wall	18	0	0	----	----	----	----	----	----				
W Wall	19	0	128	----	----	----	----	----	----				
W Wall	20	0	642	----	----	----	----	----	----				
W Wall	21	0.001	0	----	----	----	----	----	----				
W Wall	22	0.002	642	----	<60	----	----	----	----				
NW Corner	23	0	257	----	----	----	----	----	----				
N Wall	24	0.002	257	----	----	----	----	----	----				
N Wall	25	0.001	513	----	----	----	----	----	----				
N Wall	26	0.001	770	----	----	----	----	----	----				
E Wall	27	0	128	----	----	----	----	----	----				
E Wall	28	0.004	1283	----	----	----	----	----	----				
E Wall	29	0	1155	----	----	----	----	----	----				
E Wall	30	0.001	1155	----	<60	----	----	----	----				
E Wall	31	0.001	513	----	----	----	----	----	----				
E Wall	32	0	770	----	----	----	----	----	----				

**FIGURE 1.50B
SURVEY RESULTS**

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
E Wall	33	0.001	1155	----	----	----	----	----	----				
E Wall	34	0.001	1411	----	----	----	----	----	----				
E Wall	35	0	642	----	----	----	----	----	----				
E Wall	36	0	1155	----	----	----	----	----	----				
E Wall	37	0	1540	----	----	----	----	----	----				
E Wall	38	0	1155	----	----	----	----	----	----				
E Wall	39	0.001	642	----	----	----	----	----	----				
SW Floor, r1	40	0.003	----	132	----	----	----	----	----				
Floor	41	0.002	----	462	----	----	----	----	----				
Floor	42	0.003	----	396	<60	----	----	----	----				
Floor, r2	43	0.001	----	792	----	----	----	----	----				
Floor	44	0.002	----	462	----	----	----	----	----				
Floor	45	0	----	462	----	----	----	----	----				
Floor	46	0.002	----	462	<60	----	----	----	----				
Floor	47	0.002	----	594	----	----	----	----	----				
Floor	48	0.002	----	396	----	----	----	----	----				
Floor, r3	49	0.002	----	330	----	----	----	----	----				
Floor	50	0.002	----	264	----	----	----	----	----				
Floor	51	0.002	----	594	----	----	----	----	----				
Floor	52	0.002	----	462	----	----	----	----	----				
Floor	53	0.002	----	528	----	----	----	----	----				
Floor	54	0.002	----	462	----	----	----	----	----				
Floor	55	0.001	----	792	----	----	----	----	----				
Floor, r4	56	0.001	----	858	<60	----	----	----	----				
Floor	57	0.004	----	594	----	----	----	----	----				
Floor	58	0.001	----	528	----	----	----	----	----				
Floor	59	0.001	----	462	----	----	----	----	----				
Floor	60	0	----	728	<60	----	----	----	----				
Floor	61	0.001	----	264	----	----	----	----	----				
Floor	62	0.002	----	396	----	----	----	----	----				
Floor, r5	63	0.003	----	1122	<60	----	----	----	----				
Floor	64	0	----	132	----	----	----	----	----				
Floor	65	0	----	660	----	----	----	----	----				
Floor	66	0.001	----	462	----	----	----	----	----				
Floor	67	0.001	----	594	----	----	----	----	----				
Floor	68	0.002	----	528	----	----	----	----	----				
Floor	69	0.001	----	660	----	----	----	----	----				
Floor, r6	70	0	----	660	----	----	----	----	----				
Floor	71	0.001	----	594	----	----	----	----	----				
Floor	72	0	----	594	<60	----	----	----	----				
Floor	73	0.001	----	528	----	----	----	----	----				
Floor	74	0.001	----	594	----	----	----	----	----				
Floor	75	0.036	----	198	----	----	----	----	----				
Floor	76	0.001	----	462	----	----	----	----	----				
Floor, r7	77	0.002	----	396	----	----	----	----	----				

**FIGURE 1.50B
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	78	0.003	----	198	----	----	----	----	----				
Floor	79	0	----	462	----	----	----	----	----				
Floor	80	0.003	----	462	<60	----	----	----	----				
Floor, r8	81	0.001	----	660	----	----	----	----	----				
Floor	82	0.002	----	462	----	----	----	----	----				
Floor	83	0	----	264	----	----	----	----	----				
Floor	84	0.001	----	264	----	----	----	----	----				
Floor, r9	85	0.001	----	264	<60	----	----	----	----				
Floor	86	0.002	----	330	----	----	----	----	----				
Floor	87	0.001	----	462	----	----	----	----	----				
Floor, r10	88	0.001	----	594	----	----	----	----	----				
Floor	89	0	----	528	----	----	----	----	----				
Floor	90	0.002	----	330	----	----	----	----	----				
Floor	91	0.002	----	330	----	----	----	----	----				
Floor, r11	92	0.002	----	330	----	----	----	----	----				
Floor	93	0.001	----	396	----	----	----	----	----				
Floor	94	0.002	----	660	<60	----	----	----	----				
Ceiling	95	----	----	----	<60	----	----	----	----				
Ceiling	96	----	----	----	<60	----	----	----	----				



Etching Building Room 50C
New area for making signs.

**FIGURE 1.50C
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 50C Watch Dial

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	M00905	0.7	cps	898.17	dpm/100cm ²
LB122	Floor	4097	8	cps	5281.69	dpm/100cm ²
BICRON	all	B893N	0.03	uSv/h	0.00	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

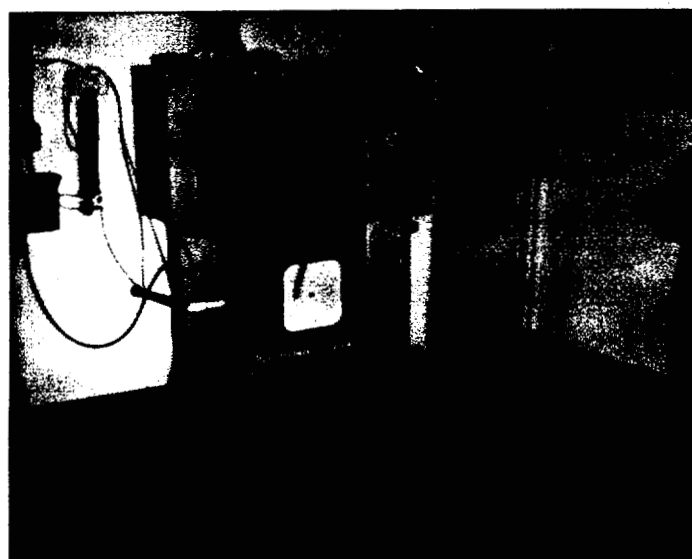
		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW Corner	1	0	0	----	<60	<12	<120	----	----				
S Wall	2	0	0	----	----	----	----	----	----				
E Wall	3	0	385	----	----	----	----	----	----				
E Wall	4	0	385	----	----	----	----	----	----				
E Wall	5	0	385	----	----	----	----	----	----				
W Wall	6	0.001	257	----	----	----	----	----	----				
W Wall	7	0.001	257	----	----	----	----	----	----				
S Wall	8	0.002	257	----	----	----	----	----	----				
S Wall	9	0.004	0	----	----	----	----	----	----				
E Wall	10	0.001	128	----	----	----	----	----	----				
E Wall	11	0	257	----	----	----	----	----	----				
E Wall	12	0.002	0	----	<60	14	<120	----	----				
S Wall	13	0.001	128	----	----	----	----	----	----				
S Wall	14	0.001	0	----	<60	<12	<120	----	----				
SE Corner	15	0.002	257	----	----	----	----	----	----				
E Wall	16	0	128	----	<60	<12	<120	----	----				
E Door	17	0.001	257	----	----	----	----	----	----				
E Wall	18	0.002	128	----	----	----	----	----	----				
E Corner	19	0.001	0	----	----	----	----	----	----				
E Wall	20	0	257	----	----	----	----	----	----				
E Wall	21	0.001	257	----	<60	<12	<120	----	----				
E Wall	22	0.001	0	----	----	----	----	----	----				
E Wall	23	0	0	----	----	----	----	----	----				
E Wall	24	0.001	257	----	----	----	----	----	----				
E Wall	25	0.003	257	----	----	----	----	----	----				
NE Wall	26	0.001	513	----	----	----	----	----	----				
N Wall	27	0	1283	----	<60	<12	<120	----	----				
N Wall	28	0.002	680	----	----	----	----	----	----				
N Wall	29	0.001	423	----	----	----	----	----	----				
N Wall	30	0.001	1796	----	----	----	----	----	----				
N Wall	31	0.002	1155	----	----	----	----	----	----				
N Wall	32	0.001	2181	----	<60	<12	<120	----	----				

**FIGURE 1.50C
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ³)	ALPHA (dpm/100cm ³)	BETA (dpm/100cm ³)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
N Wall	33	0	770	----	----	----	----	----	----				
W Wall	34	0.001	1283	----	----	----	----	----	----				
W Wall	35	0	257	----	<60	14	<120	----	----				
W Wall	36	0.003	128	----	----	----	----	----	----				
W Wall	37	0.002	513	----	----	----	----	----	----				
W Wall	38	0.003	128	----	<60	<12	<120	----	----				
W Wall	39	0.003	642	----	----	----	----	----	----				
W Wall	40	0.001	642	----	----	----	----	----	----				
W Wall	41	0.002	1026	----	----	----	----	----	----				
SW Wall	42	0.001	1540	----	----	----	----	----	----				
SW Wall	43	0.003	----	132	<60	<12	<120	----	----				
SW Floor, r1	44	0.003	----	198	<60	<12	<120	----	----				
Floor, r2	45	0.001	----	264	<60	----	----	----	----				
Floor	46	0.002	----	0	<60	----	----	----	----				
Floor	47	0.001	----	0	<60	----	----	----	----				
Floor, r3	48	0.003	----	66	<60	----	----	----	----				
Floor	49	0.001	----	132	<60	----	----	----	----				
Floor	50	0.001	----	132	<60	----	----	----	----				
Floor	51	0.002	----	132	<60	----	----	----	----				
Floor, r4	52	0.003	----	198	<60	----	----	----	----				
Floor	53	0.003	----	198	<60	----	----	----	----				
Floor	54	0.001	----	132	----	----	----	----	----				
Floor	55	----	----	----	<60	----	----	----	----				
Floor	56	0.002	----	66	<60	----	----	----	----				
Floor	57	0.004	----	0	<60	----	----	----	----				
Floor, r5	58	0.004	----	0	<60	----	----	----	----				
Floor	59	0.001	----	66	<60	----	----	----	----				
Floor	60	0.003	----	66	<60	----	----	----	----				
Floor	61	0.003	----	66	<60	----	----	----	----				
Floor	62	0.004	----	0	<60	----	----	----	----				
Floor	63	0.002	----	----	360	----	----	----	----				
Floor, r6	64	0.001	----	132	<60	----	----	----	----				
Floor	65	0.004	----	330	<60	----	----	----	----				
Floor	66	0.002	----	396	<60	----	----	----	----				
Floor	67	0.002	----	264	<60	----	----	----	----				
Floor	68	0.002	----	198	<60	----	----	----	----				
Floor	69	0.001	----	198	<60	----	----	----	----				
Floor, r7	70	0.002	----	132	<60	----	----	----	----				
Floor	71	0.001	----	264	<60	----	----	----	----				
Floor	72	0.004	----	132	<60	----	----	----	----				
Floor	73	0.003	----	198	<60	----	----	----	----				
Floor	74	0.002	----	66	<60	----	----	----	----				
Floor	75	0.003	----	264	<60	----	----	----	----				
Floor, r8	76	0.003	----	198	<60	----	----	----	----				
Floor	77	0	----	264	<60	----	----	----	----				

**FIGURE 1.50C
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	78	0.003	----	198	<60	----	----	----	----				
Floor	79	0.002	----	66	<60	----	----	----	----				
Floor	80	0.003	----	0	<60	----	----	----	----				
Floor	81	----	----	----	<60	----	----	----	----				
Floor, r9	82	0.001	----	0	<60	----	----	----	----				
Floor	83	0.002	----	66	<60	----	----	----	----				
Floor	84	0.002	----	0	<60	<12	<120	----	----				
Floor	85	0.002	----	66	<60	----	----	----	----				
Floor	86	0.002	----	198	<60	----	----	----	----				
Floor	87	----	----	----	<60	----	----	----	----				
Floor, r10	88	----	----	----	<60	----	----	----	----				
Floor	89	0.003	----	264	<60	----	----	----	----				
Floor	90	0.002	----	264	<60	----	----	----	----				
Floor	91	0.002	----	132	<60	----	----	----	----				
Floor	92	0.001	----	0	<60	----	----	----	----				
Floor	93	0.002	----	264	<60	----	----	----	----				
SW Ceiling	94	0.001	719	----	<60	----	----	----	----				
NE Ceiling	95	0.002	436	----	----	----	----	----	----				



Etching Building Room #51
Between washrooms looking east

**FIGURE 1.51
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 51

Prepared: 5/22/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	walls	M00905	0.8	cps	1026.48 dpm/100cm ²
LB122	Floor	M00384	8	cps	5281.69 dpm/100cm ²
BICRON	all	B893N	0.04	uSv/h	0.004 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0.003	385	----	----	----	----	----	----				
S wall	2	0.003	513	----	<60	<12	<120	----	----				
S wall	3	0.002	257	----	----	----	----	----	----				
S wall	4	0.001	257	----	----	----	----	----	----				
Women's restroom (S wall)	5	0	513	----	----	----	----	----	----				
Women's restroom divider	6	0.003	1540	----	<60	<12	<120	----	----				
Women's restroom (S wall)	7	0.002	257	----	----	----	----	----	----				
Women's restroom (S wall)	8	0	0	----	<60	<12	<120	----	----				
Women's restroom (S wall)	9	0	0	----	----	----	----	----	----				
Women's restroom (S wall)	10	0.001	513	----	----	----	----	----	----				
Women's restroom (E wall)	11	0.002	257	----	<60	<12	<120	----	----				
Women's restroom (N wall)	12	0	513	----	----	----	----	----	----				
Women's restroom (N wall)	13	0.002	513	----	<60	<12	<120	----	----				
Women's restroom (W wall)	14	0.002	642	----	----	----	----	----	----				
Women's restroom (W wall)	15	0.001	257	----	<60	<12	<120	----	----				
Women's restroom door	16	0	257	----	----	----	----	----	----				
E wall	17	0	128	----	<60	<12	<120	----	----				
E wall	18	0	257	----	----	----	----	----	----				
E wall	19	0.001	770	----	----	----	----	----	----				
Men's restroom (W wall)	20	0	642	----	----	----	----	----	----				
Men's restroom (S wall)	21	0	642	----	<60	<12	<120	----	----				
Men's restroom (S wall)	22	0	642	----	<60	<12	<120	----	----				
Men's restroom (S wall)	23	0.002	513	----	----	----	----	----	----				
Men's restroom (S wall)	24	0	513	----	----	----	----	----	----				
Men's restroom (E wall)	25	0.001	770	----	<60	<12	<120	----	----				
Men's restroom (E wall)	26	0.002	128	----	----	----	----	----	----				
Men's restroom (N wall)	27	0	385	----	----	----	----	----	----				
Men's restroom (N wall)	28	0	128	----	<60	<12	<120	----	----				
Men's restroom (N wall)	29	0	128	----	----	----	----	----	----				
Men's restroom divider	30	0.001	257	----	----	----	----	----	----				
Men's restroom divider	31	0.001	513	----	----	----	----	----	----				
Men's restroom (N wall)	32	0.002	642	----	----	----	----	----	----				
Main room S wall	33	0	1283	----	----	----	----	----	----				
S wall	34	0.001	1155	----	----	----	----	----	----				
S wall	35	0.001	898	----	<60	<12	<120	----	----				

**FIGURE 1.51
SURVEY RESULTS**

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	36	0	449	----	----	----	----	----	----				
SE Corner	37	0.002	411	----	----	----	----	----	----				
E wall	38	0.003	770	----	<60	<12	<120	----	----				
NE wall	39	0.001	642	----	----	----	----	----	----				
N wall	40	0.002	398	----	<60	<12	<120	----	----				
N wall	41	0.003	770	----	----	----	----	----	----				
N wall	42	0.001	1540	----	----	----	----	----	----				
N wall	43	----	----	----	----	----	----	----	----				
N wall	44	0.001	642	----	----	----	----	----	----				
N wall	45	0	770	----	----	----	----	----	----				
NW wall	46	0	1026	----	----	----	----	----	----				
W wall	47	0	898	----	----	----	----	----	----				
W wall	48	0.001	898	----	----	----	----	----	----				
W wall	49	0.002	770	----	----	----	----	----	----				
W wall	50	0.001	128	----	----	----	----	----	----				
W wall	51	0.001	385	----	----	----	----	----	----				
W wall	52	0	513	----	<60	<12	<120	----	----				
SW wall	53	0	128	----	----	----	----	----	----				
SW Floor, r1	54	0	----	264	----	----	----	----	----				
Floor	55	0.003	----	66	----	----	----	----	----				
Floor	56	0.002	----	132	----	----	----	----	----				
Floor	57	0.001	----	66	----	----	----	----	----				
Women's restroom Floor r2	58	0.002	----	66	----	----	----	----	----				
Women's restroom Floor	59	0.001	----	0	----	----	----	----	----				
Women's restroom Floor	60	0	----	528	<60	<12	<120	----	----				
Women's restroom Floor	61	0.003	----	66	----	----	----	----	----				
Women's restroom Floor r3	62	0.003	----	132	----	----	----	----	----				
Women's restroom Floor	63	0.001	----	264	----	----	----	----	----				
Women's restroom counter	64	0	----	264	----	----	----	----	----				
Women's restroom Floor	65	0.002	----	198	----	----	----	----	----				
Floor, r4	66	0.001	----	66	----	----	----	----	----				
Floor	67	0.002	----	66	----	----	----	----	----				
Floor	68	0.003	----	66	<60	<12	<120	----	----				
Main room Floor	69	0.001	----	198	----	----	----	----	----				
Floor, r5	70	0.002	----	132	----	----	----	----	----				
Floor	71	0.002	----	264	----	----	----	----	----				
Floor	72	0.001	----	462	----	----	----	----	----				
Floor	73	0.003	----	198	----	----	----	----	----				
Men's restroom Floor r6	74	0.001	----	264	----	----	----	----	----				
Men's restroom Floor	75	0	----	462	----	----	----	----	----				
Men's restroom Floor	76	0.001	----	528	<60	<12	<120	----	----				
Men's restroom Floor	77	0.001	----	330	----	----	----	----	----				
Men's restroom Floor r7	78	0.003	----	330	----	----	----	----	----				
Men's restroom Floor	79	0.003	----	396	----	----	----	----	----				
Men's restroom Floor	80	0.002	----	330	----	----	----	----	----				
Main room Floor r8	81	0.001	----	396	----	----	----	----	----				
Floor	82	0	----	396	----	----	----	----	----				

**FIGURE 1.51
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	83	0	----	330	----	----	----	----	----				
Floor r9	84	0.003	----	264	----	----	----	----	----				
Floor	85	0.003	----	66	----	----	----	----	----				
Floor (obstructed)	86	----	----	----	----	----	----	----	----				
Floor (obstructed)	87	----	----	----	----	----	----	----	----				
Floor	88	0.002	----	528	----	----	----	----	----				
Floor r10	89	0.002	----	396	----	----	----	----	----				
Floor	90	0.002	----	396	----	----	----	----	----				
Floor	91	0.002	----	330	<60	<12	<120	----	----				

Equipment & Fixtures

Oven		----	----	----	<60	<12	<120	----	----				
Humidifier		----	----	----	<60	<12	<120	----	----				

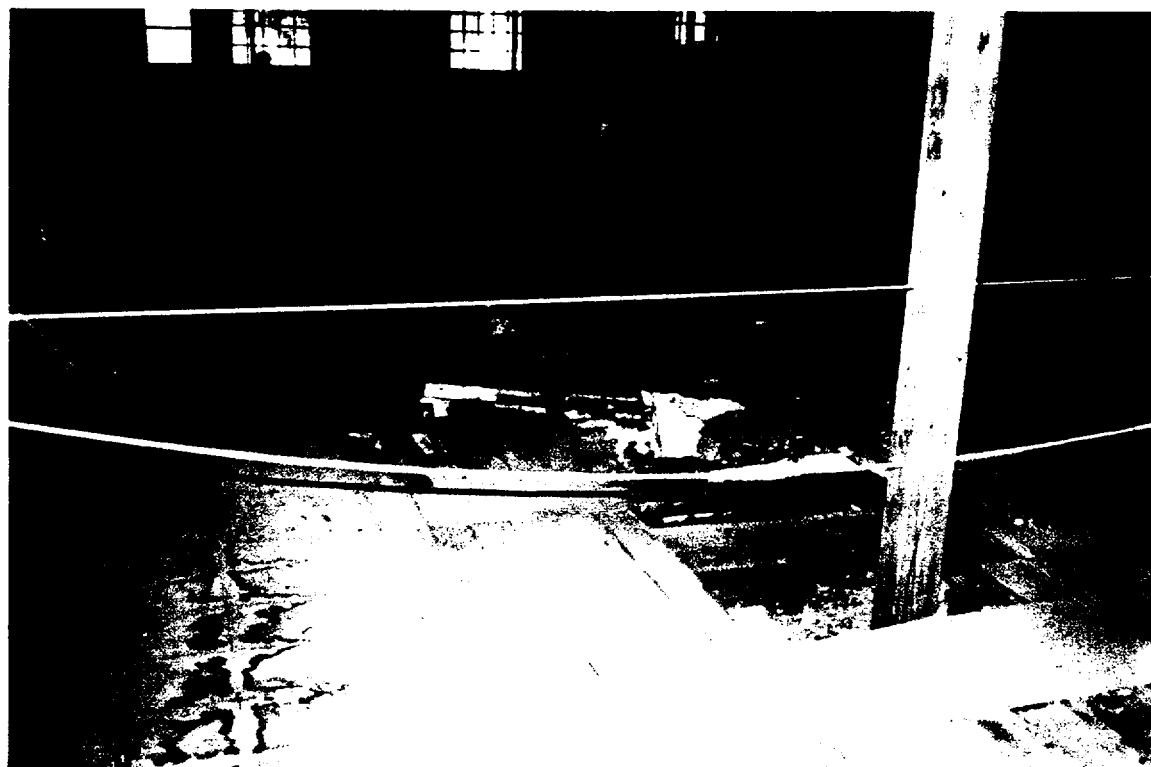
The number # 52 was not attributed to any room in the building.

The number # 53 was not attributed to any room in the building.

The number # 54 was not attributed to any room in the building.



Etching Building Room #55
Room where floor is missing, posts are active



Etching Building Room #55
Active door on west wall by ramp.

**FIGURE 1.55
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 55, Vacant Store Room

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1	cps	1283.10	dpm/100cm ²
LB122	Floor	2406	3	cps	1782.57	dpm/100cm ²
BICRON	all	B708T	0.05	uSv/h	0.01	mrem/h

Box 2

<u>Gamma Spectroscopy Isotope Information</u>		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.002	0	----	<60	<12	<120	----	----				
S. Wall	2	0.003	0	----	<60	<12	<120	----	----				
S. Wall	3	0.004	0	----	<60	<12	<120	----	----				
S. Wall	4	0.002	0	----	<60	<12	<120	----	----				
S. Wall	5	0	0	----	<60	<12	<120	----	----				
S. Wall	6	0.003	385	----	<60	<12	<120	----	----				
S. Wall	7	0.002	1283	----	<60	<12	<120	3734	----	x=1.76m, y=1.6m			
S. Wall	8	0	128	----	<60	<12	<120	4183	----	x=1.76m, y=0.3m			
								4183	----	x=0.1m, y=1.0m			
S. Wall	9	0	385	----	<60	<12	<120	4837	----	x=1.76m, y=0.8m			
								4183	----	x=1.76m, y=0.6m			
								5581	----	x=1.35m, y=0.4m			
E. Wall	10	0.002	----	----	<60	<12	<120	----	----				
E. Wall	11	0.001	128	----	<60	<12	<120	----	----				
E. Wall	12	0.001	128	----	<60	<12	<120	----	----				
E. Wall	13	0.001	128	----	<60	<12	<120	----	----				
E. Wall	14	0.003	128	----	60	<12	<120	2951	----	x=1.6m, y=0.5m			
E. Wall	15	0.003	128	----	<60	<12	<120	----	----				
N. Wall	16	0.002	770	----	<60	<12	<120	----	----				
N. Wall	17	0.001	257	----	<60	<12	<120	----	----				
N. Wall	18	0	642	----	<60	<12	<120	----	----				
N. Wall	19	0.002	898	----	<60	<12	<120	----	----				
N. Wall	20	0.001	770	----	<60	<12	<120	----	----				
N. Wall	21	0	898	----	<60	<12	<120	15397	----	x=1.76m, y=1.76m			yes
								1243320	----	x=1.2m, y=1m			yes
N. Wall	22	0.002	0	----	<60	<12	<120	20530	----	x=0m, y=0m			yes
								6415	----	x=1.25m, y=0.1m			
N. Wall	23	0.002	513	----	<60	<12	<120	123177	----	x=1m, y=1.6m			yes
N. Wall	24	0	1155	----	<60	<12	<120	----	----				
W. Wall	25	0.005	770	----	<60	<12	<120	5646	----	x=1m, y=0.4m			
								9444	----	x=1.25m, y=1.25m			
								96232	----	x=1.2m, y=1.2m			yes
W. Wall	26	0.004	257	----	<60	<12	<120	----	----				
W. Wall	27	0.006	128	----	<60	<12	<120	----	----				

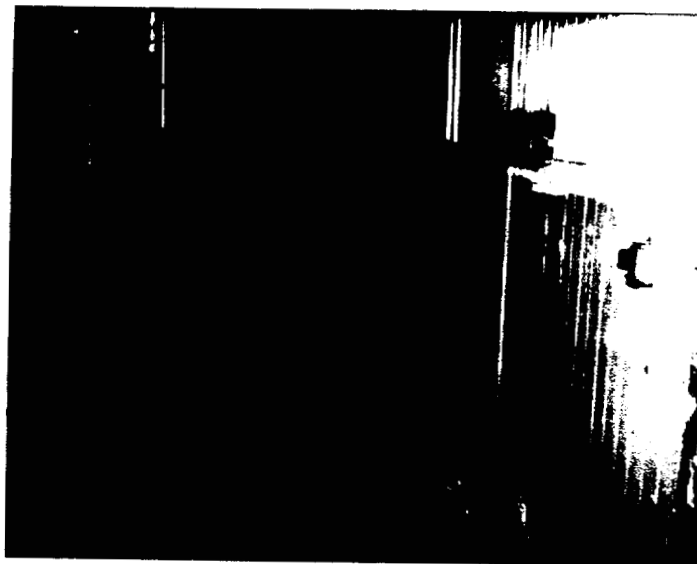
**FIGURE 1.55
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
W. Wall	28	0.002	128	----	<60	<12	<120	----	----					
W. Wall	29	0.003	128	----	<60	<12	<120	----	----					
W. Wall	30	0.004	770	----	<60	<12	<120	5684	----	x=1m, y=0.4m				
								6287	----	x=1m, y=0.8m				
W. Wall	31	0.004	128	----	<60	<12	<120	----	----					
Floor, r1	32	0.002	----	5480	<60	<12	<120	----	----				yes	
Floor	33	0.003	----	5480	<60	<12	<120	----	----				yes	
Floor	34	0.002	----	2179	<60	<12	<120	----	----					
Floor	35	0.003	----	2179	<60	<12	<120	----	----					
Floor	36	0.003	----	2179	<60	<12	<120	----	----					
Floor, r2	37	0.002	----	2179	<60	<12	<120	----	----					
Floor	38	0.003	----	2179	180	<12	<120	----	----					
Floor	39	0.001	----	6140	<60	<12	<120	----	24626	x=2m, y=0m			yes	yes
Floor	40	0.003	----	----	<60	<12	<120	----	----					
Floor	41	0.006	----	198	<60	<12	<120	----	44432	x=1.2, y=0.1m				yes
								----	57636	x=1.6, y=0.1m				yes
								----	51034	x=1.7, y=0.1m				yes
Floor, r3	42	0.004	----	12742	<60	<12	<120	----	----				yes	
Floor	43	0.004	----	5480	<60	<12	<120	----	21325	x=0.4m, y=0.2m			yes	yes
Floor	44	0.003	----	7460	<60	<12	<120	----	21325	x=2m, y=1m			yes	yes
								----	24626	x=2m, y=1.6m				yes
								----	19344	x=1.76m, y=1.25m				yes
Floor	45	0.003	----	858	<60	<12	<120	----	----					
Floor	46	0.005	----	858	<60	<12	<120	----	----					
Floor, r4	47	0.003	----	0	<60	<12	<120	----	----					
Floor	48	0	----	0	<60	<12	<120	----	----					
Floor	49	0.001	----	330	<60	<12	<120	----	----					
Floor	50	0.003	----	462	<60	<12	<120	----	----					
Floor	51	0.002	----	396	<60	<12	<120	----	----					
Floor	52	0.002	----	132	<60	<12	<120	----	----					
Floor	53	0.004	----	7460	<60	<12	<120	----	----				yes	
Floor, r5	54	0.003	----	0	<60	<12	<120	----	----					
Floor	55	0.005	----	858	<60	<12	<120	----	----					
Floor	56	0.002	----	2179	----	----	----	----	----					
Floor	58	0.002	----	----	----	----	----	----	----					
Floor	59	0.002	----	3631	----	----	----	----	----					
Floor	60	0.003	----	9441	----	----	----	----	----				yes	
Floor	61	0.004	----	198	----	----	----	----	37170	Whole area in front of door				yes
Floor	62	0.004	----	4820	----	----	----	----	----					
Floor	63	0	----	4489	----	----	----	----	----					
Floor	67	0.003	----	2179	----	----	----	----	----					

Equipment & Fixtures

**FIGURE 1.55
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Sinks	4	----	0	----	<60	<12	<120	----	----				
Hot spot	6	----	----	----	<60	<12	<120	----	----				
Windowsill	7	----	----	----	<60	<12	<120	----	----				
Hot spot	8	----	----	----	<60	<12	<120	----	----				
Hot spot	8	----	----	----	<60	<12	<120	----	----				
Door frame	14	----	----	----	<60	<12	<120	----	----				
Hot spot	21	----	----	----	<60	<12	<120	----	----				
Hot spot	21	----	----	----	<60	<12	<120	----	----				
Hot spot	21	----	----	----	<60	<12	<120	----	----				
Hot spot	22	----	----	----	<60	<12	<120	----	----				
Hot spot	22	----	----	----	<60	<12	<120	----	----				
Hot spot	25	----	----	----	<60	<12	<120	----	----				
Hot spot	25	----	----	----	<60	<12	<120	----	----				
Hot spot	25	----	----	----	<60	<12	<120	----	----				
Filing cabinet	27	----	0	----	<60	<12	<120	----	----				
Windowsill	30	----	----	----	<60	<12	<120	----	----				
Hot spot	33	----	----	----	<60	<12	<120	----	----				
Hot spot	39	----	----	----	<60	<12	<120	----	----				
Hot spot	39	----	----	----	<60	14	<120	----	----				
Hot spot	41	----	----	----	<60	<12	<120	----	----				
Hot spot	41	----	----	----	<60	<12	<120	----	----				
Hot spot	41	----	----	----	<60	<12	<120	----	----				
Hot spot	41	----	----	----	<60	<12	<120	----	----				
West shelves	43	----	----	----	<60	<12	<120	----	----				
East shelves	43	----	----	----	<60	<12	<120	----	----				
Hot spot	44	----	----	----	<60	<12	<120	----	----				
Hot spot	44	----	----	----	<60	<12	<120	----	----				
Hot spot	44	----	----	----	<60	<12	<120	----	----				
Tool shelves	50	----	----	----	<60	<12	<120	----	----				
Hot spot	53	----	----	----	<60	<12	<120	----	----				
Metal tube	55	----	----	----	<60	<12	<120	----	----				
Bins	63	----	0	----	<60	<12	<120	----	----				



Etching Building Room 56

HALLWAY

**FIGURE 1.56
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 56, Hall

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	M00905	1	cps	1283.10	dpm/100cm ²
LB122	Floor		6	cps	3961.27	dpm/100cm ²
BICRON	all	B708T	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.008	842	----	<60	<12	<120	----	----				
E. Wall	2	0.011	770	----	<60	<12	<120	----	----				
E. Wall	3	0.011	842	----	<60	<12	<120	----	----				
E. Wall	4	0.009	842	----	<60	<12	<120	----	----				
E. Wall	5	0.004	1283	----	<60	<12	<120	----	----				
E. Wall	6	0.002	842	----	<60	<12	<120	----	----				
E. Wall	7	0.002	842	----	<60	<12	<120	----	----				
doorway	8	----	----	----	----	<12	<120	----	----				
N. Wall	9	0	842	----	<60	<12	<120	----	----				
N. Wall	10	0.004	1283	----	4020	<12	<120	----	----		yes		
W. Wall	11	0.003	1283	----	<60	<12	<120	----	----				
W. Wall	12	0.002	1283	----	<60	<12	<120	----	----				
W. Wall	13	0.005	842	----	<60	<12	<120	----	----				
W. Wall	14	0.007	1925	----	<60	<12	<120	----	----				
W. Wall	15	0.008	1925	----	<60	<12	<120	----	----				
Floor, r1	16	0.005	----	3961	<60	<12	<120	----	----				
Floor	17	0.007	----	7923	<60	<12	<120	----	----			yes	
Floor	18	0.007	----	9243	<60	<12	<120	----	----			yes	
Floor	19	0.004	----	2179	<60	<12	<120	----	----				
Floor	20	0.002	----	396	<60	<12	<120	----	----				
Floor	21	0.002	----	0	<60	<12	<120	----	----				
S ceiling	22	0.008	----	0	----	<12	<120	----	----				
N ceiling	23	0.004	----	0	----	<12	<120	----	----				

The number # 57 was not attributed to any room in the building.

**FIGURE 1.58
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 58 Hall

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E2176	1.5	cps	1924.64	dpm/100cm ²
LB122	Floor	4097	6	cps	3961.27	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. Corner	1	0.002	642	----	<60	<12	<120	----	----				
S. Wall	2	0.002	1283	----	<60	<12	<120	----	----				
S. Wall	3	0.001	0	----	<60	<12	<120	----	----				
S. Wall	4	0.008	1283	----	<60	<12	<120	----	----				
S. Wall	5	0.008	642	----	<60	<12	<120	----	----				
E. Wall	6	0.009	642	----	<60	<12	<120	----	----				
N. Wall	7	0.01	1925	----	<60	<12	<120	----	----				
N. Wall	8	0.003	1283	----	<60	<12	<120	----	----				
N. Wall	9	0.003	642	----	<60	<12	<120	----	----				
W. Wall	10	0.003	642	----	<60	<12	<120	----	----				
Floor, r1	11	0.001	----	2641	<60	<12	<120	----	----				
Floor	12	0	----	0	<60	<12	<120	----	----				
Floor	13	0.002	----	2641	<60	<12	<120	----	----				
Ceiling	14	0.005	----	0	<60	<12	<120	----	----				

Equipment & Fixtures

Barrel	15	----	----	----	<60	<12	<120	----	----				
--------	----	------	------	------	-----	-----	------	------	------	--	--	--	--



Etching Room # 59
Activity detected on back of cupboard
(shown as monitoring inside of cupboard)



Etching Room #59
Looking at south storage room.

**FIGURE 1.59
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 59, Grind room

Prepared: 5/22/96

Box 1

<u>Background</u>					
Instrument	Location	Serial #	Average Background		
HP260	walls	E1819	1	cps	1283.10 dpm/100cm ²
LB122	Floor	4097	7	cps	4687.50 dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u>	<u>Historically</u>	<u>Currently</u>
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.001	642	----	<60	<12	<120	----	----				
S wall	2	0.001	642	----	<60	<12	<120	----	----				
E wall	3	0.001	0	----	<60	<12	<120	----	----				
E wall	4	0.003	0	----	----	----	----	----	----				
E wall	5	0	1925	----	----	----	----	----	----				
N wall	6	0.103	2566	----	<60	<12	<120	----	----				
N wall	7	0.001	0	----	<60	<12	<120	----	----				
W wall	8	0.001	1283	----	<60	<12	<120	----	----				
W wall	9	0.001	1283	----	<60	<12	<120	----	----				
W wall	10	0.001	642	----	<60	<12	<120	----	----				
Floor, r1	11	0.002	----	396	<60	<12	<120	----	----				
Floor	12	0	----	0	<60	<12	<120	----	----				
Floor	13	0.001	----	0	<60	<12	<120	----	----				
Floor	14	0.005	----	726	<60	<12	<120	----	9177	x=2m, y=1m			
Floor	15	0	----	462	<60	<12	<120	----	----				
Floor	16	0.004	----	2047	<60	<12	<120	----	9837	x=2m, y=0.1m			
Ceiling	17	0	----	0	<60	<12	<120	----	----				

**FIGURE 1.60
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 60, Hot Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	0.5	cps	641.55	dpm/100cm ²
LB122	Floor		2	cps	1320.42	dpm/100cm ²
BICRON	all	B708T	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.002	0	----	<60	<12	<120	----	----				
E. Wall	2	0.002	0	----	<60	<12	<120	----	----				
N. Wall	3	0	0	----	<60	<12	<120	----	----				
W. Wall	4	0	0	----	<60	<12	<120	----	----				
Floor, r1	5	0.003	----	0	<60	<12	<120	----	----				
ceiling	6	0.003	642	----	<60	<12	<120	----	----				

ROOM #61 NOT SURVEYED



Etching Building Room #62
Acid etching tanks to the right
are on the east wall



Etching Building Room #62
Possible contamination, north-east corner.

**FIGURE 1.62
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 62, General Machine Shop

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	1.2	cps	1539.71	dpm/100cm ²
LB122	Floor	4097	8	cps	5281.69	dpm/100cm ²
BICRON	all	B893N	0.05	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.007	770	----	<60	<12	<120	----	----				
S. Wall	2	0.005	385	----	<60	<12	<120	----	----				
S. Wall	3	0.01	770	----	<60	<12	<120	----	----				
S. Wall	4	0.002	0	----	<60	<12	<120	----	----				
S. Wall	5	0.001	257	----	<60	<12	<120	----	----				
S. Wall	6	0	385	----	<60	<12	<120	----	----				
S. Wall	7	0.001	513	----	<60	<12	<120	17707	----	x=2ft, y=8in			yes
S. Wall	8	0.001	513	----	<60	<12	<120	----	----				
S. Wall	9	0.001	257	----	<60	<12	<120	----	----				
S. Wall	10	0.003	257	----	<60	<12	<120	----	----				
E. Wall	11	0.003	0	----	<60	<12	<120	----	----				
E. Wall	12	0.001	770	----	<60	<12	<120	----	----				
E. Wall	13	0.005	1668	----	<60	<12	<120	----	----				
E. Wall	14	0.003	1668	----	<60	<12	<120	35670	----	x=6ft, y=5ft			yes
N. Wall	15	0.004	385	----	<60	<12	<120	----	----				
N. Wall	16	0	385	----	<60	<12	<120	----	----				
N. Wall	17	0.001	1026	----	<60	<12	<120	3526974	----	x=2ft, y=1ft			yes
N. Wall	18	0.004	385	----	<60	<12	<120	----	----				
N. Wall	19	0.001	1668	----	<60	<12	<120	----	----				
N. Wall	20	0	1026	----	<60	<12	<120	----	----				
N. Wall	21	0.001	385	----	<60	<12	<120	----	----				
N. Wall	22	0.002	1026	----	<60	<12	<120	----	----				
N. Wall	23	0.001	385	----	<60	<12	<120	----	----				
N. Wall	24	0.002	385	----	<60	<12	<120	----	----				
N. Wall	25	0.002	0	----	<60	<12	<120	----	----				
W. Wall	26	0	385	----	<60	<12	<120	----	----				
W. Wall	27	0.005	385	----	<60	<12	<120	----	----				
W. Wall	28	0.006	385	----	<60	<12	<120	----	----				
Floor, r1	29	0.002	----	1452	<60	<12	<120	----	16505	x=2m, y=2m			yes
Floor	30	0.002	----	0	<60	<12	<120	----	----				
Floor, r2	31	0.007	----	0	<60	<12	<120	----	----				
Floor	32	0.002	----	0	<60	<12	<120	----	----				
Floor	33	0	----	396	<60	<12	<120	----	----				

**FIGURE 1.62
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	34	0.004	----	0	<60	<12	<120	----	----				
Floor, r3	35	0.003	----	1320	<60	<12	<120	----	----				
Floor	36	0.001	----	0	<60	<12	<120	----	----				
Floor	37	0	----	----	<60	<12	<120	----	----				
Floor, r4	38	0.005	----	0	<60	<12	<120	----	17826	x=2m, y=2m			yes
								----	128081	x=20cm, y=2m			yes
Floor	39	0.002	----	0	<60	<12	<120	----	----				
Floor	40	0.002	----	0	<60	<12	<120	----	----				
Floor	41	0.004	----	0	<60	<12	<120	----	----				
Floor	42	0.002	----	0	<60	<12	<120	----	----				
Floor, r5	43	0.003	----	0	<60	<12	<120	----	----				
Floor	44	0.001	----	0	<60	<12	<120	----	----				
Floor, r6	46	0	----	0	<60	<12	<120	----	5942	Along back wall			
Floor	47	0.001	----	0	<60	<12	<120	----	----				
Floor	48	0.004	----	1188	<60	<12	<120	----	----				
Floor	49	0.004	----	2641	<60	<12	<120	----	----				
Floor	50	0.004	----	2641	<60	<12	<120	----	----				
Floor, r7	51	0.004	----	1320	<60	<12	<120	----	19146	x=5cm, y=6cm			yes
Floor	52	0.001	----	660	<60	<12	<120	----	----				
Floor	52	0.001	----	0	<60	<12	<120	----	----				
Floor	53	0.001	----	330	<60	<12	<120	----	----				
Floor	54	0.006	----	330	<60	<12	<120	----	7923	x=2m, y=1.25m			
Floor	55	0.009	----	2641	<60	<12	<120	----	15845	x=1.75m, y=12cm			yes
Floor, r8	56	0.001	----	2311	<60	<12	<120	----	15845	x=1m, y=1m			yes
Floor	57	0.001	----	2311	<60	<12	<120	----	15845	x=3ft, y=3ft			yes
Floor	58	0.002	----	660	<60	<12	<120	----	----				
Floor	59	0.002	----	924	<60	<12	<120	----	----				
Floor, r9	60	0.005	----	1981	<60	<12	<120	----	----				
Floor	61	0.005	----	1915	<60	<12	<120	----	----				
Floor	62	0.002	----	1981	<60	<12	<120	----	11224	x=2ft, y=9in			
								----	82526	x=2ft, y=3ft			yes
								----	52817	x=2ft, y=3.5ft			yes
Floor	63	0.001	----	660	<60	<12	<120	----	----				
Floor	64	0.004	----	660	<60	<12	<120	----	----				
Floor	65	0	----	0	<60	<12	<120	----	----				
Floor	66	0.003	----	0	<60	<12	<120	----	----				
W Ceiling	67	0.002	0	----	<60	<12	<120	----	----				
N Ceiling	68	0.001	128	----	<60	<12	<120	----	----				
S Ceiling	69	0.002	257	----	<60	<12	<120	----	----				
E Ceiling	70	0.002	0	----	<60	<12	<120	----	----				

**FIGURE 1.62
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

Light fixture	5	----	----	----	<60	<12	<120	----	----				
Hot spot	7	----	----	----	<60	<12	<120	----	----				
Hot spot	14	----	----	----	<60	20	<120	----	----				
Electrical boxes	16	----	----	----	<60	<12	<120	----	----				
Tarp hot spot	17	----	----	----	<60	<12	<120	----	----				
Sump pipe	20	----	----	----	<60	<12	<120	----	----				
Pipe	20	----	----	----	<60	<12	<120	----	----				
Door frame	23	----	----	----	<60	<12	<120	----	----				
Shelf	26	----	----	----	<60	<12	<120	----	----				
Ledge	28	----	----	----	<60	<12	<120	----	----				
Wooden support		----	----	----	<60	<12	<120	----	----				
Wooden support		----	----	----	<60	<12	<120	----	----				
Ceiling pipes		----	----	----	<60	<12	<120	----	----				
Ceiling pipes		----	----	----	<60	<12	<120	----	----				

**FIGURE 1.63
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 63

Prepared: 5/22/96

Box 1

<u>Background</u>					
Instrument	Location	Serial #	Average Background		
HP260	all	E1826	1	cps	1283.10 dpm/100cm ²
LB122	none	---	---	cps	---
BICRON	all	B893N	0.06	uSv/h	0.01 mrem/h

Box 2

<u>Gamma Spectroscopy Isotope Information</u>		
Isotope	Historically	Currently
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.009	770	----	----	----	----	----	----				
S wall	2	0.008	128	----	<60	<12	<120	----	----				
E wall	3	0.003	257	----	60	<12	<120	----	----				
N wall	4	0.003	0	----	<60	<12	<120	----	----				
N wall	5	0.003	513	----	1020	<12	<120	----	----		yes		
W wall	6	0.01	0	----	----	----	----	----	----				
Floor, r1	7	0.006	128	----	----	----	----	----	----				
Floor	8	0.005	385	----	<60	<12	<120	----	----				
Floor	9	0.004	642	----	----	----	----	----	----				
Floor	10	0.004	642	----	----	----	----	----	----				
Ceiling	11	0.008	0	----	<60	<12	<120	----	----				

The number # 64 was not attributed to any room in the building.



Etching Building Room #65

Acid Dipping Room

**FIGURE 1.65
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 65 A & B

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.05	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.003	642	---	<60	<12	<120	---	---				
S. Wall	2	0.005	0	---	<60	<12	<120	---	---				
W. Wall	3	0.003	642	---	<60	<12	<120	---	---				
E. Wall	4	0.006	0	---	<60	<12	<120	---	---				
N. Wall	5	0.004	642	---	<60	<12	<120	---	---				
N. Wall	6	0.008	642	---	<60	<12	<120	---	---				
W. Wall	7	0.006	1026	---	<60	<12	<120	---	---				
W. Wall	8	0.011	385	---	<60	<12	<120	---	---				
W. Wall	9	0.011	1026	---	<60	<12	<120	---	---				
S. Wall	10	0.015	2566	---	<60	<12	<120	---	---				
E. Wall	11	0.003	385	---	<60	<12	<120	---	---				
E. Wall	12	0.002	770	---	<60	<12	<120	---	---				
E. Wall	13	0.001	0	---	<60	<12	<120	---	---				
N. Wall	14	0.002	257	---	<60	<12	<120	---	---				
N. Wall	15	0	0	---	<60	<12	<120	---	---				
N. Wall	16	0.001	257	---	<60	<12	<120	---	---				
W. Wall	17	0.001	642	---	<60	<12	<120	---	---				
W. Wall	18	0	0	---	<60	<12	<120	---	---				
W. Wall	19	0.001	385	---	<60	<12	<120	152688	---	x=0.5m, y=1m (Copper pipe)			yes
Floor, r1	20	0	257	---	<60	<12	<120	---	---				
Floor	21	0.002	0	---	<60	<12	<120	---	---				
Floor	22	0.006	513	---	<60	<12	<120	---	---				
Floor, r2	23	0	385	---	<60	<12	<120	---	---				
Floor	24	0.001	385	---	<60	<12	<120	---	---				
Floor	25	0.001	513	---	<60	<12	<120	---	---				
Floor, r3	26	0.002	0	---	<60	<12	<120	---	---				
Floor	27	0.004	513	---	<60	<12	<120	---	---				
Floor	28	0.002	513	---	<60	<12	<120	---	---				
N. ceiling	29	0	513	---	<60	<12	<120	---	---				

**FIGURE 1.65
SURVEY RESULTS**

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

Bench	9	----	----	----	<60	<12	<120	----	----					
Fuse box	18	----	----	----	780	<12	<120	----	----					
Hot spot	19	----	----	----	<60	77	<120	----	----					
Wood post	28	----	----	----	<60	<12	<120	----	----					
Ceiling pipe	29	----	----	----	<60	<12	<120	----	----					
Center sink		----	----	----	<60	<12	<120	----	----					

**FIGURE 1.66
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 66

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.05	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.003	1283	---	<60	<12	<120	---	---				
S. Wall	2	0.002	0	---	<60	<12	<120	---	---				
S. Wall	3	0.003	1283	---	<60	<12	<120	---	---				
E. Wall	4	0.002	0	---	<60	<12	<120	---	---				
E. Wall	5	0.005	1283	---	<60	<12	<120	---	---				
E. Wall	6	0.005	1283	---	<60	<12	<120	---	---				
E. Wall	7	0.002	642	---	<60	<12	<120	---	---				
E. Wall	8	0	0	---	<60	<12	<120	---	---				
E. Wall	9	0	0	---	<60	<12	<120	---	---				
N. Wall	10	0	0	---	<60	<12	<120	---	---				
N. Wall	11	0	0	---	<60	<12	<120	---	---				
N. Wall	12	0	0	---	<60	<12	<120	---	---				
W. Wall	13	0.001	---	---	---	---	---	---	---	Tanks in way			
W. Wall	14	0	---	---	---	---	---	---	---	Tanks in way			
W. Wall	15	0.001	---	---	---	---	---	---	---	Tanks in way			
W. Wall	16	0.001	---	---	---	---	---	---	---	Tanks in way			
Floor, r1	17	0.001	0	---	<60	<12	<120	---	---				
Floor	18	0.003	642	---	<60	<12	<120	---	---				
Floor	19	0.005	642	---	<60	<12	<120	---	---				
Floor, r2	20	0.001	0	---	---	---	---	---	---				
Floor	21	0.001	0	---	---	---	---	---	---				
Floor, r3	22	0.001	0	---	---	---	---	---	---				
Floor	23	0.002	0	---	---	---	---	---	---				
ceiling	24	0.003	642	---	<60	<12	<120	---	---				

Equipment & Fixtures

table	0.003	0	---	<60	<12	<120	---	---					
dye tank	0.001	0	---	<60	<12	<120	---	---					
electrical boxes	0.003	0	---	<60	<12	<120	---	---					

**FIGURE 1.66
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
light green tank		0.002	0	----	<60	<12	<120	----	----				
dark green tank		0.001	0	----	<60	<12	<120	----	----				

**FIGURE 1.67
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 67

Prepared: 8/12/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	0.9	cps	1154.79	dpm/100cm ²
LB122	floor		9.40	cps	6205.99	dpm/100cm ²
BICRON	all	B893N	0.05	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.075	385	----	<60	<12	<120	----	----				
S. Wall	2	0.002	64	----	<60	<12	<120	----	----				
S. Wall	3	0	0	----	<60	<12	<120	----	----				
S. Wall	4	0.004	257	----	<60	<12	<120	----	----				
E. Wall	5	0.005	0	----	<60	<12	<120	----	----				
E. Wall	6	0.002	257	----	<60	<12	<120	----	----				
N.E. corner	7	0.002	128	----	<60	<12	<120	118173	----	Door knob			yes
N. Wall	8	0.001	385	----	<60	<12	<120	127155	----	x=0.8m, y=1.5m			yes
N. Wall	9	0.001	128	----	<60	<12	<120	12959	----	x=1m, y=0m			
N. Wall	10	0.003	513	----	<60	<12	<120	----	----				
W. Wall	11	0.005	128	----	<60	<12	<120	----	----				
W. Wall	12	0.006	0	----	<60	<12	<120	----	----				
W. Wall	13	0.003	0	----	<60	<12	<120	----	----				
floor, r1	14	0.003	----	1585	<60	<12	<120	----	----				
floor	15	0.001	----	198	<60	<12	<120	----	----				
floor, r2	16	0.001	----	1783	<60	<12	<120	----	----				
floor	17	0.002	----	----	<60	<12	<120	----	----				
floor	18	0.005	----	284	<60	<12	<120	----	----				
floor, r3	19	0.002	----	792	<60	<12	<120	----	----				
floor	20	0.002	----	1452	<60	<12	<120	----	----				
floor	21	0.004	----	4225	<60	<12	<120	----	----				
floor	22	0.004	----	1585	<60	<12	<120	----	----				
floor	23	0.003	----	680	<60	<12	<120	----	----				
floor, r4	24	0.003	----	1981	<60	<12	<120	----	----				
floor	25	0.002	----	1849	<60	<12	<120	----	----				
floor	26	0.005	----	1122	<60	<12	<120	----	----				
ceiling	27	0.004	770	----	<60	<12	<120	----	----				

**FIGURE 1.67
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

Colls	4	----	0	----	<60	<12	<120	----	----					
Hot spot	7	----	----	----	<60	<12	<120	----	----					
Hot spot	7	----	----	----	<60	<12	<120	----	----					
Hot spot	7	----	----	----	<60	<12	<120	----	----					
Hot spot	8	----	----	----	<60	<12	<120	----	----					
Hot spot	8	----	----	----	<60	<12	<120	----	----					
Hot spot	9	----	----	----	<60	<12	<120	----	----					
Vent	10	----	0	----	<60	<12	<120	----	----					
Boiler	18&19	----	128	----	<60	<12	<120	----	----					

The number # 68 was not attributed to any room in the building.

**FIGURE 1.69
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 69

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	0.9	cps	1154.79	dpm/100cm ²
LB122	Floor		9	cps	5941.90	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.002	385	----	<60	<12	<120	----	----				
S. Wall	2	0	513	----	<60	<12	<120	----	----				
E. Wall	3	0.001	385	----	<60	14	<120	----	----				
E. Wall	4	0.002	128	----	<60	<12	<120	----	----				
E. Wall	5	0	385	----	<60	<12	<120	----	----				
N. Wall	6	0	385	----	<60	<12	<120	----	----				
N. Wall	7	0.001	128	----	<60	<12	<120	----	----				
N. Wall	8	0	0	----	<60	<12	<120	----	----				
W. Wall	9	0	1283	----	<60	<12	<120	----	----				
W. Wall	10	0	180	----	<60	<12	<120	----	----				
Floor, r1	11	0.005	----	1518	<60	<12	<120	----	----				
Floor	12	0.002	----	528	<60	<12	<120	----	----				
Floor	13	0	----	0	<60	<12	<120	----	----				
Floor, r2	14	0.002	----	198	<60	<12	<120	----	----				
Floor	15	0.001	----	0	<60	<12	<120	----	----			yes	
Floor	16	0.002	----	5942	<60	<12	<120	----	----				
Floor, r3	17	0	----	1188	<60	<12	<120	----	----				
Floor	18	0.001	----	528	<60	<12	<120	----	----				
Floor	19	0.001	----	66	<60	<12	<120	----	----				
ceiling	20	0.001	257	----	<60	<12	<120	----	----				

Equipment & Fixtures

generator		----	3978	----	<60	<12	<120	----	----				
furnace		----	1411	----	<60	<12	<120	----	----				

**FIGURE 1.70
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 70

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	0.7	cps	898.17	dpm/100cm ²
LB122	Floor		9.60	cps	6338.03	dpm/100cm ²
BICRON	all	B893N	0.05	uSv/h	0.01	mrem/h

Box 2

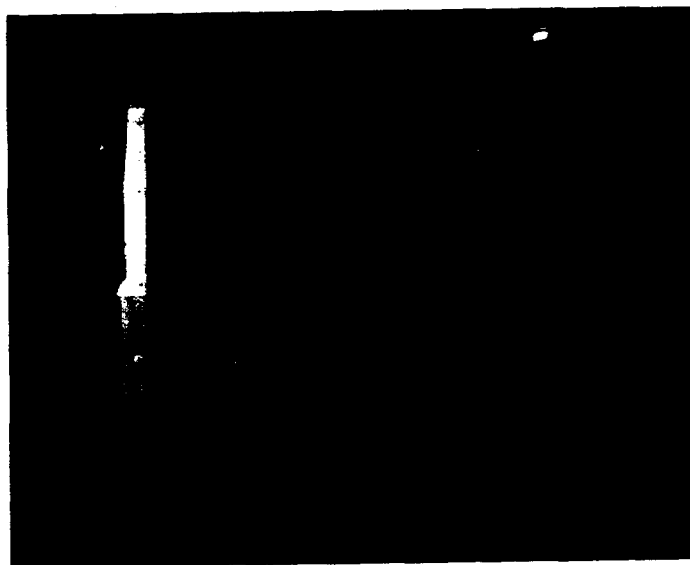
Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.003	0	----	<60	<12	<120	391729	----	Inside door between 67 & 70			yes
E. Wall	2	0.001	385	----	<60	<12	<120	----	----				
S. Wall	3	0.002	385	----	<60	<12	<120	----	----				
E. Wall	4	0.002	385	----	<60	<12	<120	----	----				
E. Wall	5	0	770	----	<60	<12	<120	----	----				
N. Wall	6	0	513	----	<60	<12	<120	----	----				
W. Wall	7	0	0	----	<60	<12	<120	----	----				
E. Wall	8	0	----	----	<60	<12	<120	----	----				
N. Wall	9	0.001	257	----	<60	<12	<120	----	----				
W. Wall	10	0	257	----	<60	<12	<120	----	----				
W. Wall	11	0.002	898	----	<60	<12	<120	----	----				
Floor, r1	12	0.003	----	14789	<60	<12	<120	----	26673	x=0.1m, y=0.5m		yes	yes
								----	41197	x=1.1m, y=0.9m			yes
								----	29313	x=0.4m, y=0.9m			yes
Floor, r2	13	0.003	----	14129	<60	<12	<120	----	41197	x=0.4m, y=0m		yes	yes
								----	27993	x=0.4m, y=1m			yes
ceiling	14	0.005	642	----	<60	<12	<120	----	----				

Equipment & Fixtures

hot spot door	1	----	----	----	<60	<12	<120	----	180502				yes
hot spot door	1	----	----	----	<60	14	<120	----	195687				yes
hot spot door	1	----	----	----	<60	<12	<120	----	189085				yes
hot spot Floor	12	----	----	----	<60	<12	<120	----	26673	x=0.1m, y=0.5m			yes
hot spot Floor	12	----	----	----	<60	14	<120	----	41197	x=1.1m, y=0.9m			yes
hot spot Floor	12	----	----	----	<60	14	<120	----	29313	x=0.4m, y=0.9m			yes
hot spot Floor	13	----	----	----	<60	<12	<120	----	41197	x=0.4m, y=0m			yes
hot spot Floor	13	----	----	----	<60	<12	<120	----	27993	x=0.4m, y=1m			yes



Etching Building Room #71

Looking West

**FIGURE 1.71
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 71, Women's Lunch Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1	cps	1283.10	dpm/100cm ²
LB122	Floor		2	cps	1320.42	dpm/100cm ²
BICRON	all	B708T	0.06	uSv/h	0.01	mrem/h

Box 2

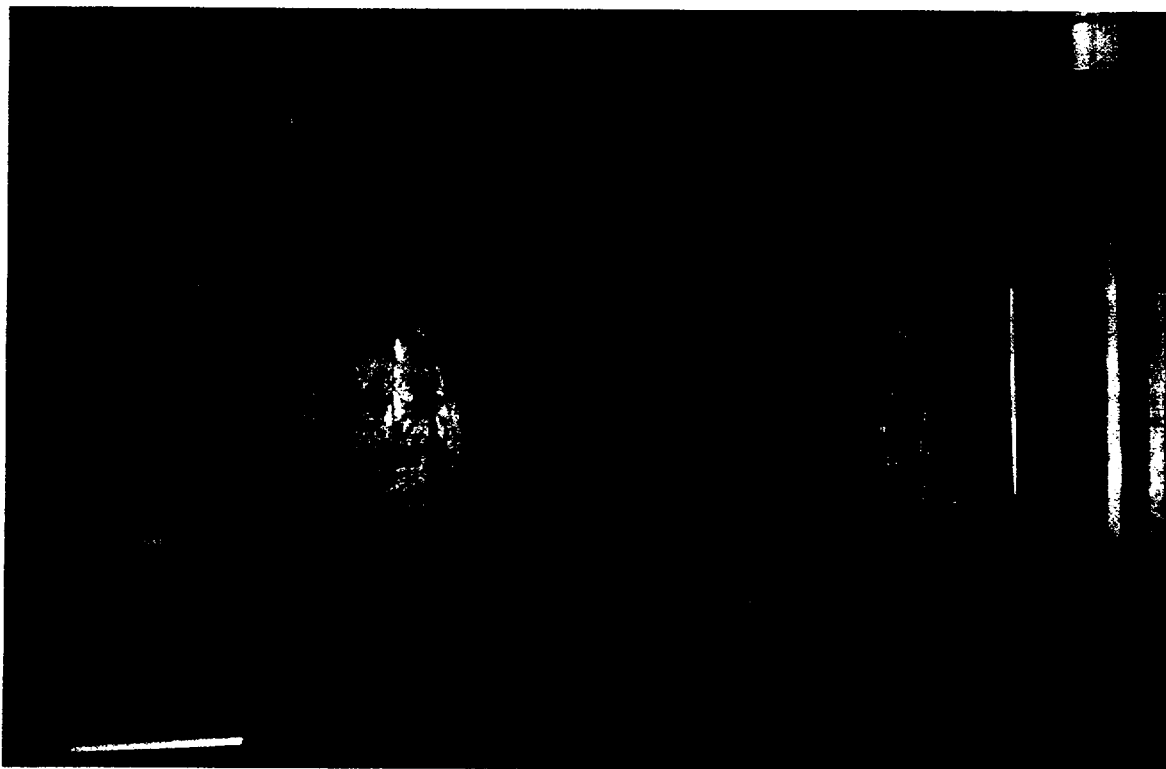
Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.001	744	----	<60	<12	<120	----	----				
S. Wall	2	0.002	128	----	<60	<12	<120	17963	----	x=1.75m, y=0.1m			yes
S. Wall	3	0.002	385	----	<60	<12	<120	----	----				
S. Wall	4	0.004	770	----	<60	<12	<120	----	----				
E. Wall	5	0.001	770	----	<60	<12	<120	----	----				
E. Wall	6	0.001	0	----	<60	<12	<120	----	----				
N. Wall	7	0.001	0	----	<60	<12	<120	----	----				
N. Wall	8	0	0	----	<60	<12	<120	----	----				
N. Wall	9	0.001	257	----	<60	<12	<120	----	----				
N. Wall	10	0.001	0	----	<60	<12	<120	----	----				
W. Wall	11	0	0	----	<60	<12	<120	----	----				
W. Wall	12	0.002	0	----	<60	<12	<120	----	----				
Floor, r1	13	0.002	----	0	<60	<12	<120	----	7262	x=0.4m, y=1.8m			
Floor	14	0.002	----	660	<60	<12	<120	----	----				
Floor	15	0.004	----	0	<60	<12	<120	----	318882	x=0m, y=2m			yes
								----	3301	x=1m, y=1m			
Floor, r2	16	0.002	----	0	<60	<12	<120	----	----				
Floor	17	0.002	----	0	<60	<12	<120	----	----				
Floor	18	0.002	----	0	<60	<12	<120	----	----				
ceiling	19	0.001	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	2	----	----	----	<60	<12	<120	----	----				
Hot spot	13	----	----	----	<60	<12	<120	----	----				
Hot spot	15	----	----	----	<60	<12	<120	----	----				
Hot spot	15	----	----	----	<60	<12	<120	----	----				



Etching Building Room #72

**FIGURE 1.72
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 72

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.003	0	----	<60	<12	<120	----	----				
S wall	2	0.001	0	----	----	----	----	----	----				
E wall	3	0.001	0	----	<60	<12	<120	----	----				
N wall	4	0.001	642	----	<60	<12	<120	----	----				
N wall	5	0	0	----	----	----	----	----	----				
W wall	6	0	642	----	<60	<12	<120	----	----				
Floor, r1	7	0	642	----	<60	<12	<120	7699	----	x=2.5ft, y=6in			
Ceiling	8	0.001	642	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	7	----	----	----	<60	<12	<120	----	----				
----------	---	------	------	------	-----	-----	------	------	------	--	--	--	--

**FIGURE 1.73
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 73

Prepared: 5/22/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	walls	E2176	1.2	cps	1539.71	dpm/100cm ²
LB122	Floor		9	cps	5941.90	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0	1026	----	----	----	----	----	----				
S wall	2	0.002	1283	----	----	----	----	----	----				
S wall	3	0.002	2310	----	<60	<12	<120	----	----				
S wall	4	0.003	2310	----	----	----	----	----	----				
E wall	5	0.001	2310	----	----	----	----	----	----				
E wall	6	0.003	2310	----	<60	<12	<120	----	----				
N wall	7	0.001	1026	----	----	----	----	----	----				
N wall	8	0.001	1026	----	----	----	----	----	----				
N wall	9	0	1026	----	<60	<12	<120	----	----				
N wall	10	0	2310	----	----	----	----	----	----				
N wall	11	0.003	1026	----	----	----	----	----	----				
Floor, r1	12	0.004	----	66	<60	<12	<120	----	----				
Floor	13	0.002	----	2641	----	----	----	----	----				
Floor	14	0.004	----	1254	----	----	----	----	----				
Floor	15	0.001	----	1188	<60	<12	<120	----	----				
Floor, r2	16	0.002	----	924	----	----	----	----	----				
Floor	17	0.004	----	1981	----	----	----	----	----				
Floor	18	0	----	594	----	----	----	----	----				
Floor	19	0	----	528	----	----	----	----	----				
W wall	20	0	2310	----	<60	<12	<120	----	----				
Ceiling	21	0.002	0	----	1260	<12	<120	----	----		yes		

Equipment & Fixtures

Bench	1	----	----	----	<60	<12	<120	----	----				
top of lockers		----	----	----	<60	<12	<120	----	----				

**FIGURE 1.74
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 74

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1	cps	1283.10	dpm/100cm ²
LB122	Floor	4097	9	cps	5941.90	dpm/100cm ²
BICRON	all	B893N	0.05	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0	642	----	----	----	----	----	----				
S wall	2	0	0	----	----	----	----	----	----				
S wall	3	0	642	----	<60	<12	<120	----	----				
E wall	4	0.001	0	----	<60	<12	<120	----	----				
E wall	5	0	0	----	----	----	----	----	----				
E wall	6	0.001	0	----	----	----	----	----	----				
N wall	7	0.001	0	----	<60	<12	<120	----	----				
N wall	8	0.003	0	----	<60	<12	<120	----	----				
N wall	9	0.001	0	----	<60	<12	<120	----	----				
N wall	10	0.003	0	----	----	----	----	----	----				
W wall	11	0.006	642	----	<60	<12	<120	----	----				
W wall	12	0.006	0	----	<60	<12	<120	----	----				
W wall	13	0.004	0	----	<60	<12	<120	----	----				
Floor, r1	14	0.002	----	2641	<60	<12	<120	----	6602	In front of boiler			
Floor	15	0.001	----	330	<60	<12	<120	----	----				
Ceiling	16	0.004	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Boiler	0	0	----	<60	<12	<120	----	----					
Elec Boxes	0.004	0	----	<60	<12	<120	----	----					

**FIGURE 1.75
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 75

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0	642	----	----	----	----	----	----				
S wall	2	0	642	----	----	----	----	----	----				
S wall	3	0.002	642	----	<60	<12	<120	----	----				
S wall	4	0	0	----	<60	<12	<120	----	----				
E wall	5	0.001	642	----	<60	<12	<120	----	----				
E wall	6	0.002	642	----	----	----	----	----	----				
E wall	7	0.001	642	----	----	----	----	----	----				
E wall	8	0	642	----	----	----	----	----	----				
N wall	9	0.001	642	----	----	----	----	----	----				
N wall	10	0.001	642	----	<60	<12	<120	----	----				
N wall	11	0.002	----	----	----	----	----	----	----				
N wall	12	0.001	0	----	----	----	----	----	----				
W wall	13	0.001	0	----	----	----	----	----	----				
W wall	14	0.001	642	----	<60	<12	<120	----	----				
W wall	15	0	642	----	----	----	----	----	----				
Floor, r1	16	0	642	----	<60	<12	<120	----	----				
Floor	17	0	642	----	<60	<12	<120	----	----				
Ceiling	18	0.001	642	----	<60	<12	<120	----	----				

Equipment & Fixtures

Fume hood	19	0.004	1283	----	<60	<12	<120	----	----				
Sink Area	20	0.002	0	----	<60	<12	<120	----	----				
Pencil Sharpener	21	----	----	----	<60	<12	<120	43625	----				yes



Etching Building Room 76

Corridor leading to Room 55

**FIGURE 1.76
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 76

Prepared: 5/22/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1	cps	1283.10	dpm/100cm ²
LB122	Floor	40967	7	cps	4423.42	dpm/100cm ²
BICRON	all	B708T	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.001	1283	----	<60	<12	<120	----	----				
E. Wall	2	0.002	1283	----	<60	<12	<120	----	----				
E. Wall	3	0.004	0	----	<60	<12	<120	----	----				
E. Wall	4	0.003	0	----	<60	<12	<120	119328	----	x=0.1m, y=0.3m			yes
E. Wall	5	0.002	0	----	<60	<12	<120	----	----				
E. Wall	6	0	0	----	<60	<12	<120	----	----				
E. Wall	7	0	0	----	<60	<12	<120	----	----				
W. Wall	8	0.001	0	----	<60	<12	<120	----	----				
W. Wall	9	0.002	0	----	<60	<12	<120	----	----				
W. Wall	10	0.003	1283	----	<60	<12	<120	----	----				
N. Wall	11	0.003	0	----	<60	<12	<120	----	----				
W. Wall	12	0	0	----	<60	<12	<120	----	----				
W. Wall	13	0.002	0	----	<60	<12	<120	----	----				
W. Wall	14	0.003	0	----	<60	<12	<120	19246	----	x=0.5m, y=0.75m			yes
								41059	----	x=1.75m, y=2m			yes
								20530	----	x=0.9m, y=1.9m			yes
ceiling	15	0.004	0	----	<60	<12	<120	----	----				
Floor, r1	16	0.001	----	1188	<60	<12	<120	----	----				
Floor	17	0.001	----	660	<60	<12	<120	----	8781	x=1.75m, y=2m			
								----	8781	x=2m, y=2m			
Floor	18	0	----	3499	<60	<12	<120	----	11422	x=0.5m to W wall for 1m			
Floor	19	0.001	----	4489	<60	<12	<120	----	5480	Average along W wall			
								----	12742	Average along E wall			
								----	15383	x=1m, y=2m			yes
								----	15383	x=1.75m, y=8cm			yes
Floor	20	0	----	1518	<60	<12	<120	----	----				
Floor	21	0.003	----	594	<60	<12	<120	----	----				

Equipment & Fixtures

**FIGURE 1.76
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Hot spot	4	----	----	----	<60	<12	<120	----	----				
Hot spot	14	----	----	----	<60	<12	<120	----	----				
Hot spot	14	----	----	----	<60	<12	<120	----	----				
Hot spot	14	----	----	----	<60	<12	<120	----	----				
Hot spot	17	----	----	----	<60	<12	<120	----	----				
Hot spot	17	----	----	----	<60	<12	<120	----	----				
Hot spot	19	----	----	----	<60	<12	<120	----	----				
Hot spot	19	----	----	----	<60	<12	<120	----	----				

**FIGURE 1.76A
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 76A

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	walls		1	cps	1283.10	dpm/100cm ²
LB122	Floor	M00384	7	cps	4621.48	dpm/100cm ²
BICRON	all	B708T	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.003	0	----	<60	<12	<120	----	----				
E. Wall	2	0.001	0	----	<60	<12	<120	9752	----	x=0.5m, y=8.8m			
N. Wall	3	0.001	0	----	<60	<12	<120	----	----				
W. Wall	4	0.002	0	----	<60	<12	<120	----	----				
Floor, r1	5	0	----	0	<60	<12	<120	----	----				
Floor	6	0.001	----	0	<60	<12	<120	----	----				
ceiling	7	0.002	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

pipe		0.001	0	----	<60	<12	<120	----	----				
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**FIGURE 1.76B
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 76B

Prepared: 5/22/96

Box 1

<u>Background</u>					
Instrument	Location	Serial #	Average Background		
HP260	walls		1	cps	1283.10 dpm/100cm ²
LB122	Floor		5	cps	3301.06 dpm/100cm ²
BICRON	all		0.06	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.007	0	----	<60	<12	<120	----	----				
E. Wall	2	0.002	1283	----	<60	<12	<120	----	----				
E. Wall	3	0	0	----	<60	<12	<120	----	----				
N. Wall	4	0.001	0	----	<60	<12	<120	----	----				
W. Wall	5	0.001	128	----	<60	<12	<120	----	----				
W. Wall	6	0.003	128	----	<60	<12	<120	----	----				
Floor, r1	7	0.001	----	0	<60	<12	<120	----	----				
Floor	8	0.004	----	0	<60	<12	<120	----	----				
ceiling	9	0.002	128	----	<60	<12	<120	----	----				

Equipment & Fixtures

Filing cabinet		0.002	0	----	<60	<12	<120	----	----				
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The number # 77 was not attributed to any room in the building.

**FIGURE 1.78
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 78 Women Restroom

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1	cps	1283.10	dpm/100cm ²
LB122	none	----	----	cps	—	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.002	128	----	----	----	----	----	----				
S wall	2	0.001	385	----	<60	<12	<120	----	----				
E wall	3	0.002	128	----	<60	<12	<120	----	----				
E wall	4	0.001	0	----	----	----	----	----	----				
N wall	5	0.002	128	----	----	----	----	----	----				
N wall	6	0.002	0	----	<60	<12	<120	----	----				
W wall	7	0.002	385	----	<60	<12	<120	----	----				
W wall	8	0.001	257	----	----	----	----	----	----				
Floor, r1	9	0.001	----	----	----	----	----	----	----				
Floor, r2	10	0.003	----	----	<60	<12	<120	----	----				
Floor, r3	11	0.003	----	----	----	----	----	----	----				
Ceiling	12	----	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Locker	----	0	----	<60	<12	<120	----	----				
Paper Dispenser	----	----	----	<60	<12	<120	----	----				

**FIGURE 1.79
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 79, Machine Shop Store Room

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	0.9	cps	1154.79	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

<u>Gamma Spectroscopy Isotope Information</u>		
<u>Isotope</u>	<u>Historically Present</u>	<u>Currently Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0.003	128	----	----	----	----	----	----				
S wall	2	0	128	----	<60	<12	<120	----	----				
S wall	3	0	257	----	----	----	----	----	----				
S wall	4	0	0	----	----	----	----	----	----				
E wall	5	0	0	----	<60	<12	<120	----	----				
E wall	6	0.002	385	----	----	----	----	----	----				
N wall	7	0.001	0	----	----	----	----	----	----				
N wall	8	0.001	0	----	----	----	----	----	----				
N wall	9	0	128	----	<60	<12	<120	----	----				
N wall	10	0.001	0	----	----	----	----	----	----				
W wall	11	0.001	128	----	----	----	----	----	----				
W wall	12	0	128	----	<60	<12	<120	----	----				
Celling	13	0.001	128	----	<60	<12	<120	----	----				
Floor, r1	14	0.002	----	----	<60	<12	<120	----	----				
Floor	15	0.001	----	----	----	----	----	----	----				
Floor	16	0.003	----	----	----	----	----	----	----				

Equipment & Fixtures

Cabinet	----	128	----	<60	<12	<120	----	----					
Fuse box	----	0	----	<60	<12	<120	----	----					

**FIGURE 1.79A
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 79A, Chemistry Lab Storage

Prepared: 5/22/96

Box 1

<u>Background</u>					
Instrument	Location	Serial #	Average Background		
HP260	all	E1819	0.7 cps	898.17	dpm/100cm ²
LB122	none	---	---	---	dpm/100cm ²
BICRON	all	B893N	0.05 uSv/h	0.01	mrem/h

Box 2

<u>Gamma Spectroscopy Isotope Information</u>		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0	0	----	----	----	----	----	----				
S wall	2	0.002	0	----	----	----	----	----	----				
S wall	3	0.001	257	----	<60	<12	<120	11933	----	x=1m, y=1m			
E wall	4	0.002	128	----	<60	<12	<120	----	----				
N wall	5	0	0	----	----	----	----	----	----				
N wall	6	0.003	0	----	----	----	----	----	----				
N wall	7	0.002	385	----	<60	<12	<120	----	----				
N wall	8	0.003	770	----	----	----	----	----	----				
W wall	9	0.002	385	----	<60	<12	<120	----	----				
Floor, r1	10	0	----	----	----	----	----	----	----				
Floor	11	0.003	----	----	----	----	----	----	----				
Floor	12	0.003	----	----	<60	<12	<120	----	----				
Ceiling	13	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Overhead pipe		----	----	----	<60	<12	<120	----	----				
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**FIGURE 1.80
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Room 80

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	0.7	cps	898.17	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

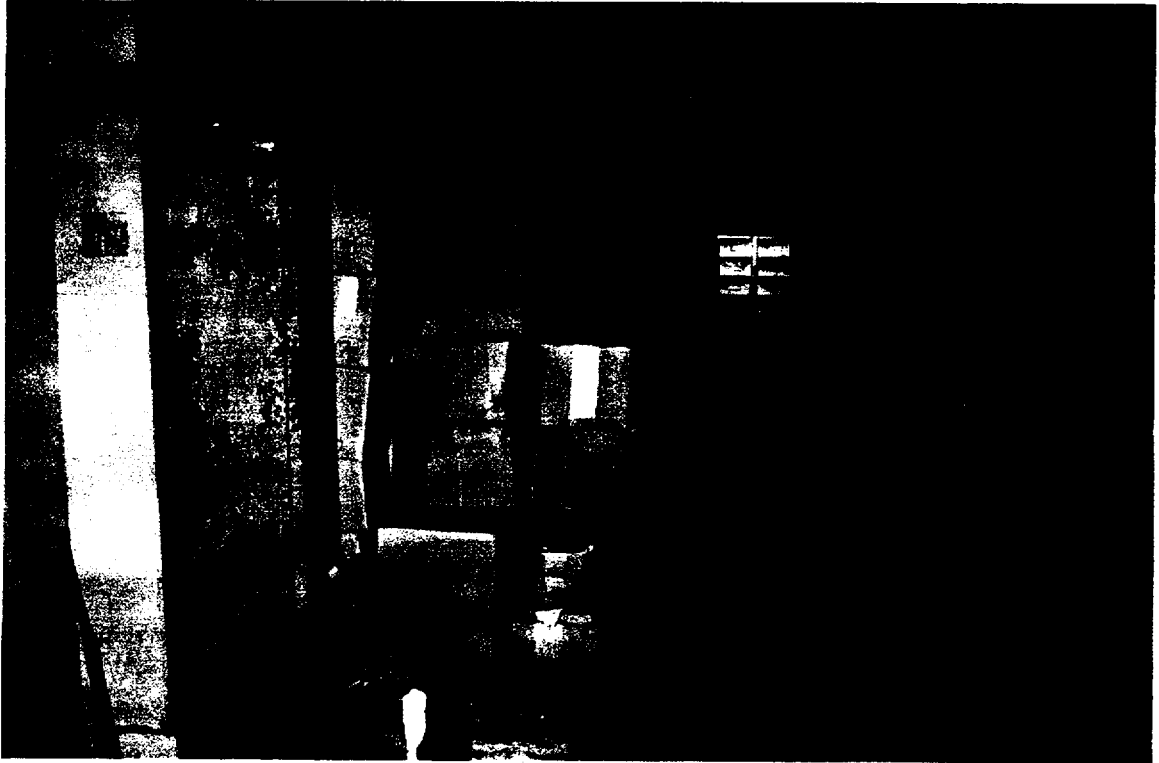
Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.004	0	---	<60	<12	<120	---	---				
S. Wall	2	0.006	385	---	<60	<12	<120	---	---				
E. Wall	3	0.001	0	---	<60	<12	<120	---	---				
E. Wall	4	0.004	385	---	<60	<12	<120	---	---				
E. Wall	5	0.004	128	---	<60	<12	<120	---	---				
N. Wall	6	0	0	---	<60	<12	<120	---	---				
N. Wall	7	0.004	642	---	<60	<12	<120	---	---				
W. Wall	8	0.003	257	---	<60	<12	<120	---	---				
W. Wall	9	0.003	0	---	<60	<12	<120	---	---				
W. Wall	10	0.002	642	---	<60	<12	<120	---	---				
Floor, r1	11	0.004	642	---	<60	<12	<120	---	---				
Floor	12	0.003	770	---	<60	<12	<120	---	---				
Floor, r2	13	0.001	770	---	<60	<12	<120	---	---				
Floor	14	0.002	642	---	<60	<12	<120	---	---				
Floor, r3	15	0.002	898	---	<60	<12	<120	---	---				
Floor	16	0.006	642	---	<60	<12	<120	---	---				
ceiling	17	0	385	---	<60	<12	<120	---	---				

Equipment & Fixtures

Filing cabinet	1	---	---	---	<60	<12	<120	---	---				
Window sill	8	---	---	---	<60	<12	<120	---	---				
pipes in ceiling		---	---	---	<60	<12	<120	---	---				
wall vent		---	---	---	<60	<12	<120	---	---				
drill press		---	---	---	<60	<12	<120	---	---				



Etching Building Room #81

Used as Storage room.

**FIGURE 1.81
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 81 Tool Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.001	0	----	<60	<12	<120	----	----				
S wall	2	0.002	770	----	----	----	----	----	----				
S wall	3	0.001	513	----	----	----	----	----	----				
S wall	4	0	0	----	<60	<12	<120	----	----				
E wall	5	0	1026	----	----	----	----	----	----				
E wall	6	0	0	----	----	----	----	----	----				
E wall	7	0	0	----	<60	<12	<120	----	----				
N wall	8	0	385	----	----	----	----	----	----				
N wall	9	0.004	513	----	<60	<12	<120	----	----				
N wall	10	0.004	385	----	----	----	----	----	----				
N wall	11	0.048	642	----	----	----	----	35927	----	x=0m, y=1.2m			yes
W wall	12	0.003	513	----	<60	<12	<120	----	----				
W wall	13	0.003	385	----	----	----	----	----	----				
W wall	14	0.003	0	----	----	----	----	----	----				
Floor, r1	15	0.001	0	----	----	----	----	----	----				
Floor	16	0.003	770	----	----	----	----	----	----				
Floor	17	0.003	1668	----	<60	<12	<120	----	----				
Floor, r2	18	0.003	1668	----	----	----	----	----	----				
Floor	19	0.004	1283	----	----	----	----	----	----				
Floor	20	0.001	513	----	<60	<12	<120	----	----				
Floor, r3	21	0.004	642	----	----	----	----	----	----				
Floor, r4	22	0.001	1026	----	<60	<12	<120	----	----				
Ceiling	23	0	513	----	----	----	----	----	----				
Ceiling	24	0	385	----	<60	<12	<120	----	----				

Equipment & Fixtures

Cabinet		----	----	----	----	----	----	94949	----				yes
Cabinet		----	----	----	<60	14	<120	46191	----	Yellow Cabinet			yes

**FIGURE 1.82
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 82 Men Restroom

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.002	128	---	<60	<12	<120	---	---				
E. Wall	2	0.001	0	---	<60	<12	<120	---	---				
N wall	3	0.001	0	---	<60	<12	<120	---	---				
W wall	4	0.001	0	---	<60	17	<120	---	---				
Floor, r1	5	0.002	---	---	<60	<12	<120	---	---				
Ceiling	6	0.002	0	---	<60	<12	<120	---	---				

Equipment & Fixtures

Filing cabinet	0.002	0	---	<60	<12	<120	---	---					
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Etching Building - Room #83
Entrance



Etching Building - Room #83
Records Room

**FIGURE 1.83
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 83, Swab Measurement

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1	cps	1283.10	dpm/100cm ²
LB122	Floor	M00384	7	cps	4291.37	dpm/100cm ²
BICRON	all	B708T	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0.004	0	----	<60	<12	<120	----	----				
S wall	2	0	0	----	<60	<12	<120	37210	----	x=1m, y=0.1m			yes
S wall	3	0	642	----	<60	<12	<120	16680	----	x=1m, y=0.75m			yes
E wall	4	0.001	0	----	<60	<12	<120	----	----				
E wall	5	----	----	----	----	----	----	----	----				
E wall	6	0.001	0	----	<60	<12	<120	----	----				
N wall	7	0.001	0	----	<60	<12	<120	----	----				
N wall	8	0	0	----	<60	<12	<120	----	----				
N wall	9	0	0	----	<60	<12	<120	----	----				
W wall	10	0.001	----	----	<60	<12	<120	----	----				
W wall	11	0	0	----	<60	<12	<120	----	----				
W wall	12	0	0	----	<60	<12	<120	----	----				
Floor, r1	13	0.002	----	66	<60	<12	<120	----	11554	x=2m, y=2m			
Floor	14	0	----	330	<60	<12	<120	----	6932	x=2m, y=2m			
Floor	15	0.004	----	728	<60	<12	<120	----	6932	x=1.75m, y=1.75			
Floor, r2	16	0	----	0	<60	<12	<120	----	----				
Floor	17	0.003	----	----	<60	<12	<120	----	----	Obstructed			
Floor	18	0.003	----	198	<60	<12	<120	----	----				
Floor, r3	19	0	----	2179	<60	<12	<120	----	----				
Floor	20	0.001	----	----	<60	<12	<120	----	----	Obstructed			
Floor	21	0.002	----	0	<60	<12	<120	----	----				
Ceiling	22	0.001	0	----	<60	<12	<120	----	----				
Ceiling	23	0.004	0	----	<60	<12	<120	----	----				
Ceiling	24	0.002	0	----	<60	<12	<120	----	----				
Ceiling	25	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	2	----	----	----	<60	<12	<120	37210	----	x=1m, y=0.1m			yes
Hot spot	3	----	----	----	<60	<12	<120	16680	----	x=1m, y=0.75m			yes

**FIGURE 1.83
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Locker	5	0.001	0	----	<60	<12	<120	----	----				
Cabinet	13	0.001	0	----	<60	<12	<120	----	----				
Blue Cabinet	13	0.002	0	----	<60	<12	<120	----	2311				
Hot spot	14	----	----	----	<60	<12	<120	----	6932	x=2m, y=2m			
Filing cabinet	17	0.002	0	----	<60	<12	<120	----	----				
Black locker	26	0.001	0	----	<60	<12	<120	----	----				

Figure 1.84
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Room 84, Entrance

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls		1	cps	1283.10	dpm/100cm ²
LB122	Floor		9	cps	5941.90	dpm/100cm ²
BICRON	all	B708T	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0.002	0	----	<60	<12	<120	----	----				
S.Wall	2	0.002	0	----	<60	<12	<120	----	----				
E. Wall	3	0	0	----	<60	<12	<120	----	----				
N. Wall	4	0	0	----	<60	<12	<120	----	----				
W. Wall	5	0	642	----	<60	<12	<120	----	----				
Floor, r1	6	0.002	----	1320	<60	<12	<120	----	15185	Warm along E wall			yes
Floor, r2	7	0.002	----	0	<60	<12	<120	----	5942	x=2m, y=2m			
ceiling	8	0.002	1283	----	<60	<12	<120	----	----				
Alcove W wall	9	0.005	----	1981	<60	<12	<120	----	----				
Alcove Floor	10	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	1	----	----	----	<60	<12	<120	----	----				
Hot spot	6	----	----	----	<60	<12	<120	----	----				
Alcove shelf		----	----	----	<60	<12	<120	35927	----				yes



Etching Building 2nd Floor
Attic

Main area looking into
active caged area

Etching Building 2nd Floor
Attic

Small room off main area.



Etching Building 2nd Floor
Attic

Looking into south cage.

**Figure 1.Attic1
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Attic Room #1, North & Central Attic

Prepared: 8/12/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1.2	cps	1539.71	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.014	1026	----	<60	29	<120	----	----				
S. Wall	2	0	385	----	<60	<12	<120	----	----				
S. Wall	3	0.002	385	----	<60	<12	<120	----	----				
S. Wall	4	0	385	----	<60	<12	<120	22839	----	x=5.5ft, y=2.5ft			yes
S. Wall	5	0.001	385	----	<60	<12	<120	----	----				
S. Wall	6	0	385	----	<60	<12	<120	----	----				
S. Wall	7	0.001	385	----	<60	46	<120	3890090	----	x=6ft, y=3ft			yes
S. Wall	8	0.004	----	----	<60	<12	<120	----	----				
E. Wall	9	0.004	1026	----	<60	<12	<120	11291	----	Beam at 5ft			
E. Wall	10	0.001	1026	----	<60	<12	<120	11291	----	x=1ft, y=5ft			
E. Wall	11	0.001	1026	----	<60	<12	<120	----	----				
N. Wall	12	0	385	----	<60	<12	<120	----	----				
N. Wall	13	0	385	----	<60	<12	<120	----	----				
N. Wall	14	0.001	385	----	<60	<12	<120	----	----				
W. Wall	15	0.002	385	----	<60	<12	<120	----	----				
N. Wall	16	0.001	1026	----	<60	<12	<120	31821	----	x=3ft, y=3in			yes
E. Wall	17	0.001	385	----	<60	<12	<120	----	----				
E. Wall	18	0	385	----	<60	<12	<120	----	----				
E. Wall	19	0	0	----	<60	<12	<120	----	----				
N. Wall	20	0	0	----	<60	<12	<120	----	----				
N. Wall	21	0	0	----	<60	<12	<120	----	----				
W. Wall	22	0	0	----	<60	<12	<120	----	----				
W. Wall	23	0	385	----	<60	<12	<120	----	----				
W. Wall	24	0	385	----	<60	<12	<120	----	----				
N. Wall	25	0	0	----	<60	<12	<120	----	----				
N. Wall	26	0.002	1026	----	<60	<12	<120	----	----				
N. Wall	27	0.005	1668	----	120	<12	<120	----	----				
W. Wall	28	0.006	385	----	<60	<12	<120	----	----				
W. Wall	29	0.009	1026	----	<60	<12	<120	----	----				
Floor, r1	30	0.004	2310	----	<60	<12	<120	382106	----				yes
Floor, r2	31	0.034	2310	----	<60	<12	<120	----	----				
Floor	32	0.003	1668	----	<60	<12	<120	----	----				

**Figure 1.Attic1
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	33	0.002	2310	----	<60	<12	<120	----	----				
Floor	34	0.007	2951	----	<60	<12	<120	----	----				
Floor	35	0.006	513	----	<60	<12	<120	----	----				
Floor	36	0.002	1232	----	<60	<12	<120	----	----				
Floor	37	0.009	1668	----	<60	<12	<120	6672	----				
Floor	38	----	----	----	<60	<12	<120	----	----				
Floor, r3	39	----	----	----	<60	<12	<120	----	----				
Floor	40	0.009	1668	----	<60	<12	<120	----	----				
Floor	41	0.003	1155	----	<60	<12	<120	----	----				
Floor	42	0.002	1668	----	<60	<12	<120	----	----				
Floor	43	0.006	1668	----	<60	<12	<120	----	----				
Floor	44	0.003	1026	----	<60	<12	<120	----	----				
Floor	45	0.005	2951	----	<60	<12	<120	----	----				
Floor	46	0.014	2310	----	<60	<12	<120	----	----				
Floor, r4	47	0.002	2053	----	<60	<12	<120	----	----				
Floor	48	0.001	1668	----	<60	<12	<120	----	----				
Floor	49	0.004	1668	----	<60	<12	<120	----	----				
Floor	50	0.002	2310	----	<60	<12	<120	----	----				
Floor, r5	51	0.001	1155	----	<60	<12	<120	----	----				
Floor	52	0.004	385	----	<60	<12	<120	----	----				
Floor, r6	53	0.002	770	----	<60	<12	<120	----	----				
Floor	54	0	642	----	<60	<12	<120	----	----				
Floor, r7	55	0	642	----	<60	<12	<120	----	----				
Floor	56	0	1540	----	<60	<12	<120	----	----				
W ceiling	57	0.001	0	----	<60	<12	<120	----	----				
N ceiling	58	0.002	0	----	<60	<12	<120	----	----				
S ceiling	59	0	0	----	<60	<12	<120	----	----				
E ceiling	60	0.006	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Exhaust	2	----	----	----	<60	<12	<120	----	----					
Boxes	2	----	----	----	<60	<12	<120	----	----					
Hot spot	4	----	----	----	<60	<12	<120	----	----					
Hot spot	10	----	----	----	<60	<12	<120	----	----					
Drafting table	12	----	----	----	<60	<12	<120	----	----					
Window sill	18	----	----	----	<60	<12	<120	----	----					

Figure 1. Attic2
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Etching Building, Attic Room #2, South Attic

Prepared: 8/12/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1.2	cps	1539.71	dpm/100cm ²
LB122	Floor	4097	9.5	cps	6272.01	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	0	----	<60	<12	<120	----	----				
S. Wall	2	0	257	----	<60	<12	<120	----	----				
S. Wall	3	0.034	385	----	<60	<12	<120	----	----				
S. Wall	4	0.001	2053	----	<60	<12	<120	----	----				
W. Wall	5	0.003	770	----	<60	<12	<120	----	----				
W. Wall	6	0.002	1283	----	<60	<12	<120	----	----				
W. Wall	7	0.002	1026	----	<60	<12	<120	----	----				
S. Wall	8	0.001	257	----	<60	<12	<120	----	----				
S. Wall	9	0.001	0	----	<60	<12	<120	3593	----	x=0.8m, y=0.6m			
E. Wall	10	0.003	128	----	<60	<12	<120	2310	----	x=2m, y=1.5m			
E. Wall	11	0	128	----	60	<12	<120	----	----				
E. Wall	12	0	0	----	60	<12	<120	----	----				
E. Wall	13	0	0	----	<60	<12	<120	----	----				
E. Wall	14	0	1026	----	<60	<12	<120	----	----				
N. Wall	15	0.001	1026	----	<60	<12	<120	----	----				
N. Wall	16	0.006	2310	----	<60	<12	<120	----	----				
E. Wall	17	0.003	385	----	<60	<12	<120	----	----				
E. Wall	18	0	385	----	<60	14	<120	----	----				
E. Wall	19	0.002	0	----	<60	14	<120	----	----				
E. Wall	20	0	0	----	<60	<12	<120	----	----				
E. Wall	21	0.001	0	----	<60	<12	<120	----	----				
E. Wall	22	0.001	0	----	<60	<12	<120	8725	----	x=6ft, y=5ft			
E. Wall	23	0	1026	----	<60	<12	<120	----	----				
E. Wall	24	0.002	1026	----	<60	<12	<120	----	----				
N. Wall	25	0.005	0	----	<60	<12	<120	----	----				
N. Wall	26	0.001	1668	----	<60	<12	<120	----	----				
N. Wall	27	0	385	----	<60	<12	<120	----	----				
N. Wall	28	0	0	----	<60	63	<120	----	----				
W. Wall	29	0	1026	----	<60	<12	<120	----	----				
W. Wall	30	0.001	1026	----	<60	<12	<120	----	----				
W. Wall	31	0.001	1026	----	<60	<12	<120	----	----				
W. Wall	32	0.001	1668	----	<60	<12	<120	2615976	----	x=2ft, y=0ft			yes

**Figure 1.Attic2
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
W. Wall	33	0.001	2310	----	<60	<12	<120	----	----				
W. Wall	34	0	1026	----	<60	<12	<120	----	----				
W. Wall	35	0.001	385	----	<60	<12	<120	----	----				
S. Wall	36	0.001	0	----	<60	<12	<120	----	----				
S. Wall	37	0	0	----	<60	<12	<120	----	----				
S. Wall	38	0	0	----	<60	<12	<120	----	----				
W. Wall	39	0	1026	----	<60	<12	<120	3593	----	On horizontal board			
E. Wall	40	0.002	0	----	<60	<12	<120	----	----				
N. Wall	41	0	0	----	<60	<12	<120	----	----				
N. Wall	42	0	0	----	<60	<12	<120	----	----				
N. Wall	43	0	0	----	<60	<12	<120	----	----				
N. Wall	44	0.001	0	----	<60	<12	<120	----	----				
W. Wall	45	0	0	----	<60	<12	<120	----	----				
W. Wall	46	0	257	----	<60	23	<120	----	----				
Floor	47	0.002	----	330	<60	<12	<120	----	----				
Floor	48	0.003	----	2311	<60	<12	<120	----	20136				yes
Floor	49	0.009	----	2971	<60	<12	<120	----	----				
Floor	50	0	----	0	<60	<12	<120	----	----				
Floor	51	0.001	----	330	<60	<12	<120	----	----				
Floor	52	0	----	0	<60	<12	<120	----	----				
Floor	53	0.005	----	330	<60	<12	<120	----	----				
Floor	54	0.002	----	990	<60	<12	<120	----	20797				yes
Floor	55	0.002	----	0	<60	<12	<120	----	----				
Floor	56	0.001	----	0	<60	<12	<120	----	----				
Floor	57	0.003	----	1320	<60	<12	<120	----	----				
Floor	58	0.002	----	1651	<60	<12	<120	----	----				
Floor	59	0.004	1668	----	<60	<12	<120	----	----				
Floor	60	0.001	0	----	<60	<12	<120	----	----				
Floor	61	0.001	1026	----	<60	<12	<120	----	----				
Floor	62	0.001	1026	----	<60	<12	<120	----	----				
Floor	63	0	1668	----	<60	<12	<120	----	----				
Floor	64	0	2310	----	<60	<12	<120	----	----				
Floor	65	0.003	1026	----	<60	<12	<120	----	----				
Floor	66	0.003	0	----	<60	<12	<120	----	----				
Floor	67	0.001	1668	----	<60	<12	<120	----	----				
Floor	68	0.001	513	----	<60	<12	<120	----	----				
Floor	69	0.001	1796	----	<60	<12	<120	----	----				
Floor	70	0	2310	----	<60	<12	<120	738807	----				yes
Floor	71	0.001	1026	----	<60	<12	<120	----	----				
Floor	72	0.001	1026	----	<60	<12	<120	----	----				
Floor	73	0.003	1026	----	<60	<12	<120	----	----				
Floor	74	0.001	1026	----	<60	<12	<120	----	----				
Floor	75	0.003	1668	----	<60	<12	<120	2482004	----				yes
Floor	76	0.004	3593	----	<60	<12	<120	----	----				
Floor	77	0.002	1668	----	<60	<12	<120	6696221	----				yes

**Figure 1.Attic2
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	78	0.002	385	----	<60	<12	<120	----	----				
Floor	79	0.001	1026	----	<60	<12	<120	----	----				
Floor	80	0.003	1668	----	<60	<12	<120	----	----				
Floor	81	0	2310	----	<60	<12	<120	----	----				
Floor	82	0.002	2310	----	<60	<12	<120	----	----				
Floor	83	0.001	2310	----	<60	<12	<120	----	----				
Floor	84	0.004	1026	----	<60	<12	<120	----	----				
Floor	85	0.002	1668	----	<60	<12	<120	----	----				
Floor	86	0.003	4876	----	<60	<12	<120	85711	----	x=2m, y=2m			yes
								402635	----	x=0.6m, y=1m			yes
Floor	87	0.005	7442	----	<60	<12	<120	20273	----	x=5m, y=0.1m		yes	yes
								20273	----	x=5.5m, y=1m			yes
Floor	88	0.002	1026	----	<60	<12	<120	----	----				
Floor	89	0.003	770	----	<60	<12	<120	----	----				
Floor	90	0.005	2951	----	<60	<12	<120	----	----				
S ceiling	91	0	385	----	----	----	----	----	----				
Center ceiling	92	0.001	0	----	----	----	----	----	----				
N ceiling	93	0	385	----	----	----	----	----	----				

Equipment & Fixtures

Table	3	----	----	----	1740	1583	12648	9885834	----		yes		yes
Shelf	15	0	----	----	----	----	----	1486851	----				yes
Box	26	----	----	----	120	266	243	89560	----				yes
Cabinet	74	----	----	----	<60	14454	2057	1807625	----		yes		yes
Cabinet	83	----	----	----	<60	349	<120	319234	----				yes
Cabinet	86	----	----	----	<60	74	<120	84428	----				yes
Cabinet	86	----	----	----	<60	80	<120	242248	----				yes
Power supply		----	----	----	<60	<12	<120	120354	----				yes

**Figure 1.Attic3
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Etching Building, Attic Room #3, West Cage Room

Prepared: 8/12/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1.8	cps	2309.57	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. Corner	1	0	257	----	<60	<12	<120	----	----				
S. Wall	2	0	257	----	<60	77	<120	----	----				
S. Wall	3	0.002	257	----	<60	23	<120	----	----				
E. Wall	4	0.003	257	----	<60	17	<120	----	----				
E. Wall	5	0.006	257	----	<60	17	<120	----	----				
E. Wall	6	0.003	257	----	<60	<12	<120	----	----				
N. Wall	7	0.003	257	----	<60	17	<120	----	----				
N. Wall	8	0.004	257	----	<60	1677	1538	----	----		yes		
N. Wall	9	0.005	257	----	<60	<12	871	----	----				
W. Wall	10	0.001	257	----	<60	<12	324	----	----				
W. Wall	11	0	257	----	<60	<12	129	----	----				
W. Wall	12	0	257	----	<60	<12	<120	----	----				
Floor, r1	13	0.021	0	----	<60	60	152	192721	----	x=5ft, y=5ft			yes
Floor	14	0.006	0	----	<60	<12	<120	----	----				
Floor	15	0.021	0	----	<60	<12	<120	215817	----	x=2ft, y=4ft			yes
Floor, r2	16	0.003	1640	----	<60	<12	<120	----	----				
Floor	17	0.004	2823	----	<60	80	<120	----	----				
Floor	18	0.004	16937	----	<60	14	<120	84941	----	x=2ft, y=3ft		yes	yes
Floor, r3	19	0.011	2823	----	<60	20	<120	----	----				
Floor	20	0.021	6389	----	<60	23	<120	659768	----	x=1ft, y=6ft		yes	yes
Floor	21	0.006	257	----	<60	20	<120	----	----				
ceiling	22	0.001	257	----	<60	<12	<120	----	----				

Equipment & Fixtures

Rheostat	7	----	----	----	<60	<12	<120	151662	----				yes
Voltage regulator	7	----	----	----	<60	<12	<120	59279	----				yes
Fan		----	----	----	<60	191	262	126000	----				yes
Exhaust fan		----	----	----	<60	34	<120	773963	----				yes
Pipe		----	----	----	<60	14	<120	64411	----				yes

Figure 1. Attic Ramp SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT Etching Building, Attic Ramp

Prepared: 5/31/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	0	----	<60	<12	<120	----	----				
S. Wall	2	0	642	----	<60	<12	<120	----	----				
S. Wall	3	0	0	----	<60	<12	<120	----	----				
S. Wall	4	0	0	----	<60	<12	<120	----	----				
S. Wall	5	0.001	1283	----	<60	28	<120	----	----				
S. Wall	6	0.001	1283	----	<60	<12	<120	----	----				
S. Wall	7	0.003	2566	----	<60	<12	<120	----	----				
N. Wall	8	0.008	642	----	<60	<12	<120	----	----				
N. Wall	9	0.001	1283	----	<60	<12	<120	----	----				
N. Wall	10	0.003	513	----	<60	<12	<120	----	----				
N. Wall	11	0	642	----	<60	<12	<120	----	----				
N. Wall	12	0.003	642	----	<60	<12	<120	----	----				
N. Wall	13	0	1283	----	<60	<12	<120	----	----				
W. Wall	14	0.002	642	----	<60	<12	<120	----	----				
Floor	15	0.003	3849	----	<60	<12	<120	786538	----	x=0.3m, y=1m			yes
Floor	16	0.002	3079	----	<60	<12	<120	667210	----	x=1m, y=0m			yes
Floor	17	0.002	1283	----	<60	<12	<120	337454	----	x=0.5m, y=1m			yes

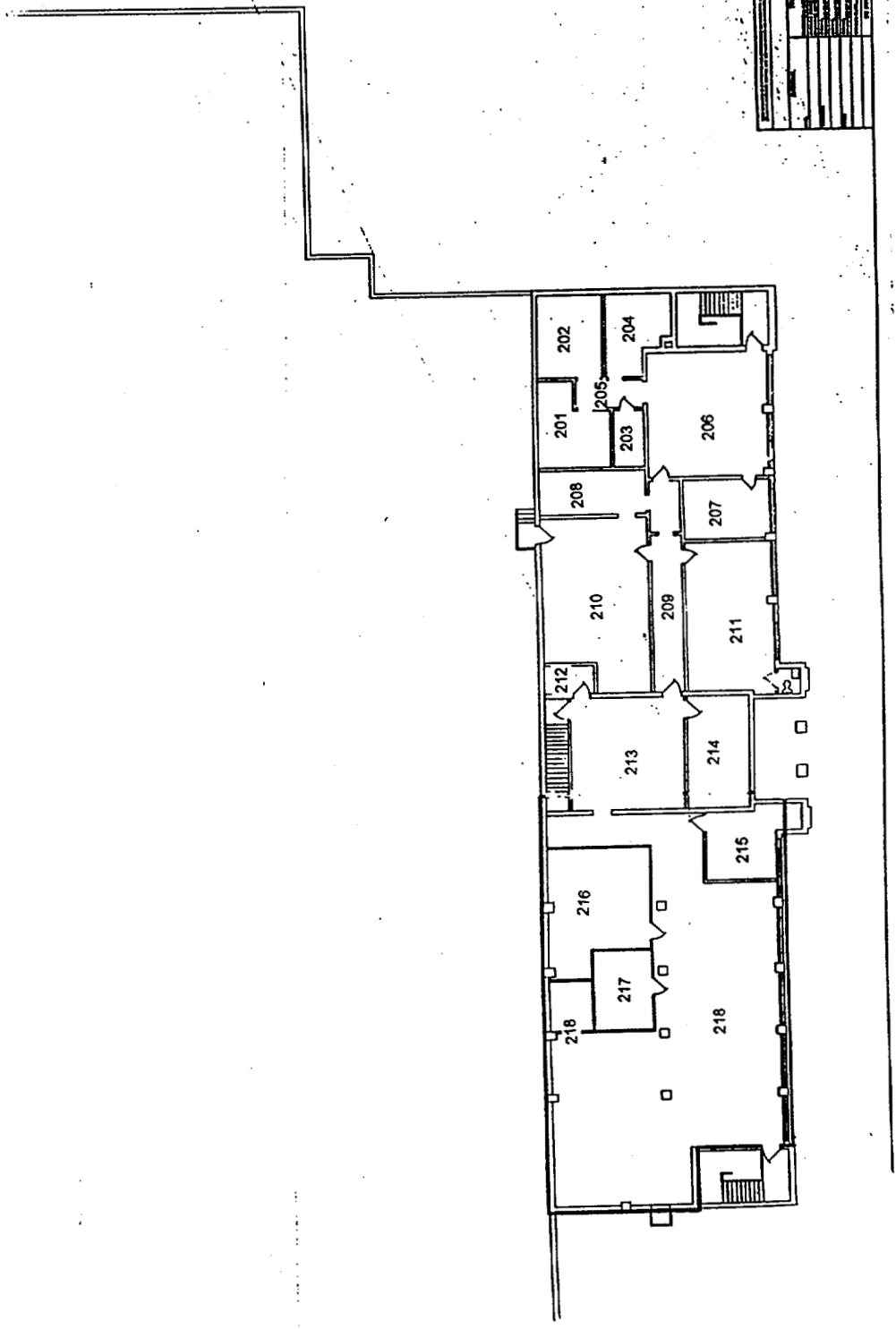
Equipment & Fixtures

Hot spot	15	----	----	----	<60	<12	<120	----	----				
Hot spot	16	----	----	----	<60	<12	<120	----	----				
Hot spot	17	----	----	----	<60	<12	<120	----	----				

SECTION 2

Main Building

UNITED STATES MARSH CORPORATION		BUILDING #1		FLOOR PLAN		FIRST FLOOR	
DATE: 10/1/81		BY: J. H. HARRIS		SCALE: 1/4" = 1'-0"		SHEET NO. 1 OF 1	
PROJECT NO. 81-100		SHEET NO. 1 OF 1		DATE: 10/1/81		BY: J. H. HARRIS	
DRAWN BY: J. H. HARRIS		CHECKED BY: J. H. HARRIS		APPROVED BY: J. H. HARRIS		DATE: 10/1/81	
TITLED BY: J. H. HARRIS		DATE: 10/1/81		BY: J. H. HARRIS		SHEET NO. 1 OF 1	
PROJECT NO. 81-100		SHEET NO. 1 OF 1		DATE: 10/1/81		BY: J. H. HARRIS	
DRAWN BY: J. H. HARRIS		CHECKED BY: J. H. HARRIS		APPROVED BY: J. H. HARRIS		DATE: 10/1/81	
TITLED BY: J. H. HARRIS		DATE: 10/1/81		BY: J. H. HARRIS		SHEET NO. 1 OF 1	



UNITED STATES MARINE CORPORATION			
NO.	DATE	BY	REVISION
1	10/1/55	J. H. HARRIS	1
2	10/1/55	J. H. HARRIS	2
3	10/1/55	J. H. HARRIS	3
4	10/1/55	J. H. HARRIS	4
5	10/1/55	J. H. HARRIS	5
6	10/1/55	J. H. HARRIS	6
7	10/1/55	J. H. HARRIS	7
8	10/1/55	J. H. HARRIS	8
9	10/1/55	J. H. HARRIS	9
10	10/1/55	J. H. HARRIS	10
11	10/1/55	J. H. HARRIS	11
12	10/1/55	J. H. HARRIS	12
13	10/1/55	J. H. HARRIS	13
14	10/1/55	J. H. HARRIS	14
15	10/1/55	J. H. HARRIS	15
16	10/1/55	J. H. HARRIS	16
17	10/1/55	J. H. HARRIS	17
18	10/1/55	J. H. HARRIS	18
19	10/1/55	J. H. HARRIS	19
20	10/1/55	J. H. HARRIS	20
21	10/1/55	J. H. HARRIS	21
22	10/1/55	J. H. HARRIS	22
23	10/1/55	J. H. HARRIS	23
24	10/1/55	J. H. HARRIS	24
25	10/1/55	J. H. HARRIS	25
26	10/1/55	J. H. HARRIS	26
27	10/1/55	J. H. HARRIS	27
28	10/1/55	J. H. HARRIS	28
29	10/1/55	J. H. HARRIS	29
30	10/1/55	J. H. HARRIS	30
31	10/1/55	J. H. HARRIS	31
32	10/1/55	J. H. HARRIS	32
33	10/1/55	J. H. HARRIS	33
34	10/1/55	J. H. HARRIS	34
35	10/1/55	J. H. HARRIS	35
36	10/1/55	J. H. HARRIS	36
37	10/1/55	J. H. HARRIS	37
38	10/1/55	J. H. HARRIS	38
39	10/1/55	J. H. HARRIS	39
40	10/1/55	J. H. HARRIS	40
41	10/1/55	J. H. HARRIS	41
42	10/1/55	J. H. HARRIS	42
43	10/1/55	J. H. HARRIS	43
44	10/1/55	J. H. HARRIS	44
45	10/1/55	J. H. HARRIS	45
46	10/1/55	J. H. HARRIS	46
47	10/1/55	J. H. HARRIS	47
48	10/1/55	J. H. HARRIS	48
49	10/1/55	J. H. HARRIS	49
50	10/1/55	J. H. HARRIS	50
51	10/1/55	J. H. HARRIS	51
52	10/1/55	J. H. HARRIS	52
53	10/1/55	J. H. HARRIS	53
54	10/1/55	J. H. HARRIS	54
55	10/1/55	J. H. HARRIS	55
56	10/1/55	J. H. HARRIS	56
57	10/1/55	J. H. HARRIS	57
58	10/1/55	J. H. HARRIS	58
59	10/1/55	J. H. HARRIS	59
60	10/1/55	J. H. HARRIS	60
61	10/1/55	J. H. HARRIS	61
62	10/1/55	J. H. HARRIS	62
63	10/1/55	J. H. HARRIS	63
64	10/1/55	J. H. HARRIS	64
65	10/1/55	J. H. HARRIS	65
66	10/1/55	J. H. HARRIS	66
67	10/1/55	J. H. HARRIS	67
68	10/1/55	J. H. HARRIS	68
69	10/1/55	J. H. HARRIS	69
70	10/1/55	J. H. HARRIS	70
71	10/1/55	J. H. HARRIS	71
72	10/1/55	J. H. HARRIS	72
73	10/1/55	J. H. HARRIS	73
74	10/1/55	J. H. HARRIS	74
75	10/1/55	J. H. HARRIS	75
76	10/1/55	J. H. HARRIS	76
77	10/1/55	J. H. HARRIS	77
78	10/1/55	J. H. HARRIS	78
79	10/1/55	J. H. HARRIS	79
80	10/1/55	J. H. HARRIS	80
81	10/1/55	J. H. HARRIS	81
82	10/1/55	J. H. HARRIS	82
83	10/1/55	J. H. HARRIS	83
84	10/1/55	J. H. HARRIS	84
85	10/1/55	J. H. HARRIS	85
86	10/1/55	J. H. HARRIS	86
87	10/1/55	J. H. HARRIS	87
88	10/1/55	J. H. HARRIS	88
89	10/1/55	J. H. HARRIS	89
90	10/1/55	J. H. HARRIS	90
91	10/1/55	J. H. HARRIS	91
92	10/1/55	J. H. HARRIS	92
93	10/1/55	J. H. HARRIS	93
94	10/1/55	J. H. HARRIS	94
95	10/1/55	J. H. HARRIS	95
96	10/1/55	J. H. HARRIS	96
97	10/1/55	J. H. HARRIS	97
98	10/1/55	J. H. HARRIS	98
99	10/1/55	J. H. HARRIS	99
100	10/1/55	J. H. HARRIS	100

**FIGURE 2.85
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 85, Phosphor Weigh Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1.2	cps	1539.71	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B983N	0.11	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.004	1026	---	<60	<12	<120	11291	---	Window sill			
S. Wall	2	0.004	1026	---	<60	<12	<120	24122	---	Window sill			yes
S. Wall	3	0.003	385	---	<60	<12	<120	---	---				
S. Wall	4	0.001	1026	---	<60	<12	<120	---	---				
E. Wall	5	0	---	---	<60	<12	<120	---	---				
E. Wall	6	0.003	1026	---	<60	<12	<120	11291	---	Window sill			
E. Wall	7	0.003	1283	---	<60	<12	<120	58766	---	x=5ft, y=5'6"			yes
N. Wall	8	0.004	642	---	<60	<12	<120	---	---				
N. Wall	9	0.003	642	---	<60	<12	<120	---	---				
N. Wall	10	0.003	1026	---	<60	<12	<120	---	---				
N. Wall	11	0.004	385	---	<60	<12	<120	---	---				
W. Wall	12	0.004	385	---	<60	<12	<120	---	---				
W. Wall	13	0.004	642	---	<60	<12	<120	5902	---	x=4ft, y=7ft.			
W. Wall	14	0.004	1026	---	<60	<12	<120	---	---				
Floor, r1	15	0.006	128	---	<60	<12	<120	---	---				
Floor	16	0.002	0	---	<60	<12	<120	---	---				
Floor	17	0.001	128	---	<60	<12	<120	---	---				
Floor	18	0.001	385	---	<60	<12	<120	---	---				
Floor, r2	19	0.009	385	---	<60	<12	<120	---	---				
Floor	20	0.007	385	---	<60	<12	<120	---	---				
Floor	21	0.002	385	---	<60	<12	<120	---	---				
Floor	22	0.005	385	---	<60	<12	<120	---	---				
Floor, r3	23	0.004	385	---	<60	<12	<120	---	---				
Floor	24	0.002	385	---	<60	<12	<120	---	---				
Floor	25	0.006	770	---	<60	<12	<120	---	---				
Floor	26	0.009	1026	---	<60	<12	<120	---	---				
south ceiling	27	0.003	513	---	<60	<12	<120	---	---				
center ceiling	28	0.004	385	---	<60	<12	<120	---	---				
north ceiling	29	0.004	385	---	<60	<12	<120	---	---				

**FIGURE 2.85
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

outlet		0.079	0	----	<60	<12	<120	----	----				
table		0.003	128	----	<60	<12	<120	----	----				
press		0.003	385	----	<60	<12	<120	----	----				

**FIGURE 2.86
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 86, Laboratory Annex

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1	cps	1283.10	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	yes	yes
Bismuth-214	yes	yes
Radium-226	yes	yes

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.008	180	----	<60	<12	<120	----	----				
S. Wall	2	0.011	257	----	<60	<12	<120	----	----				
S. Wall	3	0.008	385	----	<60	<12	<120	----	----				
E. Wall	4	0.008	257	----	<60	<12	<120	130876	----	x=2m, y=2.5m			yes
E. Wall	5	0.044	1026	----	<60	<12	<120	527352	----	x=0.9m, y=2.5m			yes
								166802	----	x=0.6m, y=3m			yes
E. Wall	6	0.044	1026	----	<60	<12	<120	52607	----	x=2m, y=3m			yes
E. Wall	7	0.024	2053	----	<60	<12	<120	191181	----	x=2m, y=1.6m			yes
								191181	----	Behind boxes skid			yes
E. Wall	8	0.014	2566	----	<60	<12	<120	43625	----	x=0.3m, y=0.12m			yes
								15397	----	x=1.3m, y=2.4m			yes
								24379	----	x=1.3m, y=1.2m			yes
E. Wall	9	0.002	770	----	<60	<12	<120	21813	----	x=2.7m, y=1.6m			yes
E. Wall	10	0.004	2566	----	<60	<12	<120	25662	----	x=0.4m, y=1.9m			yes
E. Wall	11	0.004	2733	----	<60	<12	<120	29511	----	x=0.9m, y=0m			yes
E. Wall	12	0.003	642	----	<60	<12	<120	14114	----	x=2m, 1.1m			
								24379	----	x=2.2m, y=0.1m			yes
E. Wall	13	0.003	1283	----	<60	<12	<120	42342	----	x=0.6m, y=2.1m			yes
								23096	----	x=1.2m, y=2.1m			yes
N. Wall	14	0.004	257	----	<60	<12	<120	----	----	Over door frame on E wall			
N. Wall	15	0.003	0	----	1920	<12	<120	----	----		yes		
N. Wall	16	0.003	513	----	<60	<12	<120	----	----				
W. Wall	17	0.004	3849	----	<60	<12	<120	5132	----	x=0.4m, y=2m			
								21813	----	x=2m, y=1.5m			yes
W. Wall	18	0.002	5132	----	<60	<12	<120	48758	----	x=0.5m, y=0.1m		yes	yes
								136008	----	x=1.2m, y=1m			yes
								293829	----	x=1.5m, y=0.3m			yes
W. Wall	19	0.004	3849	----	<60	<12	<120	----	----				
W. Wall	20	0.005	3849	----	<60	<12	<120	6415	----	x=1.5m, y=1.5m			
W. Wall	21	0.003	6415	----	<60	<12	<120	23096	----	x=1m, y=1m		yes	yes
								17963	----	x=1m, y=1.1m			yes
W. Wall	22	0.004	6415	----	<60	<12	<120	----	----			yes	
W. Wall	23	0.004	7699	----	<60	<12	<120	----	----			yes	
W. Wall	24	0.005	128	----	<60	<12	<120	----	----				
W. Wall	25	0.005	8982	----	<60	<12	<120	293829	----	x=0.8m, y=0.5m		yes	yes

**FIGURE 2.86
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID#	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
								7699	----	x=1.9m, y=0.3m			
W. Wall	26	0.006	11548	----	<60	<12	<120	14114	----	x=1m, y=0m		yes	
								229674	----	x=1.1m, y=0.5m			yes
								393910	----	x=1m, y=1m			yes
W. Wall	27	0.014	37210	----	<60	<12	<120	216843	----	x=1.3m, y=0.7m		yes	yes
W. Wall	28	0.019	7699	----	<60	<12	<120	153971	----	x=0.3m, y=0.7m		yes	yes
								24379	----	x=1m, y=0.45m			yes
W. Wall	29	0.019	11548	----	<60	<12	<120	178350	----	x=0.5m, y=0.7m		yes	yes
								37210	----	x=0.8m, y=0.2m			yes
								422139	----	x=0.1m, y=0.5m			yes
								174501	----	x=1.3m, y=0.3m			yes
W. Floor, r1	30	0.024	3849	----	<60	<12	<120	14114	----	x=1.7m, y=0.5m			
C. Floor	31	0.029	5132	----	240	<12	<120	----	----			yes	
E. Floor	32	0.014	2566	----	<60	<12	<120	----	----				
E. Floor, r2	33	0.034	2566	----	120	<12	<120	----	----				
C. Floor	34	0.059	11548	----	<60	<12	<120	41059	----	x=0.7m, y=1m		yes	yes
								32077	----	x=0.3m, y=1m			yes
W. Floor	35	0.019	6415	----	<60	<12	<120	38493	----	x=1.8m, y=0.5m		yes	yes
W. Floor, r3	36	0.019	1540	----	<60	<12	<120	6415	----	x=0m, y=0m			
C. Floor	37	0.029	5132	----	360	<12	<120	26945	----	x=0.5m, y=2m		yes	yes
								7699	----	x=0.7m, y=2m			
E. Floor	38	0.019	2566	----	<60	<12	<120	----	----				
E. Floor, r4	39	0.012	2566	----	120	<12	<120	----	----				
C. Floor	40	0.01	2566	----	720	<12	<120	6415	----	x=0.1m, y=2m			
								11548	----	x=0.2m, y=2m			
								16680	----	x=1m, y=2m			yes
W. Floor	41	0.005	1925	----	<60	<12	<120	----	----				
W. Floor, r5	42	0.006	1540	----	<60	<12	<120	----	----				
C. Floor	43	0.006	1925	----	1080	<12	<120	----	----		yes		
E. Floor	44	0.01	1283	----	<60	<12	<120	5132	----	E wall average			
E. Floor, r6	45	0.005	642	----	<60	<12	<120	2566	----	E wall average			
C. Floor	46	0.005	1283	----	120	<12	<120	15397	----	x=1m, y=0m			yes
W. Floor	47	0.005	1925	----	180	<12	<120	----	----				
W. Floor, r7	48	0.004	642	----	<60	<12	<120	----	----				
C. Floor	49	0.004	1283	----	720	<12	<120	----	----				
E. Floor	50	0.004	1283	----	<60	<12	<120	----	----				
E. Floor, r8	51	0.004	1283	----	660	<12	<120	----	----				
C. Floor	52	0.005	1925	----	360	<12	<120	----	----				
W. Floor	53	0.002	1283	----	120	<12	<120	3208	----	x=0.1m, y=0.1m			
W. Floor, r9	54	0.002	1925	----	120	<12	<120	16680	----	x=0.2m, y=1m			yes
C. Floor	55	0.004	1925	----	2040	<12	<120	----	----		yes		
E. Floor	56	0.002	1283	----	360	<12	<120	----	----				
E. Floor, r10	57	0.002	1283	----	<60	<12	<120	----	----				
C. Floor	58	0.004	1026	----	<60	<12	<120	----	----				
W. Floor	59	0.002	1925	----	360	<12	<120	205295	----	x=1m, y=1m			yes
								221976	----	x=1m, y=0m			yes
W. Floor, r11	60	0.004	1283	----	3240	<12	<120	236090	----	x=1m, y=2m	yes		yes

**FIGURE 2.86
SURVEY RESULTS**

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
C. Floor	61	0.009	1925	----	<60	<12	<120	----	----				
E. Floor	62	0.019	3849	----	<60	<12	<120	88534	----	x=0.4m, y=2.2m			yes
								236090	----	x=0.8m, y=1.7m			yes
								62118	----	x=1.8m, y=1.3m			yes
SW ceiling	63	0.007	128	----	<60	<12	<120	----	----				
SE ceiling	64	0.007	642	----	<60	<12	<120	----	----				
SW ceiling	65	0.009	5132	----	<60	<12	<120	----	----			yes	
SE ceiling	66	0.014	11548	----	<60	<12	<120	----	----			yes	
CW ceiling	67	0.007	642	----	<60	<12	<120	----	----				
CE ceiling	68	0.005	642	----	<60	<12	<120	----	----				
CEW ceiling	69	0.004	0	----	<60	<12	<120	----	----				
CE ceiling	70	0.002	385	----	<60	<12	<120	----	----				
CW ceiling	71	0	128	----	<60	<12	<120	----	----				
CE ceiling	72	----	----	----	<60	<12	<120	----	----				
CW ceiling	73	0.004	642	----	<60	<12	<120	----	----				
CE ceiling	74	0	0	----	<60	<12	<120	----	----				
NE ceiling	75	0.001	0	----	<60	<12	<120	----	----				
NE ceiling	76	0.001	513	----	<60	<12	<120	----	----				
NW ceiling	77	0.002	1103	----	<60	<12	<120	----	----				
NE ceiling	78	0.001	1283	----	<60	<12	<120	----	----				
NW ceiling	79	0	0	----	<60	<12	<120	----	----				
NE ceiling	80	0.001	141	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	4	----	----	----	<60	<12	<120	130876	----				yes
Hot spot	5	----	----	----	<60	<12	367	527352	----				yes
Hot spot	5	----	----	----	<60	<12	<120	166802	----				yes
Hot spot	6	----	----	----	<60	<12	<120	52607	----				yes
Hot spot	7	----	----	----	<60	<12	<120	191181	----				yes
Hot spot	7	----	----	----	<60	<12	<120	191181	----				yes
Hot spot	8	----	----	----	<60	<12	<120	39776	----				yes
Hot spot	8	----	----	----	<60	<12	<120	15397	----				yes
Hot spot	8	----	----	----	<60	<12	<120	24379	----				yes
Hot spot	9	----	----	----	<60	<12	<120	21813	----				yes
Hot spot	10	----	----	----	<60	<12	<120	25662	----				yes
Hot spot	11	----	----	----	<60	<12	<120	29511	----				yes
Hot spot	12	----	----	----	<60	<12	<120	14114	----				
Hot spot	12	----	----	----	<60	<12	<120	24379	----				yes
Door frame	13	----	----	----	<60	<12	<120	42342	----				yes
Door frame	13	----	----	----	<60	<12	<120	23096	----				yes
Hot spot	17	----	----	----	<60	<12	<120	5132	----				
Hot spot	17	----	----	----	<60	<12	<120	21813	----				yes
Window hot spot	17	----	----	----	<60	<12	<120	----	----				
Window hot spot	18	----	----	----	<60	<12	<120	48758	----				yes

**FIGURE 2.86
SURVEY RESULTS**

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Window hot spot	18	----	----	----	<60	<12	<120	136008	----				yes
Window hot spot	18	----	----	----	<60	<12	<120	293829	----				yes
Window hot spot	20	----	----	----	<60	<12	<120	6415	----				
Window sill	21	----	----	----	<60	51	<120	82118	----				yes
Hot spot	21	----	----	----	<60	<12	<120	23006	----				yes
Hot spot	21	----	----	----	<60	<12	<120	17963	----				yes
Hot spot	22	----	----	----	<60	<12	<120	47475	----				yes
Hot spot	25	----	----	----	<60	<12	<120	293829	----				yes
Hot spot	25	----	----	----	<60	<12	<120	7699	----				
Window hot spot	25	----	----	----	<60	<12	<120	10265	----				
Hot spot	26	----	----	----	<60	<12	<120	14114	----				
Hot spot	26	----	----	----	<60	<12	<120	229674	----				yes
Hot spot	26	----	----	----	<60	<12	<120	393910	----				yes
Hot spot	27	----	----	----	<60	<12	<120	216843	----				yes
Hot spot	28	----	----	----	<60	<12	<120	153971	----				yes
Hot spot	28	----	----	----	<60	<12	<120	24379	----				yes
Hot spot	28	----	----	----	<60	<12	<120	16680	----				yes
Hot spot	29	----	----	----	<60	<12	<120	178350	----				yes
Hot spot	29	----	----	----	<60	<12	<120	37210	----				yes
Hot spot	29	----	----	----	<60	<12	<120	174501	----				yes
Hot spot	29	----	----	----	<60	<12	<120	422139	----				yes
Hot spot	30	----	----	----	<60	<12	<120	14114	----				
Hot spot	34	----	----	----	<60	<12	<120	41059	----				yes
Hot spot	34	----	----	----	<60	<12	<120	32077	----				yes
Hot spot	35	----	----	----	<60	<12	<120	38493	----				yes
Hot spot	37	----	----	----	<60	<12	<120	26945	----				yes
Hot spot	37	----	----	----	<60	<12	<120	7699	----				
Hot spot	40	----	----	----	<60	<12	<120	6415	----				
Hot spot	40	----	----	----	<60	<12	<120	11548	----				
Hot spot	40	----	----	----	<60	<12	<120	16680	----				yes
Hot spot	46	----	----	----	<60	<12	<120	15397	----				yes
Hot spot	53	----	----	----	<60	<12	<120	3208	----				
Hot spot	54	----	----	----	<60	<12	<120	16680	----				yes
Hot spot	59	----	----	----	<60	<12	<120	205295	----				yes
Hot spot	59	----	----	----	<60	<12	<120	221976	----				yes
Hot spot	60	----	----	----	<60	<12	<120	236090	----				yes
Hot spot	62	----	----	----	<60	<12	<120	88534	----				yes
Hot spot	62	----	----	----	<60	<12	<120	236090	----				yes
Hot spot	62	----	----	----	<60	<12	<120	82118	----				yes
Top of light	69	----	----	----	<60	<12	<120	----	----				
round plate on ceiling		----	----	----	<60	<12	<120	----	----				
S room, top of heater		----	----	----	<60	<12	<120	----	----				
E wall exhaust fan		----	----	----	<60	<12	<120	----	----				
solid sample		----	----	----	----	<12	<120	----	----				
solid sample		----	----	----	----	<12	<120	----	----				
inside pipe by entrance		----	----	----	<60	<12	<120	15397	----				yes
inside cab.		----	----	----	<60	297	295	807067	----				yes

**FIGURE 2.86
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
outside cab.		----	----	----	<60	<12	<120	----	----				
screening machine		----	----	----	<60	<12	<120	----	----				
1" ring binder box		----	----	----	<60	<12	<120	----	----				
Emergency light W wall		----	----	----	<60	<12	<120	----	----				
stretcher case		----	----	----	<60	<12	<120	----	----				

**FIGURE 2.87
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 87, Radium Stripping

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1.2	cps	1539.71	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	yes	not done
Radium-226	yes	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.003	1026	----	<60	<12	<120	24122	----	x=0.8m, y=1m			yes
								36953	----	x=1.2m, y=1.5m			yes
								27971	----	x=1.8m, y=1m			yes
S. Wall	2	0.004	1668	----	<60	<12	<120	43369	----	x=1.2m, y=1m			yes
								93409	----	x=1.3m, y=1m			yes
								26688	----	x=1.7m, y=1m			yes
S. Wall	3	0.004	1668	----	<60	<12	<120	7442	----	x=0.1m, y=1m			yes
								17707	----	Window sill			yes
E. Wall	4	0.002	1668	----	<60	<12	<120	31821	----	x=0.8m, y=0.7m			yes
								31821	----	x=0.8m, y=1m			yes
E. Wall	5	0.002	2310	----	<60	<12	<120	216587	----	x=0.2m, y=1m			yes
								101108	----	x=0.6m, y=1.1m			yes
E. Wall	6	0.001	2310	----	<60	<12	<120	34387	----	x=0.2m, y=0.7m			yes
								12574	----	x=1m, y=0.7m			
N. Wall	7	0.004	642	----	<60	<12	<120	----	----				
N. Wall	8	0	642	----	<60	<12	<120	----	----				
N. Wall	9	0.006	1796	----	<60	<12	<120	----	----				
W. Wall	10	0.011	1668	----	<60	<12	<120	----	----				
W. Wall	11	0.005	613	----	<60	<12	<120	----	----				
W. Wall	12	0.002	613	----	<60	<12	<120	----	----				
Floor, r1	13	0.072	2310	----	<60	<12	<120	----	----				
Floor	14	0.003	2310	----	<60	<12	<120	40802	----	Entrance to room			yes
Floor	15	0	1668	----	<60	<12	<120	----	----				
Floor	16	0	1668	----	<60	<12	<120	----	----				
ceiling	17	0.004	1283	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	1	----	----	----	<60	<12	<120	----	----				
Hot spot	6	----	----	----	<60	<12	<120	----	----				
Bench	7	----	----	----	<60	<12	<120	----	----				
Hot spot	14	----	----	----	<60	29	<120	----	----				
SW window sill		----	----	----	<60	<12	<120	----	----				
Buffing machine		----	----	----	<60	<12	<120	----	----				
Tapping machine		----	----	----	<60	<12	<120	----	----				
NW ceiling light		----	----	----	<60	<12	<120	----	----				

FIGURE 2.87
SURVEY RESULTS

EXPOSURE RATE		FIXED AVERAGE CONTAMINATION			LOOSE CONTAMINATION				HOT SPOTS				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (nrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Belt machine		----	----	----	<80	<12	<120	----	----				
NE ceiling pipe		----	----	----	<80	<12	<120	----	----				



Main Building Room 88

North-west corner contaminated
walls and floors

**FIGURE 2.88
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 88, Radium Laboratory

Prepared: 8/13/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	walls	E1819	2	cps	2566.19 dpm/100cm ²
LB122	Floor		22	cps	14524.65 dpm/100cm ²
BICRON	all	B893N	0.11	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	no
Bismuth-214	yes	yes
Radium-226	yes	yes

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	2566	---	<60	<12	<120	16680	---	Window ledge			yes
S. Wall	2	0.003	1925	---	<60	<12	<120	---	---				
S. Wall	3	0.006	1925	---	<60	<12	<120	112912	---	x=1ft, y=9in			yes
S. Wall	4	0.014	2566	---	<60	<12	<120	51324	---	x=4ft, y=5'4"			yes
S. Wall	5	0.009	2566	---	<60	<12	<120	6416	---	Window sill			
S. Wall	6	0.009	2566	---	<60	<12	<120	---	---				
E. Wall	7	0.009	0	---	<60	<12	<120	---	---				
E. Wall	8	0.009	1283	---	<60	<12	<120	---	---				
E. Wall	9	0.027	2566	---	<60	<12	<120	---	---				
E. Wall	10	0.024	1283	---	<60	<12	<120	---	---				
E. Wall	11	0.009	0	---	<60	<12	<120	---	---				
E. Wall	12	0.009	1283	---	<60	<12	<120	---	---				
N. Wall	13	0.019	6415	---	<60	<12	<120	---	---			yes	
N. Wall	14	0.019	5132	---	<60	<12	<120	1283096	---	x=0.7m, y=1m		yes	yes
N. Wall	15	0.019	3849	---	<60	<12	<120	---	---				
N. Wall	16	0.064	12831	---	<60	<12	<120	128310	---	x=1.9m, y=1m		yes	yes
N. Wall	17	0.119	125743	---	<60	<12	<120	2307006	---	x=1m, y=1m		yes	yes
								927678	---	x=1.6m, y=0.8m			yes
								767291	---	x=1.8m, y=0.8m			yes
W. Wall	18	0.059	8340	---	<60	<12	<120	---	---			yes	
W. Wall	19	0.029	5132	---	<60	<12	<120	1755275	---	x=1.5m, y=0.8m		yes	yes
								238656	---	x=1.7m, y=1m			yes
								669776	---	x=1.7m, y=2m			yes
W. Wall	20	0.019	5132	---	<60	<12	<120	1281813	---	x=1.8m, y=2m		yes	yes
								425988	---	x=0.1m, y=2m			yes
								282281	---	x=0.8m, y=1.8m			yes
W. Wall	21	0.009	3208	---	<60	<12	<120	---	---				
W. Wall	22	0.001	3849	---	<60	<12	<120	---	---				
W. Wall	23	0.002	1283	---	<60	<12	<120	---	---				
W. Wall	24	0.005	3208	---	<60	<12	<120	---	---				
Floor, r1	25	0	---	3961	<60	<12	<120	---	---				

**FIGURE 2.88
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	26	0	----	3301	<60	<12	<120	----	----					
Floor	27	0.001	----	9903	<60	<12	<120	----	40933	x=2m, y=1.5m			yes	yes
									116197	x=0.5m, y=0m				yes
Floor	28	0	----	2311	<60	<12	<120	----	----					
Floor, r2	29	0.039	----	9903	<60	<12	<120	----	100352	x=0.3m, y=0m			yes	yes
									149208	x=2.8m, y=1m				yes
									56778	x=1.5m, y=0.8m				yes
Floor	30	0.004	----	5282	<60	<12	<120	----	30370	x=3m, y=2m			yes	yes
Floor	31	0	----	3301	120	<12	<120	----	46215	x=2.3m, y=0m				yes
									118838	x=2m, y=1.5m				yes
Floor	32	0.019	----	660	<60	<12	<120	----	73944	x=1.5m, y=0.5m				yes
Floor, r3	33	0.024	----	0	180	<12	<120	----	40933	x=0m, y=2m				yes
Floor	34	0.006	----	4621	120	<12	<120	----	----					
Floor	35	0.019	----	3301	<60	<12	<120	----	55458	x=2m, y=1m				yes
									42254	x=2m, y=2m				yes
Floor	36	0.029	----	18486	<60	<12	<120	----	56778	x=1m, y=1m			yes	yes
									80546	x=1m, y=1.5m				yes
									95070	x=0m, y=2.2m				yes
									316241	x=1m, y=2.2m				yes
Floor, r4	37	0.019	----	10563	<60	<12	<120	----	34991	x=0m, y=0m			yes	yes
Floor	38	0.019	----	10563	360	<12	<120	----	34991	x=0m, y=0m			yes	yes
Floor	39	0	----	3301	<60	<12	<120	----	75924	x=2m, y=2m				yes
									31030	x=1.5m, y=2m				yes
Floor	40	0.004	----	0	<60	<12	<120	----	637104	x=2m, y=1.8m				yes
Floor, r5	41	0.029	----	0	<60	<12	<120	----	42254	x=1m, y=0m				yes
									34991	x=2m, y=2m				yes
Floor	42	0.024	----	3301	<60	<12	<120	----	60739	x=1.8, y=0.5m				yes
									33011	x=1.8, y=0.5m				yes
									29710	x=0.7m, y=1.2m				yes
Floor	43	0.003	----	----	<60	23	<120	----	42914					yes
Floor	44	0	----	1981	<60	<12	<120	----	17165	x=0m, y=0m				yes
									33011	x=0m, y=0m				yes
Floor, r6	45	----	----	----	120	<12	<120	----	----					
Floor	46	0.009	----	11884	<60	<12	<120	----	34991	x=1.5m, y=0m			yes	yes
Floor	47	----	----	----	<60	<12	<120	----	----					
Floor	48	0.019	----	1320	<60	<12	<120	----	39613	x=6ft, y=6in				yes
Floor, r7	49	----	----	----	<60	<12	<120	----	----					
Floor	50	----	----	----	<60	<12	<120	----	----					
Floor	51	----	----	----	<60	<12	<120	----	----					
Floor	52	----	----	----	<60	<12	<120	----	----					
ceiling	53	----	----	----	<60	<12	<120	----	----					
ceiling	54	----	----	----	<60	<12	<120	----	----					
ceiling	55	0.001	0	----	<60	<12	<120	----	----					
ceiling	56	0.001	0	----	<60	<12	<120	----	----					

**FIGURE 2.88
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
ceiling	57	0	0	----	<60	<12	<120	----	----					
ceiling	58	0.005	1155	----	<60	<12	<120	----	----					
ceiling	59	0.004	0	----	<60	<12	<120	----	----					
ceiling	60	0.002	0	----	<60	<12	<120	----	----					
ceiling	61	0.003	257	----	<60	<12	<120	----	----					
ceiling	62	0.003	257	----	<60	<12	<120	----	----					
ceiling	63	0.005	0	----	<60	<12	<120	----	----					
ceiling	64	0.009	513	----	<60	<12	<120	----	----					
ceiling	65	0.009	2695	----	<60	<12	<120	----	----					
ceiling	66	0.004	0	----	120	<12	<120	----	----					
ceiling	67	0.005	0	----	<60	<12	<120	----	----					
ceiling	68	0.019	2053	----	<60	<12	<120	----	----					
ceiling	69	0.006	385	----	<60	<12	<120	----	----					
ceiling	70	0.009	0	----	<60	<12	<120	----	----					

Equipment & Fixtures

Hot spot	14	----	----	----	<60	<12	<120	----	----					
Hot spot	16	----	----	----	<60	<12	<120	----	----					
Hot spot	17	----	----	----	<60	14	<120	----	----					
Hot spot	17	----	----	----	<60	<12	<120	----	----					
Hot spot	17	----	----	----	<60	<12	<120	----	----					
Hot spot	19	----	----	----	<60	<12	<120	----	----					
Hot spot	19	----	----	----	<60	14	<120	----	----					
Hot spot	20	----	----	----	<60	<12	<120	----	----					
Hot spot	20	----	----	----	<60	<12	<120	----	----					
Hot spot	20	----	----	----	<60	14	<120	----	----					
Hot spot	20	----	----	----	<60	17	<120	----	----					
Hot spot	25	----	----	----	<60	<12	<120	----	----					
Hot spot	29	----	----	----	<60	<12	<120	----	----					
Hot spot	31	----	----	----	<60	<12	<120	----	----					
Hot spot	36	----	----	----	<60	<12	<120	----	----					
Hot spot	40	----	----	----	<60	<12	<120	----	----					
Hot spot	44	----	----	----	<60	<12	<120	----	----					
Hot spot	48	----	----	----	120	<12	<120	----	----					
Stack	67	----	385	----	<60	14	<120	----	----					
solid sample		----	----	----	----	<12	<120	----	----					
solid sample		----	----	----	----	<12	<120	----	----					
solid sample		----	----	----	----	<12	<120	----	----					
Shearer		----	3208	----	<60	<12	<120	----	----					
Oven		----	1707	----	<60	<12	<120	----	----					
Press		----	0	----	<60	<12	<120	55173	----	Black box on press			yes	yes
Cupboard		----	28228	----	<60	834	881	1331853	----	Below handle			yes	yes

**FIGURE 2.88
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Oven		----	770	----	<60	14	<120	----	----				
Table		----	2695	----	<60	<12	<120	----	----				

**FIGURE 2.88A
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 88A, Foils Rolling Area

Prepared: 5/31/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.5	cps	1924.64	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.02	1283	----	<60	<12	<120	----	----				
S. Wall	2	0.02	0	----	<60	<12	<120	----	----				
S. Wall	3	0.01	0	----	<60	<12	<120	----	----				
E. Wall	4	0.01	1925	----	<60	<12	<120	157179	----	x=8ft y=0.25ft			yes
								40418	----	x=8ft y=4ft			yes
E. Wall	5	0.01	1283	----	<60	<12	<120	1038666	----	x=3ft y=2.6ft			yes
E. Wall	6	0.01	1283	----	<60	<12	<120	----	----				
E. Wall	7	0.01	642	----	<60	<12	<120	----	----				
N. Wall	8	0.003	642	----	<60	<12	<120	----	----				
N. Wall	9	0.004	642	----	<60	<12	<120	----	----				
E. Wall	10	0.004	1283	----	<60	<12	<120	----	----				
W. Wall	11	0.004	1283	----	<60	<12	<120	----	----				
W. Wall	12	0.004	1283	----	<60	<12	<120	----	----				
W. Wall	13	0.004	1283	----	<60	<12	<120	----	----				
W. Wall	14	0.01	1283	----	<60	<12	<120	----	----				
Floor, r1	15	0.01	4491	----	<60	<12	<120	----	----				
Floor	16	0.01	642	----	<60	<12	<120	----	----				
Floor	17	0.01	1925	----	<60	<12	<120	12189	----				
Floor, r2	18	0.002	1283	----	<60	<12	<120	----	----				
Floor	19	0.007	1283	----	<60	<12	<120	----	----				
Floor	20	0.03	4491	----	<60	<12	<120	----	----				
Floor, r3	21	0.02	1925	----	<60	<12	<120	902658	----				yes
								177709	----				yes
								54532	----				yes
Floor	22	0.01	1925	----	<60	<12	<120	8340	----				
Floor	23	0.01	1925	----	<60	<12	<120	----	----				
Floor, r4	24	0.002	1925	----	<60	<12	<120	----	----				
Floor	25	0.003	2566	----	<60	<12	<120	149481	----				yes
Floor	26	0.003	2566	----	<60	<12	<120	----	----				
S. Ceiling	27	----	----	----	----	<12	<120	----	----				
S. Ceiling	28	0.005	1283	----	<60	<12	<120	----	----				
N. Ceiling	29	0.002	1540	----	<60	<12	<120	----	----				

**FIGURE 2.88A
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

Shelf #1		----	----	----	<60	<12	<120	----	----					
Shelf #2		----	----	----	<60	<12	<120	----	----					
Shelf #3		----	----	----	<60	<12	<120	----	----					
Shelf #4		----	----	----	<60	<12	<120	----	----					
Center shelf		----	----	----	<60	<12	<120	----	----					

FIGURE 2.88B SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 88B, Radium Laboratory Hallway

Prepared: 5/31/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1819	1.5	cps	1924.64	dpm/100cm ²
LB122	floor		17	cps	11223.59	dpm/100cm ²
BICRON	all	B421S	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.002	0	----	<60	<12	<120	----	----				
S. Wall	2	0.001	0	----	<60	<12	<120	----	----				
SE corner	3	0.001	0	----	<60	<12	<120	----	----				
E. Wall	4	0.002	----	----	<60	<12	<120	----	----	Doorway			
NE Wall	5	0.005	0	----	<60	<12	<120	306018	----	x=2ft, y=4'6"			yes
N. Wall	6	0.002	642	----	<60	<12	<120	----	----				
N. Wall	7	0.002	1925	----	<60	<12	<120	131517	----	x=2ft, y=4'6"			yes
floor, r1	8	0.004	----	660	180	<12	<120	----	335387	x=4ft, y=9in			yes
									21787	x=6ft, y=2ft			yes
floor	9	0.007	----	660	<60	<12	<120	----	159771	x=5ft, y=2.5ft			yes
									136664	x=4ft, y=2.5ft			yes
floor	10	0.003	----	0	240	<12	<120	----	----				
floor, r2	11	0.003	----	1320	<60	<12	<120	----	576364	x=0ft, y=5.5ft			yes
floor	12	0	----	0	<60	<12	<120	----	186840	x=18in, y=4ft			yes
floor	13	0	----	0	<60	<12	<120	----	22447	x=4ft, y=3ft			yes
ceiling	14	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	5	----	----	----	<60	<12	<120	306018	----	x=2ft, y=4'6"			yes
Hot spot	7	----	----	----	<60	<12	<120	131517	----	x=2ft, y=4'6"			yes
Hot spot	8	----	----	----	120	<12	<120	----	335387	x=4ft, y=9in			yes
Hot spot	9	----	----	----	60	<12	<120	----	159771	x=5ft, y=2.5ft			yes

**FIGURE 2.91
SURVEY RESULTS**

MONSERO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 91, East Hallway

Prepared: 8/12/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	all	E1819	0.9	cps	1154.79 dpm/100cm ²
LB122	none	—	—	cps	— dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.004	128	----	<60	<12	<120	----	----				
E wall	2	0	257	----	----	----	----	----	----				
E wall	3	0	257	----	----	----	----	----	----				
E wall	4	0	513	----	180	<12	<120	----	----				
E wall	5	0.001	1028	----	----	----	----	----	----				
N wall	6	0.001	0	----	----	----	----	----	----				
W wall	7	0.001	128	----	120	<12	<120	----	----				
W wall	8	0	0	----	----	----	----	----	----				
W wall	9	0	128	----	<60	<12	<120	----	----				
W wall	10	0.001	1155	----	----	----	----	8084	----	x=0m, y=1m			
W wall	11	0.001	842	----	----	----	----	----	----				
Floor, r1	12	0.005	898	----	----	----	----	18092	----	x=0m, y=1m			yes
Floor, r2	13	0.003	770	----	10980	<12	<120	----	----		yes		
Floor, r3	14	0.004	0	----	----	----	----	----	----				
Floor, r4	15	0.003	898	----	----	----	----	----	----				
Ceiling	16	0	385	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	10	----	----	----	2100	<12	<120	----	----		yes		
Hot spot	12	----	----	----	6720	<12	<120	----	----		yes		

**FIGURE 2.92
SURVEY RESULTS**

MONSERO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 92, Screen Assembly

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1.5	cps	1924.64	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.002	0	---	900	<12	<120	---	---				
S. Wall	2	0	0	---	840	<12	<120	---	---				
S. Wall	3	0	0	---	540	<12	<120	---	---				
E. Wall	4	0.003	0	---	240	<12	<120	16039	---	x=0.8m y=2m			yes
E. Wall	5	0.003	642	---	<60	<12	<120	---	---				
E. Wall	6	0.003	0	---	<60	<12	<120	---	---				
E. Wall	7	0.004	0	---	<60	<12	<120	---	---				
N. Wall	8	0.003	1925	---	<60	<12	<120	19888	---	x=0.3m y=1m			yes
N. Wall	9	0.002	1925	---	<60	<12	<120	62230	---	x=1.3m y=0.9m			yes
N. Wall	10	0.004	1925	---	300	<12	<120	---	---				
W. Wall	11	0.006	642	---	<60	<12	<120	81477	---	x=1m y=1.3m			yes
W. Wall	12	0.006	642	---	420	<12	<120	---	---				
W. Wall	13	0.002	642	---	180	<12	<120	221334	---	x=1m y=0m			yes
W. Wall	14	0.001	1283	---	<60	<12	<120	---	---				
Floor, r1	15	0.002	0	---	10260	<12	<120	---	---		yes		
Floor	16	0.003	0	---	7860	<12	<120	---	---		yes		
Floor	17	0.004	0	---	1260	<12	<120	---	---		yes		
Floor, r2	18	0.002	0	---	600	<12	<120	---	---				
Floor	19	0.002	0	---	35340	<12	<120	---	---		yes		
Floor	20	0.001	0	---	126600	<12	<120	---	---		yes		
Floor, r3	21	0.003	0	---	15600	<12	<120	---	---		yes		
Floor	22	0.003	0	---	5760	<12	<120	---	---		yes		
Floor	23	0.002	0	---	60	<12	<120	---	---				
Floor, r4	24	0.003	0	---	<60	<12	<120	---	---				
Floor	25	0.003	642	---	2340	<12	<120	---	---		yes		
Floor	26	0.001	128	---	720	<12	<120	---	---				
S. Ceiling	27	0	0	---	<60	<12	<120	---	---				
C. Ceiling	28	---	0	---	<60	<12	<120	---	---				
N. Ceiling	29	---	257	---	<60	<12	<120	---	---				

**FIGURE 2.92
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

South rack		----	642	----	<60	<12	<120	----	----				
Fridge		----	0	----	<60	<12	<120	----	----				
Air conditioner		----	1283	----	<60	<12	<120	----	----				
Equipment		----	642	----	<60	<12	<120	----	----				
Exhaust		----	0	----	<60	<12	<120	----	----				
N. light fixture		0.002	----	----	<60	<12	<120	2474450	----				yes
Filing cab.		0.002	----	----	<60	<12	<120	17322	----				yes
West rack		0.002	0	----	<60	<12	<120	----	----				
West sink		0.005	----	----	<60	<12	<120	121253	----				yes
Table		-0.002	0	----	<60	<12	<120	----	----				
Small file cab		0.011	----	----	<60	<12	<120	520295	----				yes
Light fixture HS		----	----	----	<60	<12	<120	----	----				

**FIGURE 2.93
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 93

Prepared: 5/22/96

Box 1

Background							
Instrument	Location	Serial #	Average Background				
HP260	walls	E1819	1.5	cps	1924.64	dpm/100cm ²	
LB122	Floor	4097 & M0384	6	cps	3961.27	dpm/100cm ²	
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h	

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	yes	not done
Radium-226	yes	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.023	1925	----	<60	<12	<120	16039	----	x=2m y=0m			yes
S. Wall	2	0.023	4491	----	<60	<12	<120	----	----				
S. Wall	3	0.023	1283	----	<60	<12	<120	----	----				
S. Wall	4	0.009	1283	----	<60	<12	<120	----	----				
S. Wall	5	0.043	1283	----	<60	<12	<120	----	----				
S. Wall	6	0.004	1283	----	<60	<12	<120	16039	----	x=0.9m y=1.3m			yes
S. Wall	7	0.001	1925	----	<60	<12	<120	----	----				
S. Wall	8	0.002	1925	----	<60	<12	<120	----	----				
E. Wall	9	0.003	642	----	<60	<12	<120	----	----				
E. Wall	10	0.001	0	----	15900	<12	<120	----	----		yes		
E. Wall	11	0	642	----	<60	<12	<120	----	----				
E. Wall	12	0	1283	----	<60	<12	<120	105855	----	x=2m y=1.3m			yes
								13473	----	x=4ft, y=4ft			
E. Wall	13	0.003	4491	----	<60	<12	<120	164878	----	x=5ft, y=3ft			yes
								67363	----	x=3.5ft, y=4ft			yes
								41701	----	x=2ft, y=3.5ft			yes
E. Wall	14	0.001	0	----	60	<12	<120	146914	----	x=3ft, y=1ft			yes
E. Wall	15	0.001	0	----	900	<12	<120	222617	----	x=7.5ft, y=2ft			yes
								72495	----	x=7ft, y=5'4"			yes
								132800	----	x=5ft, y=4.5ft			yes
N. Wall	16	0	0	----	<60	<12	<120	----	----				
N. Wall	17	0	0	----	<60	<12	<120	----	----				
N. Wall	18	0	0	----	<60	<12	<120	----	----				
N. Wall	19	0	0	----	<60	<12	<120	----	----				
N. Wall	20	0	0	----	<60	<12	<120	----	----				
N. Wall	21	0.003	----	----	----	<12	<120	----	----				
N. Wall	22	0.004	0	----	<60	<12	<120	----	----				
W. Wall	23	0.002	128	----	<60	<12	<120	----	----				
W. Wall	24	0.001	0	----	<60	<12	<120	----	----				
W. Wall	25	0.004	0	----	<60	<12	<120	----	----				
W. Wall	26	0	0	----	<60	<12	<120	----	----				
W. Wall	27	0.001	385	----	<60	<12	<120	----	----				
W. Wall	28	0.004	898	----	<60	<12	<120	----	----				
W. Wall	29	0.004	1283	----	<60	<12	<120	13473	----	h.s. on wooden ledge			

**FIGURE 2.93
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
W. Wall	30	0.011	1283	----	<60	<12	<120	----	----				
Floor, r1	31	0.023	----	1981	<60	<12	<120	----	20467	base of green cabinet			yes
Floor	32	0.023	----	9243	<60	<12	<120	----	----			yes	
Floor	33	0.001	----	0	<60	<12	<120	----	----				
Floor	34	0.004	----	0	<60	<12	<120	----	----				
Floor	35	0.003	----	0	<60	<12	<120	----	19146	x=12cm, y=0.5m			yes
Floor	36	0.003	----	1981	<60	<12	<120	----	----				
Floor	37	0.001	----	198	<60	<12	<120	----	----				
Floor	38	0.001	----	132	<60	<12	<120	----	----				
Floor, r2	39	0	----	0	<60	<12	<120	----	----				
Floor	40	0.001	----	0	<60	<12	<120	----	----				
Floor	41	0	----	0	<60	<12	<120	----	----				
Floor	42	0.002	----	0	<60	<12	<120	----	15845	x=0 y=1.76m			yes
								6932	x=6cm, y=1.78m				
Floor	43	0	----	0	<60	<12	<120	----	----				
Floor	44	0.001	----	0	<60	<12	<120	----	----				
Floor	45	0.004	----	1320	<60	<12	<120	----	----				
Floor	46	0.002	----	264	<60	<12	<120	----	----				
Floor, r3	47	0.001	----	132	<60	<12	<120	----	----				
Floor	48	0.001	----	0	<60	<12	<120	----	----				
Floor	49	0	----	0	<60	<12	<120	----	----				
Floor	50	0	----	330	<60	<12	<120	----	----				
Floor	51	0.001	----	0	<60	<12	<120	----	----				
Floor	52	0	----	132	<60	<12	<120	----	30370	x=.5m y=.5m			yes
Floor	53	0	----	0	<60	<12	<120	----	----				
Floor	54	0.002	----	0	<60	<12	<120	----	----				
Floor, r4	55	0.001	----	3037	<60	<12	<120	----	----				
Floor	56	0	----	2707	<60	<12	<120	----	----				
Floor	57	0	----	2773	<60	<12	<120	----	----				
Floor	58	0	----	0	<60	<12	<120	----	----				
Floor	59	0	----	0	<60	<12	<120	----	----				
Floor	60	0.001	----	0	<60	<12	<120	----	----				
Floor	61	0	----	0	<60	<12	<120	----	----				
Floor	62	0	----	0	<60	<12	<120	----	----				
Floor, r5	63	0.003	----	0	<60	<12	<120	----	----				
Floor	64	0.002	----	0	<60	<12	<120	----	----				
Floor	65	0.004	----	0	<60	<12	<120	----	----				
Floor	66	0.002	----	198	<60	<12	<120	----	----				
Floor	67	0.001	----	0	<60	<12	<120	----	----				
Floor	68	0	----	0	<60	<12	<120	----	----				
Floor	69	0	----	3037	<60	<12	<120	----	----				
Floor	70	0.001	----	3433	<60	<12	<120	----	----				
Floor, r6	71	0.001	----	2707	<60	<12	<120	----	----				
Floor	72	0.001	----	2773	<60	<12	<120	----	----				
Floor	73	0	----	3433	<60	<12	<120	----	----				
Floor	74	0	----	660	<60	<12	<120	----	----				

**FIGURE 2.93
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	75	0.002	----	0	<60	<12	<120	----	----				
Floor	76	0.002	----	3301	<60	<12	<120	----	----				
Floor	77	0.002	----	528	<60	<12	<120	----	----				
Floor, r7	78	0.004	----	2641	<60	<12	<120	----	----				
Floor	79	0.005	----	0	<60	<12	<120	----	13204	x=1.8m y=1.6m			
								----	7262	x=1.9m, y=1m			
Floor	80	0.005	----	2179	<60	<12	<120	----	12544	x=.5m y=1.75m			
Floor	81	0.002	----	2047	<60	<12	<120	----	16505	x=1.5m y=.1m			yes
								----	4621	x=1m, y=1m			
Floor	82	0.001	----	0	<60	<12	<120	----	----				
Floor	83	0	----	0	<60	<12	<120	----	----				
Floor	84	0	----	396	<60	<12	<120	----	----				
Floor	85	0.002	----	198	<60	<12	<120	----	----				
N. ceiling	86	----	0	----	<60	<12	<120	----	----				
N.E. ceiling	87	----	0	----	<60	<12	<120	----	----				
N.W. ceiling	88	----	642	----	<60	<12	<120	----	----				
S.E. ceiling	89	----	1283	----	<60	<12	<120	----	----				

Equipment & Fixtures

Cabinet	2	0	642	----	<60	60	<120	680682	----				yes
Hot spot	6	----	----	----	<60	<12	<120	19888	----	x=2.5ft, y=4ft			yes
Window sill	9	----	----	----	----	----	----	59664	----				yes
Sink	11	----	----	----	<60	<12	<120	----	----				
Window ledge	15	----	----	----	<60	<12	<120	----	----				
Lead pigs	26	----	----	----	<60	<12	<120	----	----				
Hot spot pipe	27	----	----	----	<60	<12	<120	44267	----				yes
Fuse box	27	----	----	----	----	----	----	6415	----				
Hot spot ledge	29	----	----	----	<60	<12	<120	13473	----				
Hot spot	31	----	----	----	<60	23	<120	----	20467	Base of green cabinet			yes
Hot spot	35	----	----	----	<60	<12	<120	----	19146	x=12cm, y=0.5m			yes
Hot spot	42	----	----	----	<60	<12	<120	----	15845	x=0m, y=1.75m			yes
Green table	67	----	----	----	<60	<12	<120	----	----				
White table	79	----	----	----	<60	<12	<120	----	----				
Electric oven		0.008	1283	----	<60	<12	<120	----	----				
Boss oven		----	----	----	<60	<12	<120	----	----				
Center light		----	----	----	<60	<12	<120	----	----				
Spray bath		----	----	----	<60	<12	<120	----	----				
Vent		----	----	----	<60	<12	<120	----	----				
Solid sample		----	----	----	----	<12	<120	----	----				
Solid sample		----	----	----	----	<12	<120	----	----				

The number # 94 was not attributed to any room in the building.

**FIGURE 2.95
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 95, Shipping Annex

Prepared: 5/22/96

Box 1

<u>Background</u>					
Instrument	Location	Serial #	Average Background		
HP260	walls	E2176	1	cps	1283.10 dpm/100cm ²
LB122	Floor	4097	8	cps	5281.69 dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01 mrem/h

Box 2

<u>Gamma Spectroscopy Isotope Information</u>		
Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.003	642	----	<60	<12	<120	----	----				
S. Wall	2	0.002	642	----	<60	<12	<120	----	----				
S. Wall	3	0.001	0	----	<60	<12	<120	----	----				
S. Wall	4	0.001	642	----	<60	<12	<120	----	----				
S. Wall	5	0	642	----	<60	<12	<120	----	----				
S. Wall	6	0	642	----	<60	<12	<120	----	----				
S. Wall	7	0.001	642	----	<60	<12	<120	----	----				
S. Wall	8	0.06	642	----	<60	<12	<120	26945	----	x=6ft, y=4ft			yes
E. Wall	9	0	642	----	<60	<12	<120	----	----				
E. Wall	10	0	642	----	<60	<12	<120	----	----				
N. Wall	11	0.001	642	----	<60	<12	<120	----	----				
N. Wall	12	0.002	642	----	<60	<12	<120	25662	----	x=8in, y=4ft			yes
N. Wall	13	0.001	1283	----	<60	<12	<120	----	----				
N. Wall	14	0	642	----	<60	<12	<120	----	----				
N. Wall	15	0	642	----	<60	<12	<120	----	----				
N. Wall	16	0.001	642	----	<60	<12	<120	----	----				
N. Wall	17	0	642	----	<60	<12	<120	----	----				
N. Wall	18	0.003	1283	----	<60	<12	<120	20530	----	x=15in, y=5ft			yes
								15397	----	x=5ft, y=4ft			yes
								24379	----	x=5ft, y=3'9"			yes
W. Wall	19	0.001	642	----	<60	<12	<120	----	----				
W. Wall	20	0.001	642	----	<60	<12	<120	----	----				
Floor, r1	21	0.002	9623	----	<60	<12	<120	----	----			yes	
Floor	22	0.004	9110	----	<60	<12	<120	----	----			yes	
Floor	23	0.002	9367	----	<60	<12	<120	----	----			yes	
Floor	24	0.001	9623	----	<60	<12	<120	----	----			yes	
Floor	25	0	8725	----	<60	<12	<120	----	----			yes	
Floor	26	0.003	12831	----	<60	<12	<120	34644	----			yes	yes
Floor	27	0.001	12189	----	<60	<12	<120	----	----			yes	
Floor	28	0	12061	----	120	<12	<120	----	----			yes	
Floor, r2	29	0.001	12189	----	<60	<12	<120	----	----			yes	
Floor	30	0	12446	----	<60	<12	<120	----	----			yes	
Floor	31	0.003	12061	----	<60	<12	<120	----	----			yes	

**FIGURE 2.95
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	32	0	8340	----	<60	<12	<120	----	----				yes	
Floor	33	0.001	8982	----	<60	<12	<120	----	----				yes	
Floor	34	0.003	9623	----	240	<12	<120	----	----				yes	
Floor	35	0.004	8982	----	<60	<12	<120	----	----				yes	
Floor	36	0.004	9495	----	<60	<12	<120	----	----				yes	
N. ceiling	37	0.001	642	----	<60	<12	<120	----	----					
S. ceiling	38	0	642	----	<60	<12	<120	----	----					

Equipment & Fixtures

Cart on S wall	0.003	----	----	<60	<12	<120	107780	----	----					yes
Cabinet S wall	0	1283	----	<60	<12	<120	----	----	----					
Desk S wall	0	642	----	<60	<12	<120	----	----	----					
Filing cabinet	0.001	0	----	<60	<12	<120	----	----	----					
Cabinet S. W.	0	----	----	<60	<12	<120	91100	----	----					yes
Shelf N wall	0	0	----	<60	<12	<120	----	----	----					
1st paint machine	0	0	----	<60	<12	<120	----	----	----					
Cabinet	0.002	1925	----	<60	<12	<120	----	----	----					
Paint roller	0.008	13473	----	<60	<12	<120	----	----	----				yes	
Electrical board	0.005	5132	----	<60	<12	<120	----	----	----				yes	
2nd paint machine	0.003	642	----	<60	<12	<120	----	----	----					
Shelf N wall	0.001	642	----	<60	<12	<120	----	----	----					
Table	0.001	642	----	<60	<12	<120	----	----	----					

**FIGURE 2.96
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 98, South Loading Area

Prepared: 8/12/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	all	E1819	1.4	cps	1796.33 dpm/100cm ²
LB122	floor		10	cps	6602.11 dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0	808	----	----	----	----	----	----				
S wall	2	0	2181	----	----	----	----	----	----				
S wall	3	0	3336	----	----	----	----	----	----				
S wall	4	0	1668	----	<60	<12	<120	----	----				
S wall	5	0	2951	----	----	----	----	----	----				
E Wall	6	0.001	860	----	----	----	----	----	----				
E Wall	7	0.001	513	----	----	----	----	----	----				
E Wall	8	0	1925	----	<60	<12	<120	----	----				
E Wall	9	0	642	----	----	----	----	----	----				
E Wall	10	0	654	----	----	----	----	----	----				
N. Wall	11	0	0	----	----	----	----	----	----				
N. Wall	12	0	0	----	----	----	----	----	----				
N. Wall	13	0	128	----	<60	<12	<120	----	----				
N. Wall	14	0.004	770	----	----	----	----	----	----				
N. Wall	15	0	513	----	----	----	----	----	----				
N. Wall	16	0	257	----	----	----	----	----	----				
W. Wall	17	0.001	1411	----	----	----	----	----	----				
W. Wall	18	0	0	----	----	----	----	----	----				
W. Wall	19	0.001	1784	----	----	----	----	59792	----				yes
W. Wall	20	0.001	385	----	<60	<12	<120	----	----				
W. Wall	21	0.001	385	----	----	----	----	----	----				
Floor, r1	22	0.007	0	----	----	----	----	----	----				
Floor	23	0.005	1981	----	----	----	----	----	----				
Floor	24	0.005	1320	----	----	----	----	----	----				
Floor	25	0.011	1320	----	----	----	----	----	----				
Floor	26	0.002	660	----	----	----	----	----	----				
Floor, r2	27	0.003	660	----	----	----	----	----	----				
Floor	28	0.002	0	----	<60	<12	<120	----	----				
Floor	29	0.003	660	----	----	----	----	173988	----				yes
Floor	30	0.006	660	----	<60	<12	<120	----	----				
Floor	31	0.002	1320	----	----	----	----	----	----				
Floor, r3	32	0.005	1320	----	<60	<12	<120	----	----				
Floor	33	0.007	660	----	----	----	----	----	----				

**FIGURE 2.96
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	34	0.004	----	660	----	----	----	----	----					
Floor	35	0.001	----	660	----	----	----	----	----					
Floor	36	0.003	----	660	<60	<12	<120	----	----					
Floor, r4	37	0.002	----	0	----	----	----	----	----					
Floor	38	0.003	----	0	----	----	----	----	----					
Floor	39	0.005	----	0	----	----	----	----	----					
Floor	40	0.002	----	1320	----	----	----	----	----					
Floor	41	0.005	----	1320	----	----	----	----	----					
Floor, r5	42	0.005	----	660	----	----	----	----	----					
Floor	43	0.006	----	660	----	----	----	----	----					
Floor	44	0.003	----	1320	----	----	----	----	----					
Floor	45	0.004	----	660	----	----	----	----	----					
Floor	46	0.007	----	660	----	----	----	----	----					
Ceiling	47	0	1155	----	<60	<12	<120	----	----					
Ceiling	48	0	1283	----	<60	<12	<120	----	----					

Equipment & Fixtures

Power box	8	----	----	----	<60	<12	<120	3141788	----					yes
Power box handle	8	----	----	----	----	----	----	40546	----					yes
Hot equipment	19	----	257	----	<60	<12	<120	----	----					
Weigh scale	24	----	----	----	<60	<12	<120	----	----					
Garbage bag	36	----	2695	----	<60	<12	<120	----	----					

**FIGURE 2.97
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 97, Dial Process Production

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1.5	cps	1924.64	dpm/100cm ²
LB122	Floor		20	cps	13204.23	dpm/100cm ²
BICRON	all	B893N	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.007	4491	----	<60	<12	<120	----	----				
S. Wall	2	0.007	642	----	<60	<12	<120	----	----				
S. Wall	3	0.005	0	----	<60	<12	<120	----	----				
S. Wall	4	0.005	642	----	<60	<12	<120	----	----				
E. Wall	5	0.004	257	----	<60	<12	<120	----	----				
E. Wall	6	0.007	642	----	<60	<12	<120	4491	----	x=0m, y=0m			
E. Wall	7	0.011	642	----	<60	<12	<120	4491	----				
E. Wall	8	0.021	642	----	<60	<12	<120	----	----				
E. Wall	9	0.011	642	----	<60	<12	<120	----	----				
E. Wall	10	0.002	0	----	<60	<12	<120	----	----				
E. Wall	11	0.005	0	----	<60	<12	<120	----	----				
E. Wall	12	0.005	0	----	<60	<12	<120	----	----				
E. Wall	13	0	0	----	<60	<12	<120	----	----				
E. Wall	14	0.002	0	----	<60	<12	<120	----	----				
N. Wall	15	0	0	----	<60	<12	<120	----	----				
N. Wall	16	0.002	385	----	<60	<12	<120	----	----				
N. Wall	17	0.003	0	----	<60	<12	<120	----	----				
N. Wall	18	0.004	0	----	<60	<12	<120	----	----				
W. Wall	19	0.002	0	----	<60	<12	<120	----	----				
W. Wall	20	0.002	642	----	<60	<12	<120	----	----				
W. Wall	21	0.005	0	----	<60	<12	<120	----	----				
W. Wall	22	0.002	642	----	<60	<12	<120	----	----				
W. Wall	23	0.002	642	----	<60	<12	<120	----	----				
W. Wall	24	0.002	642	----	<60	<12	<120	----	----				
W. Wall	25	0.002	0	----	<60	<12	<120	----	----				
W. Wall	26	0.005	0	----	<60	<12	<120	----	----				
Floor, r1	27	0.021	0	----	<60	<12	<120	----	----				
Floor	28	0.021	642	----	<60	<12	<120	17322	----				yes
Floor	29	0.011	642	----	<60	<12	<120	----	----				
Floor	30	0.011	0	----	<60	<12	<120	----	----				
Floor	31	0.005	1283	----	<60	<12	<120	----	----				
Floor	32	0.003	0	----	<60	<12	<120	----	----				
Floor, r2	33	0.005	----	2641	<60	<12	<120	----	----				
Floor	34	0.007	----	660	<60	<12	<120	----	----				
Floor	35	0.004	----	5282	<60	<12	<120	----	----			yes	

**FIGURE 2.97
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	36	0.004	----	660	<60	<12	<120	----	----				
Floor	37	0.002	642	----	<60	<12	<120	----	----				
Floor, r3	38	0.004	----	660	<60	<12	<120	----	----				
Floor, r4	39	0.001	----	0	<60	<12	<120	----	----				
Floor	40	0.002	----	0	<60	<12	<120	----	----				
Floor	41	0.003	----	0	<60	<12	<120	----	----				
Floor, r5	42	0.001	----	0	<60	<12	<120	----	----				
Floor	43	0.001	----	0	<60	<12	<120	----	----				
Floor	44	0.007	----	0	<60	<12	<120	----	----				
Floor, r6	45	0.002	385	----	<60	<12	<120	----	----				
Floor	46	0.003	----	0	<60	<12	<120	----	----				
Floor	47	0.003	----	1981	<60	<12	<120	----	39613	x=0m, y=0m			yes
Floor, r7	48	0.002	1411	----	<60	<12	<120	----	----				
Floor	49	0.004	0	----	<60	<12	<120	----	----				
Floor	50	0.005	0	----	<60	<12	<120	----	----				
Floor, r8	51	0.005	1411	----	<60	<12	<120	----	----				
Floor	52	0.003	257	----	<60	<12	<120	----	----				
Floor	53	0.003	128	----	<60	<12	<120	----	----				
Ceiling	54	0	0	----	<60	<12	<120	----	----				
Ceiling	55	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Steel table	1	----	7057	----	<60	<12	<120	1986874	----	bicron = 0.12 mrem/h		yes	yes
Grate	3	----	----	----	<60	<12	<120	----	----				
Metal cabinet	9	----	0	----	<60	14	<120	----	----				
Power box	21	----	1283	----	<60	<12	<120	----	----				
Desk	25	----	0	----	<60	<12	<120	----	----				
Light	26	----	3208	----	<60	<12	<120	----	----				
Table	26	----	----	----	<60	<12	<120	----	----				
Chair	30	----	257	----	<60	<12	<120	----	----				
Screening machine	34	----	128	----	<60	<12	<120	----	----				
Garbage bin	35	----	----	----	<60	<12	<120	40418	----	inside cabinet			yes
Screening mach.	39	----	----	----	<60	<12	<120	75061	----				yes
Screening machine	41	----	----	----	<60	<12	<120	----	----				
Power box	45	----	0	----	<60	<12	<120	----	----				
Shelf	51	----	0	----	<60	<12	<120	----	----				
Steel cabinet	53	----	0	----	<60	<12	<120	----	----				
Fume hood	76	----	----	----	<60	<12	<120	----	----				
First aid box		----	----	----	<60	<12	<120	----	----				
Solid sample		----	----	----	----	<12	<120	----	----				
Solid sample		----	----	----	----	<12	<120	----	----				

**FIGURE 2.98
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 98, Dial Processing (North Side)

Prepared: 5/22/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	all	E2176	1.5	cps	1924.64 dpm/100cm ²
LB122	none	---	---	cps	---
BICRON	all	B893N	0.1	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A SAMPLE ID	B GRID #	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L LOOSE > 1,000 (dpm/100cm ²)	M AVERAGE > 5,000 (dpm/100cm ²)	N HOT SPOT > 15,000 (dpm/100cm ²)
		C BICRON (mrem/h)	D HP260 (dpm/100cm ²)	E LB122 (dpm/100cm ²)	F TRITIUM (dpm/100cm ²)	G ALPHA (dpm/100cm ²)	H BETA (dpm/100cm ²)	I HP260 (dpm/100cm ²)	J LB122 (dpm/100cm ²)	K DESCRIPTION			
S. Wall	1	0.002	0	----	<60	<12	<120	----	----				
S. Wall	2	0.004	0	----	<60	<12	<120	----	----				
S. Wall	3	0.001	0	----	<60	<12	<120	----	----				
E. Wall	4	0.002	0	----	<60	<12	<120	----	----				
E. Wall	5	0	0	----	<60	<12	<120	----	----				
E. Wall	6	0.002	0	----	<60	<12	<120	----	----				
N. Wall	7	0.002	1283	----	<60	<12	<120	----	----				
N. Wall	8	0.002	0	----	<60	<12	<120	----	----				
N. Wall	9	0	0	----	<60	<12	<120	----	----				
W. Wall	10	0.001	642	----	<60	<12	<120	----	----				
W. Wall	11	0.001	0	----	<60	<12	<120	----	----				
W. Wall	12	0.004	0	----	<60	<12	<120	----	----				
Floor, r1	13	0.001	0	----	<60	<12	<120	----	----				
Floor	14	0.003	642	----	<60	<12	<120	----	----				
Floor	15	0.001	0	----	<60	<12	<120	----	----				
Floor, r2	16	0.002	0	----	<60	<12	<120	----	----				
Floor	17	0	0	----	<60	<12	<120	----	----				
Floor	18	0	0	----	<60	<12	<120	----	----				
Floor, r3	19	0.002	0	----	<60	<12	<120	----	----				
Floor	20	0.002	0	----	<60	<12	<120	----	----				
Floor	21	0	0	----	<60	<12	<120	----	----				
N. Ceiling	22	0	128	----	<60	<12	<120	----	----				
S. Ceiling	23	0	257	----	<60	<12	<120	----	----				

Equipment & Fixtures

Table North Side	0.005	50682	----	<60	<12	<120	----	----			yes	
Filing Cabinet	0	----	----	<60	<12	<120	----	----				
Lamp	0	10906	----	<60	<12	<120	----	----			yes	
Table S. side	0	642	----	300	<12	<120	----	----				
Junction Box	0.001	9623	----	<60	<12	<120	----	----			yes	
Pipe in Floor	0.001	99440	----	<60	<12	<120	----	----			yes	

**FIGURE 2.99A
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 99A

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u> <u>Present</u>	<u>Historically</u> <u>Present</u>	<u>Currently</u> <u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S W corner	1	0	1386	---	<60	<12	<120	---	---				
E Wall	2	0.002	0	---	<60	<12	<120	---	---				
S Wall	3	0.001	2091	---	60	<12	<120	---	---				
S Wall	4	0.002	---	---	<60	<12	<120	---	---				
E Wall	5	0.001	1655	---	<60	<12	<120	---	---				
E Wall	6	0.004	---	---	<60	<12	<120	---	---				
N Wall	7	0.004	---	---	<60	<12	<120	---	---				
N Wall	8	0.003	---	---	<60	<12	<120	---	---				
N Wall	9	0.001	1424	---	<60	<12	<120	---	---				
W Wall	10	0.002	---	---	<60	<12	<120	---	---				
S Wall	11	0.002	---	---	<60	<12	<120	---	---				
N Wall	12	0.001	---	---	<60	<12	<120	---	---				
W Wall	13	0.002	---	---	<60	<12	<120	---	---				
W Wall	14	0.001	---	---	<60	<12	<120	---	---				
Floor, r1	15	0.002	128	---	480	<12	<120	---	---				
Floor	16	0.003	128	---	660	<12	<120	---	---				
Top of light	17	0.003	1604	---	<60	<12	<120	---	---				

**FIGURE 2.99B
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 99B

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u> <u>Present</u>	<u>Historically</u> <u>Present</u>	<u>Currently</u> <u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW Corner	1	0.001	513	----	<60	<12	<120	----	----				
E Wall	2	0.002	1026	----	<60	<12	<120	----	----				
N Wall	3	0.002	1540	----	<60	<12	<120	----	----				
W Wall	4	0.003	1026	----	<60	<12	<120	----	----				
Floor	5	0.001	1283	----	<60	<12	<120	----	----				
Ceiling	6	0.002	385	----	<60	<12	<120	----	----				

**FIGURE 2.100
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 100, Blanking Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	0.9	cps	1154.79	dpm/100cm ²
LB122	floor	4097	8	cps	5281.69	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A	B	EXPOSURE	FIXED AVERAGE		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		RATE	CONTAMINATION		F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON	HP260	LB122	TRITIUM	ALPHA	BETA	HP260	LB122	DESCRIPTION	LOOSE > 1,000	AVERAGE > 5,000	HOT SPOT > 15,000
		(mrem/h)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)		(dpm/100cm ²)	(dpm/100cm ²)	(dpm/100cm ²)
S. Wall	1	0.002	2053	----	<60	<12	<120	----	----				
S. Wall	2	0.004	2053	----	<60	<12	<120	----	----				
S. Wall	3	0.002	2053	----	<60	<12	<120	----	----				
S. Wall	4	0.005	2053	----	<60	<12	<120	----	----				
S. Wall	5	0.003	1411	----	<60	<12	<120	----	----				
S. Wall	6	0.002	770	----	<60	<12	<120	----	----				
S. Wall	7	0	770	----	<60	<12	<120	----	----				
S. Wall	8	0.001	770	----	<60	<12	<120	----	----				
S. Wall	9	0	2053	----	<60	<12	<120	----	----	can't do 20% of walls, cabin.			
S. Wall	10	0.001	2053	----	<60	<12	<120	----	----				
S. Wall	11	0.001	1026	----	480	<12	<120	----	----				
S. Wall	12	0.002	1411	----	<60	<12	<120	----	----				
S. Wall	13	0.004	770	----	<60	<12	<120	----	----				
E. Wall	14	0.002	770	----	<60	<12	<120	----	----				
E. Wall	15	0.004	1411	----	<60	<12	<120	----	----				
E. Wall	16	0	1411	----	<60	<12	<120	----	----				
E. Wall	17	0.004	1411	----	<60	<12	<120	----	----				
E. Wall	18	0.002	1411	----	<60	<12	<120	----	----				
E. Wall	19	0	1411	----	<60	<12	<120	----	----	betruc.onwall 20% complete			
E. Wall	20	0	1411	----	<60	<12	<120	----	----				
E. Wall	21	0	1411	----	<60	<12	<120	----	----				
E. Wall	22	0	1411	----	<60	<12	<120	----	----				
N. Wall	23	0.003	1411	----	<60	<12	<120	----	----				
N. Wall	24	0.001	1411	----	<60	<12	<120	----	----				
N. Wall	25	0.001	1411	----	<60	<12	<120	----	----				
N. Wall	26	0.004	1411	----	<60	<12	<120	----	----				
N. Wall	27	0.003	1411	----	<60	<12	<120	----	----				
N. Wall	28	0.005	1026	----	<60	<12	<120	----	----				
N. Wall	29	0.002	770	----	<60	<12	<120	----	----				
N. Wall	30	0.001	770	----	<60	<12	<120	3978	----	X=1M Y=1.5M			
N. Wall	31	0	770	----	300	<12	<120	----	----				
N. Wall	32	0	1155	----	<60	<12	<120	----	----				
W. Wall	33	0	770	----	<60	<12	<120	----	----				

**FIGURE 2.100
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
W. Wall	34	0.001	770	----	<60	<12	<120	----	----					
W. Wall	35	0.001	642	----	<60	<12	<120	----	----					
W. Wall	36	0	1026	----	<60	<12	<120	----	----					
W. Wall	37	0	770	----	<60	<12	<120	3336	----	Above door				
W. Wall	38	0	1155	----	<60	<12	<120	----	----					
W. Wall	39	0	----	----	<60	<12	<120	----	----					
W. Wall	40	0	1668	----	<60	<12	<120	----	----					
W. Wall	41	0	1796	----	<60	<12	<120	----	----					
W. Wall	42	0.004	1668	----	<60	<12	<120	152817	----	X=1.7M Y=1.0M				yes
Hall N. Wall	43	0.003	1668	----	<60	<12	<120	----	----					
Hall N. Wall	44	0.004	1283	----	<60	<12	<120	----	----					
floor, r1	45	0.004	----	0	180	<12	<120	----	3301	X=0.25M Y=0.75M				
floor	46	0.003	----	0	<60	<12	<120	----	----	35% obstruction				
floor	47	0.004	----	0	120	<12	<120	----	----	40% obstruction				
floor	48	0.001	----	0	<60	<12	<120	----	----	25% obstruction				
floor	49	0.001	----	0	<60	<12	<120	----	----	25% obstruction				
floor	50	0	----	0	180	<12	<120	----	----	50% floor obstruction				
floor	51	0	----	0	<60	<12	<120	----	----	50% floor obstruction				
									13204	X=0.5 Y=0.75				
floor	52	0	----	198	<60	<12	<120	----	----	75% obstruction				
floor	53	0	----	1452	<60	<12	<120	----	----	25% obstruction				
floor	54	0.003	----	0	120	<12	<120	----	----	10% obstruction				
floor	55	0.002	----	0	420	<12	<120	----	----	20% obstruction				
floor	56	0.002	----	1320	<60	<12	<120	----	----	10% obstruction				
floor	57	0.001	----	0	<60	<12	<120	----	----	5% obstruction				
floor, r2	58	0.003	----	0	180	<12	<120	----	----	40% obstruction				
floor	59	0.004	----	0	180	<12	<120	----	----					
floor	60	0.001	----	0	900	<12	<120	----	----					
floor	61	0.003	----	0	<60	<12	<120	----	----					
floor	62	0.004	----	0	180	<12	<120	----	5282	X=2.0M Y=2.0				
floor	63	0.004	----	0	120	<12	<120	----	----					
floor	64	0.004	----	2773	840	<12	<120	----	----					
floor	65	0.002	----	3961	<60	<12	<120	----	----					
floor	66	0.001	----	3301	<60	<12	<120	----	----					
floor	67	0	----	4093	480	<12	<120	----	5942	X=1.75m Y=1.0m				
floor	68	0.001	----	----	<60	<12	<120	----	----	70% obstruction				
floor	69	0.001	----	2841	<60	<12	<120	----	----	80% obstruction				
floor	70	0	----	----	80	<12	<120	----	----	90% obstruction				
floor, r3	71	0	----	3103	<60	<12	<120	----	----					
floor	72	0	----	3103	<60	<12	<120	----	----					
floor	73	0	----	3499	60	<12	<120	----	21127	X=1.2M Y=1.0M				yes
									20467	X=1.25M Y=0.5M				yes
									165053	Marked out square				yes
									162412	Near metal knife				yes
floor	74	0.003	----	4754	300	<12	<120	----	----			yes	yes	
floor	75	0.006	----	5282	2160	<12	<120	----	----					

FIGURE 2.100
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
floor	76	0.018	----	6602	120	<12	<120	----	----			yes	
floor	77	0.004	----	11224	300	<12	<120	----	----			yes	
floor	78	0	----	4621	180	<12	<120	----	8583	x=1.80m y=0.5m			
floor	79	0	----	4621	240	<12	<120	----	----				
floor, r4	80	0	----	3895	300	<12	<120	----	----				
floor	81	0	----	5282	<60	<12	<120	----	----			yes	
floor	82	0.006	----	----	<60	<12	<120	----	----				
floor	83	0.013	----	5612	<60	<12	<120	----	----			yes	
floor	84	0.007	----	7923	60	<12	<120	----	----			yes	
floor	85	0.002	----	4621	240	<12	<120	----	12544	x=0m y=2.0m			
floor	86	0.002	----	3895	120	<12	<120	----	----				
floor	87	0	----	3631	60	<12	<120	----	----				
floor	88	0	----	3961	60	<12	<120	----	----				
floor	89	0	----	3169	<60	<12	<120	----	----				
floor	90	0	----	----	<60	<12	<120	----	----				
floor, r5	91	0	----	3433	<60	<12	<120	----	----				
floor	92	0	----	3829	<60	<12	<120	----	----				
floor	93	0	----	3981	<60	<12	<120	----	----				
floor	94	0	----	4886	420	<12	<120	----	13204	x=0m y=1.75m			
floor	95	0.001	----	3697	<60	<12	<120	----	----				
floor	96	0.001	----	4886	180	<12	<120	----	----				
floor	97	0	----	----	<60	<12	<120	----	----	95% obstruction			
floor	98	0.002	----	3961	420	<12	<120	----	----				
floor	99	0.001	----	5942	240	<12	<120	----	10563	x=1.0m y=2.0m		yes	
floor	100	0.001	----	3235	120	<12	<120	----	----				
floor, r6	101	0.003	----	0	<60	<12	<120	----	----				
floor	102	0.001	----	0	<60	<12	<120	----	33671	X=1.5m Y=1.75m			yes
floor	103	0.003	----	0	<60	<12	<120	----	----				
floor	104	0.003	----	0	300	<12	<120	----	----				
floor	105	0.001	----	0	120	<12	<120	----	----				
floor	106	0.001	----	0	120	<12	<120	----	----				
floor	107	0	----	0	180	<12	<120	----	----				
floor	108	0.002	----	0	420	<12	<120	----	----				
floor	109	0	----	0	60	<12	<120	----	----				
floor	110	0	----	0	240	<12	<120	----	----				
floor, r7	111	0	----	0	<60	<12	<120	----	----				
floor	112	0	----	0	<60	<12	<120	----	----				
floor	113	0	----	0	<60	<12	<120	----	----				
floor	114	0	----	0	120	<12	<120	----	----				
floor	115	0.001	----	0	300	<12	<120	----	----				
floor	116	0	----	0	360	<12	<120	----	----				
floor	117	0	----	0	120	<12	<120	----	----				
floor	118	0.001	----	1320	180	<12	<120	----	----				
floor, r8	119	0.004	----	1518	360	<12	<120	----	----				
floor	120	0.002	----	1651	180	<12	<120	----	----				

**FIGURE 2.100
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
floor	121	0	----	2641	<60	<12	<120	----	30370	X=4ft Y=3ft			yes
floor	122	0.002	----	2179	<60	<12	<120	----	----				
floor	123	0.002	----	----	<60	<12	<120	----	----				
floor	124	0.001	----	2971	1680	<12	<120	----	----		yes		
floor	125	0.001	----	3235	240	<12	<120	----	----				
floor	126	0.002	----	2179	<60	<12	<120	----	----				
floor	127	0	----	----	240	<12	<120	----	----				
floor	128	0	----	----	180	<12	<120	----	----				
floor, r9	129	0.002	----	----	180	<12	<120	----	----				
floor	130	0.005	----	2773	1560	<12	<120	----	----		yes		
floor	131	0	----	3895	<60	<12	<120	----	----				
floor	132	0	----	3961	<60	<12	<120	----	----				
floor	133	0.002	----	4357	<60	<12	<120	----	----				
floor	134	0.003	----	----	120	<12	<120	----	----				
floor	135	0.005	----	2641	300	<12	<120	----	----				
floor	136	0.002	----	1651	<60	<12	<120	----	----				
S. ceiling	137	0	513	----	<60	<12	<120	----	----				
N. ceiling	138	0	513	----	<60	<12	<120	----	----				

Equipment & Fixtures

Danley #35	3	----	2053	----	<60	<12	<120	----	----				
screen	3	----	----	----	<60	<12	<120	----	----				
multi-press 6	6	----	1411	----	<60	<12	<120	----	----				
table in front D 6	6	----	1925	----	<60	<12	<120	----	----				
shelf	6	----	----	----	<60	<12	<120	----	----				
multi-press 7	7	----	1668	----	<60	<12	<120	----	----				
shelf	9	----	----	----	<60	<12	<120	----	----				
filling cabinet	11	----	----	----	<60	<12	<120	----	----				
UED press	25	----	----	----	120	<12	<120	82246	----			yes	
power box gr30	30	----	----	----	<60	<12	<120	----	----				
air conditioner	30	----	----	----	<60	<12	<120	----	----				
wall paint gr32	32	----	----	----	----	<12	<120	----	----				
W.wall gr37	37	----	----	----	<60	<12	<120	----	----				
wall projection	40	----	----	----	<60	<12	<120	----	----				
exit sign	44	----	----	----	<60	14	<120	----	----				
long table	113	----	1668	----	<60	<12	<120	----	----				
paper cutter	123	----	----	----	<60	57	<120	----	----				
solid sample		----	----	----	----	<12	<120	----	----				
solid sample		----	----	----	----	<12	<120	----	----				
press pit		----	----	----	<60	<12	<120	88662	----			yes	
table		----	1668	----	<60	<12	<120	----	----				
table		----	770	----	<60	<12	<120	----	----				

**FIGURE 2.100
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
#1 blank press		----	2053	----	<60	<12	<120	----	----				
Denison #5		----	1411	----	<60	<12	<120	----	----				
table in front 15-2		----	1925	----	540	<12	<120	----	----				
machine 25-1		----	2181	----	<60	<12	<120	11676	----				
machine 15-1		----	----	----	<60	<12	<120	37338	----				yes
Niagara M-45		----	----	----	<60	<12	<120	----	----				
Multi-press #1		----	1411	----	360	<12	<120	----	----				
table		----	1411	----	180	<12	<120	----	----				
table		----	1411	----	----	<12	<120	----	----				
Niagara A45		----	1411	----	<60	<12	<120	----	----				
table		----	----	----	<60	<12	<120	----	----				
press K-1		----	----	----	60	<12	<120	----	----				
press K-2		----	----	----	<60	<12	<120	----	----				
press K-7		----	----	----	540	<12	<120	----	----				
press K-6		----	----	----	1920	<12	<120	----	----		yes		
press K-4		----	----	----	240	<12	<120	----	----				
pexto R-2		----	----	----	300	<12	<120	----	----				

**FIGURE 2.101
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 101, Maintenance Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Cesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.002	0	---	<60	<12	<120	---	---				
S. Wall	2	0.002	257	---	<60	<12	<120	---	---				
S. Wall	3	0.003	513	---	<60	<12	<120	---	---				
S. Wall	4	0	0	---	<60	<12	<120	---	---				
S. Wall	5	0.001	642	---	<60	<12	<120	---	---				
S. Wall	6	0.001	1026	---	<60	<12	<120	---	---				
S. Wall	7	0.005	257	---	<60	<12	<120	---	---				
E. Wall	8	0.005	385	---	<60	<12	<120	---	---				
N. Wall	9	0.005	513	---	<60	<12	<120	5132	---	X=0.2M Y=2.2M			
N. Wall	10	0.005	385	---	<60	<12	<120	---	---				
N. Wall	11	0.001	257	---	<60	<12	<120	---	---	hot spot bench 130cps			
N. Wall	12	0	257	---	<60	<12	<120	---	---				
N. Wall	13	0.001	513	---	<60	<12	<120	---	---	bench equip 56cps			
N. Wall	14	0.003	385	---	<60	<12	<120	---	---				
W. Wall	15	0.005	1026	---	<60	<12	<120	---	---				
W. Wall	16	0.006	642	---	<60	<12	<120	---	---				
floor, r1	17	0.003	898	---	<60	<12	<120	---	---				
floor	18	0.001	513	---	<60	<12	<120	---	---				
floor	19	0.005	257	---	<60	<12	<120	---	---				
floor	20	0.003	770	---	<60	<12	<120	---	---				
floor	21	0.002	513	---	<60	<12	<120	---	---				
floor	22	0.002	513	---	<60	<12	<120	---	---				
floor, r2	23	0.006	513	---	<60	<12	<120	---	---				
floor	24	0	257	---	<60	<12	<120	---	---				
floor	25	0.002	257	---	<60	<12	<120	---	---				
floor	26	0.001	513	---	<60	<12	<120	---	---				
floor	27	0.005	257	---	<60	<12	<120	---	---				
floor	28	0.003	257	---	<60	<12	<120	---	---				
W. ceiling	29	0.006	0	---	<60	<12	<120	---	---				
E. ceiling	30	0.002	513	---	<60	<12	<120	---	---				

FIGURE 2.101
SURVEY RESULTS

SAMPLE ID	A	B	GRID #	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION			LOOSE CONTAMINATION				HOT SPOTS				
					C	D	E	F	G	H	I	J	K	L	M	N
				BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)	

Equipment & Fixtures

bench	3	***	***	***	<60	<12	<120	***	***				
underside table	6	***	***	***	<60	97	<120	***	***				
back of bench	11	***	***	***	<60	<12	367	***	***				
pipe support	21	***	***	***	<60	<12	<120	***	***				
pipe E. ceiling		***	***	***	<60	<12	<120	***	***				
equip on bench		***	***	***	<60	<12	<120	***	***				

**FIGURE 2.102
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 102, Shipping

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.2	cps	1539.71	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.001	500	----	----	----	----	----	----				
S. Wall	2	0	128	----	----	----	----	----	----				
S. Wall	3	0	1026	----	<60	<12	<120	----	----				
S. Wall	4	0.001	257	----	----	----	----	----	----				
E. Wall	5	0.003	1155	----	----	----	----	----	----				
E. Wall	6	0.001	642	----	----	----	----	----	----				
E. Wall	7	0	1411	----	<60	<12	<120	----	----				
E. Wall	8	0.001	898	----	----	----	----	----	----				
N. Wall	9	0.003	411	----	----	----	----	----	----				
N. Wall	10	0.003	898	----	<60	<12	<120	----	----				
N. Wall	11	0.001	898	----	----	----	----	----	----				
W. Wall	12	0.001	128	----	----	----	----	----	----				
W. Wall	13	0	770	----	<60	<12	<120	----	----				
W. Wall	14	0	0	----	----	----	----	----	----				
floor, r1	15	0	64	----	<60	<12	<120	----	----				
floor	16	0	103	----	----	----	----	----	----				
floor	17	0	154	----	----	----	----	----	----				
floor, r2	18	0.001	257	----	----	----	----	----	----				
floor	19	0.001	192	----	----	----	----	----	----				
floor	20	0	0	----	----	----	----	----	----				
floor, r3	21	0	141	----	----	----	----	----	----				
floor	22	0	192	----	----	----	----	----	----				
floor	23	0	180	----	<60	<12	<120	----	----				
floor, r4	24	0	205	----	----	----	----	----	----				
floor	25	0.001	231	----	----	----	----	----	----				
floor	26	0.001	231	----	----	----	----	----	----				
Ceiling	27	0	141	----	<60	<12	<120	----	----				

Equipment & Fixtures

picture	7	----	----	----	<60	20	<120	----	----				
---------	---	------	------	------	-----	----	------	------	------	--	--	--	--

**FIGURE 2.102
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
cutter paper		----	----	----	<60	<12	<120	----	----				
shearer		----	----	----	<60	<12	<120	----	----				

**FIGURE 2.103
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 103, Maintenance / Machine Shop

Prepared: 5/22/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	walls	E01819	1.5	cps	1924.64 dpm/100cm ²
LB122	floor	4097	7	cps	4621.48 dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.005	642	----	----	----	----	----	----				
S wall	2	0.003	0	----	<60	<120	<12	----	----				
S wall	3	0.003	0	----	----	----	----	----	----				
S wall	4	0.003	642	----	----	----	----	----	----				
E wall	5	0.005	642	----	----	----	----	----	----				
E wall	6	0.002	642	----	<60	<120	<12	----	----				
E wall	7	0.002	385	----	----	----	----	----	----				
E wall	8	0.003	0	----	----	----	----	----	----				
N wall	9	0.004	1283	----	----	----	----	----	----				
N wall	10	0.003	642	----	----	----	----	25020	----	X=9ins Y=18ins			yes
								104572	----	X=2.8ft Y=2.18ft			yes
N wall	11	0.003	0	----	<60	<120	<12	----	----				
N wall	12	0.002	642	----	----	----	----	----	----				
W wall	13	0.004	0	----	----	----	----	----	----				
W wall	14	0.004	0	----	<60	<120	<12	----	----				
W wall	15	0.002	0	----	----	----	----	----	----				
Floor, r1	16	0.001	----	0	----	----	----	----	----				
Floor	17	0.001	----	0	----	----	----	----	----				
Floor	18	0.001	----	0	<60	<120	<12	----	----				
Floor	19	0.001	----	0	----	----	----	----	----				
Floor, r2	20	0.002	----	330	----	----	----	----	----				
Floor	21	0.002	----	330	----	----	----	----	----				
Floor	22	0.001	----	330	----	----	----	----	----				
Floor	23	0.001	----	330	----	----	----	----	----				
Floor, r3	24	0.002	----	264	----	----	----	----	----				
Floor	25	0.001	----	198	----	----	----	----	----				
Floor	26	0.001	----	198	<60	<120	<12	----	----				
Floor	27	0	----	198	----	----	----	----	----				
Floor, r4	28	0.001	----	198	----	----	----	----	----				
Floor	29	0.001	----	0	----	----	----	----	----				
Ceiling	30	0	0	----	<60	<120	<12	----	----				

**FIGURE 2.103
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

Dial Press		----	----	----	<60	<120	<12		----	----				
Duct		----	----	----	----	162	162		----	----				

**FIGURE 2.104
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 104, Die Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01826	1.5	cps	1924.64	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	0	---	<60	<12	<120	---	---				
S. Wall	2	0	0	---	---	---	---	---	---				
E. Wall	3	0.004	0	---	---	---	---	---	---				
E. Wall	4	0.002	0	---	<60	<12	<120	---	---				
E. Wall	5	0.002	0	---	---	---	---	---	---				
E. Wall	6	0.001	0	---	---	---	---	---	---				
E. Wall	7	0	0	---	---	---	---	---	---				
N. Wall	8	0.002	0	---	---	---	---	---	---				
N. Wall	9	0.002	0	---	<60	<12	<120	39134	---	X=1.0M Y=0.7M			yes
W. Wall	10	0.002	0	---	---	---	---	---	---				
W. Wall	11	0.001	898	---	---	---	---	---	---				
W. Wall	12	0	898	---	<60	<12	<120	37851	---	cabinets			yes
W. Wall	13	0	5774	---	---	---	---	25020	---	cabinets		yes	yes
W. Wall	14	0.001	898	---	---	---	---	---	---				
Ceiling	15	0	0	---	---	---	---	---	---				
Floor, r1	16	0	1026	---	---	---	---	---	---				
Floor	17	0.001	1283	---	---	---	---	---	---				
Floor, r2	18	0.001	1925	---	---	---	---	---	---				
Floor	19	0.001	898	---	<60	<12	<120	---	---				
Floor, r3	20	0.003	642	---	---	---	---	---	---				
Floor	21	0.001	1925	---	<60	<12	<120	---	---				
Floor, r4	22	0.004	1283	---	---	---	---	---	---				
Floor	23	0.001	257	---	---	---	---	---	---				
Floor, r5	24	0.002	642	---	---	---	---	---	---				
Floor	25	0.003	898	---	---	---	---	10906	---	X=1.2M Y=1.8M			
ceiling	26	---	---	---	<60	<12	<120	---	---				

Equipment & Fixtures

Hot spot	3	---	---	---	<60	<12	<120	---	---				
Hot spot	4	---	---	---	<60	<12	<120	---	---				

FIGURE 2.104
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Hot spot	9	----	----	----	<60	<12	<120	----	----				
Upper cabinet	12	----	----	----	<60	<12	<120	----	----				
Lower cabinet	12	----	----	----	<60	140	<120	----	----				
Cabinet	13	----	----	----	<60	<12	<120	----	----				
Cabinet	13	----	----	----	<60	<12	<120	----	----				
Cabinet	13	----	----	----	<60	<12	<120	----	----				
Cabinet	14	----	----	----	<60	<12	<120	----	----				
N edge	20	----	----	----	<60	<12	<120	----	----				
solid sample		----	----	----	----	<12	<120	----	----				
center press		----	----	----	<60	31	<120	82760	----				yes



Main Building Room #105
Contaminated Cabinets

The number # 89 was not attributed to any room in the building.

The number # 90 was not attributed to any room in the building.

**FIGURE 2.105
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 105, Automatic Spray Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	wall	E2176	1.5	cps	1924.64	dpm/100cm ²
LB122	floor	4097	2.80	cps	1848.59	dpm/100cm ²
BICRON	all	B421S	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	1283	----	----	----	----	----	----				
S. Wall	2	0	642	----	<60	<12	<120	----	----				
S. Wall	3	0.001	0	----	----	----	----	----	----				
S. Wall	4	0.001	0	----	----	----	----	----	----				
S. Wall	5	0.001	0	----	----	----	----	----	----				
E. Wall	6	0	0	----	----	----	----	----	----				
E. Wall	7	0	642	----	<60	<12	<120	----	----				
E. Wall	8	0.001	0	----	----	----	----	----	----				
N. Wall	9	0.001	0	----	----	----	----	----	----				
N. Wall	10	0.001	642	----	----	----	----	----	----				
N. Wall	11	0.001	0	----	<60	<12	<120	----	----				
W. Wall	12	0.002	0	----	----	----	----	----	----				
W. Wall	13	0.001	0	----	<60	<12	<120	----	----				
W. Wall	14	0.001	642	----	----	----	----	----	----				
W. Wall	15	0	642	----	----	----	----	----	----				
Floor, r1	16	0.001	----	0	----	----	----	----	----				
Floor	17	0.002	----	0	----	----	----	----	----				
Floor	18	0.004	----	0	----	----	----	----	----				
Floor, r2	19	0.001	----	0	----	----	----	----	----				
Floor	20	0.001	----	0	----	----	----	----	----				
Floor	21	0.002	----	132	<60	<12	<120	----	----				
Floor, r3	22	0.001	----	0	----	----	----	----	----				
Floor	23	0.001	----	132	----	----	----	----	----				
Floor	24	0	----	132	----	----	----	----	----				
Floor, r4	25	0.001	----	132	----	----	----	----	----				
Floor	26	0.002	----	0	----	----	----	----	----				
Floor	27	0.003	----	0	----	----	----	----	----				
Floor, r5	28	0.002	----	132	<60	<12	<120	----	----				
Floor	29	0.002	----	462	----	----	----	----	----				
Floor	30	0.002	0	792	----	----	----	----	----				
Ceiling	31	0.003	385	----	<60	<12	<120	----	----				

**FIGURE 2.106
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 106, Screen Line

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	wall	E01819	1.5	cps	1924.64	dpm/100cm ²
LB122	Floor	428	6	cps	3697.18	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A SAMPLE ID	B GRID #	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L LOOSE > 1,000 (dpm/100cm ²)	M AVERAGE > 5,000 (dpm/100cm ²)	N HOT SPOT > 15,000 (dpm/100cm ²)
		C BICRON (mrem/h)	D HP260 (dpm/100cm ²)	E LB122 (dpm/100cm ²)	F TRITIUM (dpm/100cm ²)	G ALPHA (dpm/100cm ²)	H BETA (dpm/100cm ²)	I HP260 (dpm/100cm ²)	J LB122 (dpm/100cm ²)	K DESCRIPTION			
S W Corner	1	0.001	385	----	<60	<12	<120	----	----				
S Wall	2	0	385	----	<60	<12	<120	----	----				
S Wall	3	0	128	----	<60	<12	<120	----	----				
S Wall	4	0	385	----	<60	<12	<120	----	----				
S Wall	5	0.003	1283	----	<60	<12	<120	----	----				
E Wall	6	0.001	385	----	<60	<12	<120	----	----				
E Wall	7	0.001	128	----	<60	<12	<120	----	----				
E Wall	8	0.002	1283	----	<60	<12	<120	5774	----	x=2m, y=0.5m			
E Wall	9	0.001	1283	----	<60	<12	<120	23737	----	x=1m y=1m			yes
								10906	----	1.8m y=0.5m			
								67363	----	x=1.8 y=0.8m			yes
E Wall	10	0.002	385	----	<60	<12	<120	57098	----	x=0.5m y=1.0m			yes
E Wall	11	0.001	128	----	<60	<12	<120	----	----				
E Wall	12	0.003	128	----	<60	<12	<120	----	----				
E Wall	13	0.002	385	----	<60	<12	<120	----	----				
E Wall	14	0.003	642	----	<60	<12	<120	----	----				
E Wall	15	0.005	1283	----	<60	<12	<120	22454	----	x=0.2m y=0.5m			yes
E Wall	16	0	----	----	<60	<12	<120	1925	----	x=0m y=1.0m			
E Wall	17	0.001	2586	----	<60	<12	<120	----	----				
N Wall	18	0.003	1283	----	<60	<12	<120	----	----				
N Wall	19	0.003	513	----	<60	<12	<120	203371	----	pipe			yes
N Wall	20	0.004	0	----	<60	<12	<120	----	----				
N Wall	21	0	0	----	<60	<12	<120	21171	----	x=5ft y=1ft			yes
N Wall	22	0.003	1283	----	<60	<12	<120	----	----				
N Wall	23	0.003	0	----	<60	<12	<120	----	----				
W Wall	24	0.003	0	----	<60	<12	<120	----	----				
W Wall	25	0	0	----	<60	<12	<120	----	----				
W Wall	26	0	642	----	<60	<12	<120	----	----				
W Wall	27	0	0	----	<60	<12	<120	----	----				
W Wall	28	0	0	----	<60	<12	<120	0	----				
W Wall	29	0.001	0	----	<60	<12	<120	----	----				
W Wall	30	0	1283	----	<60	<12	<120	----	----				
W Wall	31	0	0	----	<60	<12	<120	----	----				

**FIGURE 2.106
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
W Wall	32	0.001	0	----	<60	<12	<120	----	----				
W Wall	33	0.001	0	----	<60	<12	<120	----	----				
W Wall	34	0.001	642	----	<60	<12	<120	----	----				
Floor, r1	35	0.001	----	924	<60	<12	<120	----	----				
Floor	36	0	----	0	<60	<12	<120	----	----				
Floor	37	0.002	----	0	<60	<12	<120	----	----				
Floor	38	0.002	----	0	<60	<12	<120	----	----				
Floor	39	0.001	----	0	<60	<12	<120	----	----				
Floor, r2	40	0.002	----	0	<60	<12	<120	----	----				
Floor	41	0.003	----	0	<60	<12	<120	----	----				
Floor	42	0	----	0	<60	<12	<120	----	----				
Floor	43	0	----	0	<60	<12	<120	----	----				
Floor	44	0.002	----	0	<60	<12	<120	----	----				
Floor, r3	45	0	----	462	<60	<12	<120	----	17430	x=0.5m y=2.0m			yes
Floor	46	0	----	330	<60	<12	<120	----	----				
Floor	47	0.001	----	0	<60	<12	<120	----	----				
Floor	48	0	----	0	<60	<12	<120	----	----				
Floor	49	0.002	----	0	<60	<12	<120	----	----				
Floor	49	0	----	1717	<60	<12	<120	----	----				
Floor, r4	50	0.002	----	0	<60	<12	<120	----	----				
Floor	51	0.003	----	0	<60	<12	<120	----	----				
Floor	52	0.001	----	0	<60	<12	<120	----	----				
Floor	53	0	----	0	<60	<12	<120	----	----				
Floor	54	0.001	----	1188	<60	<12	<120	----	----				
Floor, r5	55	0.001	----	264	<60	<12	<120	----	----				
Floor	56	0	----	2245	<60	<12	<120	----	----				
Floor	57	0.001	----	264	<60	<12	<120	----	----				
Floor	58	0	----	264	<60	<12	<120	----	----				
Floor	59	0	----	198	<60	<12	<120	----	----				
Floor, r6	60	0	----	264	<60	<12	<120	----	----				
Floor	61	0	----	0	<60	<12	<120	----	----				
Floor	62	0	----	264	<60	<12	<120	----	----				
Floor	63	0	----	198	<60	<12	<120	----	----				
Floor	64	0	----	0	<60	<12	<120	----	----				
Floor, r7	65	0.003	----	0	<60	<12	<120	----	----				
Floor	66	0	----	0	<60	<12	<120	----	----				
Floor	67	0	----	0	<60	<12	<120	----	----				
Floor	68	0	----	0	<60	<12	<120	----	----				
Floor	69	0.001	----	0	<60	<12	<120	----	----				
Floor, r8	70	0.001	----	66	<60	<12	<120	----	----				
Floor	71	0	----	0	<60	<12	<120	----	----				
Floor	72	0.002	----	0	300	<12	<120	----	----				
Floor	73	0.001	----	0	180	<12	<120	----	----				
Floor	74	0	----	0	<60	<12	<120	----	----				
Floor, r9	75	0	----	0	<60	<12	<120	----	----				

**FIGURE 2.106
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	76	0.001	----	0	<60	<12	<120	----	----				
Floor	77	0.002	----	0	<60	<12	<120	----	----				
Floor	78	0.003	----	0	<60	<12	<120	----	----				
Floor, r10	79	0	----	0	<60	<12	<120	----	----				
Floor	80	0	----	0	<60	<12	<120	----	----				
Floor	81	0.003	----	0	<60	<12	<120	----	----				
Floor	82	0	----	0	<60	<12	<120	----	----				
Floor, r11	83	0.002	----	0	<60	<12	<120	----	----				
Floor	84	0	----	0	<60	<12	<120	----	----				
Floor	85	0	----	0	<60	<12	<120	----	----				
Floor	86	0.001	----	0	<60	<12	<120	----	----				
Floor	87	0	----	0	<60	<12	<120	----	----				
Floor	88	0.001	----	0	<60	<12	<120	----	----				
Floor, r12	89	----	----	0	<60	<12	<120	----	----				
Floor	90	0.002	----	0	<60	<12	<120	----	----				
Floor	91	0.003	----	0	<60	<12	<120	----	----				
Floor	92	0.001	----	0	<60	<12	<120	----	----				
Floor	93	0.004	----	0	4020	<12	<120	----	----		yes		
Floor	94	0.006	----	0	<60	<12	<120	----	----				
Floor, r13	95	0.003	----	0	<60	<12	<120	----	----				
Floor	96	0.002	----	0	<60	<12	<120	----	----				
S Ceiling	97	0.001	513	----	<60	<12	<120	----	----				
E Ceiling	98	0	513	----	<60	<12	<120	----	----				
N Ceiling	99	0	257	----	<60	<12	<120	----	----				
W Ceiling	100	0	0	----	<60	<12	<120	----	----				

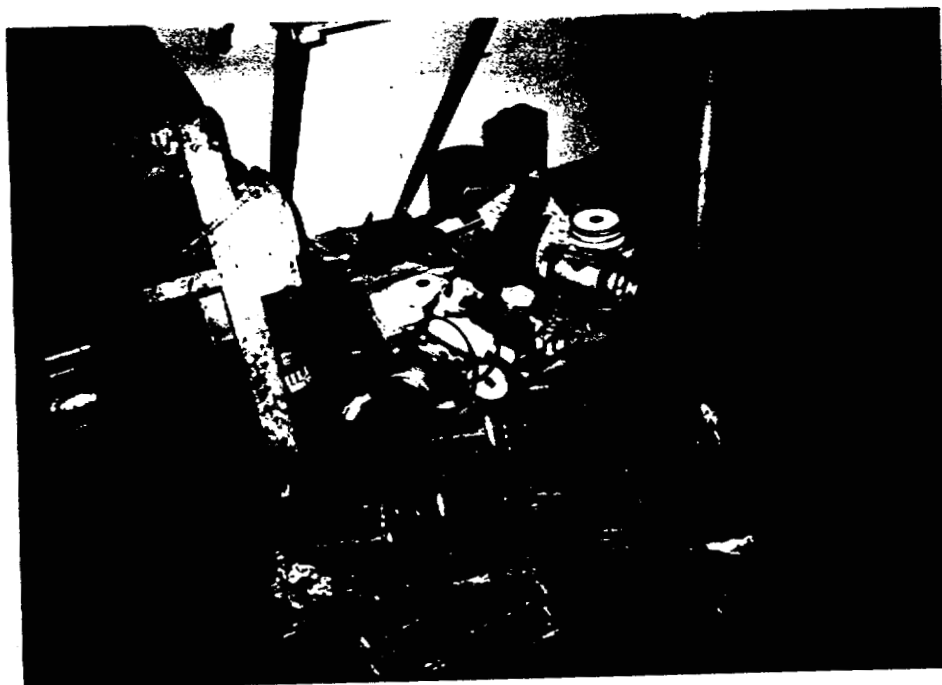
Pipe	2	----	----	----	<60	<12	<120	----	----				
Hot spot	8	----	----	----	<60	<12	<120	----	----				
Hot spot	9	----	----	----	<60	<12	<120	----	----				
Hot spot	9	----	----	----	<60	<12	<120	----	----				
Hot spot	9	----	----	----	<60	<12	<120	----	----				
Hot spot	10	----	----	----	<60	<12	<120	----	----				
Hot spot	15	----	----	----	<60	<12	<120	----	----				
Hot spot	16	----	----	----	<60	<12	<120	----	----				
Hot spot	21	----	----	----	<60	<12	<120	----	----				
Ductwork		----	----	----	<60	<12	<120	----	----				
Solid sample		----	----	----	----	<12	<120	----	----				
Pipe N. wall		----	----	----	<60	<12	<120	----	----				
Solvent drum		0	0	----	<60	<12	<120	----	----				
Press		0	0	----	<60	<12	<120	----	----				
Screening machine		0.001	0	----	<60	<12	<120	----	----				

FIGURE 2.106
SURVEY RESULTS

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION				HOT SPOTS				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Coil line		0.002	0	****	<60	<12	<120	****	****				
Coil line bed		0	0	****	<60	<12	<120	****	****				
Electrical box		0.001	0	****	<60	<12	<120	****	****				
Rack		0.001	0	****	<60	<12	<120	****	****				
Fan		0	1283	****	<60	<12	<120	****	****				



Main Building Room #107
Contaminated Oven



Main Building Room #107
Tools and Equipment on Floor around well.

**FIGURE 2.107
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 107

Prepared: 5/22/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1	cps	1283.10	dpm/100cm ²
LB122	floor	4097	10	cps	6602.11	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S W Corner	1	0.004	513	----	<60	<12	<120	12831	----	X=2.25m Y=1.0m			yes
S Wall	2	0.003	0	----	<60	<12	<120	43625	----	X=1.0m Y=1.0m			
S Wall	3	0.004	257	----	<60	<12	<120	----	----				
S Wall	4	0.003	385	----	<60	<12	<120	----	----				
E Wall	5	0.003	128	----	<60	<12	<120	----	----				
E Wall	6	0.003	128	----	<60	<12	<120	----	----				
E Wall	7	0.001	0	----	<60	<12	<120	----	----				
N Wall	8	0.002	128	----	<60	<12	<120	----	----				
N Wall	9	0.002	128	----	<60	<12	<120	----	----				
N Wall	10	0.001	642	----	<60	<12	<120	----	----				
W Wall	11	0.005	642	----	<60	<12	<120	----	----				
W Wall	12	0	0	----	<60	<12	<120	----	----				
W Wall	13	0.003	513	----	<60	<12	<120	----	----				
floor, r	14	0.002	----	132	<60	<12	<120	----	----			yes	
floor	15	0.003	----	6602	<60	<12	<120	----	----				
floor	16	0.001	----	0	<60	<12	<120	----	----				
floor	17	0	----	594	<60	<12	<120	----	----				
floor, r2	18	0.001	----	0	<60	<12	<120	----	----				
floor	19	0.001	----	0	<60	<12	<120	----	----				
floor	20	0.001	----	3301	<60	<12	<120	----	----				
floor	21	0.001	----	0	<60	<12	<120	----	----				
floor, r3	22	0.003	----	858	<60	<12	<120	----	----				
floor	23	0.001	----	0	<60	<12	<120	----	----				
floor	24	0	----	0	<60	<12	<120	----	----				
floor	25	0.001	----	528	<60	<12	<120	----	----				
ceiling	26	0.004	513	----	<60	<12	<120	8084	----				
ceiling	27	----	----	----	<60	<12	<120	----	----				

Equipment & Fixtures

grinder	14	----	513	----	<60	<12	<120	----	----				
---------	----	------	-----	------	-----	-----	------	------	------	--	--	--	--

**FIGURE 2.107
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
polisher	15	----	1026	----	----	<12	<120	1026	----					
grinder	17	----	1283	----	<60	<12	<120	29511	----					yes
oven	21	----	----	6602	<60	<12	<120	246354	----				yes	yes

FIGURE 2.108 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 108, Tool & Die Shop

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E01826	1.2	cps	1539.71	dpm/100cm ²
LB122	Floor	1485	12	cps	7922.54	dpm/100cm ²
BICRON	all	B708T	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.005	0	----	<60	<12	<120	----	----				
S. Wall	2	0.001	0	----	<60	<12	<120	----	----				
S. Wall	3	0	128	----	<60	<12	<120	----	----				
E. Wall	4	0.001	642	----	<60	<12	<120	----	----				
E. Wall	5	0.001	0	----	120	<12	<120	----	----				
E. Wall	6	0.001	0	----	8940	<12	<120	----	----		yes		
E. Wall	7	0	0	----	240	<12	<120	----	----				
E. Wall	8	0	0	----	60	<12	<120	----	----				
N. Wall	9	0	1411	----	60	<12	<120	----	----				
N. Wall	10	0	1925	----	180	<12	<120	----	----				
N. Wall	11	0.003	1411	----	<60	<12	<120	----	----				
N. Wall	12	0.002	128	----	900	<12	<120	----	----				
W. Wall	13	0.001	898	----	780	<12	<120	----	----				
W. Wall	14	0.001	642	----	600	<12	<120	----	----				
W. Wall	15	0	770	----	120	<12	<120	----	----				
W. Wall	16	0.003	1155	----	420	<12	<120	40802	----	against wall			yes
W. Wall	17	0.002	1155	----	300	<12	<120	----	----				
Floor, r1	18	0.001	13857	----	120	<12	<120	----	----			yes	
Floor	19	0.001	12574	----	480	<12	<120	----	----			yes	
Floor	20	0.003	13857	----	960	<12	<120	----	----			yes	
Floor, r2	21	0	12574	----	60	<12	<120	----	----			yes	
Floor	22	0.002	12574	----	<60	<12	<120	----	----			yes	
Floor	23	0	12574	----	<60	<12	<120	----	----			yes	
Floor, r3	24	0	13986	----	120	<12	<120	----	----			yes	
Floor	25	0	13729	----	120	<12	<120	----	----			yes	
Floor	26	0.001	13088	----	800	<12	<120	----	----			yes	
Floor, r4	27	----	----	----	<60	<12	<120	----	----				
Floor	28	----	----	----	240	<12	<120	----	----				
Floor	29	0.001	13986	----	180	<12	<120	----	----	Equipment in way		yes	
Floor, r5	30	----	----	----	240	<12	<120	----	----				
Floor	31	----	----	----	120	<12	<120	----	----				
Floor	32	----	----	----	<60	<12	<120	----	----				
ceiling	33	0.002	642	----	<60	<12	<120	----	----				

**FIGURE 2.108
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

mill	18	----	385	----	<60	<12	<120	----	----					
lathe	19	----	898	----	<60	<12	<120	----	----					
vice	20	----	642	----	<60	<12	<120	----	----					
vice	21	----	128	----	<60	<12	<120	----	----					
drill press	25	----	----	----	<60	<12	<120	----	----					
door	29	----	128	----	<60	<12	<120	----	----					
cutting desk	31	----	----	----	<60	<12	<120	----	----					
grinder	32	----	----	----	<60	<12	<120	----	----					
wheeled table		----	----	----	<60	<12	<120	----	----					

The number # 109 was not attributed to any room in the building.

**FIGURE 2.110
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 110

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E01826	1.5	cps	1924.64	dpm/100cm ²
LB122	Floor		6.0	cps	3961.27	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0.004	1283	----	<60	<12	<120	----	----				
S Wall	2	0	1925	----	<60	<12	<120	7057	----	x=4ft y=5ft			
S Wall	3	0	1925	----	<60	<12	<120	----	----				
E Wall	4	0	642	----	<60	<12	<120	----	----				
E Wall	5	0	642	----	<60	<12	<120	----	----				
N Wall	6	0	1283	----	<60	<12	<120	----	----				
N Wall	7	0	1925	----	<60	<12	<120	----	----				
N Wall	8	0.013	1796	----	<60	<12	<120	----	----				
W Wall	9	0.004	2310	----	<60	<12	<120	----	----				
W Wall	10	0	642	----	<60	<12	<120	----	----				
Floor, rt	11	0.003	----	726	<60	<12	<120	----	----				
Floor	12	0.001	----	0	<60	<12	<120	----	----				
Floor	13	0	----	----	<60	<12	<120	----	----				
Floor	14	0.001	----	132	<60	<12	<120	----	----				
Floor	15	0.004	----	132	<60	<12	<120	----	----				
Floor	16	0.006	----	726	<60	<12	<120	----	----				
ceiling	17	0	0	----	<60	<12	<120	----	----				

**FIGURE 2.111
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 111, Floor Supervisor's Office

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.6	cps	2052.95	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.001	0	----	<60	<12	<120	----	----				
S. Wall	2	0	0	----	<60	<12	<120	----	----				
E. Wall	3	0.002	0	----	<60	<12	<120	----	----				
E. Wall	4	0.004	770	----	<60	<12	<120	----	----				
N. Wall	5	0.004	1155	----	<60	<12	<120	----	----				
N. Wall	6	0.003	1155	----	<60	<12	<120	----	----				
W. Wall	7	0	1283	----	<60	<12	<120	----	----				
W. Wall	8	0.002	770	----	<60	<12	<120	----	----				
Floor, r1	9	0.003	513	----	<60	<12	<120	----	----				
Floor	10	0	770	----	<60	<12	<120	----	----				
Floor, r2	11	0	257	----	<60	<12	<120	----	----				
Floor	12	0	1155	----	<60	<12	<120	----	----				
S. ceiling	13	0.001	898	----	<60	<12	<120	----	----				
N. ceiling	14	0	1155	----	<60	<12	<120	----	----				
center ceiling	15	----	----	----	<60	<12	<120	----	----				

Equipment & Fixtures

door	4	----	----	----	<60	<12	<120	----	----				
wood chair	7	----	----	----	<60	<12	<120	----	----				
solid sample		----	----	----	----	<12	<120	----	----				

**FIGURE 2.112
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 112, Meeting Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.5	cps	1924.64	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.004	0	---	<60	<12	<120	---	---				
S. Wall	2	0	0	---	<60	<12	<120	---	---				
S. Wall	3	0.001	1026	---	<60	<12	<120	---	---				
E. Wall	4	0.002	1925	---	<60	<12	<120	---	---				
E. Wall	5	0.003	1026	---	<60	<12	<120	---	---				
N. Wall	6	0.002	0	---	<60	<12	<120	---	---				
N. Wall	7	0.004	3208	---	<60	<12	<120	---	---				
N. Wall	8	0.001	642	---	<60	<12	<120	---	---				
W. Wall	9	0.004	385	---	<60	<12	<120	---	---				
W. Wall	10	0	898	---	<60	<12	<120	---	---				
Floor, r1	11	0.001	385	---	<60	<12	<120	---	---				
Floor	12	0.003	898	---	<60	<12	<120	---	---				
Floor, r2	13	0.005	385	---	<60	<12	<120	---	---				
Floor	14	0.007	642	---	<60	<12	<120	---	---				
W. ceiling	15	0.004	385	---	<60	<12	<120	---	---				
E. ceiling	16	0.003	770	---	<60	<12	<120	---	---				

Equipment & Fixtures

window sill	2	---	---	---	<60	<12	<120	---	---				
ceiling vent	9	---	---	---	<60	<12	<120	---	---				

FIGURE 2.113A SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 113, West Hall A

Prepared: 5/22/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	all	E01826	2	cps	2566.19	dpm/100cm ²
LB122	floor	1485	8	cps	5281.69	dpm/100cm ²
BICRON	all	B708T	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW Corner	1	0.002	526	----	<60	<12	<120	----	----				
W Wall	2	0.002	180	----	<60	<12	<120	2951	----	x=.33m y=.88m railing			
W Wall	3	0	180	----	<60	<12	<120	----	----				
E Wall	4	0	115	----	120	<12	<120	----	----				
E Wall	5	0	257	----	<60	<12	<120	----	----				
E Wall	6	0	1065	----	<60	<12	<120	----	----				
N Wall	7	0.001	1450	----	<60	<12	<120	----	----				
W Wall	8	0.001	205	----	<60	<12	<120	----	----				
landing	9	0.002	----	264	120	<12	<120	23096	----	x=2cm y=5cm w corner			yes
stairs	10	0.002	----	1320	3180	<12	<120	----	----		yes		
ceiling	11	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

pipe on ceiling	12	----	0	----	<60	<12	<120	----	----				
-----------------	----	------	---	------	-----	-----	------	------	------	--	--	--	--

FIGURE 2.113B SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 113, Hallway B

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	F01826	1.5	cps	1924.64	dpm/100cm ²
LB122	Floor	1485	9	cps	5941.90	dpm/100cm ²
BICRON	all	B708T	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW Corner	1	0.004	---	---	---	<12	<120	---	---				
E Wall	2	0.004	731	---	<60	<12	<120	422780	---	x=1m y=.5			yes
E Wall	3	0.003	2104	---	<60	<12	<120	---	---				
E Wall	4	0.002	1655	---	<60	<12	<120	---	---				
E Wall	5	0.002	1386	---	<60	<12	<120	---	---				
E Wall	6	0	731	---	<60	<12	<120	---	---				
N Wall	7	0	334	---	<60	<12	<120	---	---				
W Wall	8	0	949	---	<60	<12	<120	---	---				
W Wall	9	0.001	1591	---	<60	<12	<120	---	---				
W Wall	10	0.002	1950	---	<60	<12	<120	---	---				
W Wall	11	0.002	1501	---	<60	<12	<120	---	---				
W Wall	12	0.004	1655	---	<60	<12	<120	---	---				
Floor	15	0.001	---	660	<60	<12	<120	---	---				
Floor	14	0.001	---	660	<60	<12	<120	---	---				
Floor	13	0.003	---	0	60	<12	<120	---	---				
stairs	16	0.004	---	1320	240	<12	<120	---	---				
ceiling	17	0	860	---	<60	<12	<120	---	---				
ceiling	18	0.003	924	---	<60	<12	<120	---	---				

Figure 2.4.113C SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 113, Hallway C

Prepared: 5/28/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	walls	E01826	2	cps	2566.19	dpm/100cm ²
LB122	Floor	1485	8	cps	5281.69	dpm/100cm ²
BICRON	all	B708T	0.11	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW Corner	1	0	---	---	<60	<12	<120	---	---				
E Wall	2	0	719	---	<60	<12	<120	---	---				
E Wall	3	0	346	---	---	<12	<120	---	---				
E Wall	4	0	180	---	<60	<12	<120	4760	---	top of rail			
E Wall	5	0	911	---	<60	<12	<120	---	---				
N Wall	6	0	1771	---	<60	<12	<120	---	---				
W Wall	7	0	962	---	<60	<12	<120	---	---				
W Wall	8	0.001	2720	---	<60	<12	<120	---	---				
W Wall	9	0	346	---	<60	<12	<120	3169	---	top of rail			
Floor	10	0.001	---	0	<60	<12	<120	---	---				
stairs	11	0	---	0	<60	<12	<120	---	---				
ceiling	12	0	0	---	<60	<12	<120	---	---				

FIGURE 2.114 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 114

Prepared: 5/28/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	walls	E1826	1.5	cps	1924.64	dpm/100cm ²
LB122	Floor		6	cps	3631.16	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW Corner	1	0	1283	----	<60	<12	<120	----	----				
S Wall	2	0	642	----	<60	<12	<120	----	----				
S Wall	3	0.002	0	----	<60	<12	<120	----	----				
E Wall	4	0.001	642	----	<60	<12	<120	----	----				
E Wall	5	0	1925	----	<60	<12	<120	39134	----	x=1ft y=2ft			yes
								26303	----	x=3ft 3ft door			yes
N Wall	6	0	1283	----	<60	<12	<120	----	----				
N Wall	7	0.002	642	----	<60	<12	<120	----	----				
N Wall	8	0.002	642	----	<60	<12	<120	----	----				
W Wall	9	0.002	642	----	<60	<12	<120	----	----				
W Wall	10	0.001	642	----	<60	<12	<120	----	----				
W Wall	11	0.003	642	----	<60	<12	<120	----	----				
Floor, r1	12	0.002	----	0	<60	<12	<120	----	----				
Floor	13	0.002	----	66	<60	<12	<120	----	----				
Floor	14	0.002	----	132	<60	<12	<120	----	----				
Floor, r2	15	0.001	----	0	<60	<12	<120	----	----				
Floor	16	0.002	----	528	<60	<12	<120	----	----				
Floor	17	0.003	----	330	<60	<12	<120	----	----				
Floor, r3	18	0.001	----	0	<60	<12	<120	----	----				
Floor	19	0.003	----	0	<60	<12	<120	----	----				
Floor	20	0.003	----	66	<60	<12	<120	----	----				
ceiling	21	0	1925	----	<60	<12	<120	----	----				

Equipment & Fixtures

hot spot	5	----	----	----	<60	<12	<120	----	----				
hot spot	5	----	----	----	<60	<12	<120	----	----				
S wall cabinet		0.002	642	----	<60	<12	<120	----	----				
W wall cabinet		0.001	1283	----	<60	<12	<120	----	----				
N wall cabinet		0.001	0	----	<60	<12	<120	----	----				

**FIGURE 2.115
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 115

Prepared: 5/28/96

Box 1

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

Background					
Instrument	Location	Serial #	Average Background		
HP260	all	E01819	2	cps	2566.19 dpm/100cm ²
LB122	none	----	----	cps	---- dpm/100cm ²
BICRON	all	B708T	0.09	uSv/h	0.01 mrem/h

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0.002	513	----	<60	<12	<120	----	----				
S Wall	2	0.002	257	----	----	----	----	----	----				
S Wall	3	0.002	898	----	----	----	----	----	----				
E Wall	4	0.001	257	----	<60	<12	<120	----	----				
E Wall	5	0.002	642	----	----	----	----	----	----				
N Wall	6	0.002	898	----	----	----	----	----	----				
N Wall	7	0.002	513	----	<60	<12	<120	----	----				
N Wall	8	0.003	770	----	----	----	----	----	----				
N Wall	9	0.002	0	----	<60	<12	<120	----	----				
W Wall	10	0.003	642	----	----	----	----	----	----				
W Wall	11	0	1283	----	<60	<12	<120	----	----				
Floor, r1	12	0.003	1283	----	----	----	----	----	----				
Floor	13	0.002	1283	----	420	<12	<120	11548	----	x=1.6m y=0.1m			
Floor	14	0.001	1283	----	----	----	----	----	----				
Floor, r2	15	0.001	513	----	420	<12	<120	----	----				
Floor	16	0.001	257	----	----	----	----	----	----				
Floor	17	0.002	1026	----	----	----	----	----	----				
Floor, r3	18	0.002	642	----	720	<12	<120	6415	----	x=0m y=1.5m			
Floor	19	0.003	1925	----	----	----	----	----	----				
ceiling	20	0	0	----	----	----	----	----	----				

Equipment & Fixtures

Pipes on Ceiling		----	----	----	<60	<12	<120	----	----				
Centre Sinks		----	----	----	<60	<12	<120	----	----				
Window sill	10	----	----	----	<60	<12	<120	----	----				
hot spot	13	----	----	----	240	46	<120	----	----				

**FIGURE 2.116
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 116

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	905	1.5	cps	1924.64	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW Corner	1	0.002	757	----	<60	<12	<120	----	----				
S Wall	2	0.003	103	----	<60	<12	<120	----	----				
E Wall	3	0.002	141	----	<60	<12	<120	----	----				
S Wall	4	0.001	590	----	<60	<12	<120	----	----				
S Wall	5	0.001	0	----	<60	<12	<120	----	----				
N Wall	6	0	0	----	<60	<12	<120	----	----				
N Wall	7	0	0	----	<60	<12	<120	----	----				
E Wall	8	0	0	----	<60	<12	<120	----	----				
N Wall	9	0.003	411	----	<60	<12	<120	----	----				
N Wall	10	0.002	0	----	<60	<12	<120	----	----				
W Wall	11	0.002	180	----	<60	<12	<120	----	----				
W Wall	12	0.002	436	----	<60	<12	<120	----	----				
Floor, r1	13	0.004	731	----	<60	<12	<120	----	----				
Floor	14	0.002	449	----	120	<12	<120	----	----				
ceiling	15	0	13	----	<60	<12	<120	----	----				

**FIGURE 2.117
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 117, Acid Etching Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
E Wall	1	0.002	642	---	<60	<12	<120	---	---				
E Wall	2	0.003	0	---	---	---	---	---	---				
E Wall	3	0.002	0	---	---	---	---	---	---				
E Wall	4	0.001	642	---	---	---	---	---	---				
E Wall	5	0	0	---	---	---	---	---	---				
E Wall	6	0.001	642	---	<60	<12	<120	---	---				
E Wall	7	0.001	0	---	---	---	---	---	---				
E Wall	8	0.001	0	---	---	---	---	---	---				
E Wall	9	0.004	0	---	---	---	---	---	---				
N Wall	10	0.004	0	---	<60	<12	<120	---	---				
Floor, r1	11	0	1283	---	180	<12	<120	---	---				
Floor, r2	12	0	642	---	---	---	---	---	---				
Floor	13	0	0	---	<60	<12	<120	---	---				
Floor, r3	14	0	642	---	---	---	---	---	---				
Floor	15	0.002	642	---	---	---	---	---	---				
Floor, r4	16	0.001	642	---	---	---	---	---	---				
Floor	17	0.002	642	---	---	---	---	---	---				
Floor, r5	18	0	385	---	---	---	---	---	---				
Floor, r6	19	0	642	---	<60	<12	<120	---	---				
Floor, r7	20	0.001	0	---	---	---	---	---	---				
Floor, r8	21	0.001	0	---	---	---	---	---	---				
Floor, r9	22	0.001	642	---	---	---	---	---	---				
Floor, r10	23	0.002	642	---	<60	<12	<120	---	---				
Floor	24	0.002	128	---	<60	<12	<120	---	---				

Equipment & Fixtures

ceiling	25	0	257	---	<60	<12	<120	---	---				
drain		---	---	---	<60	<12	<120	---	---				
elec box		---	---	---	<60	<12	<120	---	---				
fan sw wall		---	---	---	<60	<12	<120	---	---				

The number # 118 was not attributed to any room in the building.

FIGURE 2.119 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 119, Sand Blasting room

Prepared: 5/22/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	all	E01819	1.2	cps	1539.71 dpm/100cm ²
LB122	none	---	---	cps	---
BICRON	all	B421S	0.07	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Caesium-137	Present	Present
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
W wall	1	0	128	---	<60	<12	<120	---	---				
W wall	2	0	0	---	---	---	---	---	---				
N wall	3	0.001	0	---	<60	<12	<120	---	---				
N wall	4	0.002	0	---	---	---	---	---	---				
E wall	5	0	257	---	---	---	---	---	---				
E wall	6	0	0	---	<60	<12	<120	---	---				
S wall	7	0	0	---	---	---	---	---	---				
S wall	8	0.001	0	---	---	---	---	---	---				
Floor	9	---	---	---	<60	<12	<120	---	---				

**FIGURE 2.120
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 120, Lunch Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	F01819	1.2	cps	1539.71	dpm/100cm ²
LB122	floor		5	cps	3301.06	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.001	0	----	----	----	----	----	----				
S wall	2	0.004	128	----	<60	<12	<120	----	----				
S wall	3	0.002	257	----	----	----	----	----	----				
E wall	4	0	0	----	----	----	----	----	----				
E wall	5	0.002	385	----	<60	<12	<120	----	----				
S wall	6	0.001	385	----	<60	<12	<120	1668	----	bottem edge molding			
S wall	7	0.001	128	----	----	----	----	----	----				
S wall	8	0	513	----	----	----	----	----	----				
E wall	9	0	257	----	<60	<12	<120	----	----				
E wall	10	0.004	385	----	----	----	----	----	----				
Swall	11	0.001	1283	----	<60	<12	<120	----	----				
E wall	12	0	385	----	----	----	----	----	----				
E wall	13	0	257	----	<60	<12	<120	----	----				
E wall	14	0	128	----	----	----	----	----	----				
N wall	15	0	1925	----	----	----	----	----	----				
N wall	16	0	1925	----	----	----	----	----	----				
N wall	17	0.001	2053	----	<60	<12	<120	----	----				
N wall	18	0	1925	----	----	----	----	24122	----	windowpane			yes
N wall	19	0	1283	----	----	----	----	4491	----	heating pipe			
N wall	20	0.002	1540	----	----	----	----	2951	----	window ledge			
W wall	21	0.002	1925	----	<60	<12	<120	----	----				
W wall	22	0.002	2181	----	----	----	----	----	----				
W wall	23	0.002	1925	----	----	----	----	190925	----	edge of door			yes
W wall	24	0.004	1925	----	----	----	----	----	----				
N wall	25	0.003	2053	----	----	----	----	----	----				
W wall	26	0.002	1668	----	<60	<12	<120	4234	----	x=2m y.1m			
N wal	27	0.004	1026	----	----	----	----	----	----				
W wall	28	0.003	1668	----	<60	<12	<120	----	----				
W wall	29	0.002	1283	----	----	----	----	----	----				
W wall	30	0	1796	----	----	----	----	----	----				
Floor, r1	31	0	----	330	<60	<12	<120	----	----				
Floor	32	0.002	----	462	----	----	----	----	----				

FIGURE 2.120
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	33	0.002	----	396	----	----	----	----	----				
Floor, r2	34	0.003	----	396	----	----	----	----	----				
Floor	35	0	----	330	----	----	----	----	----				
Floor	36	0	----	330	----	----	----	----	----				
Floor, r3	37	0.002	----	198	<60	<12	<120	----	----				
Floor	38	0.001	----	264	----	----	----	----	----				
Floor	39	0.001	----	660	----	----	----	----	----				
Floor	40	0.001	----	198	<60	<12	<120	----	----				
Floor	41	0.002	----	0	----	----	----	----	----				
Floor, r4	42	0.002	----	264	----	----	----	----	----				
Floor	43	0	----	0	----	----	----	----	----				
Floor	44	0.002	----	132	----	----	----	----	----				
Floor	45	0.002	----	198	----	----	----	----	----				
Floor	46	0.002	----	132	----	----	----	----	----				
Floor, r5	47	0.005	----	792	----	----	----	----	----				
Floor	48	0.003	----	264	----	----	----	----	----				
Floor	49	0.001	----	132	----	----	----	----	----				
Floor	50	0.002	----	0	----	----	----	----	----				
Floor, r6	51	0	----	0	----	----	----	----	----				
Floor	52	0.002	----	0	<60	<12	<120	----	----				
Floor	53	0.001	----	264	----	----	----	----	----				
Floor	54	0.003	----	132	----	----	----	----	----				
Floor	55	0.002	----	594	<60	<12	<120	----	----				
S ceiling	56	0	642	----	<60	<12	<120	----	----				
N ceiling	57	0.001	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Window sill	18	----	----	----	60	17	<120	----	----				
Pipes	56	----	----	----	<60	<12	<120	----	----				
Door		----	----	----	<60	<12	<120	----	----				
W wall sink		----	----	----	<60	<12	<120	----	----				
N wall fan		----	----	----	<60	<12	<120	----	----				

**FIGURE 2.121
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 121

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.5	cps	1924.64	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.001	0	----	<60	<12	<120	----	----				
S. Wall	2	0.001	642	----	----	----	----	8340	----	pipe on wall			
								90458	----	pipe on wall into floor			
S. Wall	3	0.003	642	----	<60	<12	<120	----	----				
E. Wall	4	0.003	0	----	<60	<12	<120	----	----				
E. Wall	5	0.004	0	----	----	----	----	----	----				
N Wall	6	0.003	642	----	<60	<12	<120	----	----				
N Wall	7	0.001	642	----	60	<12	<120	----	----				
N Wall	8	0.001	0	----	----	----	----	----	----				
W Wall	9	0.001	1283	----	----	----	----	----	----				
W Wall	10	0.002	642	----	----	----	----	----	----				
Floor, r1	11	0.002	642	----	----	----	----	----	----				
Floor	12	0.002	1283	----	----	----	----	----	----				
Ceiling	13	0.002	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Pipe	2	----	----	----	----	----	----	90458	----	pipe on wall into floor			yes
Desk		0.001	0	----	----	----	----	----	----				
Table		0.002	642	----	----	----	----	----	----				

**FIGURE 2.122
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 122, Hallway

Prepared: 5/28/96

Box 1

<u>Background</u>					
Instrument	Location	Serial #	Average Background		
HP260	all	E01819	1.3	cps	1668.02 dpm/100cm ²
LB122	none	---	---	cps	---
BICRON	all	B708T	0.08	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u> <u>Present</u>	<u>Historically</u> <u>Present</u>	<u>Currently</u> <u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	821	---	<60	<12	<120	---	---				
E. Wall	2	0	924	---	<60	<12	<120	---	---				
N. Wall	3	0.001	346	---	<60	<12	<120	---	---				
W. Wall	4	0.002	798	---	<60	<12	<120	---	---				
Floor	5	0.001	1380	---	<60	<12	<120	---	---				
ceiling	6	0	244	---	180	<12	<120	---	---				

**FIGURE 2.123
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 123, Multi-Metals Office

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E01819	2	cps	2566.19	dpm/100cm ²
LB122	floor	4097	9.5	cps	6272.01	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	0	----	----	----	----	----	----				
S. Wall	2	0	642	----	<60	<12	<120	----	----				
S. Wall	3	0.002	642	----	----	----	----	----	----				
S. Wall	4	0.004	1283	----	----	----	----	----	----				
E. Wall	5	0.003	1283	----	----	----	----	----	----				
E. Wall	6	0.005	1283	----	----	----	----	----	----				
E. Wall	7	0.003	642	----	<60	<12	<120	----	----				
N. Wall	8	0.001	0	----	----	----	----	----	----				
N. Wall	9	0.002	0	----	----	----	----	----	----				
N. Wall	10	0.002	0	----	<60	<12	<120	----	----				
E. Wall	11	0.002	642	----	----	----	----	----	----				
E. Wall	12	0.001	642	----	----	----	----	----	----				
N. Wall	13	0	642	----	----	----	----	----	----				
N. Wall	14	0.001	1283	----	----	----	----	----	----				
W. Wall	15	0.001	1283	----	----	----	----	----	----				
W. Wall	16	0.001	642	----	----	----	----	----	----				
W. Wall	17	0.001	642	----	<60	<12	<120	----	----				
W. Wall	18	0.001	642	----	----	----	----	----	----				
W. Wall	19	0.003	642	----	----	----	----	----	----				
W. Wall	20	0.004	0	----	----	----	----	----	----				
Floor,r1	21	0.004	----	0	----	----	----	----	----				
Floor	22	0.003	----	0	----	----	----	----	----				
Floor	23	0	----	0	----	----	----	----	----				
Floor	24	0	----	0	----	----	----	----	----				
Floor,r2	25	0.003	----	330	<60	<12	<120	----	----				
Floor	26	0.003	----	330	----	----	----	----	----				
Floor	27	0.001	----	330	----	----	----	----	----				
Floor	28	0.001	----	330	----	----	----	----	----				
Floor,r3	29	0	----	330	----	----	----	----	----				
Floor	30	0	----	330	----	----	----	----	----				
Floor	31	0.001	----	330	----	----	----	----	----				
Floor	32	0	----	990	----	----	----	----	----				
Floor,r4	33	0.002	----	0	----	----	----	----	----				

**FIGURE 2.123
SURVEY RESULTS**

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	34	0.004	----	0	<60	<12	<120	----	----				
Floor	35	0	----	0	----	----	----	----	----				
Floor,r5	36	0.001	----	330	----	----	----	----	----				
Floor	37	0.001	----	0	----	----	----	----	----				
Floor	38	0	----	330	----	----	----	----	----				
S. Ceiling	39	0.001	0	----	<60	<12	<120	----	----				
N. Ceiling	40	0.003	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

S filing cabinet		----	----	----	<60	<12	<120	----	----					
N filing cabinet		----	----	----	<60	<12	<120	----	----					
W filing cabinet		----	----	----	<60	<12	<120	----	----					

**FIGURE 2.124
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 124, Multi-Metals Manager's Office

Prepared: 8/12/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E01819	3	cps	3849.29	dpm/100cm ²
LB122	floor	4097	7	cps	4621.48	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.Wall	1	0	0	----	<60	<12	<120	----	----				
S.Wall	2	0	0	----	----	----	----	----	----				
S.Wall	3	0.001	0	----	----	----	----	----	----				
E. Wall	4	0.001	0	----	----	----	----	----	----				
E. Wall	5	0.001	0	----	<60	<12	<120	----	----				
E. Wall	6	0.001	0	----	----	----	----	----	----				
E. Wall	7	0.002	0	----	----	----	----	----	----				
N. Wall	8	0.003	0	----	<60	<12	<120	----	----				
W. Wall	9	0.006	0	----	----	----	----	----	----				
W. Wall	10	0	0	----	<60	<12	<120	----	----				
E. Wall	11	0.001	0	----	----	----	----	----	----				
N. Wall	12	0.001	0	----	----	----	----	----	----				
N. Wall	13	0	0	----	----	----	----	----	----				
W. Wall	14	0	0	----	----	----	----	----	----				
N. Wall	15	0	0	----	----	----	----	----	----				
Floor, r1	16	0	----	330	----	----	----	----	----				
Floor	17	0	----	330	----	----	----	----	----				
Floor	18	0	----	198	----	----	----	----	----				
Floor, r2	19	0	----	528	<60	<12	<120	----	----				
Floor	20	0	----	462	----	----	----	----	----				
Floor	21	0.001	----	462	<60	<12	<120	----	----				
Floor, r3	22	0.001	----	396	----	----	----	----	----				
Floor	23	0.001	----	396	----	----	----	----	----				
W. Ceiling	24	0	0	----	<60	<12	<120	----	----				
N. Ceiling	25	----	----	----	<60	<12	<120	----	----				

Equipment & Fixtures

Window Sill		----	----	----	<60	<12	<120	----	----				
Bathroom Sink		----	----	----	----	<12	<120	----	----				

FIGURE 2.124
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Bathroom Floor		---	---	---	<60	<12	<120	---	---				

**FIGURE 2.125
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 125, Mail Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.6	cps	2052.95	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.002	1155	----	<60	<12	<120	----	----				
W. Wall	2	0.003	257	----	<60	<12	<120	----	----				
S. Wall	3	0.005	0	----	<60	<12	<120	----	----				
S. Wall	4	0.004	513	----	<60	<12	<120	----	----				
S. Wall	5	0.003	898	----	<60	<12	<120	----	----				
S. Wall	6	0.005	257	----	<60	<12	<120	----	----				
E. Wall	7	0	257	----	<60	<12	<120	----	----				
E. Wall	8	0	513	----	<60	<12	<120	----	----				
N. Wall	9	0.002	257	----	<60	<12	<120	----	----				
N. Wall	10	0.002	257	----	<60	<12	<120	----	----				
N. Wall	11	0	0	----	<60	<12	<120	----	----				
W. Wall	12	0	0	----	<60	<12	<120	----	----				
W. Wall	13	0	0	----	120	<12	<120	----	----				
Floor	14	0.001	128	----	<60	<12	<120	----	----				
Floor	15	0	0	----	<60	<12	<120	----	----				
Floor	16	0.002	0	----	<60	<12	<120	----	----				
Floor	17	0.001	257	----	<60	<12	<120	----	----				
Floor	18	0	257	----	<60	<12	<120	----	----				
Floor	19	0	257	----	<60	<12	<120	----	----				
Floor	20	0.003	257	----	<60	<12	<120	----	----				
Floor	21	0	257	----	<60	<12	<120	----	----				
Floor	22	0	513	----	<60	<12	<120	----	----				
Floor	23	0.004	257	----	<60	<12	<120	----	----				
Floor	24	0.001	0	----	<60	<12	<120	----	----				
Floor	25	0	128	----	<60	<12	<120	----	----				
ceiling	26	0	0	----	<60	<12	<120	----	----				
ceiling	27	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

pipe on ceiling		----	----	----	<60	<12	<120	----	----				
-----------------	--	------	------	------	-----	-----	------	------	------	--	--	--	--

FIGURE 2.125

SURVEY RESULTS

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION				LOOSE CONTAMINATION				HOT SPOTS				
A	B	C	D	E	F	G	H	I	J	K	L	M	N		
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)		
door window		----	----	----	<60	<12	<120	----	----	----	----	----	----		

**Figure 2.125S
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Mail Room Stairwell

Prepared: 5/24/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	all	E01819	1.5	cps	1924.64 dpm/100cm ²
LB122	none	----	----	cps	---- dpm/100cm ²
BICRON	all	B893N	0.09	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	0	----	<60	<12	<120	1155	----	x=0m y=0.1m			
								3464	----	x=0.5m y=0.1m			
S. Wall	2	0.001	0	----	<60	<12	<120	1925	----	x=2.8 0.1m			
S. Wall	3	0.003	385	----	<60	<12	<120	5132	----	x=4.5 y0.1m			
S. Wall	4	0.003	385	----	<60	<12	<120	----	----				
S. Wall	5	0.007	0	----	<60	<12	<120	5132	----	x=6.0m y=0.1m			
E. Wall	6	0.005	0	----	<60	<12	<120	2181	----	x=11m y=0.1m			
N. Wall	7	0.006	257	----	<60	<12	<120	3464	----	x=15m y=0.1m			
N. Wall	8	0.007	385	----	<60	<12	<120	----	----				
N. Wall	9	0.004	128	----	<60	<12	<120	----	----				
N. Wall	10	0.001	385	----	<60	<12	<120	----	----				
Upper landing	11	0.002	1925	----	<60	<12	<120	98157	----	hot spot top stair			yes
Upper steps	12	0.004	3208	----	60	<12	<120	----	----	2nd step from top			
		----	1925	----	----	----	----	----	----	3rd step from top			
		----	1668	----	----	----	----	----	----	4th step from top			
		----	0	----	----	----	----	----	----	5th step from top			
Middle steps	13	0.006	2566	----	<60	<12	<120	5132	----	6th step from top			
		----	4491	----	----	----	----	----	----	7th step from top			
		----	1925	----	----	----	----	----	----	8th step from top			
		----	3849	----	----	----	----	----	----	9th step from top			
Lower steps	14	0.011	2310	----	<60	<12	<120	----	----	10th step from top			
		----	1925	----	----	----	----	----	----	11th step from top			
		----	2566	----	----	----	----	----	----	12th step from top			
		----	4491	----	----	----	----	158462	----	13th step from top			yes
		----	3593	----	----	----	----	----	----	14th step from top			
Lower landing	15	0.002	2566	----	<60	<12	<120	----	----				
Bottom ceiling	16	0.007	1155	----	<60	<12	<120	----	----				
Middle ceiling	17	0.006	1026	----	<60	<12	<120	----	----				
Top ceiling	18	0.002	1283	----	<60	<12	<120	----	----				

Figure 2.125S
SURVEY RESULTS

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION				LOOSE CONTAMINATION				HOT SPOTS				
A	B	C	D	E	F	G	H	I	J	K	L	M	N		
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LR122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LR122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)		

Equipment & Fixtures

Baseboard	3	0.004	5132	18605	8340	23737	10906	x=6m, y=0.1m	Bottom of railing	yes
Railing								112 way up railing		yes
								114 way up railing		
								Top of railing		
Bottom railing										
Pipe on ceiling										
Window sill										

**FIGURE 2.126
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 125, Mail Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.5	cps	1924.64	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	0	----	----	<12	<120	----	----				
S. Wall	2	0	642	----	----	----	----	----	----				
S. Wall	3	0.002	642	----	----	----	----	----	----				
E. Wall	4	0.002	0	----	----	<12	<120	----	----				
E. Wall	5	0.003	0	----	----	----	----	----	----				
N. Wall	6	0.002	642	----	----	----	----	----	----				
N. Wall	7	0	642	----	----	<12	<120	----	----				
N. Wall	8	0	0	----	----	----	----	----	----				
W. Wall	9	0	1283	----	----	<12	<120	----	----				
W. Wall	10	0.001	642	----	----	----	----	----	----				
Floor, r1	11	0.001	642	----	----	----	----	----	----				
Floor, r2	12	0.001	1283	----	----	<12	<120	----	----				
Ceiling	13	0.001	0	----	----	<12	<120	----	----				

Equipment & Fixtures

Desk	0	0	----	----	<12	<120	----	----				
Table	0.001	642	----	----	<12	<120	----	----				

**FIGURE 2.127
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 127, Safety Light Office

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.2	cps	1539.71	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	385	----	<60	<12	<120	----	----				
S. Wall	2	0	128	----	----	----	----	----	----				
W. Wall	3	0	0	----	----	----	----	----	----				
W. Wall	4	0	0	----	<60	<12	<120	----	----				
S. Wall	5	0.003	0	----	----	----	----	----	----				
S. Wall	6	0.002	0	----	<60	<12	<120	----	----				
S. Wall	7	0.001	0	----	----	----	----	----	----				
S. Wall	8	0.001	0	----	<60	<12	<120	----	----				
S. Wall	9	0.002	898	----	----	----	----	----	----				
S. Wall	10	0.007	770	----	----	----	----	----	----				
S. Wall	11	0.003	1283	----	<60	<12	<120	----	----				
E. Wall	12	0.003	642	----	----	----	----	----	----				
E. Wall	13	0.002	0	----	----	----	----	----	----				
E. Wall	14	0.002	257	----	----	----	----	----	----				
E. Wall	15	0.001	257	----	<60	<12	<120	----	----				
S. Wall	16	0	385	----	----	----	----	----	----				
E. Wall	17	0.001	770	----	----	----	----	----	----				
N. Wall	18	0.001	1026	----	<60	<12	<120	----	----				
N. Wall	19	0.006	513	----	<60	<12	<120	----	----				
W. Wall	20	0.005	385	----	<60	<12	<120	124204	----	x=0.2m, y=0.5m			yes
W. Wall	21	0.002	0	----	----	----	----	----	----				
W. Wall	22	0.001	0	----	<60	<12	<120	----	----				
N. Wall	23	0.004	0	----	----	----	----	----	----				
N. Wall	24	0.002	0	----	<60	<12	<120	----	----				
N. Wall	25	0.003	0	----	----	----	----	----	----				
N. Wall	26	0.001	0	----	----	----	----	----	----				
N. Wall	27	0	0	----	<60	<12	<120	----	----				
N. Wall	28	0.002	0	----	----	----	----	----	----				
N. Wall	29	0.001	513	----	----	----	----	----	----				
N. Wall	30	0.003	0	----	----	----	----	----	----				
W. Wall	31	0	0	----	----	----	----	----	----				
Floor, r1	32	0.001	0	----	<60	<12	<120	----	----				
Floor	33	0.002	0	----	----	----	----	----	----				

FIGURE 2.127
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	34	0.001	0	----	----	----	----	----	----				
Floor	35	0	0	----	----	----	----	----	----				
Floor	36	0.001	0	----	<60	<12	<120	----	----				
Floor	37	0	385	----	----	----	----	----	----				
Floor	38	0.002	257	----	<60	<12	<120	----	----				
Floor	39	0	385	----	----	----	----	----	----				
Floor	40	0	385	----	----	----	----	----	----				
Floor, r2	41	0.005	1026	----	<60	<12	<120	----	----				
Floor	42	0.003	1026	----	----	----	----	----	----				
Floor	43	0.002	513	----	<60	<12	<120	----	----				
Floor	44	0.002	0	----	<60	<12	<120	----	----				
Floor	45	0.004	128	----	----	----	----	----	----				
Floor	46	0.005	385	----	<60	<12	<120	----	----				
Floor	47	0.001	385	----	----	----	----	----	----				
Floor	48	0.003	0	----	<60	<12	<120	----	----				
Floor, r3	49	0.004	0	----	----	----	----	----	----				
Floor, r4	50	0	0	----	<60	<12	<120	----	----				
W. Ceiling	51	0.001	385	----	----	----	----	----	----				
C. Ceiling	52	0	385	----	----	----	----	----	----				
E. Ceiling	53	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Electrical box	2	----	----	----	<60	<12	<120	----	----				
Window sill	19	----	----	----	<60	<12	<120	----	----				
desk	47	----	----	----	<60	<12	<120	----	----				
Ceiling vent #1		----	----	----	<60	<12	<120	----	----				
Top of Glass		----	----	----	<60	<12	<120	----	----				
Ceiling vent #2		----	----	----	<60	<12	<120	----	----				

The number # 128 was not attributed to any room in the building.

**FIGURE 2.129
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 129, Safety Light Manager's Office

Prepared: 5/28/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	all	E01819	1	cps	1283.10 dpm/100cm ²
LB122	none	----	----	cps	---- dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Washroom S. Wall	1	0.001	642	----	<60	<12	<120	----	----				
E. Wall	2	0.001	1026	----	<60	<12	<120	----	----				
W. Wall	3	0.001	1283	----	<60	<12	<120	----	----				
W. Wall	4	0.002	1411	----	<60	<12	<120	----	----				
S. Wall	5	0	0	----	<60	<12	<120	----	----				
S. Wall	6	0	0	----	----	----	----	----	----				
E. Wall	7	0	0	----	----	----	----	----	----				
E. Wall	8	0	0	----	<60	<12	<120	----	----				
E. Wall	9	0	0	----	----	----	----	----	----				
N. Wall	10	0	257	----	----	----	----	----	----				
W. Wall	11	0.001	0	----	----	----	----	----	----				
N. Wall	12	0.001	0	----	----	----	----	----	----				
W. Wall	13	0	0	----	----	----	----	----	----				
W. Wall	14	0	257	----	<60	<12	<120	----	----				
S. Wall	15	0	0	----	----	----	----	----	----				
W. Wall	16	0	0	----	----	----	----	----	----				
Floor, r1	17	0.003	1796	----	<60	<12	<120	----	----				
Floor, r2	18	0	128	----	<60	<12	<120	----	----				
Ceiling	19	0	128	----	<60	<12	<120	----	----				
Ceiling	20	0.005	1155	----	<60	<12	<120	----	----				

Equipment & Fixtures

desk	0	128	----	<60	<12	<120	----	----					
safe	0	128	----	<60	<12	<120	----	----					
sink	0	0	----	<60	<12	<120	----	----					
closet	0	0	----	<60	<12	<120	----	----					

**FIGURE 2.130
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 130, Safety Light Conference Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	R421S	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.002	642	----	<60	<12	<120	----	----				
S wall	2	0.002	642	----	----	----	----	----	----				
E wall	3	0.002	642	----	----	----	----	----	----				
E wall	4	0.001	0	----	<60	<12	<120	----	----				
E wall	5	0.001	0	----	----	----	----	----	----				
N wall	6	0	257	----	<60	<12	<120	----	----				
N wall	7	0.001	642	----	----	----	----	----	----				
W Wall	8	0.001	128	----	----	----	----	----	----				
W Wall	9	0.001	128	----	<60	<12	<120	----	----				
W Wall	10	0.002	385	----	----	----	----	----	----				
Floor, r1	11	0.001	642	----	----	----	----	----	----				
Floor	12	0	0	----	----	----	----	----	----				
Floor, r2	13	0.091	385	----	<60	<12	<120	----	----				
Floor	14	0.004	0	----	----	----	----	----	----				
Floor, r3	15	0	642	----	----	----	----	----	----				
Floor	16	0.002	642	----	----	----	----	----	----				
Ceiling	17	0	642	----	<60	<12	<120	----	----				

Equipment & Fixtures

Blackboard		0.001	642	----	<60	<12	<120	----	----				
desk		0.002	642	----	<60	<12	<120	----	----				

**FIGURE 2.131
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 131, Spare Office

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S Wall	1	0	513	---	---	---	---	---	---				
S Wall	2	0	192	---	<60	<12	<120	---	---				
S wall	3	0.002	257	---	---	---	---	---	---				
E Wall	4	0	257	---	<60	<12	<120	---	---				
N wall	5	0	0	---	---	---	---	---	---				
N wall	6	0	128	---	<60	<12	<120	---	---				
W wall	7	0	0	---	---	---	---	---	---				
W Wall	8	0	0	---	<60	<12	<120	---	---				
W Wall	9	0	0	---	---	---	---	---	---				
Floor	10	0	0	---	<60	<12	<120	---	---				
Floor	11	0	0	---	---	---	---	---	---				
Floor	12	0	0	---	---	---	---	---	---				
Floor	13	0	0	---	---	---	---	---	---				
Floor	14	0	0	---	<60	<12	<120	---	---				
Floor	15	0	0	---	---	---	---	---	---				
Ceiling	16	0	0	---	---	---	---	---	---				
Ceiling	17	0	0	---	---	---	---	---	---				

Equipment & Fixtures

picture	3	---	---	---	<60	<12	<120	---	---				
Picture in box	12	---	---	---	<60	<12	<120	---	---				
desk	15	---	---	---	<60	<12	<120	---	---				

**FIGURE 2.132
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 132, Safety Light Secondary Manager's Office

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.001	0	----	<60	<12	<120	----	----				
S. Wall	2	0.001	385	----	<60	<12	<120	----	----				
E. Wall	3	0.001	0	----	<60	<12	<120	----	----				
E. Wall	4	0.001	0	----	<60	<12	<120	----	----				
E. Wall	5	0.001	0	----	<60	<12	<120	----	----				
N. Wall	6	0.002	642	----	<60	<12	<120	----	----				
N. Wall	7	0.002	642	----	<60	<12	<120	----	----				
W. Wall	8	0.002	0	----	<60	<12	<120	----	----				
W. Wall	9	0.003	0	----	<60	<12	<120	----	----				
W. Wall	10	0.001	257	----	<60	<12	<120	----	----				
Floor, r1	11	0.001	0	----	<60	<12	<120	----	----				
Floor	12	0.002	0	----	<60	<12	<120	----	----				
Floor, r2	13	0.001	642	----	<60	<12	<120	----	----				
Floor	14	0	0	----	<60	<12	<120	----	----				
Floor, r3	15	0	642	----	<60	17	<120	----	----				
Floor	16	0.001	0	----	<60	<12	<120	----	----				
Ceiling	17	0.001	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

telephone	0.001	0	----	<60	<12	<120	----	----					
wooden desk	0.001	385	----	<60	<12	<120	----	----					
metal file cab	0.001	0	----	<60	<12	<120	----	----					

The number # 133 was not attributed to any room in the building.

The number # 134 was not attributed to any room in the building.

FIGURE 2.135 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 135, Health Physics Laboratory

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.002	0	----	----	----	----	----	----				
S. Wall	2	0.001	0	----	<60	<12	<120	----	----				
E. Wall	3	0	257	----	----	----	----	----	----				
E Wall	4	0	0	----	<60	<12	<120	----	----				
N Wall	5	0.001	0	----	----	----	----	----	----				
N wall	6	0.002	0	----	<60	<12	<120	----	----				
W wall	7	0.002	0	----	----	----	----	----	----				
W wall	8	0.002	385	----	<60	<12	<120	----	----				
Floor, r1	9	0	642	----	<60	<12	<120	----	----				
Floor	10	0.001	0	----	----	----	----	----	----				
Floor, r2	11	0.001	385	----	<60	<12	<120	101365	----	x=0m y=0m			yes
Floor	12	0.001	642	----	----	----	----	11548	----	x=0m y=0m			
Ceiling	13	0.001	385	----	<60	<12	<120	----	----				
Machine	14	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Sink		0.001	0	----	<60	<12	<120	----	----				
Cabinet		0.001	0	----	<60	<12	<120	----	----				

FIGURE 2.135WR SURVEY RESULTS

MONSERO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 135 (Washroom)

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.003	128	---	---	---	---	---	---	---			
S wall	2	0.002	642	---	<60	<12	<120	---	---	---			
S wall	3	0.005	642	---	---	---	---	---	---	---			
E wall	4	0.004	642	---	---	---	---	---	---	---			
E wall	5	0.003	0	---	<60	<12	<120	---	---	---			
N wall	6	0.003	642	---	---	---	---	---	---	---			
N wall	7	0	642	---	<60	<12	<120	---	---	---			
N wall	8	0	642	---	---	---	---	---	---	---			
W wall	9	0.001	642	---	<60	<12	<120	---	---	---			
Floor	10	0.002	642	---	<60	<12	<120	---	---	---			
Ceiling	11	0	257	---	<60	<12	<120	---	---	---			

Equipment & Fixtures

Sink	---	---	---	<60	<12	<120	---	---					
Heater	---	---	---	<60	<12	<120	---	---					
Door Knob	---	---	---	<60	<12	<120	---	---					
Main Door Knob	---	---	---	<60	<12	<120	---	---					

**FIGURE 2.136
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 136, Paint Storage Room

Prepared: 5/28/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	all	E1826	1.5 cps	1924.64 dpm/100cm ²	
LB122	none	---	---	---	dpm/100cm ²
BICRON	all	B708T	0.08 uSv/h	0.01 mrem/h	

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	38	----	<60	<12	<120	----	----				
E. Wall	2	0.003	0	----	<60	<12	<120	----	----				
E. Wall	3	0	64	----	120	<12	<120	----	----				
N. Wall	4	0	0	----	120	<12	<120	----	----				
W. Wall	5	0	693	----	180	<12	<120	----	----				
N. Wall	6	0	128	----	360	<12	<120	----	----				
W. Wall	7	0.004	64	----	600	<12	<120	----	----				
Floor	8	0.001	103	----	159120	<12	<120	----	----		yes		
Floor	9	0.001	167	----	217740	<12	<120	----	----		yes		
Floor	10	0.001	13	----	191640	<12	<120	----	----		yes		
Floor	11	0	0	----	361800	<12	<120	----	----		yes		
Floor	12	0.001	0	----	21420	<12	<120	----	----		yes		
Floor	13	0	359	----	91860	<12	<120	----	----		yes		
Floor	14	0	77	----	96360	<12	<120	----	----		yes		
Floor	15	0.003	282	----	26400	<12	<120	----	----		yes		
Floor	16	0.004	0	----	501660	<12	<120	----	----				
Floor	17	0.001	51	----	60	<12	<120	----	----				
Ceiling	18	0	0	----	<60	<12	<120	----	----				

**FIGURE 2.137
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 137

Prepared: 5/22/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1.4	cps	1796.33	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u> <u>Present</u>	<u>Historically</u> <u>Present</u>	<u>Currently</u> <u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.001	64	----	<60	<12	<120	----	----				
E wall	2	0.001	192	----	<60	<12	<120	----	----				
N wall	3	0	167	----	<60	<12	<120	----	----				
W wall	4	0	64	----	<60	<12	<120	----	----				
Floor	5	0	0	----	<60	<12	<120	----	----				
Ceiling	6	0	0	----	<60	<12	<120	----	----				

The number # 138 was not attributed to any room in the building.

FIGURE 2.139 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 139, West Stairwell

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	B895N	1.5	cps	1924.64	dpm/100cm ²
LB122	Floor	4097	9	cps	5941.90	dpm/100cm ²
BICRON	all	E01819	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW corner	1	0	51	----	<60	<12	<120	----	----				
SE corner wall	2	0.001	0	----	<60	<12	<120	----	----				
E corner wall	3	0.001	0	----	<60	<12	<120	----	----				
E wall	4	0.001	0	----	<60	<12	<120	----	----				
N wall	5	0.001	38	----	<60	<12	<120	----	----				
W wall	6	0.001	128	----	<60	<12	<120	----	----				
E wall	7	0	488	----	<60	<12	<120	----	----				
E wall	8	0.001	0	----	<60	<12	<120	----	----				
S wall	9	0.001	0	----	<60	<12	<120	----	----				
W wall	10	0.001	231	----	<60	<12	<120	----	----				
W wall	11	0	423	----	<60	<12	<120	----	----				
N wall	12	0	244	----	<60	<12	<120	----	----				
N wall	13	0	0	----	<60	<12	<120	----	----				
E wall	14	0	0	----	<60	<12	<120	----	----				
Floor lower	15	0.002	----	0	<60	<12	<120	----	3961	X=1.5m y=1.0m			
Floor	16	0.001	----	0	<60	<12	<120	----	----				
steps bottom	17	0	----	0	<60	<12	<120	----	----				
first landing	18	0.001	----	264	<60	<12	<120	----	----				
first set steps	19	0.006	----	132	<60	<12	<120	----	----				
second landing	20	0.001	----	264	<60	<12	<120	----	----				
second steps	21	0	----	132	<60	<12	<120	----	----				
top landing	22	0	----	198	<60	<12	<120	----	792	In front of door			

FIGURE 2.201 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 201, Developing Room East

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E01819	1.5	cps	1924.64	dpm/100cm ²
LB122	floor	4097	5	cps	3301.06	dpm/100cm ²
BICRON	all	B893N	0.05	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0	0	----	----	----	----	----	----				
S wall	2	0	0	----	<60	<12	<120	----	----				
S wall	3	0	642	----	----	----	----	----	----				
E wall	4	0	1283	----	<60	<12	<120	----	----	whole sink contaminated			
E wall	5	0.001	642	----	----	----	----	----	----	whole sink contaminated			
N wall	6	0.001	1925	----	----	----	----	----	----				
N wall	7	0	642	----	<60	<12	<120	----	----				
W wall	8	0.002	1796	----	----	----	----	----	----				
W wall	9	0	0	----	<60	<12	<120	----	----				
W wall	10	0.001	1925	----	----	----	----	----	----				
Floor, r1	11	0.006	----	66	----	----	----	----	----				
Floor	12	0.002	----	66	----	----	----	----	----				
Floor, r2	13	0	----	0	<60	<12	<120	----	----				
Floor	14	0.001	----	0	----	----	----	----	----				
Ceiling	15	0	642	----	<60	<12	<120	----	----				

Equipment & Fixtures

Waste bin	----	----	----	----	----	----	332963	----				yes
-----------	------	------	------	------	------	------	--------	------	--	--	--	-----

FIGURE 2.202 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 202, Developing Room West

Prepared: 5/22/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	walls	E01819	1.5	cps	1924.64 dpm/100cm ²
LB122	floor	4097	7	cps	4621.48 dpm/100cm ²
BICRON	all	B708N	0.07	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.002	385	----	----	----	----	----	----				
S wall	2	0.002	128	----	<60	<12	<120	----	----				
E wall	3	0	385	----	----	----	----	----	----				
E wall	4	0	128	----	<60	20	<120	----	----				
N wall	5	0	0	----	----	----	----	----	----				
N wall	6	0.003	257	----	<60	<12	<120	----	----				
W wall	7	0	385	----	----	----	----	----	----				
W wall	8	0.001	128	----	<60	<12	<120	----	----				
Floor, r1	9	0.001	9623	----	----	----	----	----	----	40% obstructed		yes	
Floor	10	0	7057	----	----	----	----	----	----	50% obstructed		yes	
Floor, r2	11	0.002	9623	----	----	----	----	----	----			yes	
Floor	12	0	9623	----	<60	<12	<120	----	----	20% obstructed		yes	
Ceiling	13	0.003	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

stand		----	----	----	<60	<12	<120	341945	----	stand in grid			yes
-------	--	------	------	------	-----	-----	------	--------	------	---------------	--	--	-----

**Figure 2.4.203
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 203, Glass Plate Storage

Prepared: 5/28/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	walls	E01819	2.5	cps	3207.74 dpm/100cm ²
LB122	Floor	4097	5	cps	3301.06 dpm/100cm ²
BICRON	all	B708N	0.05	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u> <u>Present</u>	<u>Historically</u> <u>Present</u>	<u>Currently</u> <u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0	0	----	----	----	----	----	----				
S wall	2	0	642	----	<60	<12	<120	----	----				
E wall	3	0.002	0	----	<60	<12	<120	----	----				
N wall	4	0.001	642	----	<60	<12	<120	----	----				
W wall	5	0	642	----	----	----	----	----	----				
W wall	6	0	642	----	<60	<12	<120	----	----				
Floor, r1	7	0	----	66	----	----	----	----	----				
Floor	8	0.001	----	396	<60	<12	<120	----	----				
Ceiling	9	0.002	0	----	<60	<12	<120	----	----				

FIGURE 2.204 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 204, Photo Setup Room West

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	wall	E01819	1	cps	1283.10	dpm/100cm ²
LB122	floor	4097	10	cps	6602.11	dpm/100cm ²
BICRON	all	B708T	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.001	257	----	----	----	----	----	----				
S wall	2	0	0	----	60	<12	<120	----	----				
E wall	3	0	642	----	60	<12	<120	----	----				
N wall	4	0.001	0	----	60	<12	<120	----	----				
E wall	5	0	385	----	----	----	----	----	----				
N wall	6	0	0	----	----	----	----	----	----				
W wall	7	0.002	257	----	60	<12	<120	----	----				
W wall	8	0	1155	----	----	----	----	----	----				
Floor, r1	9	0.003	----	0	60	<12	<120	----	----				
Floor	10	0.002	----	0	----	----	----	----	----				
Ceiling	11	0	257	----	60	<12	<120	----	----				

Equipment & Fixtures

Table top		----	----	----	60	<12	<120	143707	----				yes
-----------	--	------	------	------	----	-----	------	--------	------	--	--	--	-----

FIGURE 2.205 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 205, Hallway

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION	LOOSE CONTAMINATION				HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S Wall	1	0	0	----	----	----	----	----	----				
E wall	2	0	0	----	<60	<12	<120	----	----				
E wall	3	0	0	----	<60	<12	<120	----	----				
N wall	4	0	0	----	<60	<12	<120	----	----				
W wall	5	0	0	----	----	----	----	----	----				
W wall	6	0	0	----	<60	<12	<120	----	----				
Floor	7	0.003	642	----	120	<12	<120	402892	----	x=4ft y=1.6ft			yes
Ceiling	8	0	0	----	60	<12	<120	----	----				

Equipment & Fixtures

Pipe		0	642	----	120	<12	<120	----	----				
------	--	---	-----	------	-----	-----	------	------	------	--	--	--	--

FIGURE 2.206 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 206, Step Camera Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.001	0	----	----	----	----	----	----				
S wall	2	0	642	----	<60	<12	<120	----	----				
S wall	3	0	0	----	----	----	----	----	----				
E wall	4	0	642	----	----	----	----	----	----				
E wall	5	0	0	----	<60	<12	<120	----	----				
E wall	6	0.001	0	----	----	----	----	----	----				
N wall	7	0	0	----	----	----	----	----	----				
N wall	8	0.002	642	----	<60	<12	<120	----	----				
N wall	9	0.003	0	----	----	----	----	----	----				
W wall	10	0	0	----	----	----	----	----	----				
W wall	11	0.001	642	----	360	<12	<120	----	----				
W wall	12	0	642	----	----	----	----	----	----	Only did 5%.			
Floor, r1	13	0	1283	----	----	----	----	----	----				
Floor	14	0	898	----	----	----	----	----	----				
Floor	15	0.002	642	----	----	----	----	----	----	75% obstruction			
Floor, r2	16	0.003	1283	----	480	<12	<120	----	----				
Floor	17	0	642	----	<60	<12	<120	----	----				
Floor	18	0	0	----	<60	<12	<120	----	----				
Ceiling	19	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Camera		0.001	0	----	<60	<12	<120	----	----				
--------	--	-------	---	------	-----	-----	------	------	------	--	--	--	--

FIGURE 2.207 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 207, Developing Room North

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1	cps	1283.10	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	----	----	----	----	----	----	----	----				
S wall	2	----	----	----	<60	<12	<120	----	----				
E wall	3	----	----	----	----	----	----	----	----				
E wall	4	----	----	----	----	----	----	----	----				
E wall	5	----	----	----	<60	<12	<120	----	----				
N wall	6	----	----	----	----	----	----	----	----				
N wall	7	----	----	----	<60	<12	<120	----	----				
W wall	8	----	----	----	----	----	----	----	----				
W wall	9	----	----	----	<60	<12	<120	----	----				
W wall	10	----	----	----	----	----	----	----	----				
Floor	11	----	----	----	<60	<12	<120	----	----				
Ceiling	12	----	----	----	<60	<12	<120	----	----				

FIGURE 2.208 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 208, Screens Burning Room

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE		FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION		HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.003	642	----	<60	<12	<120	----	----				
E wall	2	0.001	385	----	----	----	----	----	----				
E wall	3	0	128	----	<60	<12	<120	----	----				
E wall	4	0	642	----	----	----	----	----	----				
N wall	5	0	0	----	120	<12	<120	----	----				
W wall	6	0	0	----	----	----	----	----	----				
W wall	7	0	0	----	120	<12	<120	----	----				
W wall	8	0	0	----	----	----	----	----	----				
Floor, r1	9	0.002	642	----	<60	<12	<120	----	----				
Floor, r2	10	0.002	0	----	----	----	----	----	----				
Floor, r3	11	0.002	0	----	<60	<12	<120	----	----				
Ceiling	12	0.001	642	----	<60	<12	<120	----	----				

Equipment & Fixtures

Equip.	0.001	----	----	<60	<12	<120	----	----					
Metal table	0	0	----	<60	<12	<120	----	----					
Elec box	0.002	0	----	<60	<12	<120	----	----					



Main Building Room # 209
Hallway looking east

FIGURE 2.209 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 209, Hallway

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.5	cps	1924.64	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.001	0	----	<60	<12	<120	----	----				
S. Wall	2	0	0	----	<60	<12	<120	----	----				
S. Wall	3	0	0	----	<60	<12	<120	----	----				
S. Wall	4	0.001	642	----	<60	<12	<120	----	----				
S. Wall	5	0	0	----	<60	<12	<120	----	----				
E. Wall	6	0.002	1283	----	<60	<12	<120	17322	----	x=10.9m y=1m door handle			yes
N. Wall	7	0.002	1283	----	<60	<12	<120	----	----				
N. Wall	8	0.001	0	----	<60	<12	<120	----	----				
N. Wall	9	0	0	----	600	<12	<120	----	----				
N. Wall	10	0	0	----	<60	<12	<120	----	----				
N. Wall	11	0	0	----	<60	<12	<120	----	----				
W. Wall	12	0	0	----	<60	<12	<120	----	----				
Floor	13	0	1283	----	<60	<12	<120	----	----				
Floor	14	0.003	1925	----	<60	<12	<120	3464	----	x=3.5m y=1.0m			
Floor	15	0.007	4491	----	<60	<12	<120	12189	----	x=4.6m y=1.0m			
Floor	16	0.007	7057	----	<60	<12	<120	14756	----	x=10m y=1.0m		yes	
Floor	17	0.032	9623	----	<60	<12	<120	41701	----	x=11m y=1.0m		yes	yes
								19888	----	x=12m y=1.0m			yes
								12189	----	x=12m y=1.0m			
E. ceiling	18	0.003	0	----	<60	<12	<120	----	----				
C. ceiling	19	0	0	----	<60	<12	<120	----	----				
W. ceiling	20	0	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	6	----	----	----	<60	<12	<120	----	----				
Speaker	9	----	----	----	<60	<12	<120	----	----				
Hot spot	17	----	----	----	<60	<12	<120	----	----				
pipe C. ceiling		----	----	----	<60	<12	<120	----	----				

**FIGURE 2.210
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 210, Darkroom

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1.5	cps	1924.64	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.06	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0	1155	----	----	----	----	----	----				
S wall	2	0	1155	----	<60	<12	<120	----	----				
S wall	3	0	1155	----	----	----	----	----	----				
S wall	4	0	1283	----	----	----	----	----	----				
S wall	5	0.001	1283	----	----	----	----	----	----				
E wall	6	0.001	898	----	----	----	----	----	----				
E wall	7	0	642	----	<60	<12	<120	----	----				
S wall	8	0.002	385	----	<60	<12	<120	----	----				
E wall	9	0.001	1026	----	----	----	----	----	----				
E wall	10	0.001	1026	----	<60	<12	<120	----	----				
N wall	11	0.001	1026	----	----	----	----	----	----				
N wall	12	0.001	1155	----	<60	<12	<120	----	----				
N wall	13	0.001	1283	----	----	----	----	----	----				
N wall	14	0.001	1540	----	----	----	----	----	----				
N wall	15	0	1668	----	<60	<12	<120	----	----				
N wall	16	0	1283	----	----	----	----	----	----				
W wall	17	0	1796	----	----	----	----	----	----				
W wall	18	0.001	1411	----	----	----	----	----	----				
W wall	19	0.001	1540	----	<60	<12	<120	----	----				
W wall	20	0.002	1283	----	----	----	----	----	----				
Floor, r1	21	0	0	----	----	----	----	----	----				
Floor	22	0	0	----	----	----	----	----	----				
Floor	23	0	0	----	<60	<12	<120	----	----				
Floor, r2	24	0.001	0	----	----	----	----	----	----				
Floor	25	0	0	----	----	----	----	----	----				
Floor	26	0.001	0	----	----	----	----	----	----				
Floor, r3	27	0	0	----	----	----	----	----	----				
Floor	28	0.003	0	----	----	----	----	----	----				
Floor	29	0	0	----	----	----	----	----	----				
Floor	30	0.001	0	----	<60	<12	<120	----	----				
Floor, r4	31	-0.001	0	----	----	----	----	----	----				
Floor	32	0.001	0	----	----	----	----	----	----				
Floor	33	0.003	0	----	----	----	----	----	----				
Floor	34	0.006	0	----	----	----	----	----	----				
Ceiling	35	0.007	0	----	----	----	----	----	----				
Ceiling	36	0.001	0	----	<60	<12	<120	----	----				

**FIGURE 2.210
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

Air Cond.	0.001	0	----	<60	<12	<120	----	----					
Centre Light	0.005	0	----	<60	<12	<120	----	----					
3rd box from door	0.005	3208	----	<60	<12	<120	----	----					
Elec. Box	0.005	0	----	<60	<12	<120	----	----					

FIGURE 2.211 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 211, Blue Ray Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.5	cps	1924.64	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	1283	----	<60	<12	<120	245713	----				yes
S. Wall	2	0	642	----	<60	<12	<120	----	----				
S. Wall	3	0	1540	----	<60	<12	<120	----	----				
S. Wall	4	0	1925	----	<60	<12	<120	----	----				
S. Wall	5	0	1283	----	<60	<12	<120	----	----				
E. Wall	6	0	1411	----	<60	<12	<120	----	----				
E. Wall	7	0	2181	----	<60	<12	<120	----	----				
N. Wall	8	0	1540	----	<60	<12	<120	----	----				
N. Wall	9	0	1155	----	<60	<12	<120	----	----				
N. Wall	10	0.001	2181	----	<60	<12	<120	----	----				
N. Wall	11	0.001	1411	----	<60	<12	<120	----	----				
N. Wall	12	0	1411	----	<60	<12	<120	----	----				
N. Wall	13	0	2053	----	<60	<12	<120	----	----				
W. Wall	14	0	1925	----	<60	<12	<120	----	----				
W. Wall	15	0	2181	----	<60	<12	<120	----	----				
W. Wall	16	0	2181	----	<60	<12	<120	----	----				
Floor, r1	17	0.007	1026	----	<60	<12	<120	----	----				
Floor	18	0.003	257	----	<60	<12	<120	----	----				
Floor	19	0	642	----	<60	<12	<120	----	----				
Floor	20	0.001	0	----	<60	<12	<120	----	----				
Floor	21	0	0	----	<60	<12	<120	----	----				
Floor, r2	22	0.001	513	----	<60	<12	<120	----	----				
Floor	23	0.002	0	----	<60	<12	<120	----	----				
Floor	24	0.001	642	----	<60	<12	<120	----	----				
Floor	25	0.005	257	----	<60	<12	<120	----	----				
Floor	26	0.005	642	----	<60	<12	<120	----	----				
Floor, r3	27	0.001	1155	----	<60	<12	<120	----	----				
Floor	28	0.001	385	----	<60	<12	<120	----	----				
Floor	29	0	0	----	<60	<12	<120	----	----				
Floor	30	0.002	257	----	<60	<12	<120	----	----				
Floor	31	0.001	0	----	<60	<12	<120	----	----				
Ceiling	32	0.001	0	----	<60	<12	<120	----	----				

**FIGURE 2.211
SURVEY RESULTS**

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Ceiling	33	0	0	----	<60	<12	<120	----	----					
Washroom	34	0.001	1155	----	<60	<12	<120	----	----					

**FIGURE 2.212
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 212, Center Washroom

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.2	cps	1539.71	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.002	128	----	<60	<12	<120	----	----				
E wall	2	0.003	0	----	<60	<12	<120	----	----				
N wall	3	0.003	0	----	<60	<12	<120	----	----				
W wall	4	0.002	385	----	<60	<12	<120	----	----				
Floor	5	0.004	385	----	<60	<12	<120	----	----				
Ceiling	6	0.004	385	----	<60	<12	<120	----	----				

Equipment & Fixtures

Pipe on ceiling	7	0.004	385	----	<60	<12	<120	----	----				
glass cabinet	8	0.003	385	----	<60	<12	<120	----	----				
Napkin dispenser	9	0.003	128	----	<60	<12	<120	----	----				
Paper towel holder	10	0.004	1283	----	<60	<12	<120	----	----				

**FIGURE 2.213
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 213, Dial Processing and Shipping

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.2	cps	1539.71	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0	385	---	---	---	---	---	---				
S wall	2	0.003	385	---	---	---	---	---	---				
S wall	3	0.003	642	---	---	<12	<120	---	---				
S wall	4	0.003	385	---	---	---	---	---	---				
E wall	5	0.005	128	---	---	---	---	---	---				
E wall	6	0.003	0	---	<60	<12	<120	---	---				
E wall	7	0.003	0	---	---	---	---	---	---				
N wall	8	0	385	---	---	---	---	---	---				
N wall	9	0.002	385	---	<60	<12	<120	---	---				
W wall	10	0	0	---	---	---	---	---	---				
W wall	11	0	0	---	---	---	---	---	---				
W wall	12	0	898	---	<60	<12	<120	---	---				
W wall	13	0	642	---	---	---	---	---	---				
W wall	14	0.001	0	---	---	---	---	---	---				
Floor, r1	15	0.004	0	---	---	---	---	---	---				
Floor	16	0.002	0	---	---	---	---	---	---				
Floor	17	0	1026	---	<60	<12	<120	---	---				
Floor, r2	18	0.003	385	---	---	---	---	---	---				
Floor	19	0	770	---	<60	<12	<120	---	---				
Floor	20	0.004	385	---	---	---	---	---	---				
Floor, r3	21	0.003	128	---	<60	<12	<120	---	---				
Floor	22	0	0	---	---	---	---	---	---				
Floor	23	0	0	---	---	---	---	---	---				
S ceiling	24	0.002	0	---	---	---	---	---	---				
N ceiling	25	0.004	128	---	---	---	---	---	---				
S wall	26	0.09	385	---	---	---	---	---	---				
E wall	27	0.005	128	---	---	---	---	---	---				

Equipment & Fixtures

**FIGURE 2.213
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Metal disks		----	----	----	<60	<12	<120	----	----					
Shelf		----	----	----	<60	<12	<120	----	----					
Stretcher		----	----	----	<60	<12	<120	----	----					
Pipe		----	----	----	<60	<12	<120	----	----					

Contaminated cupboards and screens.

Main Building Room 214

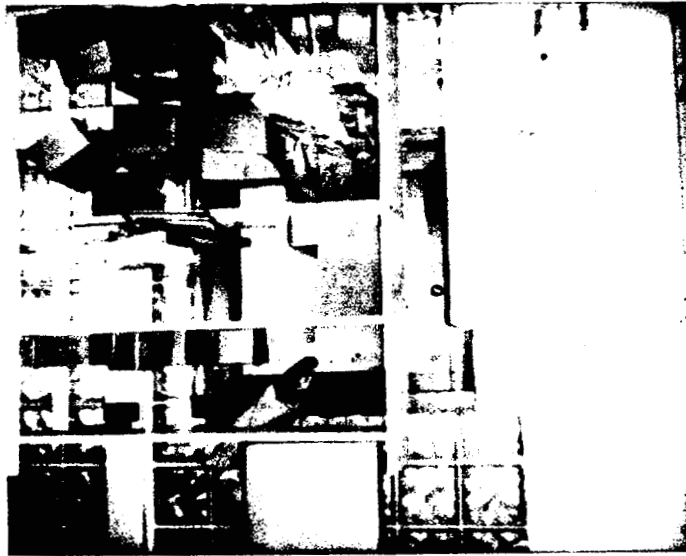


FIGURE 2.214 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 214, Dial Processing Office

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.0	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	yes	not done
Radium-226	yes	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	1283	----	<60	<12	<120	----	----				
S. Wall	2	0	1925	----	<60	<12	<120	98798	----	x=3m, y=1.1m			yes
								11548	----	x=3m, 1.2m			
								20530	----	x=3.5m, y=1.2m			yes
S. Wall	3	0	898	----	<60	<12	<120	12831	----				
S. Wall	4	0.002	513	----	<60	<12	<120	----	----				
E. Wall	5	0.001	128	----	<60	<12	<120	----	----				
E. Wall	6	0.003	0	----	<60	<12	<120	----	----				
N. Wall	7	0.002	257	----	<60	<12	<120	----	----				
N. Wall	8	0.002	642	----	<60	<12	<120	----	----				
N. Wall	9	0.004	0	----	<60	<12	<120	----	----				
N. Wall	10	0.012	642	----	<60	<12	<120	----	----	Equip on shelf hot			
W. Wall	11	0.006	770	----	<60	<12	<120	----	----				
W. Wall	12	0.003	642	----	<60	<12	<120	8982	----	x=0m, y=0.5m			
Floor, r1	13	0.006	0	----	<60	<12	<120	----	----				
Floor	14	0.003	385	----	<60	<12	<120	----	----				
Floor	15	0.002	0	----	<60	<12	<120	----	----				
Floor	16	0.002	898	----	<60	<12	<120	----	----				
Floor, r2	17	0.006	257	----	<60	<12	<120	----	----				
Floor	18	0	257	----	<60	<12	<120	----	----				
Floor	19	0.002	642	----	<60	<12	<120	----	----				
Floor	20	0.002	385	----	<60	<12	<120	----	----				
W Ceiling	21	0.01	642	----	<60	<12	<120	----	----				
Centre Ceiling	22	0.004	513	----	<60	<12	<120	----	----				
E. Ceiling	23	0.004	385	----	<60	<12	<120	----	----				

Equipment & Fixtures

shelves S wall	2	0	257	----	<60	69	<120	----	----				
Hot spots	2	----	----	----	<60	120	<120	----	----				
green cabinet	8	0	----	----	<60	<12	<120	37210	----				yes
outside green cabinet	10	0.027	17963	----	<60	140	124	2564909	----	On door near handle		yes	yes

**FIGURE 2.214
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
inside green cabinet	10	0.022	7699	----	<60	251	133	178350	----			yes	yes
4th shelf & trays	25	0.003	----	----	<60	<12	6057	216843	----		yes		yes
pipes c. ceiling	29	0	257	----	<60	80	<120	----	----				

**FIGURE 2.215
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 215, North Washroom

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.5	cps	1924.64	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS		K	L	M	N
		C	D	E	F	G	H	I	J				
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.005	0	----	<60	<12	<120	----	----				
S. Wall	2	0.003	0	----	120	<12	<120	----	----				
E. Wall	3	0.006	0	----	<60	<12	<120	107139	----	Bathroom door			yes
								46833	----	Bathroom door			yes
E. Wall	4	0.002	0	----	<60	<12	<120	----	----				
N. Wall	5	0	642	----	<60	<12	<120	----	----				
N wall / E wall	6	0.001	0	----	<60	<12	<120	----	----				
N. Wall	7	0.002	642	----	<60	<12	<120	4491	----	x=0ft, y=0ft			
W. Wall	8	0	1925	----	<60	<12	<120	36568	----	x=3.5ft, y=6in			yes
								23737	----	x=9in, y=2ft			yes
W. Wall	9	0.006	4491	----	<60	<12	<120	36568	----	x=5ft, y=6in			yes
								36568	----	x=2ft, y=6in			yes
W. Wall	10	0.003	1925	----	<60	<12	<120	42984	----	x=4in, y=3ft			yes
								19888	----	x=1ft, y=6in			yes
								17322	----	x=2ft, y=2ft			yes
Floor, r1	11	0.004	642	----	<60	<12	<120	----	----				
Floor, r2	12	0.002	642	----	<60	<12	<120	----	----				
Floor, r3	13	0.002	642	----	<60	<12	<120	----	----				
S. ceiling	14	0	0	----	<60	<12	<120	----	----				
N. ceiling	15	0.002	0	----	<60	<12	<120	----	----				

Equipment & Fixtures

S center cabinet	5	0.003	----	----	<60	20	<120	62230	----				yes
N. cabinet	5	0.003	----	----	<60	<12	<120	17322	----				yes
S side W door		0.005	----	----	<60	<12	<120	----	----				
N wall door		0.001	----	----	<60	<12	<120	----	----				
W. sink tap		0.005	----	----	<60	<12	<120	----	----				
S sink tap		0.005	----	----	<60	<12	<120	----	----				

FIGURE 2.216 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 216, Inactive Records Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.2	cps	1539.71	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S.W. corner	1	0	0	----	<60	<12	<120	131902	----	Window sill			yes
S. Wall	2	0	0	----	<60	<12	<120	----	----				
S. Wall	3	0	0	----	<60	<12	<120	138318	----	x=3.5m, y=1.3m			yes
E. Wall	4	0	128	----	<60	<12	<120	----	----				
N. Wall	5	0	1026	----	<60	<12	<120	----	----				
E. Wall	6	0.002	1283	----	<60	<12	<120	----	----				
E. Wall	7	0.002	1925	----	<60	<12	<120	----	----				
N. door	8	0.001	770	----	<60	<12	<120	----	----				
N. Wall	9	0.001	1283	----	<60	<12	<120	----	----				
N.W. corner	10	0.001	898	----	<60	<12	<120	----	----				
W. Wall	11	0.001	770	----	<60	<12	<120	----	----				
W. Wall	12	0.001	1155	----	<60	<12	<120	----	----				
W. Wall	13	0	513	----	<60	<12	<120	----	----				
Floor	14	0.001	1411	----	<60	<12	<120	----	----				
Floor	15	0	642	----	<60	<12	<120	----	----				
Floor	16	0	513	----	<60	<12	<120	----	----				
Floor	17	0	770	----	<60	<12	<120	----	----				
Floor	18	0	1026	----	<60	<12	<120	----	----				
Floor	19	0	0	----	<60	<12	<120	----	----				
Floor	20	0	385	----	<60	<12	<120	----	----				
Floor	21	0	1026	----	<60	<12	<120	----	----				
Floor	22	0.001	0	----	<60	<12	<120	----	----				
Floor	23	0.001	257	----	<60	<12	<120	----	----				
Ceiling	24	0	1668	----	<60	<12	<120	----	----				
Ceiling	25	0	128	----	<60	<12	<120	----	----				

Equipment & Fixtures

Window sill	1	----	----	----	<60	66	<120	----	----				
Hot spot	3	----	----	----	<60	14	<120	----	----				

**FIGURE 2.216
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
fumehood		----	----	----	120	<12	<120	----	----					
shelf SE corner		----	----	----	<60	<12	<120	----	----					
garbage pails		----	----	----	60	<12	<120	----	----					
fire extinguisher		----	----	----	<60	<12	<120	----	----					
files NW corner		----	----	----	<60	<12	<120	----	----					

**FIGURE 2.217
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 217, Active Records Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1.3	cps	1668.02	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
W. Wall	1	0	257	----	<60	<12	<120	----	----				
S. Wall	2	0	0	----	<60	<12	<120	----	----				
S. Wall	3	0	128	----	<60	<12	<120	----	----				
E. Wall	4	0.001	0	----	<60	<12	<120	----	----				
E. Wall	5	0.002	257	----	<60	<12	<120	----	----				
N. Wall	6	0.002	898	----	<60	<12	<120	----	----				
N. Wall	7	0.006	898	----	<60	14	<120	----	----				
N. Wall	8	0.002	0	----	<60	<12	<120	----	----				
W. Wall	9	0.003	257	----	<60	<12	<120	----	----				
W. Wall	10	0.004	257	----	<60	<12	<120	----	----				
Floor, r1	11	0.004	257	----	<60	<12	<120	----	----				
Floor	12	0.002	257	----	<60	<12	<120	----	----				
Floor, r2	13	0.001	385	----	<60	<12	<120	----	----				
Floor	14	0.001	898	----	<60	<12	<120	----	----				
W. ceiling	15	0.001	513	----	<60	<12	<120	----	----				
E. ceiling	16	0.005	128	----	<60	<12	<120	----	----				

Equipment & Fixtures

E wall oven	0.007	4747	----	<60	<12	<120	9238	----	Oven wall (left side)			
W wall oven	0.007	3464	----	<60	<12	<120	177965	----	Oven Floor near corner			yes
E wall brown cabinet	0.005	2181	----	<60	14	<120	32976	----	Hot spot near cabinet base			yes
W cabinet S wall	0.003	0	----	<60	<12	<120	49656	----	Hot spot near Floor			yes
E cabinet S wall	0.001	257	----	<60	<12	<120	----	----				
fan S wall	0	513	----	<60	<12	<120	----	----				
pipe c. ceiling	0.003	0	----	<60	<12	<120	21428	----	Hot spot on fan pipe			yes
inside oven	0.007	3464	----	<60	<12	<120	18862	----	hot spot on Floor			yes

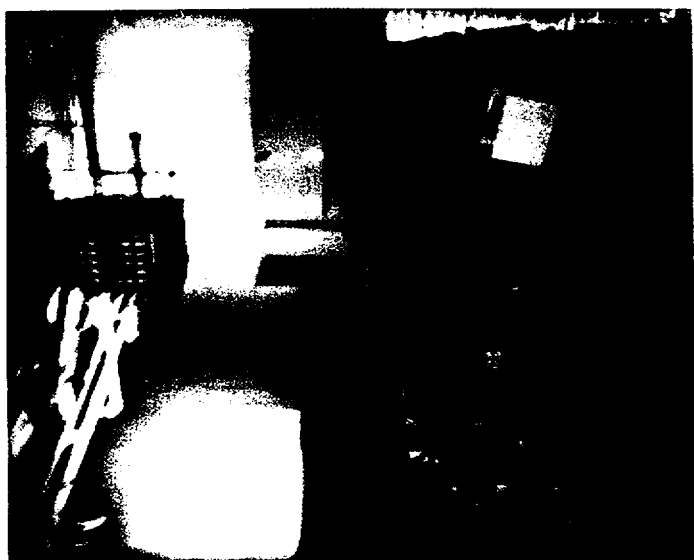


Main Building - 2nd Floor, Room 218

Contaminated oven.

Main Building - 2nd Floor, Room 218

Centre of Room



Main Building - 2nd Floor, Room 218

Files stored in Room 218

FIGURE 2.218 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 218, Radium Dial Production Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1.2	cps	1539.71	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	yes	not done
Radium-226	yes	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.003	385	----	<60	<12	<120	----	----				
S. Wall	2	0.005	385	----	<60	<12	<120	17707	----	x=15ft, y=1ft			yes
								24122	----	x=6ft, y=30in			yes
E. Wall	3	0.004	385	----	<60	<12	<120	----	----				
E. Wall	4	0.004	385	----	<60	<12	<120	----	----				
E. Wall	5	0.007	385	----	<60	<12	<120	----	----				
S. Wall	6	0.006	0	----	<60	<12	<120	----	----				
S. Wall	7	0.003	385	----	<60	<12	<120	----	----				
S. Wall	8	0.008	385	----	<60	<12	<120	----	----				
S. Wall	9	0.009	1026	----	<60	<12	<120	3593	----	Electrical box #1			
								24122	----	Electrical box #2			yes
								7442	----	Electrical box #3			
								26688	----	Electrical box #4			yes
								4876	----	Electrical box #5			
W. Wall	10	0.009	1026	----	<60	<12	<120	----	----				
W. Wall	11	0.006	385	----	<60	<12	<120	----	----				
W. Wall	12	0.006	385	----	<60	<12	<120	----	----				
W. Wall	13	0.005	385	----	<60	<12	<120	----	----				
W. Wall	14	0.006	385	----	<60	<12	<120	----	----				
W. Wall	15	0.003	385	----	<60	<12	<120	----	----				
S. Wall	16	0.003	385	----	<60	<12	<120	----	----				
E. Wall	17	0.004	385	----	<60	<12	<120	----	----				
S. Wall	18	0.004	385	----	<60	<12	<120	----	----				
S. Wall	19	0.004	385	----	<60	<12	<120	----	----				
S. Wall	20	0.004	385	----	<60	<12	<120	----	----				
S. Wall	21	0.004	385	----	<60	<12	<120	----	----				
S. Wall	22	0.013	4876	----	<60	<12	<120	----	----				
S. Wall	23	0.006	1026	----	<60	<12	<120	----	----				
E. Wall	24	0.006	385	----	<60	<12	<120	----	----				
E. Wall	25	0.003	385	----	<60	<12	<120	----	----				
E. Wall	26	0.001	385	----	<60	<12	<120	20273	----	x=5.5ft, y=18in			yes
								85711	----	x=6in, y=5ft			yes
E. Wall	27	0.002	385	----	<60	<12	<120	----	----				

**FIGURE 2.218
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
N. Wall	28	0.007	385	----	<60	<12	<120	----	----				
N. Wall	29	0.003	0	----	<60	<12	<120	----	----				
E. Wall	30	0.004	385	----	<60	<12	<120	----	----				
E. Wall	31	0.005	385	----	<60	<12	<120	----	----				
E. Wall	32	0.006	411	----	<60	<12	<120	2310	----	Door frame			
N. Wall	33	0.007	770	----	<60	<12	<120	----	----				
N. Wall	34	0.009	385	----	<60	<12	<120	----	----				
N. Wall	35	0.005	385	----	<60	<12	<120	----	----				
N. Wall	36	0.004	385	----	<60	<12	<120	----	----				
N. Wall	37	0.006	385	----	<60	<12	<120	----	----				
N. Wall	38	0.005	385	----	<60	<12	<120	----	----				
N. Wall	39	0.005	385	----	<60	<12	<120	----	----				
N. Wall	40	0.004	385	----	<60	<12	<120	----	----				
N. Wall	41	0.003	513	----	<60	<12	<120	----	----				
W. Wall	42	0.003	0	----	<60	<12	<120	----	----				
W. Wall	43	0.003	17707	----	<60	<12	<120	----	----			yes	
N. Wall	44	0.003	0	----	<60	<12	<120	----	----				
W. Wall	45	0.003	385	----	<60	<12	<120	----	----				
N. Wall	46	0.006	385	----	<60	<12	<120	----	----				
W. Wall	47	0.007	0	----	<60	<12	<120	22839	----	x=2ft, y=30in			yes
W. Wall	48	0.007	385	----	<60	<12	<120	----	----				
W. Wall	49	0.008	385	----	<60	<12	<120	----	----				
W. Wall	50	0.01	642	----	<60	<12	<120	5517	----	x=8ft, y=4ft			
W. Wall	51	0.011	385	----	<60	<12	<120	----	----				
W. Wall	52	0.011	1026	----	<60	<12	<120	----	----				
W. Wall	53	0.009	1026	----	<60	<12	<120	----	----				
Floor	54	0.003	0	----	<60	<12	<120	----	----				
Floor	55	0.005	0	----	<60	<12	<120	15141	----	x=0m, y=1m			yes
Floor	56	0.005	257	----	<60	<12	<120	18990	----	x=0m, y=0m			yes
Floor	57	0.005	257	----	<60	<12	<120	----	----				
Floor	58	0.038	385	----	<60	<12	<120	22839	----	x=0m, y=1m			yes
Floor	59	0.003	385	----	<60	<12	<120	----	----				
Floor	60	0.003	0	----	<60	<12	<120	----	----				
Floor	61	0.003	0	----	<60	<12	<120	----	----				
Floor	62	0.003	0	----	<60	<12	<120	----	----				
Floor	63	0.003	128	----	<60	<12	<120	----	----				
Floor	64	0.003	0	----	<60	<12	<120	----	----				
Floor	65	0.003	0	----	<60	<12	<120	----	----				
Floor	66	0.003	0	----	<60	<12	<120	----	----				
Floor	67	0.003	385	----	<60	<12	<120	----	----				
Floor	68	0.003	0	----	<60	<12	<120	----	----				
Floor	69	0.003	0	----	<60	<12	<120	----	----				
Floor	70	0.003	0	----	<60	<12	<120	----	----				
Floor	71	0.004	385	----	<60	<12	<120	----	----				
Floor	72	0.003	385	----	<60	<12	<120	----	----				

**FIGURE 2.218
SURVEY RESULTS**

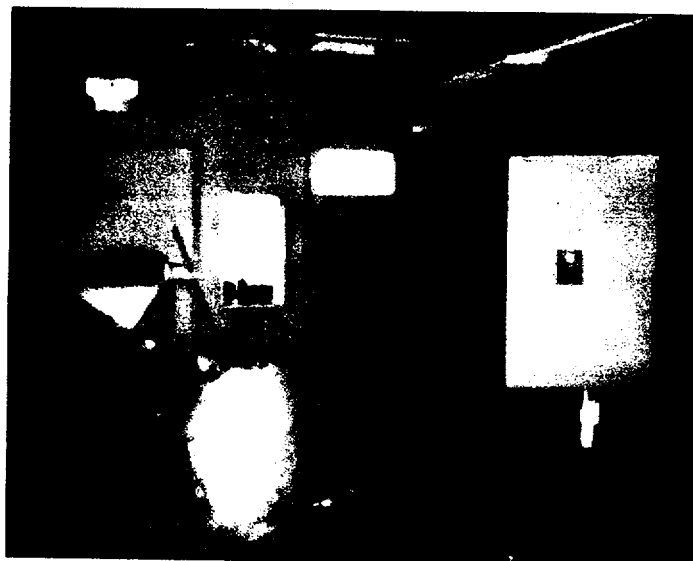
		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	73	0.005	385	----	<60	<12	<120	----	----				
Floor	74	0.008	128	----	<60	<12	<120	----	----				
Floor	75	0.006	0	----	<60	<12	<120	----	----				
Floor	76	0.003	0	----	<60	<12	<120	----	----				
Floor	77	0.004	0	----	<60	<12	<120	----	----				
Floor	78	0.004	385	----	<60	<12	<120	----	----				
Floor	79	0.004	0	----	<60	<12	<120	----	----				
Floor	80	0.011	0	----	<60	<12	<120	----	----				
Floor	81	0.004	385	----	<60	<12	<120	----	----				
Floor	82	0.003	0	----	<60	<12	<120	----	----				
Floor	83	0.003	128	----	<60	<12	<120	----	----				
Floor	84	0.028	898	----	<60	<12	<120	25405	----	x=1m, y=1.2m			yes
								6800	----	x=1m, y=1.5m			
Floor	85	0.007	0	----	<60	<12	<120	----	----				
Floor	86	0.003	128	----	<60	<12	<120	----	----				
Floor	87	0.003	642	----	<60	<12	<120	----	----				
Floor	88	0.003	0	----	<60	<12	<120	----	----				
Floor	89	0.003	0	----	<60	<12	<120	----	----				
Floor	90	0.003	0	----	<60	<12	<120	----	----				
Floor	91	0.007	128	----	<60	<12	<120	----	----				
Floor	92	0.003	0	----	120	<12	<120	----	----				
Floor	93	0.003	0	----	<60	<12	<120	----	----				
Floor	94	0.003	385	----	<60	<12	<120	----	----				
Floor	95	0.004	385	----	<60	<12	<120	----	----				
Floor	96	0.006	385	----	<60	<12	<120	----	----				
Floor	97	0.003	0	----	<60	<12	<120	----	----				
Floor	98	0.004	385	----	<60	<12	<120	----	----				
Floor	99	0.073	1668	----	<60	<12	<120	----	----	Under contaminated oven			
Floor	100	0.004	0	----	<60	<12	<120	----	----				
Floor	101	0.003	128	----	<60	<12	<120	----	----				
Floor	102	0.004	0	----	<60	<12	<120	----	----				
S Ceiling	103	----	----	----	<60	<12	<12	----	----				
Ceiling	104	----	----	----	<60	<12	<12	----	----				
Ceiling	105	----	----	----	<60	<12	<12	5261	----				
Ceiling	106	----	----	----	<60	<12	<12	----	----				
Ceiling	107	----	----	----	<60	<12	<12	----	----				
Ceiling	108	----	----	----	<60	<12	<12	----	----				

Equipment & Fixtures

Hot spot	2	----	----	----	<60	<12	<120	24122	----				yes
Window	2	----	----	----	<60	<12	<120	----	----				
Electrical box	9	----	----	----	<60	<12	233	----	----				

**FIGURE 2.218
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Cabinet	23	0.013	----	----	----	----	----	2051414	----					yes
Hot spot	26	----	----	----	<60	14	<120	85711	----					yes
Fire extinguisher	39	----	----	----	<60	<12	<120	----	----					
Hot spot	55	----	----	----	<60	<12	<120	15141	----					yes
Hot spot	58	----	----	----	<60	<12	<120	22839	----					yes
Filing cabinet	64	----	----	----	<60	23	<120	----	----					
Boxes	69	----	----	----	<60	<12	<120	----	----					
Printer	71	----	----	----	<60	17	<120	----	----					
Table	71	----	----	----	<60	20	<120	----	----					
Bed	77	----	----	----	<60	<12	<120	----	----					
Hot spot	84	0.163	----	----	<60	14	<120	25405	----	Bicron @ 1m				yes
Equipment	85	----	----	----	<60	<12	<120	----	----					
Dolly	98	----	----	----	<60	37	<120	----	----					
Oven	99	----	----	----	<60	1360	1505	----	----			yes		
Center Ceiling duct	115	----	----	----	<60	<12	<120	----	----					
E light fixture		----	----	----	<60	<12	<120	----	----					
W light fixture		----	----	----	<60	<12	<120	----	----					
solid sample		----	----	----	----	<12	<120	----	----					



Main Building, 3rd Floor
Old Lunch Room
Contaminated stairs and railing.

FIGURE 2.301 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, Room 301, Third Floor Lunch Room / Drafting Room

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.0	cps	1283.10	dpm/100cm ²
LB122	none	----	----	cps	---	dpm/100cm ²
BICRON	all	B893N	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information		
Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
E. Wall	1	0.001	0	----	<60	<12	<120	----	----				
E. Wall	2	0	0	----	<60	<12	<120	----	----				
E. Wall	3	0	0	----	<60	<12	<120	----	----				
E. Wall	4	0	898	----	<60	<12	<120	----	----				
E. Wall	5	0.002	642	----	<60	<12	<120	----	----				
E. Wall	6	0.002	----	----	<60	<12	<120	----	----				
N. Wall	7	0.001	642	----	<60	<12	<120	----	----				
N. Wall	8	0	898	----	<60	<12	<120	----	----				
N. Wall	9	0.004	898	----	<60	<12	<120	----	----				
N. Wall	10	0.005	0	----	<60	<12	<120	----	----				
W. Wall	11	0.001	128	----	<60	<12	<120	----	----				
W. Wall	12	0.001	642	----	<60	<12	<120	----	----				
W. Wall	13	0	0	----	<60	<12	<120	----	----				
W. Wall	14	0.002	0	----	<60	<12	<120	----	----				
Floor, r1	15	0.002	642	----	<60	<12	<120	----	----				
Floor	16	0	0	----	<60	<12	<120	----	----				
Floor	17	0.002	0	----	<60	<12	<120	----	----				
Floor	18	0	0	----	<60	<12	<120	----	----				
Floor, r2	19	0	642	----	<60	<12	<120	----	----				
Floor	20	0.001	1026	----	<60	<12	<120	----	----				
Floor	21	0	385	----	<60	<12	<120	----	----				
Floor	22	0	642	----	<60	<12	<120	----	----				
Floor, r3	23	0	642	----	<60	<12	<120	----	----				
Floor	24	1.391	0	----	<60	<12	<120	59022	----	x=2ft, y=4ft			yes
Floor	25	0.003	642	----	<60	<12	<120	----	----				
Floor	26	0.004	642	----	<60	<12	<120	----	----				
Floor, r4	27	0.003	257	----	<60	<12	<120	30794	----				yes
Floor	28	0.004	642	----	<60	<12	<120	----	----				
Floor	29	0.003	128	----	<60	<12	<120	----	----				
Floor	30	0	----	----	<60	<12	<120	----	----				

**FIGURE 2.301
SURVEY RESULTS**

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

S cabinet		0.002	898	----	<60	<12	<120	----	----				
E Wall table		0.051	2618	----	<60	26	<120	----	----				
E Wall table		0.002	1283	----	<60	<12	<120	----	----				
cabinet on wall		0.002	513	----	<60	<12	<120	----	----				
box on floor		0.051	4491	----	<60	<12	<120	----	----				
sink		0	898	----	<60	<12	<120	----	----				
E ceiling		0	1925	----	<60	<12	<120	----	----				
Center ceiling		0.001	898	----	<60	<12	<120	----	----				
W ceiling		0.002	257	----	<60	<12	<120	----	----				

FIGURE 2.301A SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, Room 301A, Third Floor Stairwell

Prepared: 5/28/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.2	cps	1539.71	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	---	385	---	<60	<12	<120	---	---				
S. Wall	2	---	0	---	<60	<12	<120	---	---				
S. Wall	3	---	0	---	<60	<12	<120	---	---				
S. Wall	4	---	0	---	<60	<12	<120	2310	---	Window sill			
E. Wall	5	---	385	---	<60	<12	<120	2951	---	Bottom skirtboard			
N. Wall	6	---	385	---	<60	<12	<120	---	---				
N. Wall	7	---	385	---	<60	<12	<120	---	---				
N. Wall	8	---	642	---	<60	<12	124	---	---				
stairs	9	---	3593	---	<60	26	<120	557890	---	1st step			yes
								25405	---	Floor (x=0m, y=0m)			yes
railing	10	---	---	---	<60	<12	<120	---	---				
fire ext.	11	---	---	---	<60	<12	<120	---	---				
ceiling	12	---	---	---	<60	<12	<120	---	---				

**FIGURE 2.302
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, East Attic (3rd Floor)

Prepared: 5/28/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	3	cps	3849.29	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u>	<u>Historically</u>	<u>Currently</u>
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
A ductwork outside	1	----	5132	----	----	<12	<120	----	----			yes	
A ductwork inside	2	0	0	----	----	<12	<120	----	----				
B ductwork outside	3	----	5132	----	----	20	<120	----	----			yes	
B ductwork inside	4	0.005	0	----	----	<12	<120	----	----				
W. Wall	5	0	0	----	----	46	<120	----	----				
Floor	6	0	0	----	----	26	<120	----	----				
C ductwork outside	7	----	2566	----	----	543	505	----	----				
C ductwork inside	8	0.24	109063	----	----	23	<120	----	----			yes	
N. Wall	9	0	0	----	----	20	<120	----	----				
E. Wall	10	0	0	----	----	23	<120	----	----				

**Figure 2.B1
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, NW Basement Room #1

Prepared: 5/24/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	yes	not done
Radium-226	yes	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0	642	----	<60	<12	<120	----	----				
S. Wall	2	0.002	0	----	<60	<12	<120	----	----				
S. Wall	3	0	0	----	<60	<12	<120	----	----				
E. Wall	4	0.002	257	----	<60	<12	<120	----	----				
E. Wall	5	0.005	257	----	<60	<12	<120	922546	----	x=0m, y=1.2m			yes
E. Wall	6	0.002	898	----	<60	<12	<120	----	----				
E. Wall	7	0.004	257	----	<60	<12	<120	----	----				
E. Wall	8	0.001	2566	----	<60	<12	<120	----	----				
N. Wall	9	0.001	3849	----	<60	<12	<120	14114	----	x=3in, y=6in			
N. Wall	10	0	3849	----	<60	<12	<120	----	----				
W. Wall	11	0.006	642	----	<60	<12	<120	----	----				
W. Wall	12	0.002	642	----	<60	<12	<120	2181	----	Down by floor			
W. Wall	13	0.007	385	----	<60	<12	<120	----	----				
W. Wall	14	0.002	898	----	<60	<12	<120	----	----				
Floor, r1	15	0	6415	----	<60	<12	<120	----	----			yes	
Floor	16	0.003	898	----	<60	<12	<120	----	----				
Floor	17	0.001	1155	----	<60	<12	<120	----	----				
Floor, r2	18	0.002	1283	----	<60	<12	<120	----	----				
Floor	19	0.002	2566	----	<60	<12	<120	----	----				
Floor	20	0.003	2566	----	<60	<12	<120	----	----				
Floor, r3	21	0.002	2566	----	<60	<12	<120	----	----				
Floor	22	0.001	1925	----	<60	<12	<120	----	----				
Floor	23	0	1283	----	<60	<12	<120	----	----				
Floor, r4	24	0.003	3849	----	<60	<12	<120	----	----				
Floor	25	0.001	3849	----	<60	<12	<120	----	----				
Floor	26	0	1925	----	<60	<12	<120	----	----				
ceiling	27	0	----	----	<60	<12	<120	----	----				

Equipment & Fixtures

Paper box	5	----	----	----	300	2649	2676	----	----		yes		
Pipes on ceiling		----	----	----	<60	<12	<120	----	----				

Figure 2.B2 SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, NW Basement Room #2

Prepared: 5/24/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1	cps	1283.10	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	B893N	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.004	642	----	<60	<12	<120	----	----				
S. Wall	2	0.003	898	----	<60	<12	<120	----	----				
E. Wall	3	0.001	1026	----	<60	<12	<120	----	----				
E. Wall	4	0	1026	----	<60	<12	<120	----	----				
N. Wall	5	0	513	----	<60	<12	<120	----	----				
W. Wall	6	0.001	0	----	<60	<12	<120	----	----				
W. Wall	7	0	513	----	<60	<12	<120	----	----				
Floor, r1	8	0.002	3079	----	<60	<12	<120	----	----				
Floor, r2	9	0.004	1283	----	<60	<12	<120	587658	----				yes
								156538	----				yes
								904583	----				yes
ceiling	10	0	642	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	2	----	----	----	<60	20	<120	----	----				
Hot spot	9	----	----	----	<60	20	<120	----	----				
Hot spot	9	----	----	----	<60	<12	<120	----	----				

**Figure 2.B3
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Main Building, SE Basement (Phosphor Storage)

Prepared: 5/24/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	1.3	cps	1668.02	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B893N	0.11	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	yes	not done
Radium-226	yes	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.006	1668	----	<60	<12	<120	----	----				
S. Wall	2	0.007	1925	----	<60	<12	<120	4747	----	Window sill			
S. Wall	3	0.001	1155	----	120	<12	<120	3464	----	Window sill			
E. Wall	4	0.007	2181	----	<60	<12	<120	----	----				
E. Wall	5	0.019	898	----	<60	<12	<120	----	----				
E. Wall	6	0.059	5389	----	<60	<12	<120	13729	----	Grid 7 Hot spot shine		yes	
E. Wall	7	0.079	3464	----	<60	<12	<120	94564	----	x=1.5m, y=1.5m			yes
N. Wall	8	0	2438	----	<60	<12	<120	10136	----				
N. Wall	9	0	1283	----	<60	<12	<120	----	----				
W. Wall	10	0.004	2438	----	<60	<12	<120	----	----				
W. Wall	11	0.007	1411	----	<60	<12	<120	----	----				
Ceiling	12	0.007	642	----	<60	<12	<120	----	----				

Equipment & Fixtures

Hot spot	2	----	----	----	180	<12	<120	4747	----	Window sill			
Hot spot	3	----	----	----	<60	<12	<120	3464	----	Window sill			
Hot spot	6	----	----	----	<60	<12	<120	13729	----	Grid 7 Hot spot shine			
Hot spot	7	----	----	----	<60	<12	<120	94564	----	x=1.5m, y=1.5m			yes
Hot spot	8	----	----	----	<60	<12	<120	10136	----				

Figure 2.4 EDock SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, East Loading Dock

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	2	cps	2566.19	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW	1	0.003	642	----	----	----	----	----	----				
S	2	0.002	1540	----	120	<12	<120	----	----				
		----	4491	----	----	----	----	----	----				
S	3	0	0	----	----	----	----	----	----				
SE	4	0.001	642	----	----	----	----	7699	----	x=8m, y=0.1m			

Figure 2.4.WDock SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Main Building, West Loading Dock

Prepared: 5/22/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1	cps	1283.10	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

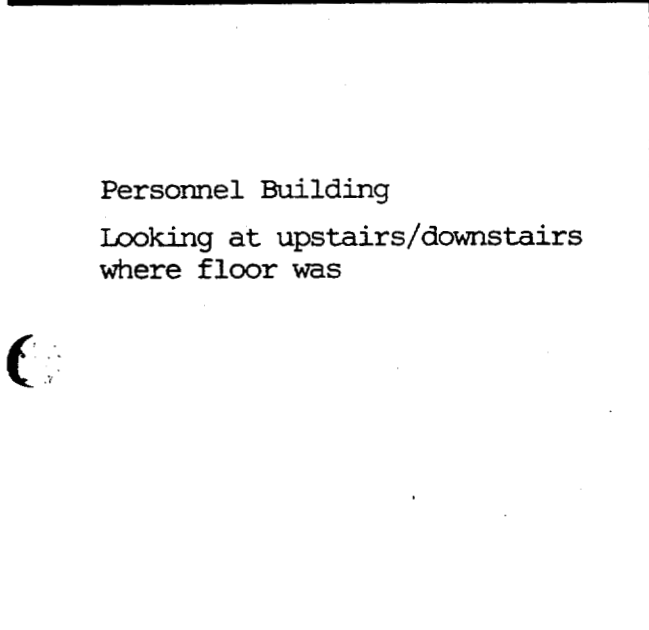
		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
West	1	0	0	---	120	<12	<120	12831	---	x=2m, y=1.5m			
Center	2	0.001	0	---	120	<12	<120	---	---	1st half of grid			
		---	5132	---	---	---	---	---	---	2nd half of grid		yes	
East	3	0.006	23096	---	120	<12	<120	---	---	top step		yes	
		---	10265	---	---	---	---	---	---	2nd step down		yes	
		---	7699	---	---	---	---	---	---	3rd step down		yes	
		---	6415	---	---	---	---	---	---	bottom step		yes	

SECTION 3

Personnel Building



Personnel Building
Looking at south side



Personnel Building
Looking at upstairs/downstairs
where floor was



Personnel Building
Dry well in basement

Figure 3.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Personnel Office Building

Prepared: 5/29/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	all	E1819	0.7	cps	898.17	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Cesium-137	unknown	yes
Bismuth-214	unknown	yes
Radium-226	unknown	yes

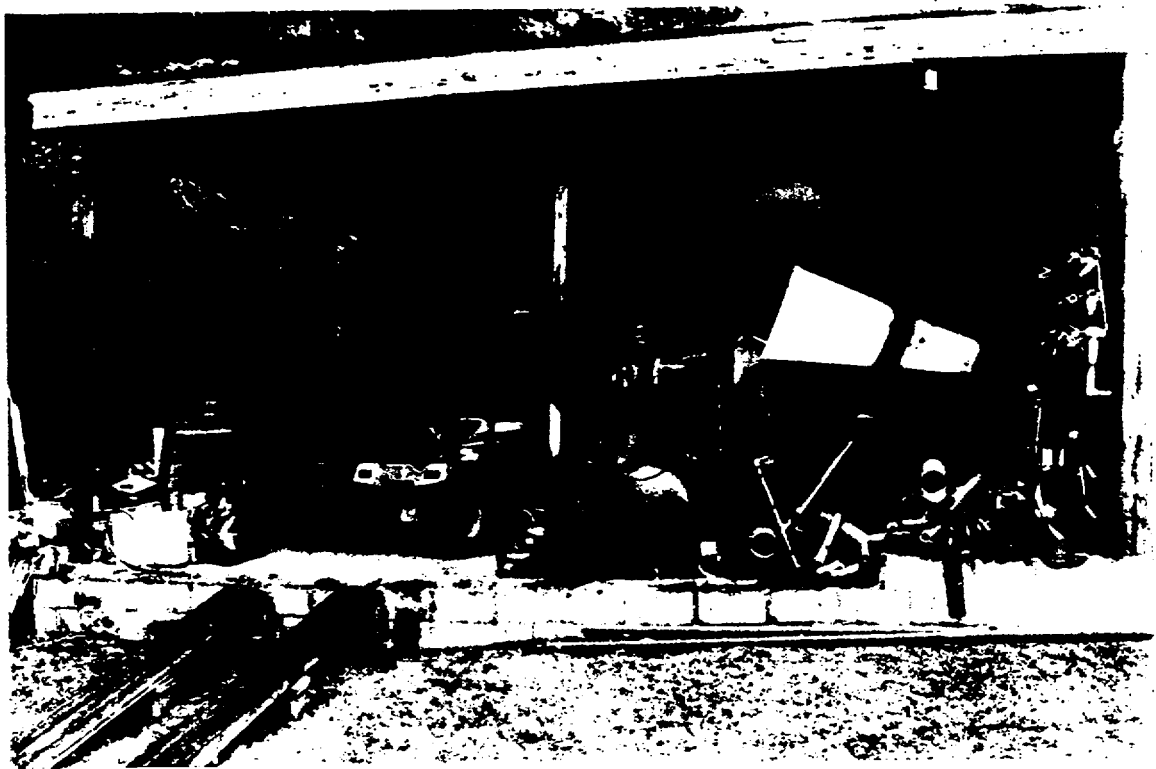
		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
N wall	1	---	385	---	<60	<12	<120	---	---				
Bathroom wall	2	---	0	---	<60	<12	<120	---	---				
Bathroom floor	3	---	---	---	<60	<12	<120	---	---				
Nurses' room walls	4	---	257	---	<60	<12	<120	---	---				
Nurses' room floor	5	---	---	---	<60	<12	<120	---	---				
E room wall	6	---	385	---	<60	<12	<120	---	---				
E room floor	7	---	---	---	<60	<12	<120	---	---				
S room wall	8	---	---	---	<60	<12	<120	---	---				
S room floor	9	---	---	---	<60	<12	<120	---	---				
Basement walls	10	---	1026	---	180	<12	6871	---	---		yes		
Basement floor	11	---	---	---	<60	<12	486	---	---				
Basement fallen floor	12	---	3593	---	<60	<12	<120	---	---				
Basement paper	13	---	---	---	<60	<12	<120	---	---				

Equipment & Fixtures

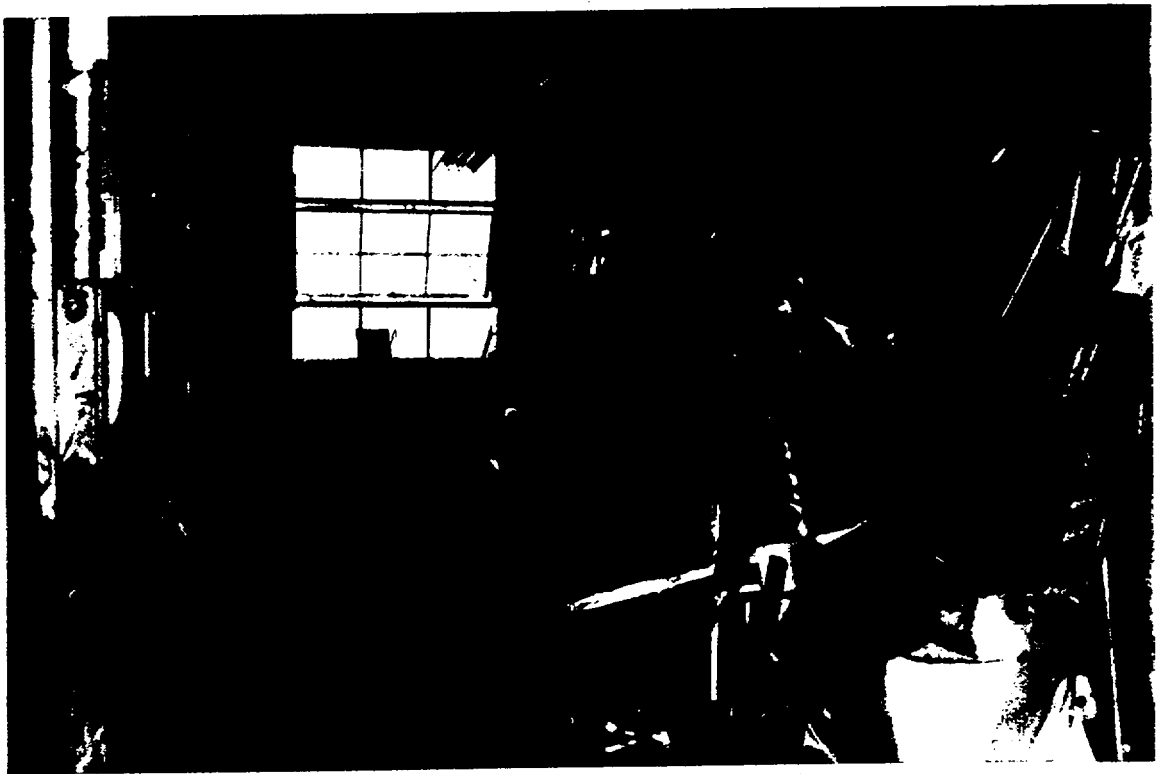
Basement, on top of wall		34.993	20272016	---	<60	<12	<120	---	---			yes	
--------------------------	--	--------	----------	-----	-----	-----	------	-----	-----	--	--	-----	--

SECTION 4

Pipe Shop



PIPE SHOP: Entrance



PIPE SHOP: Inside looking north

Figure 4.1
Survey Results

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Pipe Shop

Prepared: 5/29/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	all	E1819	1.1	cps	1411.41 dpm/100cm ²
LB122	none	---	---	cps	---
BICRON	all	B421S	0.08	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.004	1155	---	120	<12	<120	---	---				
S wall	2	0.006	1796	---	<60	20	<120	---	---				
S wall	3	0.009	2438	---	<60	<12	<120	---	---				
E wall	4	0.002	3079	---	60	14	<120	---	---				
E wall	5	0.005	3079	---	<60	<12	<120	---	---				
E wall	6	0.004	2438	---	<60	<12	<120	22967	---	x=0m, y=0m			yes
E wall	7	0.003	1796	---	<60	<12	<120	---	---				
E wall	8	0.003	1796	---	<60	<12	<120	---	---				
N wall	9	0.001	2438	---	<60	<12	<120	---	---				
N wall	10	0	1796	---	<60	<12	<120	---	---				
N wall	11	0.001	1796	---	<60	<12	<120	---	---				
W wall	12	0.002	3079	---	<60	<12	<120	---	---				
W wall	13	0.005	3079	---	<60	<12	<120	---	---				
W wall	14	0.005	3079	---	120	<12	<120	---	---				
W wall	15	0.022	3079	---	<60	<12	<120	---	---				
W wall	16	0.005	3079	---	<60	<12	<120	---	---				
Floor, r1	17	0.006	3079	---	<60	<12	<120	---	---				
Floor	18	0.022	3721	---	660	<12	<120	---	---				
Floor	19	0.012	3079	---	<60	<12	<120	---	---				
Floor, r2	20	0.006	3079	---	480	<12	<120	---	---				
Floor	21	0.006	3079	---	180	<12	<120	---	---				
Floor	22	0.012	4363	---	180	<12	<120	---	---				
Floor, r3	23	0.012	4363	---	180	<12	<120	---	---				
Floor	24	0.012	4363	---	120	<12	<120	---	---				
Floor	25	0.012	3079	---	300	<12	<120	---	---				
Floor, r4	26	0.001	3079	---	<60	<12	<120	---	---				
Floor	27	0.003	3079	---	60	<12	<120	---	---				
Floor	28	0.004	3079	---	<60	<12	<120	---	---				
Floor, r5	29	0.001	2438	---	<60	<12	<120	---	---				
Floor	30	0.003	3079	---	120	<12	<120	---	---				
Floor	31	0.005	3079	---	<60	<12	<120	---	---				
Floor, r6	32	0.003	3079	---	<60	<12	<120	---	---				
NW Ceiling	33	0.002	1540	---	<60	<12	<120	---	---				
SW Ceiling	34	0.005	1155	---	<60	<12	<120	---	---				

Figure 4.1
Survey Results

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

Bench on W wall		0.003	3721	----	<60	<12	<120	----	----				
Pipes on E Ceiling		----	5004	----	<60	<12	<120	----	----			yes	
Chair & Box on Floor EW		0.022	3721	----	<60	<12	<120	----	----				
Equipment Center W side		0.012	4363	----	301860	<12	<120	----	----		yes		
Equipment Center S side		0.005	1155	----	5460	<12	<120	----	----		yes		
Equipment shelf S wall		0.007	1796	----	360	<12	<120	----	----				
Equip. SW corner		0.022	12703	----	600	<12	<120	----	----			yes	
Inside fume hood		0.001	1796	----	120	<12	276	----	----				
E wall lead pots		0.022	22967	----	120	<12	<120	----	----			yes	
Metal Equipment E wall		0.061	513	----	<60	<12	<120	----	----				
Bench N wall		0.002	513	----	<60	<12	<120	----	----				
Orange Box N wall		0.001	1796	----	<60	<12	<120	----	----				
Vent E wall Outside		----	----	----	<60	<12	<120	----	----				
Dock pipes facing N		----	----	----	<60	<12	<120	----	----				
Floor under shelf S wall		----	----	----	<60	<12	<120	----	----				
Center of dock		----	----	----	60	<12	<120	----	----				
Compressor on dock		----	----	----	<60	<12	<120	----	----				
Right center of dock		----	----	----	<60	<12	<120	----	----				
Dock entrance		----	----	----	<60	<12	<120	----	----				

SECTION 5

Multi-Metals Building

Figure 5.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Multi-Metals Building, Boiler Room

Prepared: 5/29/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	0.8	cps	1026.48	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.028	2823	---	<60	<12	<120	7955	---	x=1m,y=1m			
S wall	2	0.013	1540	---	<60	<12	<120	---	---				
SE wall	3	0.008	1540	---	<60	<12	<120	---	---				
E wall	4	0.008	898	---	<60	<12	<120	---	---				
E wall	5	0.008	898	---	<60	<12	<120	---	---				
E wall	6	0.008	642	---	<60	<12	<120	---	---				
E wall	7	0.008	642	---	<60	<12	<120	268424	---	Fitting on window sill			yes
E wall	8	0.003	898	---	<60	<12	<120	---	---				
N wall	9	0.008	513	---	<60	<12	<120	---	---				
N wall	10	0.008	1925	---	<60	<12	<120	---	---				
NW wall	11	0.003	1925	---	<60	<12	<120	---	---				
W wall	12	0.008	513	---	<60	<12	<120	---	---				
W wall	13	0.008	513	---	<60	<12	<120	---	---				
W wall	14	0.008	770	---	<60	<12	<120	---	---				
W wall	15	0.013	770	---	<60	<12	<120	---	---				
W wall	16	0.038	18220	---	<60	<12	<120	865063	---	x=1.5m,y=1m		yes	yes
SW Floor, r1	17	0.003	642	---	<60	<12	<120	---	---				
S Floor	18	0.007	257	---	<60	<12	<120	---	---				
E Floor, r2	19	0.002	1283	---	<60	<12	<120	---	---				
SW Floor	20	0.002	0	---	<60	<12	<120	---	---				
Floor, r3	21	0.001	0	---	<60	<12	<120	---	---				
W Floor	22	0.001	0	---	<60	<12	<120	---	---				
E center Floor, r4	23	0.001	0	---	<60	<12	<120	---	---				
W Floor	24	0.001	898	---	<60	<12	<120	---	---				
E Floor, r5	25	0	898	---	<60	<12	<120	---	---				
W Floor	26	0.001	0	---	<60	<12	<120	---	---				
NE Floor, r6	27	0	770	---	<60	<12	<120	---	---				
NW Floor	28	0.002	0	---	<60	<12	<120	---	---				

Figure 5.1
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)

Equipment & Fixtures

NE windowsill		----	----	----	<60	<12	<120	----	----				
Center garage door		----	----	----	<60	<12	<120	----	----				
Center green door		----	----	----	<60	<12	<120	----	----				
SW windowsill		----	----	----	<60	<12	<120	----	----				
White tank		----	----	----	<60	<12	<120	----	----				
Inside Floor grate		----	----	----	<60	<12	<120	----	----				
Upper NW wall		0.001	770	----	<60	<12	<120	----	----				
Upper E wall		0.004	2053	----	<60	<12	<120	----	----				

Figure 5.2
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Multi-Metals Building, Waste Room

Prepared: 5/24/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	0.8	cps	1026.48	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.005	1283	----	<60	<12	<120	----	----				
S wall	2	0.003	1411	----	<60	<12	<120	----	----				
S wall	3	0.003	898	----	<60	<12	<120	----	----				
S wall	4	0.003	1026	----	<60	<12	<120	----	----				
S wall	5	0.005	2181	----	<60	<12	<120	----	----				
S wall	6	0.003	2310	----	<60	<12	<120	2823	----	x=0m, y=0m			
E wall	7	0.003	1540	----	<60	<12	<120	----	----				
E wall	8	0.003	1026	----	<60	<12	<120	----	----				
E wall	9	0.002	1540	----	<60	<12	<120	----	----				
N wall	10	0.001	1540	----	<60	<12	<120	----	----				
N wall	11	0.002	898	----	<60	<12	<120	----	----				
N wall	12	0.001	1540	----	<60	<12	<120	----	----				
N wall	13	0.001	898	----	<60	<12	<120	----	----				
N wall	14	0.001	898	----	<60	<12	<120	----	----				
W wall	15	0.003	1540	----	<60	<12	<120	----	----				
W wall	16	0.003	898	----	<60	<12	<120	----	----				
W wall	17	0.003	1540	----	<60	<12	<120	4747	----	x=3m, y=3m			
NW side	19	----	----	----	<60	<12	<120	----	----				
NE side	20	----	----	----	<60	<12	<120	----	----				
NE side	21	----	----	----	<60	<12	<120	----	----				
SE Wall	22	----	----	----	<60	<12	<120	----	----				
SE Wall	23	----	----	----	<60	<12	<120	----	----				
SW Floor, r1	27	0	898	----	<60	<12	<120	----	----				
Floor	28	0	898	----	<60	<12	<120	----	----				
Floor	29	0.002	898	----	<60	<12	<120	----	----				
Floor	30	0.002	1540	----	<60	<12	<120	----	----				
Floor	31	0.001	1540	----	<60	<12	<120	----	----				
Floor	32	0	898	----	<60	<12	<120	----	----				
Floor, r2	33	0	898	----	<60	<12	<120	----	----				

Figure 5.2
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	34	0	898	----	<60	<12	<120	----	----					
Floor	35	0	898	----	<60	<12	<120	----	----					
Floor	36	0	898	----	<60	<12	<120	----	----					
Floor	37	0.001	898	----	<60	<12	<120	----	----					
Floor	38	0.002	898	----	<60	<12	<120	----	----					
Floor, r3	39	0	898	----	<60	<12	<120	----	----					
Floor	40	0	257	----	<60	<12	<120	----	----					
Floor	41	0	257	----	<60	<12	<120	----	----					
Floor	42	0	257	----	<60	<12	<120	----	----					
Floor	43	0.001	1540	----	<60	<12	<120	----	----					
N Ceiling	44	0	1026	----	<60	<12	<120	----	----					
Center Ceiling	45	0	898	----	<60	<12	<120	----	----					

Equipment & Fixtures

Press	24	----	----	----	<60	<12	<120	----	----					
Bench on EW	18	----	----	----	<60	<12	<120	----	----					
Sink	26	----	----	----	<60	<12	<120	----	----					
Stairs	25	----	----	----	<60	<12	<120	----	----					

Figure 5.3
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Multi-Metals Building, Compressor Room

Prepared: 5/24/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1819	0.8	cps	1026.48	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.004	898	---	<60	14	<120	4108	---	x=3.0,y=4.5			
S wall	2	0.003	1540	---	<60	14	<120	---	---				
S wall	3	0.003	1540	---	<60	<12	<120	24635	---	x=2.0,y=1.2			yes
S wall	4	0.003	898	---	<60	14	<120	---	---				
E wall	5	0.003	2823	---	<60	<12	<120	---	---				
E wall	6	0.004	2823	---	<60	<12	<120	---	---				
E wall	7	0.003	2181	---	<60	<12	<120	---	---				
N wall	8	0.002	2823	---	<60	<12	<120	---	---				
N wall	9	0.002	2823	---	<60	<12	<120	10521	---	x=2.5,y=5.0			
N wall	10	0	2823	---	<60	20	<120	---	---				
N wall	11	0.002	2823	---	<60	<12	<120	46448	---	x=2,y=0			yes
W wall	12	0.003	2823	---	<60	<12	<120	69544	---	x=3.5,y=2.5			yes
W wall	13	0.002	2823	---	<60	<12	<120	---	---				
W wall	14	0.003	2823	---	<60	<12	<120	---	---				
W wall	15	0.002	1540	---	<60	<12	<120	---	---				
Floor, r1	16	0.003	2823	---	<60	<12	<120	---	---				
Floor	17	0.003	4108	---	<60	<12	<120	---	---				
Floor	18	0.003	2823	---	<60	<12	<120	22069	---	x=3.0,y=0			yes
Floor	19	0.008	2823	---	<60	<12	<120	---	---				
Floor, r2	20	0.01	2823	---	<60	<12	<120	7955	---	x=3.0,y=0			
Floor	21	0.006	2181	---	<60	<12	<120	---	---				
Floor	22	0.003	2181	---	<60	<12	<120	---	---				
Floor	23	0.003	2823	---	<60	<12	<120	---	---				
Floor	24	0.003	2181	---	<60	<12	<120	15854	---	x=2.0,y=0			yes
Ceiling	25	0	1925	---	<60	<12	<120	---	---				
Ceiling	26	0.002	1155	---	<60	<12	<120	---	---				

Equipment & Fixtures

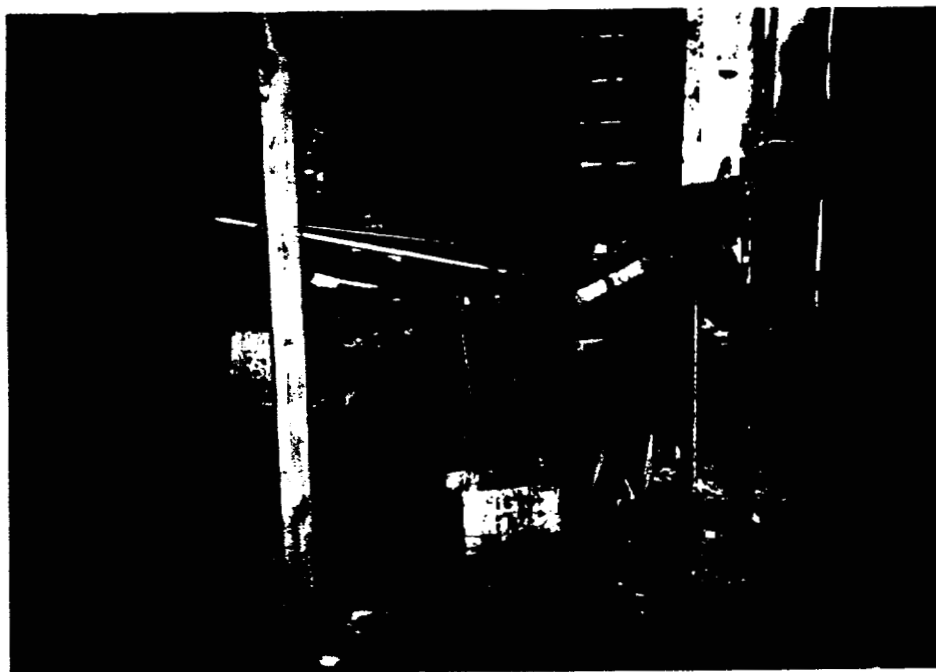
SW compress.		---	---	---	<60	<12	<120	---	---				
SC compress.		---	---	---	<60	20	<120	---	---				

Figure 5.3
SURVEY RESULTS

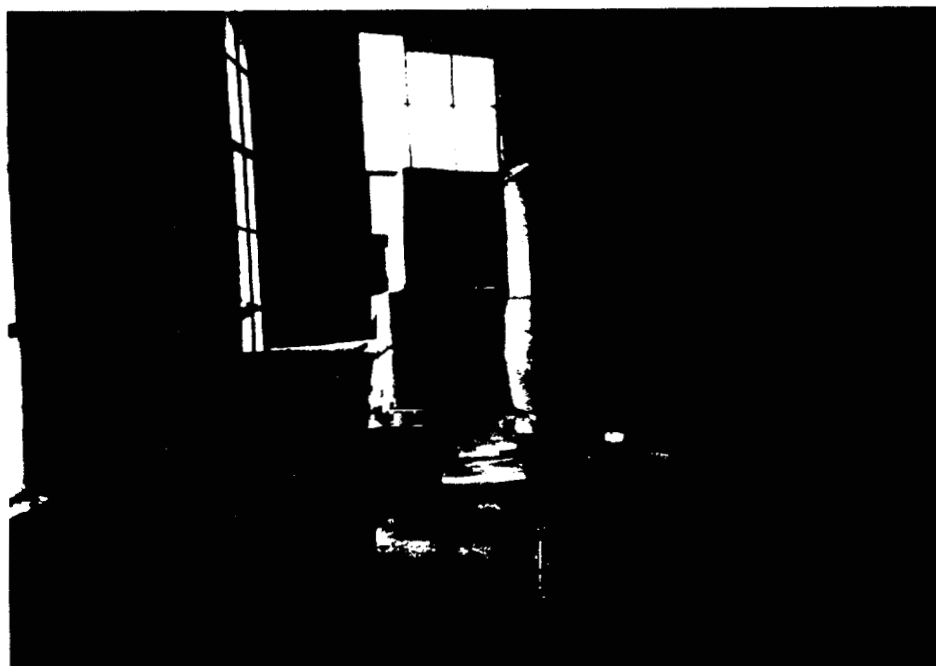
		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Tool box		----	----	----	<60	<12	<120	----	----					
Electrical box		----	----	----	<60	<12	<120	----	----					
WW compress.		----	----	----	<60	14	<120	----	----					
NW compress.		----	----	----	<60	<12	<120	----	----					
ES compress.		----	----	----	<60	<12	<120	----	----					
CS compress.		----	----	----	<60	<12	<120	----	----					
NW compress.		----	----	----	<60	<12	<120	----	----					
Lawn mower		----	----	----	<60	<12	<120	----	----					

SECTION 6

Carpenter Shop



Carpenter Shop:
East wall of Radium-226 activity



Carpenter Shop: West wall

Figure 6.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Carpenter Shop

Prepared: 5/29/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E01819	1.8	cps	2309.57	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.09	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	no	no
Bismuth-214	yes	yes
Radium-226	yes	yes

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW wall	1	0	898	---	<60	<12	<120	15654	---	x=1.1m, y=1.8m			yes
S wall	2	0.002	0	---	<60	<12	<120	---	---				
S wall	3	0.002	642	---	<60	<12	<120	---	---				
S wall	4	0.007	0	---	<60	<12	<120	---	---				
S wall	5	0.007	770	---	120	<12	<120	---	---				
S wall	6	0.01	257	---	<60	<12	<120	---	---				
SE wall	7	0.036	2181	---	<60	<12	<120	3464	---	x=2m, y=0.9m			
								2823	---	x=2m, y=0m			
SE wall	8	0.046	9238	---	240	<12	<120	72110	---	x=1.5m, y=0.4m		yes	yes
								22069	---	x=1.9m, y=0.2m			yes
E wall	9	0.121	4106	---	<60	<12	<120	---	---				
E wall	10	0.391	267141	---	240	43	<120	11904820	---	x=7m, y=1.4m		yes	yes
NE wall	11	0.126	4747	---	<60	<12	<120	---	---				
N wall	12	0.016	257	---	<60	<12	<120	---	---				
N wall	13	0.011	257	---	<60	14	<120	10521	---	Cabinet			
N wall	14	0.011	898	---	<60	<12	<120	---	---				
N wall	15	0.011	0	---	180	<12	<120	---	---				
N wall	16	0.011	0	---	<60	<12	<120	6672	---	x=1m, y=1.3m			
								50297	---	x=0.1m, y=1.5m			yes
N wall	17	0.006	257	---	<60	<12	<120	55430	---	x=2m, y=1m			yes
N Wall	18	0.001	0	---	<60	<12	<120	---	---				
SW Floor, r1	19	0.003	642	---	<60	<12	<120	---	---				
NW Floor	20	0.006	0	---	<60	<12	<120	---	---				
SW Floor	21	0.006	0	---	240	<12	<120	---	---				
N Floor center, r2	22	0.006	128	---	<60	<12	<120	---	---				
S Floor center	23	0.005	513	---	180	<12	<120	---	---				
N Floor center, r3	24	0.008	898	---	<60	<12	<120	4106	---	x=2.5m, y=8m			
S Floor center	25	0.021	1540	---	180	<12	<120	---	---				
NE Floor	26	0.021	3464	---	<60	<12	<120	---	---				
E Floor center, r4	27	0.026	4106	---	<60	<12	<120	55430	---	x=4m, y=10m			yes
SE Floor, r5	28	0.031	6672	---	<60	<12	<120	13088	---	x=5m, y=10m		yes	
SE corner Floor, r6	29	0.111	18220	---	<60	<12	<120	---	---			yes	
E Floor	30	0.241	42599	---	<60	29	<120	831703	---	By east wall		yes	yes

Figure 6.1
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
NE Floor	31	0.026	2181	----	60	<12	<120	----	----				
N ceiling	32	0.007	0	----	<60	<12	<120	----	----				
S ceiling	33	0.002	128	----	<60	20	<120	----	----				

Equipment & Fixtures

Window sill	1	----	----	----	<60	20	<120	----	----				
Hot Spot	10	0.391	267141	----	11520	12029	11619	11904820	----	x=0.7m, y=1.4m	yes	yes	yes
Window sill	13	----	----	----	<60	<12	<120	----	----				
Cabinet	13	----	----	----	180	151	214	10521	----				
drill press		----	4106	----	<60	29	<120	----	----				
bench		----	4106	----	300	29	<120	----	----				
light fixture		----	57996	----	<60	14	<120	----	----			yes	
vacuum cleaner		----	6672	----	<60	<12	<120	----	----			yes	
light/ceiling		----	898	----	<60	14	<120	----	----				
light S fixture		0.002	770	----	<60	17	<120	----	----				

SECTION 7

Well House



Well House:

Outside of Well House facing south-east



Well House: Inside Well House

Figure 7.1
Survey Results

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Well House

Prepared: 5/24/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E2176	1.5	cps	1924.64	dpm/100cm ²
LB122	none	----	---	cps	----	dpm/100cm ²
BICRON	all	B421S	0.08	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	yes
Bismuth-214	unknown	yes
Radium-226	unknown	yes

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0.052	3208	----	----	17	<120	10906	----	x=0.3m,y=1m			
S wall	2	0.022	642	----	----	<12	<120	----	----				
E wall	3	0.022	1283	----	----	<12	<120	----	----				
E wall	4	0.022	1283	----	----	<12	<120	----	----				
E wall	5	0.022	2566	----	----	<12	<120	14756	----	x=2m,y=1.5m			
N wall	6	0.022	1283	----	----	17	<120	9623	----	x=2m,y=1.5m			
								32719	----	x=1.5, y=1.5			yes
N wall	7	0.022	1925	----	----	14	<120	32719	----	Bottom shelf			
W wall	8	0.022	642	----	----	<12	<120	12189	----	x=1m,y=0m			
W wall	9	0.022	1411	----	----	<12	<120	----	----				
Ceiling	10	0.012	642	----	----	49	<120	----	----				

Equipment & Fixtures

Bottom shelf	7	----	----	----	----	----	----	32719	----	x=1.5, y=1.5			yes
--------------	---	------	------	------	------	------	------	-------	------	--------------	--	--	-----



Adhesives Lab: Looking at outer east wall.



Adhesives Lab: Looking along inside east wall reverse side of above.

Figure 7.2
Survey Results

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Well House, Adhesives North Room

Prepared: 5/31/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	none	----	----	cps	---- dpm/100cm ²
LB122	all	5274	26	cps	17165.49 dpm/100cm ²
BICRON	all	B421S	0.08	uSv/h	0.01 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S Wall	1	0	----	0	<60	<12	<120	----	----				
S Wall	2	0	----	0	<60	<12	<120	----	----				
E Wall	3	0	----	0	<60	<12	<120	----	----				
E Wall	4	0	----	0	<60	<12	<120	----	----				
E Wall	5	0	----	0	<60	<12	<120	----	----				
N Wall	6	0	----	0	<60	<12	<120	----	----				
N Wall	7	0	----	0	<60	<12	<120	----	----				
W Wall	8	0	----	0	<60	<12	<120	----	----				
W Wall	9	0	----	0	<60	<12	<120	----	----				
W Wall	10	0	----	0	<60	<12	<120	----	----				
Floor r1	11	0	----	0	<60	<12	<120	----	----				
Floor	12	0	----	0	<60	<12	<120	----	----				
Floor r2	13	0	----	0	<60	<12	<120	----	----				
Floor	14	0	----	0	<60	<12	<120	----	----				
Floor r3	15	0	----	0	<60	<12	<120	----	----				
Floor	16	0	----	0	<60	<12	<120	----	----				

Figure 7.3
Survey Results

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Well House, Adhesives South Room

Prepared: 5/31/96

Box 1

<u>Background</u>						
Instrument	Location	Serial #	Average Background			
HP260	none	----	----	cps	---	dpm/100cm ²
LB122	all	5274	26	cps	17165.49	dpm/100cm ²
BICRON	all	B421S	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

<u>Isotope</u>	<u>Historically</u>	<u>Currently</u>
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S Wall	1	0	----	0	<60	<12	<120	----	----				
S Wall	2	0	----	0	<60	<12	<120	----	----				
E Wall	3	0	----	0	<60	<12	<120	----	----				
E Wall	4	0	----	0	<60	<12	<120	----	----				
N wall	5	0	----	0	<60	<12	<120	----	----				
N wall	6	0	----	0	<60	<12	<120	----	----				
W Wall	7	0	----	0	<60	<12	<120	----	----				
W Wall	8	0	----	0	<60	<12	<120	----	----				
Floor r1	9	0	----	0	<60	<12	<120	----	----				
Floor	10	0	----	0	<60	<12	<120	----	----				
Floor r2	11	0	----	0	<60	<12	<120	----	----				
Floor	12	0	----	0	<60	<12	<120	----	----				

SECTION 8

Lacquer Storage Building



Lacquer Storage: Looking at outside of North Wall
Building



Lacquer Storage: Looking at south wall inside
Building

Figure 8.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Lacquer Storage Building

Prepared: 5/29/96

Box 1

Background	Location	Serial #	Average Background	
Instrument	none	---	---	cps
HP260	all	---	20	cps
LB122	---	---	---	uSv/h
BICRON	none	---	---	mrem/h

Box 2

Gamma Spectroscopy Isotope Information			
Isotope	Historically	Currently	
Present	Present	Present	
Cesium-137	unknown	not done	
Bismuth-214	unknown	not done	
Radium-226	unknown	not done	

			EXPOSURE RATE		FIXED AVERAGE CONTAMINATION			LOOSE CONTAMINATION			HOT SPOTS			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)	

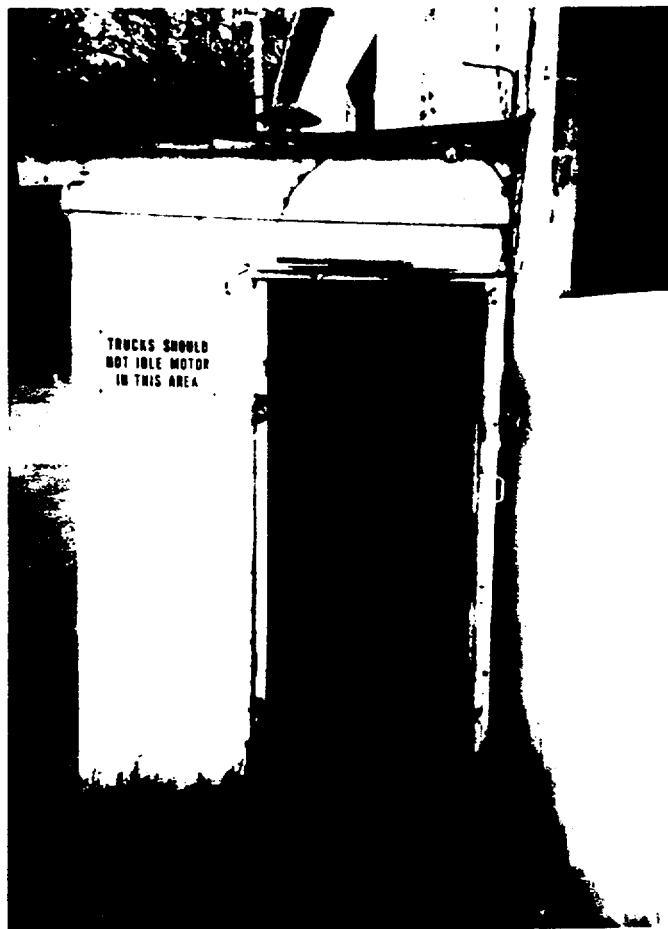
S Wall	1	---	---	0	<60	<12	<120	---	---				
S Wall	2	---	---	0	<60	<12	<120	---	---				
S Wall	3	---	---	0	<60	<12	<120	---	---				
S Wall	4	---	---	0	<60	<12	<120	---	---				
E window sill	5	---	---	1320	<60	<12	<120	---	---				
N Wall	6	---	---	0	<60	<12	<120	---	---				
N Wall	7	---	---	0	<60	<12	<120	---	---				
N Wall	8	---	---	0	<60	<12	<120	---	---				
N Wall	9	---	---	0	<60	<12	<120	---	---				
N window sill	10	---	---	0	<60	<12	<120	---	---				
Floor	11	---	---	1386	<60	<12	<120	---	---				
Floor	12	---	---	1651	<60	<12	<120	---	---				
Floor	13	---	---	2311	<60	<12	<120	---	---				
Floor	14	---	---	2509	<60	<12	<120	---	---				
Ceiling	15	---	---	0	<60	<12	<120	---	---				
Ceiling	16	---	---	0	<60	<12	<120	---	---				
Ceiling	17	---	---	0	<60	<12	<120	---	---				
Ceiling	18	---	---	0	<60	<12	<120	---	---				
C window sill	19	---	---	0	<60	<12	<120	---	---				

Equipment & Fixtures

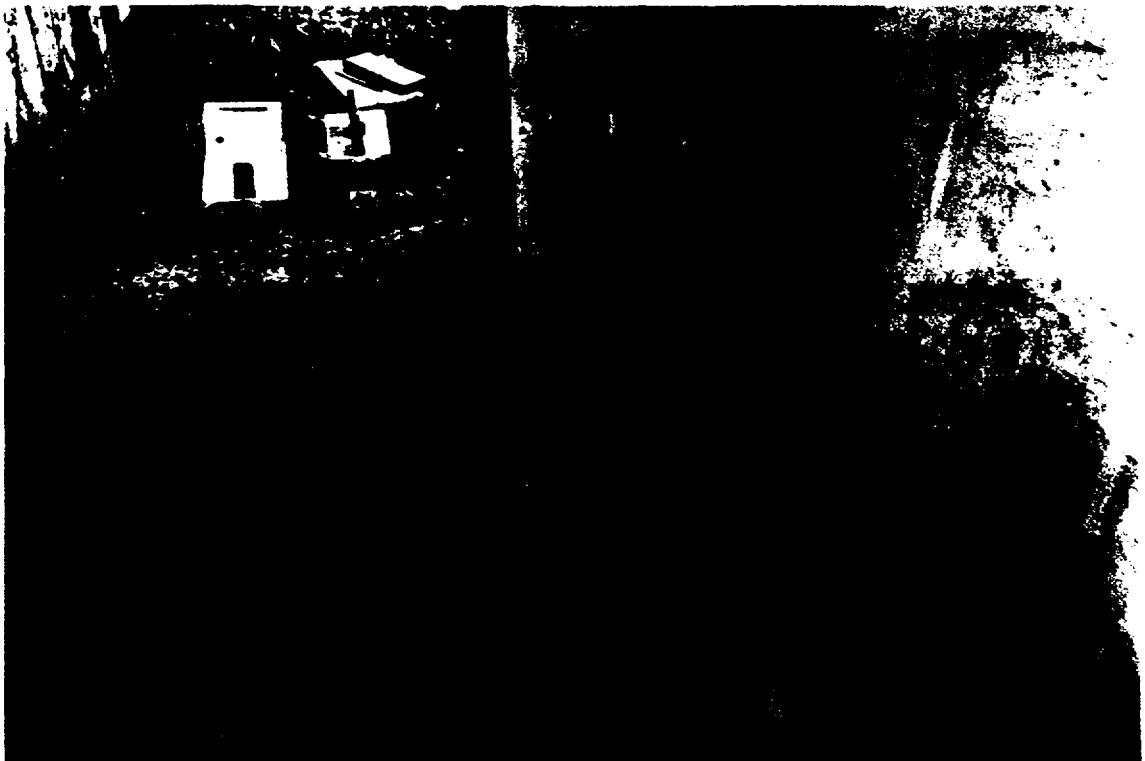
Deck W side	---	---	4621	---	---	---	---	---	---				
Deck E side	---	---	1320	---	---	---	---	---	---				
Active spot	6	---	---	<60	<12	<120	---	41059	---	6.2ft from N wall			yes

SECTION 9

Cesium Ion Exchange Hut



Cesium Building: Outside of Cesium Hut



Cesium Building: Active drain side Cesium Hut

**Figure 9.1
SURVEY RESULTS**

MONSERO LIMITED - SAFETY LIGHT PROJECT

Cesium Ion Exchange Hut

Prepared: 5/29/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	2	cps	2566.19	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B421S	0.15	uSv/h	0.02	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	yes	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S Wall	1	0.185	16680	----	240	<12	180	527352	----	x=0.57m y=1.08m		yes	yes
		0.185	39776	----	----	----	----	869939	----	x=0.26m y=1.07m		yes	yes
		0.185	17983	----	----	----	----	677475	----	x=0.2m y=.24m		yes	yes
		0.285	61589	----	----	----	----	----	----	----		yes	
E Wall	2	0.085	8982	----	300	156	<120	----	----	----		yes	
		0.135	12831	----	----	----	----	----	----	----		yes	
		0.185	10265	----	----	----	----	279715	----	x=0.52m y=.05m		yes	yes
		0.185	21813	----	----	----	----	241222	----	x=0.52m y=.05m		yes	yes
N Wall	3	0.085	21813	----	1140	<12	156	----	----	----	yes	yes	
		0.075	21813	----	----	----	----	----	----	----		yes	
		0.185	37210	----	----	----	----	472179	----	x=0.12m y=0.16m		yes	yes
		0.185	8982	----	----	----	----	1126558	----	x=0.4m y=0.2m		yes	yes
W Wall	4	0.185	35927	----	1500	<12	576	549165	----	x=0.17m y=1.2m	yes	yes	yes
		0.135	15397	----	----	----	----	343870	----	x=0.68m y=1.91m		yes	yes
		0.185	12831	----	----	----	----	712118	----	x=0.8m y=1.0m		yes	yes
		0.185	11548	----	----	----	----	----	----	----		yes	
Floor A NW	5	0.285	107395	----	19920	<12	6728	159104	----	x=0.53m y=1.75m	yes	yes	yes
Floor B NE	6	0.485	100081	----	----	----	----	2127373	----	x=0.94m y=1.97m		yes	yes
Floor C SE	7	0.485	46191	----	----	----	----	173218	----	x=0.45m y=0.4m		yes	yes
Floor D SW	8	0.285	28228	----	----	----	----	458065	----	x=1.15m y=0.97m		yes	yes
Ceiling	9	0.385	14114	----	480	<12	<120	233523	----	Drain Pipe		yes	yes

Equipment & Fixtures

Drain		5.985	----	----	240	<12	<120	----	----	Drain on east wall			
Inside Pipe		----	----	----	240	<12	<120	----	----				
Chimney		----	----	----	<80	<12	1812	----	----		yes		
Chimney cap		----	----	----	<80	<12	336	----	----				

SECTION 10

Building Not Surveyed

SECTION 11

Garage



Location of demolished garage



Concrete floor of demolished garage

Figure 11.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Garage

Prepared: 5/29/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	none	---	---	cps	---	dpm/100cm ²
LB122	all	1866	22	cps	14524.65	dpm/100cm ²
BICRON	all	B421S/B893N	0.2	uSv/h	0.02	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
<u>Present</u>	<u>Present</u>	<u>Present</u>
Caesium-137	Unknown	Yes
Bismuth-214	Unknown	Yes
Radium-226	Unknown	Yes

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
SW	1	0.11	---	169674	---	---	---	---	515625	x=2.4m y=1.7m		yes	yes
		---	---	---	---	---	---	---	378301				yes
		---	---	---	---	---	---	---	300396				yes
S CENTER	2	0.15	---	101012	---	---	---	---	435079	x=.15 y=1.7m		yes	yes
		---	---	---	---	---	---	---	356514				yes
		---	---	---	---	---	---	---	285211				yes
SE	3	0.11	---	42914	---	---	---	---	178917	x=.6m y=1.0m		yes	yes
		---	---	---	---	---	---	---	111576				yes
		---	---	---	---	---	---	---	110915				yes
NE	4	0.1	---	26408	---	---	---	---	125440	x=.15m y=.3m		yes	yes
		---	---	---	---	---	---	---	118178				yes
		---	---	---	---	---	---	---	85167				yes
N CENTER	5	0.09	---	104313	---	---	---	---	371699	x=.8m y=.15m		yes	yes
		---	---	---	---	---	---	---	269366				yes
		---	---	---	---	---	---	---	211268				yes
NW	6	0.13	---	84507	---	---	---	---	676717	x=1.2 y=.15m		yes	yes
		---	---	---	---	---	---	---	367077				yes
		---	---	---	---	---	---	---	324824				yes

SECTION 12

Above Ground Metal Silo



Above ground Silo

Inside Above Ground Silo



**Figure 12.1
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Above Ground Metal Silo

Prepared: 5/24/96

Box 1

Background					
Instrument	Location	Serial #	Average Background		
HP260	None	----	----	cps	----
LB122	All	4097	164	cps	108275
BICRON	All	B421S	0.7	uSv/h	0.07
				mrem/h	

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

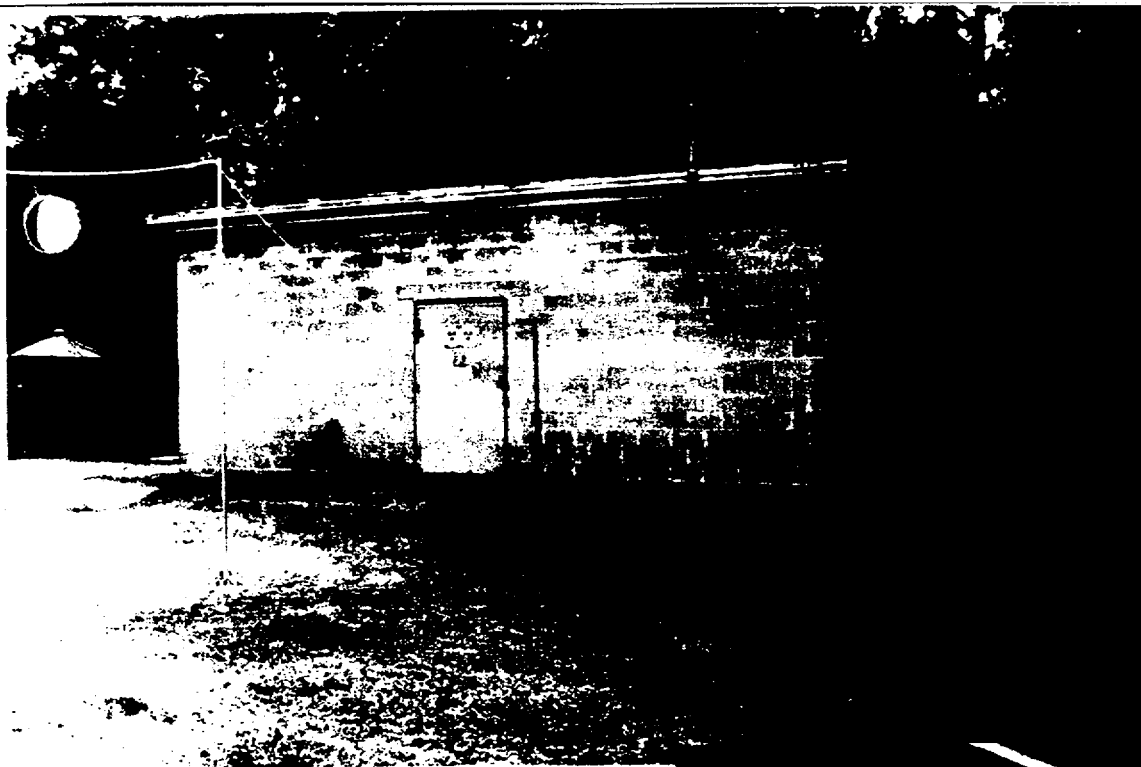
		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ³)	ALPHA (dpm/100cm ³)	BETA (dpm/100cm ³)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor N.E	1	0.23	----	89789	----	----	----	----	412632			yes	yes
Floor N.W	2	0.07	----	89789	----	----	----	----	106294			yes	yes
Floor S.W	3	0.53	----	89789	----	----	----	----	350572			yes	yes
Floor S.E	4	0.1	----	89789	----	----	----	----	598151	Between 2 Drums		yes	yes
Wall West	5	0.01	----	0	----	----	----	----	----				
Wall Center	6	0.01	----	47535	----	----	----	----	234375			yes	yes
Wall East	7	0	----	0	----	----	----	----	46215				yes
Ceiling	8	0	----	0	----	----	----	----	----				

Loose Contamination Monitoring By Random Swiping

Swipe		----	----	----	1690	144	<120		----	----		yes	
Swipe		----	----	----	16740	432	<120		----	----		yes	
Swipe		----	----	----	2160	162	<120		----	----		yes	
Swipe		----	----	----	2280	162	<120		----	----		yes	
Swipe		----	----	----	1800	144	<120		----	----		yes	
Swipe		----	----	----	4560	228	324		----	----		yes	
Swipe		----	----	----	3840	210	<120		----	----		yes	
Swipe		----	----	----	10320	342	132		----	----		yes	
Swipe		----	----	----	840	102	<120		----	----			
Swipe		----	----	----	5220	246	<120		----	----		yes	
Swipe		----	----	----	4500	228	<120		----	----		yes	
Swipe		----	----	----	7140	282	<120		----	----		yes	
Swipe		----	----	----	46980	726	<120		----	----		yes	
Swipe		----	----	----	6360	270	<120		----	----		yes	
Swipe		----	----	----	3660	204	<120		----	----		yes	
Swipe		----	----	----	2160	162	<120		----	----		yes	
Swipe		----	----	----	6120	264	<120		----	----		yes	

SECTION 13

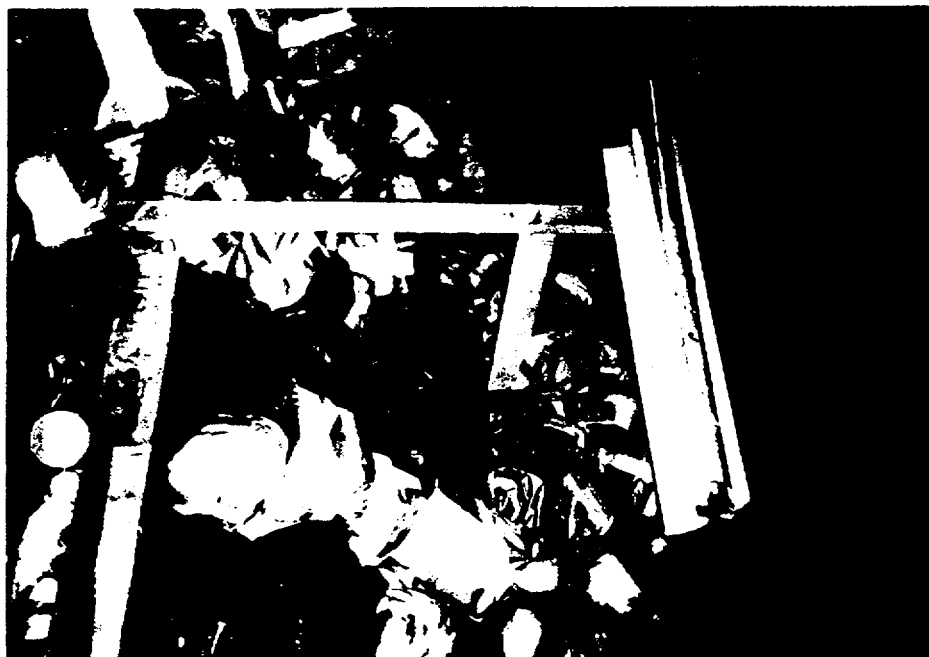
Solid Waste Building



Solid Waste Building
North Wall.

Solid Waste Building:

Small source pails on west
wall, compactor on north
wall.



Solid Waste Building:

Lab waste on east wall.

Figure 13.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Solid Waste Building

Prepared: 5/24/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	all	E1826	1.8	cps	2309.57	dpm/100cm ²
LB122	none	----	----	cps	----	dpm/100cm ²
BICRON	all	A661T	7	urem/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	1	0.043	2823	----	540	<12	<120	5389	----	Cabinet			
S. Wall	2	0.033	898	----	360	<12	<120	----	----				
S. Wall	3	----	----	----	----	----	----	----	----				
S. Wall	4	----	----	----	----	----	----	----	----				
E. Wall	5	0.003	1540	----	240	<12	<120	----	----				
E. Wall	6	0.001	2823	----	360	<12	<120	46448	----	Drill Press			
E. Wall	7	0.004	0	----	480	<12	<120	----	----				
E. Wall	8	----	----	----	----	----	----	----	----				
N. Wall	9	0.013	5389	----	180	<12	<120	1794025	----	Piece of Pipe		yes	
N. Wall	10	----	----	----	----	----	----	----	----				
N. Wall	11	0.023	2823	----	420	<12	<120	----	----				
N. Wall	12	0.013	257	----	300	<12	<120	----	----				
W. Wall	13	0.011	2823	----	300	<12	<120	----	----				
W. Wall	14	0.035	10521	----	1140	<12	<120	767548	----	Cabinets fill grid	yes	yes	
W. Wall	15	0.023	2181	----	240	<12	<120	----	----				
W. Wall	16	0.013	7955	----	300	<12	<120	49014	----	Ladder		yes	
S. ceiling	17	0.043	1283	----	240	<12	<120	----	----				
N. ceiling	18	0.013	3079	----	1620	<12	<120	----	----		yes		
Floor, r1	19	0	0	----	480	<12	<120	----	----				
Floor	20	----	----	----	----	----	----	----	----				
Floor	21	----	----	----	----	----	----	----	----				
Floor	22	0	1540	----	360	<12	<120	177324	----	x=1.2, y=1.0			yes
Floor, r2	23	0.003	513	----	300	<12	<120	----	----				
Floor	24	0.007	2823	----	660	<12	<120	----	----				
Floor	25	0.009	642	----	1680	<12	<120	----	----		yes		
Floor	26	0.023	4106	----	99840	<12	<120	----	----		yes		
Floor, r3	27	0.293	5389	----	1260	<12	<120	----	----		yes	yes	
Floor	28	0.009	1283	----	540	<12	<120	----	----				
Floor	29	0.011	1540	----	1620	<12	<120	----	----		yes		
Floor	30	0.013	257	----	840	<12	<120	----	----				
Floor, r4	31	----	----	----	----	----	----	----	----				
Floor	32	0.023	1540	----	960	<12	<120	----	----				

Figure 13.1
SURVEY RESULTS

EXPOSURE RATE			FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	33	0.023	2181	----	540	<12	<120	----	----				
Floor	34	0.023	4106	----	840	<12	<120	344126	----	x=1.0, y=2.0			yes

Equipment & Fixtures

Fan	1	----	----	----	420	<12	<120	5389	----				
Drill press	6	----	----	----	840	<12	<120	46448	----				yes
Pipe	9	----	----	----	480	20	<120	1794025	----				yes
Light switch	11	----	----	----	360	<12	<120	----	----				
Cabinet	14	----	10521	----	480	<12	643	767548	----	Cabinets fill grid		yes	yes
Cabinet	14	----	10521	----	4020	<12	<120	767548	----	Cabinets fill grid	yes	yes	yes
Ladder	16	----	----	----	360	23	1243	49014	----		yes		yes
Hot spot	22	----	----	----	480	<12	<120	177324	----				yes
Fume hood	27	----	----	----	240	<12	<120	----	----				
Hot spot	34	----	----	----	600	<12	<120	344126	----				yes
Drums		----	----	----	1080	<12	<120	----	----		yes		
Compactor		----	----	----	720	<12	<120	----	----				
Center Lights		----	----	----	1140	<12	<120	----	----		yes		

SECTION 14

Old House



Old House

Contaminated Material in the
Kitchen



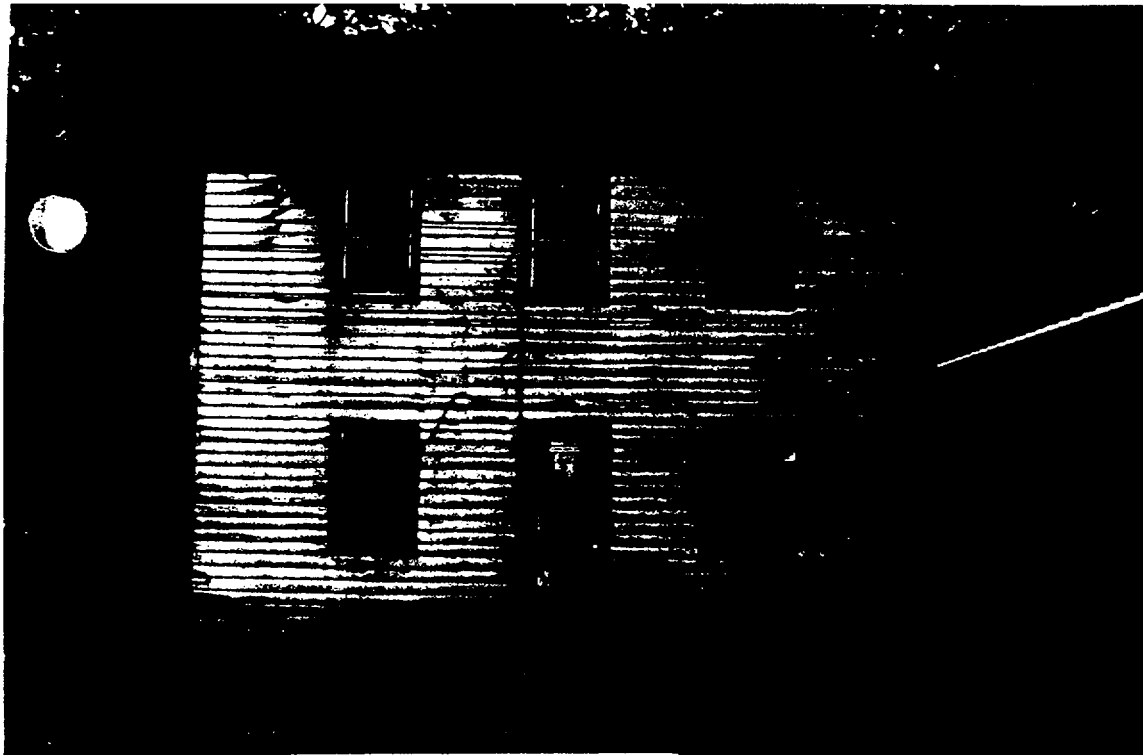
Old House

Stairwell from First Floor
to Second Floor



Old House

Attic



Old House:

Looking at north side

Old House:

Downstairs Living-Room



Old House:

Second floor bedroom

Figure 14.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Old House

Prepared: 5/29/96

Box 1

Background

Instrument	Location	Serial #	Average Background			
HP260	all	E1819/E2176	1.2	cps	1539.71	dpm/100cm ²
LB122	none	---	---	cps	---	dpm/100cm ²
BICRON	all	B708T	7	urem/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	none	not done
Bismuth-214	none	not done
Radium-226	none	not done

A	B	EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS			L	M	N
		C	D	E	F	G	H	I	J	K			
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Bedroom #1, W. Wall	1	0.004	257	----	<60	<12	<120	----	----				
Bedroom #1, S. Wall	2	0.004	385	----	<60	<12	<120	----	----				
Bedroom #1, N. Wall	3	0.004	770	----	<60	<12	<120	----	----				
Bedroom #1, E. Wall	4	0.004	1026	----	<60	<12	<120	----	----				
Bedroom #1, ceiling	5	0.004	0	----	<60	<12	<120	----	----				
Bedroom #1, Floor	6	0.004	1668	----	240	<12	<120	----	----				
Bedroom #2, S. Wall	7	0.005	257	----	<60	<12	<120	----	----				
Bedroom #2, E. Wall	8	0.005	0	----	<60	<12	<120	----	----				
Bedroom #2, N. Wall	9	0.005	257	----	<60	<12	<120	----	----				
Bedroom #2, W. Wall	10	0.005	642	----	<60	<12	<120	----	----				
Bedroom #2, ceiling	11	0.005	513	----	<60	<12	<120	----	----				
Bedroom #2, Floor	12	0.005	1026	----	<60	<12	<120	----	----				
Bedroom #3, S.W. corner	13	0	513	----	<60	<12	<120	----	----				
Bedroom #3, E. Wall	14	0	513	----	<60	<12	<120	----	----				
Bedroom #3, N. Wall	15	0	257	----	<60	<12	<120	----	----				
Bedroom #3, W. Wall	16	0	128	----	<60	<12	<120	----	----				
Bedroom #3, ceiling	17	0	0	----	<60	<12	<120	----	----				
Bedroom #3, Floor	18	0	513	----	<60	14	<120	----	----				
Front room, S. Wall	19	0.01	2310	----	600	<12	<120	----	----				
Front room, E. Wall	20	0.01	1411	----	120	<12	<120	----	----				
Front room, N. Wall	21	----	----	----	180	<12	<120	----	----				
Front room, bench	22	----	----	----	720	<12	<120	----	----				
Front room, Floor	23	0.01	52350	----	1500	34	<120	----	----		yes	yes	
Front room, ceiling	24	0.01	642	----	360	<12	<120	----	----				
Family room, Bench	25	----	----	----	780	<12	<120	----	----				
Family room, E. Wall	26	0.011	0	----	240	<12	<120	----	----				
Family room, cylinder	27	----	----	----	300	<12	<120	----	----				
Family room, W. Wall	28	----	1026	----	360	<12	<120	----	----				
Family room, Floor	29	----	4876	----	780	<12	<120	----	----				
Family room, ceiling	30	----	----	----	<60	<12	<120	----	----				
Kitchen, N. Wall	31	----	385	----	300	<12	<120	----	----				
Kitchen, E. Wall	32	----	257	----	180	<12	<120	----	----				
Kitchen, S. Wall	33	----	----	----	<60	<12	<120	----	----				
Kitchen steps	34	----	----	----	360	<12	<120	----	----				
Upper hall, S. Wall	35	0.005	513	----	<60	<12	<120	----	----				

Figure 14.1
SURVEY RESULTS

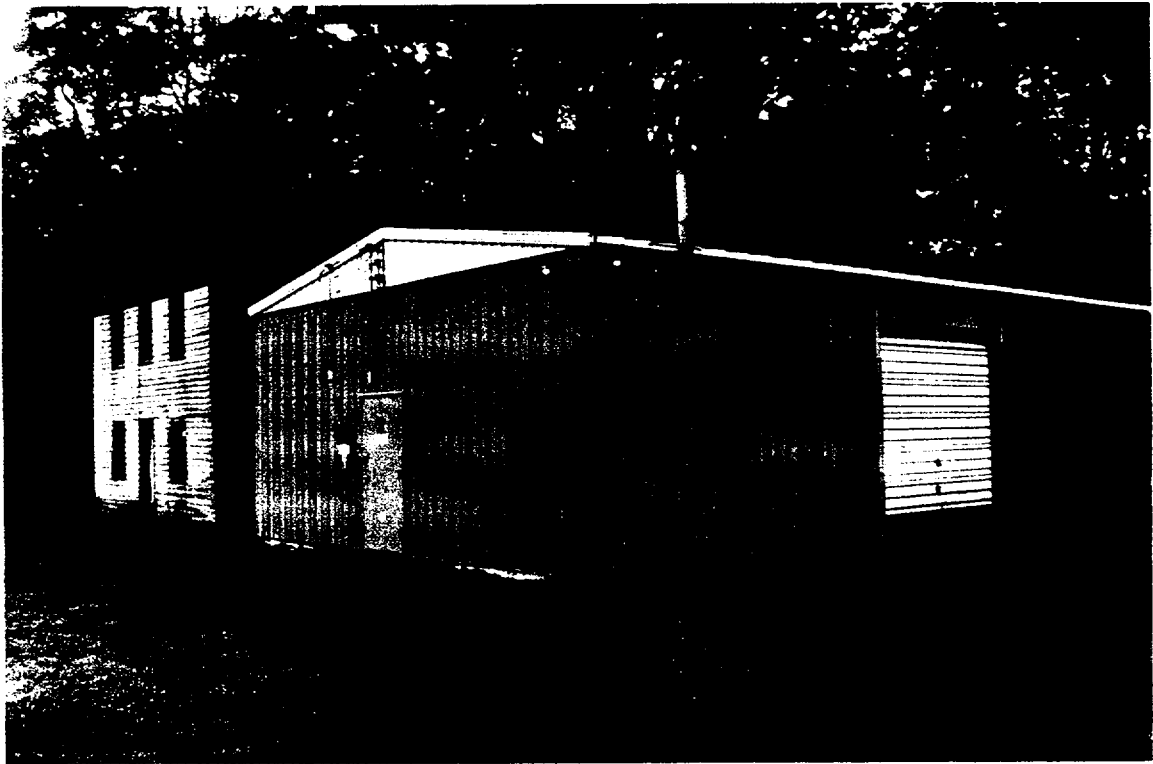
		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Upper hall,N. Wall	36	0.005	642	----	120	<12	<120	----	----				
Upper hall,W. Wall	37	0.005	128	----	<60	<12	<120	----	----				
Upper hall,E. Wall	38	0.005	0	----	240	<12	<120	----	----				
Upper hall,ceiling	39	0.005	3593	----	60	<12	<120	----	----				
Upper hall,Floor	40	0.005	8725	----	----	<12	<120	----	----			yes	
1st & 2nd Floor stairway	42	----	4876	----	120	<12	<120	----	----				
Stairway,railing	43	----	2310	----	<60	<12	<120	----	----				
Stairway top step only	44	----	----	----	120	<12	<120	8725	----	Top Step			
Stairway E. wall	45	----	770	----	120	<12	<120	----	----				
Stairway W. wall		----	770	----	----	----	----	----	----				
Stairway S. wall	46	----	0	----	<60	<12	<120	----	----				
Upper staircase W. wall		----	128	----	----	----	----	----	----				
Upper staircase E. wall		----	1026	----	----	----	----	----	----				
Upper staircase S. wall		----	770	----	----	----	----	----	----				
Upper staircase bottom	47	----	----	----	<60	<12	<120	126770	----	Paper at bottom of stairs			yes
Upper staircase top	48	----	----	----	300	<12	<120	----	----				
Attic Floor	49	0.007	----	----	120	<12	<120	25405	----	Paper on Floor			yes
Kitchen W. Wall	51	----	----	----	960	<12	<120	----	----				
Kitchen Floor	52	----	----	----	28080	<12	<120	----	----		yes		
Kitchen ceiling	53	----	----	----	420	<12	<120	----	----				

Equipment & Fixtures

Cabinet in family room	23	----	----	----	1440	26	<120	36953	----	Cabinet facing south	yes		yes
Safe in front room	23	----	----	----	360	<12	<120	----	----				
Drum in front room	23	----	----	----	4440	<12	<120	----	----		yes		
H.S. paper on Floor	40	----	----	----	<60	<12	<120	165263	----	Hot spot paper on Floor			yes
Attic garbage can	49	0.007	----	----	<60	<12	<120	228134	----	Garbage Can			yes
Drum #1 in kitchen	52	----	----	----	300	17	<120	135752	----	Drum #1			yes
Drum #2 in kitchen	52	----	----	----	300	17	<120	17707	----	Drum #2			yes

SECTION 15

Liquid Waste Building



Liquid Storage Building
Outside looking south east



Liquid Storage Building
Looking at north-east corner, shows contaminated scale/table.

**Figure 15.1
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Liquid Waste Building

Prepared: 5/29/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	walls	E2176	1	cps	1283.10	dpm/100cm ²
LB122	Floor	2160	14	cps	9441.02	dpm/100cm ²
BICRON	all	B421S	0.05	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	Unknown	Not done
Bismuth-214	Unknown	Not done
Radium-226	Unknown	Not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S wall	1	0	0	---	<60	<12	<120	---	---				
S wall	2	0	0	---	60	<12	<120	---	---				
S wall	3	0	0	---	<60	<12	<120	---	---				
S wall	4	0	0	---	<60	<12	<120	---	---				
S wall	5	0	0	---	<60	<12	<120	---	---				
E wall	6	0	0	---	<60	<12	<120	---	---				
E wall	7	0	0	---	<60	<12	<120	---	---				
E wall	8	0	0	---	<60	<12	<120	---	---				
E wall	9	0	0	---	<60	<12	<120	---	---				
E wall	10	0	0	---	60	<12	<120	---	---				
E wall	11	0	0	---	<60	<12	<120	---	---				
E wall	12	0	0	---	<60	<12	<120	---	---				
N wall	13	0	0	---	<60	<12	<120	---	---				
N wall	14	0	0	---	<60	<12	<120	---	---				
N wall	15	0	0	---	<60	<12	<120	---	---				
N wall	16	0	0	---	<60	<12	<120	---	---				
N wall	17	0	0	---	<60	<12	<120	---	---				
W wall	18	0	0	---	<60	<12	<120	---	---				
W wall	19	0	0	---	<60	<12	<120	---	---				
W wall	20	0	0	---	<60	<12	<120	---	---				
W wall	21	0	0	---	<60	<12	<120	---	---				
W wall	22	0	0	---	<60	<12	<120	---	---				
W wall	23	0	0	---	<60	<12	<120	---	---				
W wall	24	0	0	---	<60	<12	<120	---	---				
Floor, r1	25	0	---	0	<60	<12	<120	---	---				
Floor	26	0	---	0	<60	<12	<120	---	---				
Floor	27	0	---	0	<60	<12	<120	---	---				
Floor	28	0	---	0	<60	<12	<120	---	---				
Floor	29	0	---	0	<60	<12	<120	---	---				
Floor, r2	30	0	---	0	<60	<12	<120	---	---				
Floor	31	0	---	0	60	<12	<120	---	---				
Floor	32	0	---	0	<60	<12	<120	---	---				

Figure 15.1
SURVEY RESULTS

A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HPZ60 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HPZ60 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
											EXPOSURE RATE	FIXED AVERAGE CONTAMINATION	LOOSE CONTAMINATION

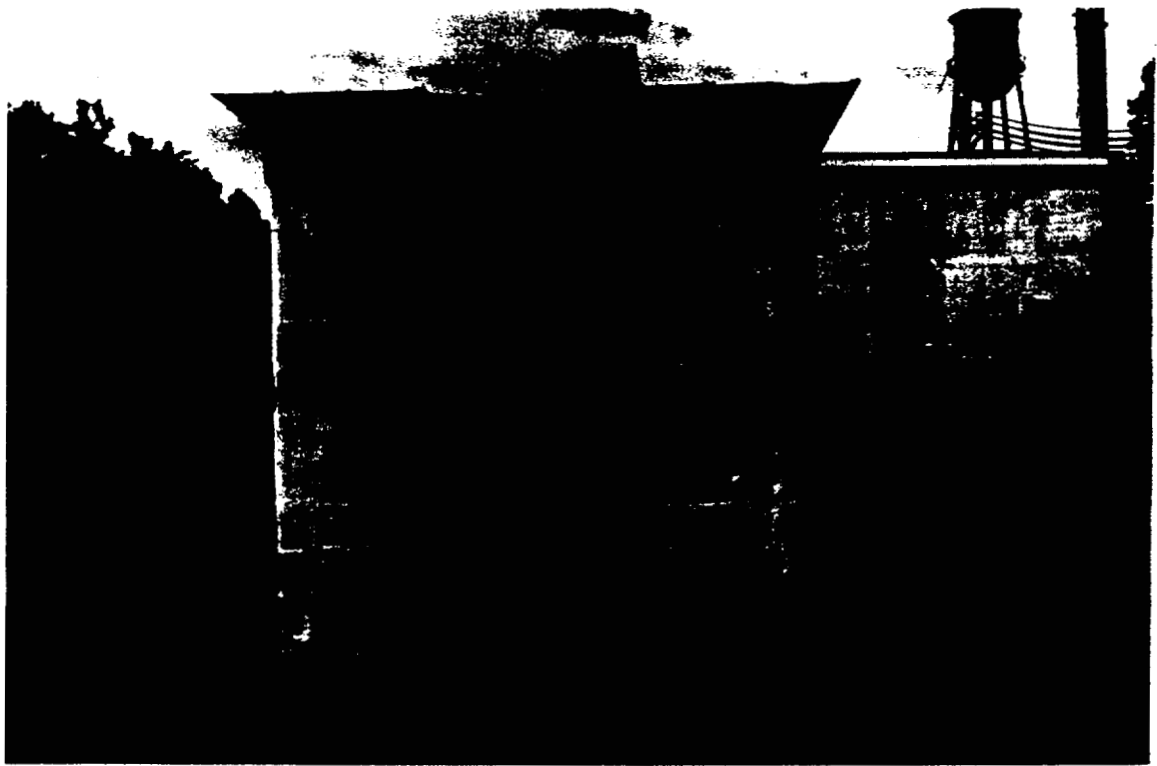
Floor	33	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	34	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor, r3	35	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	36	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	37	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	38	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	39	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor, r4	40	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	41	0	---	0	180	<12	<120	---	---	---	---	---	---	---
Floor	42	0	---	0	1140	<12	<120	---	---	---	---	yes	---	---
Floor	43	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	44	0	---	0	180	<12	<120	---	---	---	---	---	---	---
Floor, r5	45	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	46	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	47	0	---	0	120	<12	<120	---	---	---	---	---	---	---
Floor	48	0	---	0	480	<12	<120	---	---	---	---	---	---	---
Floor	49	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor, r6	50	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	51	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	52	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	53	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	54	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor, r7	55	0	---	0	120	<12	<120	---	---	---	---	---	---	---
Floor	56	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Floor	57	0	---	0	300	<12	<120	---	---	---	---	---	---	---
Floor	58	0	---	462	<60	<12	<120	---	---	---	---	---	---	---
Floor	59	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Ceiling	60	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Ceiling	61	0	---	0	<60	<12	<120	---	---	---	---	---	---	---
Ceiling	62	0	---	0	<60	<12	<120	---	---	---	---	---	---	---

Equipment & Fixtures

Bench legs	0.004	---	---	<60	<12	<120	15397	---	---	---	---	---	---	---
West sink	0.01	---	---	<60	160	150	289980	---	---	---	---	---	---	---
Scale	0.02	---	---	<60	<12	<120	114196	---	---	---	---	---	---	---
Scale	0.02	---	---	<60	<12	<120	71853	---	---	---	---	---	---	---

SECTION 16

8 By 8 Building



8 x 8 Building: Outside



8 x 8 Building: West wall inside

**Figure 16.1
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

8 by 8 Building

Prepared: 5/29/96

Box 1

<u>Background</u>					
Instrument	Location	Serial #	Average Background		
HP260	Equip	E2176	50	cps	64154.79 dpm/100cm ²
LB122	All	5274	60	cps	39612.68 dpm/100cm ²
BICRON	All	B421S	0.3	uSv/h	0.03 mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	Unknown	Yes
Bismuth-214	Unknown	Yes
Radium-226	Unknown	Yes

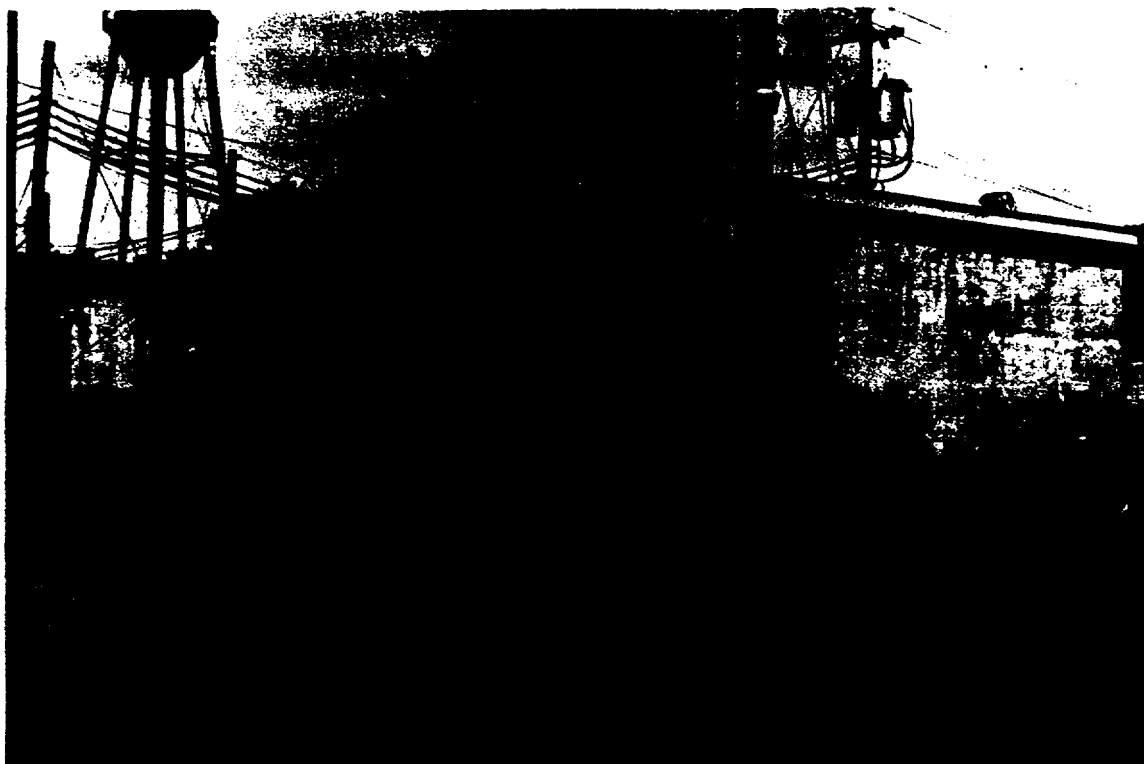
		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S Wall	1	0.17	---	0	300	<12	<120	---	114217	Top wall center			yes
								---	151849	Bottom wall center			yes
E Wall	2	0	---	13204	<60	<12	<120	---	79225	Edge of door Floor		yes	yes
								---	36312	Center wall edge			yes
								---	39613	Center green paint			yes
								---	65361	Edge of door			yes
N Wall	3	0	---	0	60	<12	<120	---	52817	Center of wall			yes
Floor South	4	0.02	---	0	120	<12	<120	---	14644146	Bicron 100uSv/h			yes
								---	---	Entrance of doorway			
								---	---				
Floor North	5	0	---	59419	960	<12	<120	---	91769	Left side of doorway		yes	yes
								---	159111	Top left corner			yes
W Wall	6	0.03	---	0	240	<12	<120	---	31690	Block left corner			yes
Ceiling	7	0	---	0	---	---	---	---	---				

Equipment & Fixtures

Timer	4	---	25662	---	---	---	---	---	---			yes	
Large blue tank		---	102648	---	---	---	---	---	---			yes	
Motor red box		---	128310	---	---	---	---	---	---			yes	
Light switch wall		---	3348880	---	---	---	---	---	---			yes	
Box with orange paint		---	0	---	---	---	---	---	---				
Outside lock hasp		---	3400204	---	---	---	---	---	---			yes	

SECTION 17

Utility Building



Utility Building: Outside



Utility Building: Inside, looking at North wall.

Figure 17.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT
Utility Building

Prepared: 5/29/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	None	---	---	cps	---	dpm/100cm ²
LB122	All	B421S	26	cps	17165.49	dpm/100cm ²
BICRON	All	5274	0.1	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S Wall	1	0.002	---	1981	<60	<12	<120	---	---				
S Wall	2	0.002	---	1981	<60	<12	<120	---	---				
E Wall	3	0.002	---	1981	<60	<12	<120	---	---				
E Wall	4	0.002	---	1981	<60	<12	<120	---	---				
E Wall	5	0.002	---	1981	<60	<12	<120	---	248239	x=1.3 y=1.1 from d way			yes
N Wall	6	0.002	---	1981	<60	<12	<120	---	---				
N Wall	7	0.002	---	1981	60	<12	<120	---	---				
W Wall	8	0.002	---	1981	<60	<12	<120	---	---				
W Wall	9	0.002	---	1981	<60	<12	<120	---	---				
W Wall	10	0.002	---	1981	<60	<12	<120	---	---				
Floor, r1	11	0.002	---	15845	<60	<12	<120	---	82526	center cement area		yes	yes
Floor	12	0.005	---	15845	120	<12	<120	---	126761	x=0.6 y=1.7		yes	yes
Floor, r2	13	0.01	---	29049	120	<12	<120	---	1217430	center cement area		yes	yes
Floor	14	0	---	12544	<60	<12	<120	---	27069	center cement area		yes	yes
Floor, r3	15	0	---	9243	<60	<12	<120	---	41593	center cement area		yes	yes
Floor	16	0.003	---	15845	<60	<12	<120	---	35651	center cement area		yes	yes
Ceiling	17	0.002	---	1981	240	<12	846	---	---				
Ceiling	18	0.002	---	1981	<60	<12	<120	---	---				
Ceiling	19	0.002	---	1981	<60	<12	<120	---	---				
w side dock	20	0	---	3961	60	<12	120	---	---				
e side dock	21	0	---	7262	<60	<12	<120	---	151849	x=4.7 y=0.9 edge dock		yes	yes

Equipment & Fixtures

Cupboard	0.01	---	0	<60	<12	<120	---	---					
Saw	0.001	---	0	<60	<12	<120	---	---					
Shelf	0.001	---	1320	<60	<12	<120	---	---					
Desk	0	---	660	<60	<12	<120	---	---					
Scint Coun.	0	---	0	<60	<12	<120	---	---					
Boxes	0.003	---	7262	<60	<12	<120	---	---				yes	

Figure 17.1
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS						
A	B	C	D	E	F	G	H	I	J	K		L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION		LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Motor		0	---	660	<60	<12	<120	---	---					
Wall Heater		0	---	660	<60	<12	<120	---	---					
Boxes		0.001	---	0	<60	<12	<120	---	---					
Bench		0.001	---	2641	<60	<12	<120	---	---					

SECTION 18

Radium-226 Vault

Figure 18.1
SURVEY RESULTS

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Radium 226 Vault

Prepared: 5/29/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	All	E01819	1.22	cps	1565.38	dpm/100cm ²
LB122	None	---	---	cps	---	dpm/100cm ²
BICRON	All	B421S	0.05	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope Present	Historically Present	Currently Present
Caesium-137	unknown	not done
Bismuth-214	yes	not done
Radium-226	yes	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	1	0.01	---	---	---	---	---	---	---				
Floor	2	0.015	---	---	---	---	---	---	---				
Floor	3	0.025	---	---	---	---	---	---	---	Bicron H.S 0.4 uSv/h			
Floor	4	0.025	---	---	---	---	---	---	---	Bicron H.S 3.0 uSv/h			
Floor	5	0.015	---	---	---	---	---	---	---				
Floor	6	0.015	---	---	---	---	---	---	---				
W.Wall	7	0.01	744	---	---	---	---	---	---				
W.Wall	8	0.01	744	---	---	---	---	---	---				
W.Wall	9	0.01	744	---	---	---	---	---	---				
W.Wall	10	0.01	744	---	---	---	---	---	---				
W.Wall	11	0.005	488	---	---	---	---	---	---				
W.Wall	12	0.005	488	---	---	---	---	---	---				
N.Wall	13	0.009	616	---	---	---	---	---	---				
N.Wall	14	0.009	616	---	---	---	---	---	---				
N.Wall	15	0.015	231	---	---	---	---	1899	---	shine from table			
N.Wall	16	0.015	231	---	---	---	---	---	---				
N.Wall	17	0.015	3567	---	---	---	---	12035	---	table in corner			
N.Wall	18	0.015	3567	---	---	---	---	---	---				
N.Wall	19	0.009	359	---	---	---	---	---	---				
N.Wall	20	0.009	359	---	---	---	---	---	---				
E.Wall	21	0.009	359	---	---	---	---	---	---				
E.Wall	22	0.009	359	---	---	---	---	---	---				
E.Wall	23	0.01	488	---	---	---	---	---	---				
E.Wall	24	0.01	488	---	---	---	---	---	---				
E.Wall	25	0.01	359	---	---	---	---	---	---				
E.Wall	26	0.01	359	---	---	---	---	---	---				
S.Wall	27	0.01	231	---	---	---	---	---	---				
S.Wall	28	0.01	231	---	---	---	---	---	---				
S.Wall	29	0.01	231	---	---	---	---	---	---				
S.Wall	30	0.01	231	---	---	---	---	---	---				
S.Wall	31	0.008	231	---	---	---	---	---	---				
S.Wall	32	0.008	231	---	---	---	---	---	---				

Figure 18.1
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE I	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S. Wall	33	0.01	488	---	---	---	---	---	---				
S. Wall	34	0.01	488	---	---	---	---	---	---				



Radium Building: Looking at outside entrance.



Radium Building:
Inside looking down from damaged roof

SECTION 19

Plastics Machine Shop

**Figure 19.1
SURVEY RESULTS**

MONSERCO LIMITED - SAFETY LIGHT PROJECT

Plastics Machine Shop

Prepared: 5/31/96

Box 1

Background						
Instrument	Location	Serial #	Average Background			
HP260	Equipment	2176	0.5	cps	641.55	dpm/100cm ²
LB122	Ceiling	5274	19	cps	12544.01	dpm/100cm ²
Bicron	All	B421S	0.07	uSv/h	0.01	mrem/h

Box 2

Gamma Spectroscopy Isotope Information

Isotope	Historically	Currently
Present	Present	Present
Caesium-137	unknown	not done
Bismuth-214	unknown	not done
Radium-226	unknown	not done

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
S Wall	1	0	---	---	<60	<12	<120	---	---				
S Wall	2	0	---	---	120	<12	<120	---	---				
S Wall	3	0	---	---	60	<12	<120	---	---				
E Wall	4	0	---	---	240	<12	<120	---	---				
E Wall	5	0.001	---	---	120	<12	<120	---	---				
E Wall	6	0.001	---	---	<60	<12	<120	---	---				
E Wall	7	0.002	---	---	180	<12	<120	---	---				
E Wall	8	0.003	---	---	60	<12	<120	---	---				
E Wall	9	0.005	---	---	360	<12	<120	---	---				
E Wall	10	0.002	---	---	<60	<12	<120	---	---				
N Wall	11	0.013	---	---	<60	<12	<120	---	---				
N Wall	12	0.023	---	---	120	<12	<120	---	---				
N Wall	13	0.023	---	---	60	<12	<120	---	---				
W Wall	14	0.003	---	---	<60	<12	<120	---	---				
W Wall	15	0.001	---	---	<60	<12	<120	---	---				
W Wall	16	0	---	---	<60	<12	<120	---	---				
W Wall	17	0	---	---	<60	<12	<120	---	---				
W Wall	18	0	---	---	<60	<12	<120	---	---				
W Wall	19	0	---	---	<60	<12	<120	---	---				
W Wall	20	0	---	---	<60	<12	<120	---	---				
Floor	21	0.001	---	---	<60	<12	<120	---	---				
Floor	22	0.001	---	---	<60	<12	<120	---	---				
Floor	23	0.001	---	---	<60	<12	<120	---	---				
Floor	24	0.013	---	---	<60	<12	<120	---	---				
Floor	25	0	---	---	<60	<12	<120	---	---				
Floor	26	0	---	---	<60	<12	<120	---	---				
Floor	27	0	---	---	<60	<12	<120	---	---				
Floor	28	0	---	---	120	<12	<120	---	---				
Floor	29	0	---	---	<60	<12	<120	---	---				
Floor	30	0	---	---	<60	<12	<120	---	---				
Floor	31	0.001	---	---	120	<12	<120	---	---				
Floor	32	0.001	---	---	120	<12	<120	---	---				
Floor	33	0.003	---	---	60	<12	<120	---	---				

Figure 19.1
SURVEY RESULTS

		EXPOSURE RATE	FIXED AVERAGE CONTAMINATION		LOOSE CONTAMINATION			HOT SPOTS					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
SAMPLE ID	GRID #	BICRON (mrem/h)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	TRITIUM (dpm/100cm ²)	ALPHA (dpm/100cm ²)	BETA (dpm/100cm ²)	HP260 (dpm/100cm ²)	LB122 (dpm/100cm ²)	DESCRIPTION	LOOSE > 1,000 (dpm/100cm ²)	AVERAGE > 5,000 (dpm/100cm ²)	HOT SPOT > 15,000 (dpm/100cm ²)
Floor	34	0.004	---	---	120	<12	<120	---	---				
Floor	35	0.004	---	---	<60	<12	<120	---	---				
Floor	36	0.011	---	---	<60	<12	<120	---	---				
Floor	37	0.013	---	---	<60	<12	<120	---	---				
Floor	38	0.005	---	---	120	<12	<120	---	---				
Floor	39	0.023	---	---	120	<12	<120	---	---				
Floor	40	0.028	---	---	360	<12	<120	---	---				
Floor	41	0.008	---	---	360	<12	<120	---	---				
N Ceiling	42	---	---	6602	120	<12	<120	---	---			yes	
C Ceiling	43	---	---	0	120	<12	<120	---	---				
S Ceiling	44	---	---	0	<60	<12	<120	---	---				
Outside	45	0.005	---	---	480	<12	<120	---	---	Exhaust Assembly			

Equipment & Fixtures

Lathe	---	513	---	<60	<12	<120	---	---				
Milling Machine	---	513	---	<60	<12	<120	---	---				
Radial Arm Saw	---	513	---	<60	<12	<120	---	---				
Yellow Punch	---	4747	---	<60	<12	<120	---	---				
Sink in Bathroom	---	335530	---	<60	<12	<120	---	---			yes	
Water line in pit	---	---	660	<60	<12	<120	---	---				
Exhaust assemble	---	---	0	<60	<12	<120	---	---				



Plastics Machine Shop:

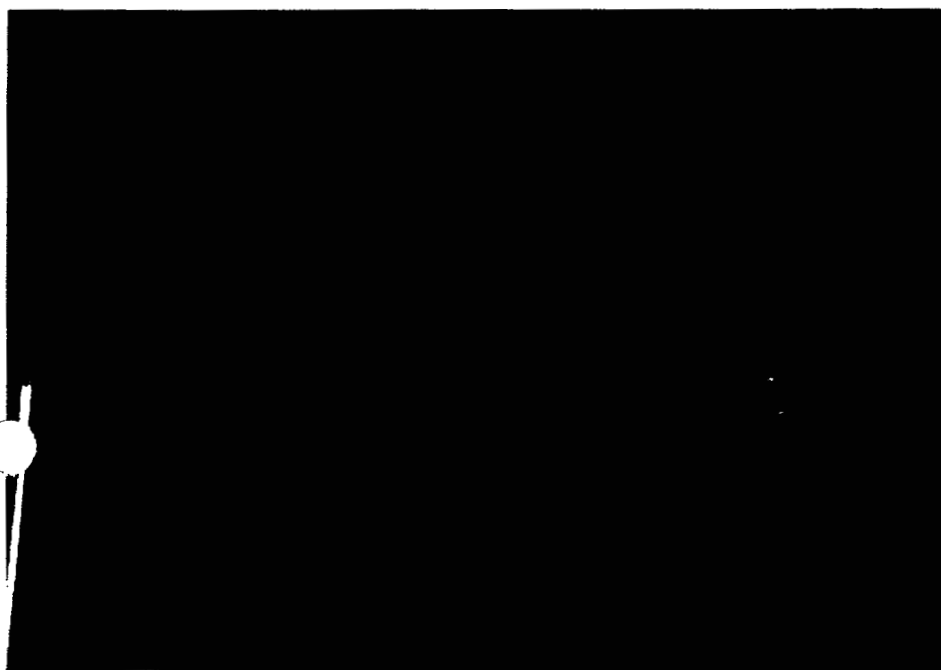
South-east walls of building.

Plastics Machine Shop:

Equipment in Building.



Plastics Machine Shop



Plastics Machine Shop:

Old H-3 line running along ceiling
of building