UNITED NUCLEAR CORPORATION

CHURCH ROCK MILL SITE

FINAL RADIOLOGICAL REPORT

LICENSE NO. SUA-1475

DOCKET NO. 40-8907

NOV. 10, 1993

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1.0 Introduction

The Churchrock mill owned and operated by United Nuclear Corporation is located approximately 17 miles northeast of Gallup, New Mexico, on Section 2, Township 16 North, Range 16 West, McKinley County. The mill was licensed to operate by the State of New Mexico on May, 1977. It operated until May, 1982, when it was placed on standby due to the economic condition of the uranium industry.

The plant was shut down systematically so that all ore and process solutions were completely processed through the plant before shutdown.

United Nuclear determined in late 1984 that the Churchrock facility would be closed permanently. In 1988 United Nuclear submitted its Mill Decommissioning Plan which was approved by the NRC in January, 1991.

The Mill Decommissioning was done in two phases. In 1991 the above-ground mill facilities and associated equipment were demolished and hauled to Borrow Pit #2 and disposed of as per our Reclamation Plan.

In 1992, with the exception of concrete buried in place as explained in our Decommissioning Report, all cement floors, sumps, foundations, solvent extraction circuit and all underground process piping was demolished, hauled to Borrow Pit #2 and disposed of as per our Reclamation Plan. The 1992 Plan also included the excavation of contaminated soils from the Mill process area, ore pad and catch basins. United Nuclear submitted its Mill Decommissioning Report in April of 1993.

United Nuclear performed its Reclamation and Interim Cover Placement on its tailings site in three phases--1989, North Cell; 1990, Central Cell, and 1991, South Cell.

United Nuclear will complete placement of the final cover on the North Cell by November 30, 1993, weather permitting.

2.0 Procedure for Radiological Surveys

Prior to any surveys, the instruments were function checked with certified sources. Instruments used were Eberline PS2 SR #285 with a Alpha Probe AC-3-7 SR #714209; Ludlum 19 SR #9180, and Eberline SAC 4 SR #221. Certified sources used Th 230 SR #1109 DPM 860, Th 230 SR #1310 DPM 8880 and a Cs 137 SR #1524 ur/hr 200 (1.55 uci).

The Mill restricted site was gridded on 100 ft. increments. Using the 100 ft. grid points as our baseline, the survey was performed on a 10 meter grid system. Surveys performed were Gamma Survey on surface and at 1 meter above surface. On the paved areas around the Shop and Administration Building, an Alpha Survey was also performed.

The buildings were gridded on a 10x10 foot square and two surveys performed in each square. Both Alpha and Gamma Surveys were performed. Removable Alpha was only required if the surface survey was 1,000 DPM. However, we did perform some Alpha removable surveys when surface readings were below the 1,000 DPM requirement.

The Radiological Survey Data is reported in the enclosed Appendixes.

3.0 RADIOLOGICAL DATA SUMMARY

I. Administration (49 rooms, a lobby, 1 waiting area, 1 secretary/filing area and 5 separate hallway areas)

Area		Highest γ μr/hr	Highest Surface α dpm/100cm^2	Removable α Swipe dpm/100cm^2
Interior:	Wall	21.5	97	
	Floor	21.5	170	
	Ceiling	21.5	40	
Exterior:	Wall (66-10'x10' areas)	12.0	73	
	Roof (112-10'x10' areas)	10.0	607	5
	Equipment on Roof	11.5	162	

II. Guard/Change House (14 rooms and 1 hallway area)

Area		Highest γ μr/hr	Highest Surface α dpm/100 cm^2	Removable α Swipe dpm/100cm^2
Interior:	Wall	20.5	146	
	Floor	20.0	453	
	Ceiling	20.0	24	
Exterior:	Wall (22-10'x10' areas)	17.0	170	
	Roof (34-10'x10' areas)	10.5	1,538	15
	Ceiling (6-10'x10' areas)	9.5	36	
	Equipment on Roof	10.5	749	3

III. Garage (3 small rooms and 5 main garage areas)

Area		Highest γ μr/hr	Highest Surface α dpm/100 cm^2	Removable α Swipe dpm/100cm^2
Interior:	Wall	18.0	571	
	Floor	18.0	219	
	Ceiling	18.0	24	
	Roof	8.0	170	
Exterior:	Wall (66-10'x10' areas)	10.0	57	
	Roof (112-10'x10' areas)	10.0	146	
	Equipment on Roof	7.0	170	

IV. Lab/Office (19 rooms, 2 vestibules, 1 hallway, and 2 main lab areas)

Area		Highest γ μr/hr	Highest Surface α dpm/100cm^2	Removable α Swipe dpm/100cm^2
Interior:	Wall	14.0	155	
	Material on Wall	13.5	133	
	Floor	12.5	577	29
	Material on Floor	12.5	700	
	Ceiling	12.5	67	
	Equipment on Ceiling	9.5	133	
Exterior:	Wall (25-10'x10' areas)	10.0	146	
	Roof (61-10'x10' areas)	10.0	607	
	Equipment on Roof	9.0	773	

V. Warehouse - Ground Floor (2 rooms and 1 main area) and Top Floor (18 rooms, 5 separate hallway areas, 1 main area, and 1 stairway)

a. Area - Ground Floor		Highest γ μr/hr	Highest Surface α dpm/100cm^2	Removable α Swipe dpm/100cm^2
Interior:	Wall	19.0	73	
	Floor	16.5	283	
	Ceiling	16.0	24	
b. Area - Top Floor				
Interior:	Wall	10.0	89	
	Floor	10.5	126	
	Ceiling	7.0	89	
	Stairway	5.5	78	
Exterior:	Survey will be included with the Shop Area			

VI. Machine and Electrical Shop (6 rooms, 4 main shop areas, 2 separate corridor areas and 2 stairways)

Area		Highest γ μr/hr	Highest Surface α dpm/100cm^2	Removable α Swipe dpm/100cm^2
Interior:	Wall	19.5	219	
	Floor	19.5	243	
	Ceiling	19.5	198	
	Roof	10.0	121	
	Stairway	12.0	97	
Exterior: (Shop/ Warehouse)	Wall (56-10'x10' areas)	9.0	688	
	Roof (132-10'x10' areas)	8.0	73	
	Material on Roof	7.0	380	

VII. Paved Areas around Shop and Administration Buildings (89 - 10 meter incremental survey points)

Highest γ Contact-Shielded μr/hr	Highest γ 1 meter-unshielded	Highest Surface α dpm/100cm²
12.0	20.0	502

VIII. Final Verification Survey on Reclaimed Process Areas within the Mill Restricted Areas, including untargeted areas up to the fenceline

	Highest Contact-Shielded μr/hr	Highest 1 meter-unshielded	Highest Surface dpm/100cm²
a. Reclaimed Area (≈ 725 - 10 meter survey points)	15.0 @ 7 pts.	38.0 @ 1 pt.	
b. Outside of Process Area (≈ 266 - 10 meter survey points)	14.0 @ 1 pt.	24.0 @ 1 pt.	

IX. Other Significant Areas

1. Tire Storage (existing canopy/w support beams)

Area		Highest γμr/hr	Highest Surface α dpm/100 cm²	Removable α Swipe dpm/100cm²
Exterior:	Floor	7.5	388	
	Roof	9	133	
	Ceiling	8.5	41	
	Support Beam	7	89	

2. Lube Storage (existing cement floor foundation)

Area		Highest γμr/hr	Highest Surface α dpm/100cm²	Removable α Swipe dpm/100cm²
Exterior:	Floor	5	299	

3. Scale House (existing truck/scale house cement floor, scale shed with stairway)

Area		Highest γμr/hr	Highest Surface α dpm/100cm²	Removable α Swipe dpm/100cm²
Exterior:	Floor	9.5	517	
	Wall (Shed)	15.5	59	
	Roof (Shed)	15.5	129	
	Stairway (Shed)	15.5	73	
Interior:	Floor (Shed)	15.5	377	
	Wall (Shed)	15.5	55	
	Ceiling (Shed)	15.5	52	

4. Culvert (existing drainage concrete forms for 1-6'5" dia. and 3-4' dia. tunnels)

Area		Highest γ μr/hr	Highest Surface α dpm/100 cm^2	Removable α Swipe dpm/100cm^2
Exterior:	Floor	22	992	8
	Wall	20	1,113	37
Interior:	Tunnel Wall	19	1,166	29

5. Fuel Oil Storage Tank (existing concrete foundation and 1 steel tank)

Area		Highest γ μr/hr	Highest Surface α dpm/100cm^2	Removable α Swipe dpm/100cm^2
Exterior:	Foundation	7	207	
	Tank Wall	7	55	
Interior:	Tank Wall	7	78	

4.0 LIST OF APPENDIXES

A. NRC - UNC Split Soil Sampling Data

B. Administration Building's Exterior Survey Data

C. Administration Building's Interior Survey Data

D. Reference Drawing for Administration Interior Survey Points

E. Guard/Change House Exterior Survey Data

F. Guard/Change House Interior Survey Data

G. Garage, Shops, Warehouse, Laboratories and Operation Offices Exterior Survey Data

H. Garage Interior Survey Data

I. Machine and Electric Shops Interior Survey Data

J. Warehouse Interior Survey Data

K. Laboratories and Operations Offices Interior Survey Data

L. Reference Drawing for Garage, Shops, Warehouse, Laboratories and Operations Offices Interior Survey Points

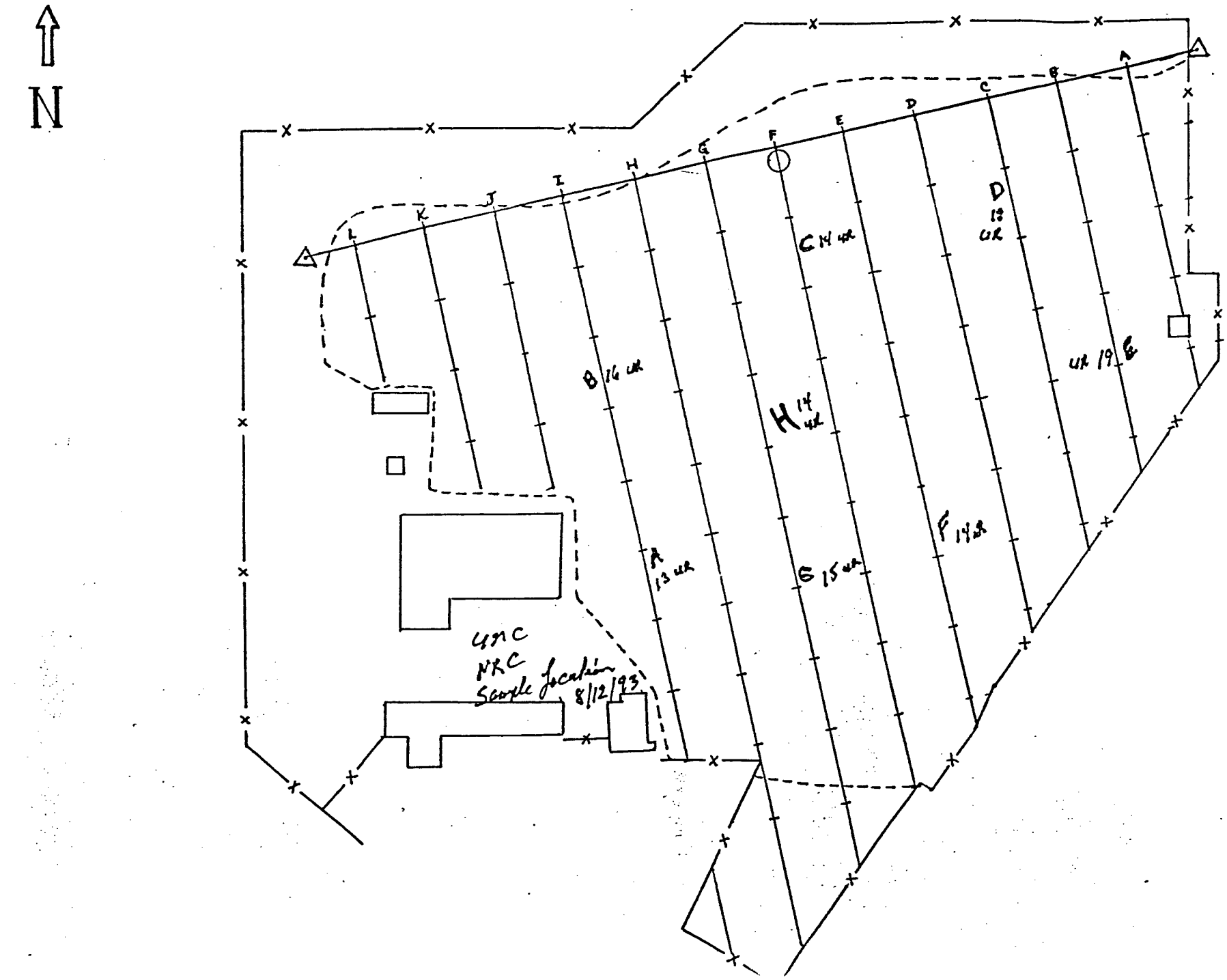
M. Warehouse Top Floor Interior Survey Data and Reference Drawing

N. Other Areas Exterior and Interior Survey Data

O. Drawing of Mill Surface Area Showing Survey Data and Reference Points

NRC - UNC Split Soil Sampling Data

1. Area Drawings Showing Sampling Points
2. Page 3 from Mr. Gary Konwinski's Inspection
3. Energy Laboratory's Soil Analysis Report and Quality Control


N
A
B
C
D
E
F
G
H
I
J
K
L
D 18 UR
C 14 UR
B 16 UR
H 14 UR
UR 19 E
F 14 UR
A 13 UR
G 15 UR
UNC
NRC
Sample location
8/12/93

Sample	Ra-226			Uranium		
	Bq/Kg	pCi/g		Bq/Kg	pCi/g	
UNC-A	33	0.9	0.8	86	2.3	1.4
UNC-B	68	1.8	2.2	480	13.0	12.2
UNC-C	43	1.2	0.7	68	1.8	2.2
UNC-D	66	1.8	1.5	130	3.5	2.2
UNC-E	62	1.7	1.8	130	3.5	2.9
UNC-F	26	0.7	1.1	86	2.3	2.3
UNC-G	29	0.8	0.8	28	0.8	0.3
UNC-H	53	1.4	1.6	140	3.8	3.9

Note: The last column of radium and uranium concentrations represent UNC values obtained from the licensee's contract laboratory.

The soil data indicate that all radium-226 concentrations are less than the 5 pCi/g concentration limit as specified in Criterion 6 of Appendix A to 10 CFR 40. Similarly, all confirmation surveys performed by the inspector indicated that the site meets unrestricted release criteria. UNC indicated that they would submit an amendment request to modify the restricted area boundary at the site.

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UNITED NUCLEAR CORPORATION
SOIL ANALYSIS REPORT

P.O. # EW-13-8-93

Report Date: 09-10-93

ELI #	Sample ID	Sample Date	U-nat pCi/gm	Ra226 pCi/g (Gamma)	Ra226 Prec. +/- (Gamma)	Ra226 pCi/g (Chem.)	Ra226 Prec. +/- (Chem.)
93-35649	A	08-12-93	1.4	2.9	0.4	0.8	0.1
93-35650	B	08-12-93	12.2	6.4	0.7	2.2	0.1
93-35651	C	08-12-93	2.2	2.7	0.4	0.7	0.1
93-35652	D	08-12-93	2.2	3.7	0.5	1.5	0.1
93-35653	E	08-12-93	2.9	4.4	0.5	1.8	0.1
93-35654	F	08-12-93	2.3	2.0	0.3	1.1	0.1
93-35655	G	08-12-93	0.3	1.6	0.2	0.8	0.1
93-35656	I	08-12-93	3.9	3.9	0.5	1.6	0.1

REPORT APPROVED BY: L.A. Leathing

sv s335649.unc

ELI

QUALITY ASSURANCE REPORT – UNC Mining & Milling
Report Date: 09–16–93
ELI #(s): 93:35649–56

RADIOMETRIC:	METHOD	Dup #1 %	Dup #2 %	Spk #1 %	Spk #2 %	ANALYST	DATE SAMPLE ANALYZED
Uranium	EPA–908.1	99	–	–	–	DB	08–27–93
Ra226	EPA–903.0	110	89	110	–	DB	09–03–93

USEPA–ESML–LV INTERCOMPARISON STUDY RESULTS

Radiometric	Method	ELI Value	Standard	Difference	Analyst	Date
Uranium	EPA–908.1	14.59	17.07	–2.48	DB	02–12–93
Ra226	EPA–903.1	12.88	12.54	0.34	DB	03–05–93
Ra228	EPA–904.1	14.55	13.73	0.82	DB	03–05–93
Gross Alpha	EPA–900.0	20.53	31.50	–10.97	DB	01–29–93
Gross Beta	EPA–900.0	46.33	60.70	–14.37	DB	01–29–93

Report Approved By: DB Rea

unc 93:35649–56

Administration Building

Exterior Survey Data Log

UNC MINING AND MILLING

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714204
TH 230/11093 (860 DPM) = 21.0% EFF.
LUD/19/9180 AND LUD/125/9073
^{137}Cs/1524 (1.55 μCi) = 220 - 230 μR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING EXTERIOR AREAS

Sheet No. 1 of 3
Made By [illegible] Date 10-12-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100cm²
OFFICE	EXTERIOR	SOUTH WALL		(OESW)	
OESW-1	8-12	10	0-0	0	0
2					
3					
4					
OFFICE	EXTERIOR	NORTH WALL		(OENW)	
OENW-1	8-14	11	0-0	0	0
2					
3					
4					
5					
6					
7					
8			0-6	3	24
9			0-6	3	24
10			0-6	3	24
11			0-0	0	0
12			0-0	0	0
13			0-6	3	24
14			0-0	0	0
15			0-0	0	0
16			0-6	3	24
17			0-6	3	24
18			0-0	0	0
OFFICE	EXTERIOR	SOUTH WALL		(OESW)	
OESW-1	8-12	10	0-0	0	0
2			0-0	0	0
3			0-6	3	24
4			0-0	0	0
5					
6					
7					
8			6-12	9	73
9			0-0	0	0
10			0-0	0	0
11			0-6	3	24
12			0-0	0	0
13			0-6	3	24
14			0-6	3	24
15			0-6	3	24
16			0-0	0	0
17			0-0	0	0
18			0-0	0	0

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100cm²
OFFICE	EXTERIOR ROOF (OER)				
OER-1	7-12	9.5	12-45	28.5	231
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21			60-90	75	607
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41			40-75	57.5	465

(CONT ON SHEET # 2)

COMMENTS

LEGEND:
O - MAIN OFFICE
A - ADMINISTRATION
E - LAB (ENV.)

EXTERIOR WALL AND ROOF ARE GRIDDED/SEPERATED INTO APPROXIMATED 10'x10' AREAS (e.g. LAB EXTERIOR ROOF HAS 12 - 10'x10' AREAS, OFFICE EXTERIOR SOUTH WALL HAS 18-10'x10' AREAS ETC.) DURING THE SURVEY.

BUILDING EXTERIOR:
WALL - METAL SHEATHING W/METAL DOOR AND GLASS WINDOW
ROOF - METAL SHEATHING W/EXHAUST HOOD, SWAMP COOLER AND HEATER.

UNC MINING AND MILLING

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714209

LUD/19/9180 AND LUD/125/9073

EBERLINE SAC/4/221. Th 230/11093 (860 DPM) = 41.5% EFF.

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING EXTERIOR AREAS.

Sheet No. 2 of 3

Made By [illegible] Date 10-12-93

Chkd. By _____ Date _____

AREA ID	γ (MR/HR) LO-HI	MR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
OER-42	7-12	9.5	40-75	57.5	465
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61			45-93	69	559
62					
63					
64					
65					
66					
67					
68					
69					
70					
71					
72					
* 6-EXHAUST HOOD	8-10	9	6-50	28	227
ADMINISTRATION EXTERIOR NORTHWALL (AENW)					
AENW-1	8-10	9	0-6	3	24
2			0-0	0	0
3			0-0	0	0
4			0-0	0	0
ADMINISTRATION EXTERIOR WESTWALL (AEWW)					
AEWW-1	10-12	11	0-0	0	0
2			0-6	3	24
3			0-0	0	0
4			0-6	3	24

AREA ID	γ (MR/HR) LO-HI	MR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
ADMINISTRATION EXTERIOR SOUTHWALL (AESW)					
AESW-1	8-14	11	0-0	0	0
2			6-12	9	73
3			0-0	0	0
4			6-12	9	73
ADMINISTRATION EXTERIOR EASTWALL (AEEW)					
AEEW-1	10-14	12	0-6	3	24
2			6-12	9	73
3			0-0	0	0
4			0-0	0	0
ADMINISTRATION EXTERIOR ROOF (AER)					
AER-1	8-10	9	20-30	25	202
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15			27-33	30	243
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
* 2-EXHAUST HOOD	8-10	9	10-30	20	162
* 2-HEATERS	8-10	9	0-6	3	24

COMMENTS

* MATERIAL ON MAIN OFFICE ROOF AS DESCRIBED AND ADMIN. ROOF SWIPE SURVEY @ EAST GND OFFICE ROOF AREA:

#	CPM	DPM
90	2	5
91	1	2
92	1	2
93	0	0

UNC MINING AND MILLING

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714209
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING EXTERIOR AREAS.

Sheet No. 3 of 3
Made By mc Date 10-12-93
Chkd. By _____ Date _____

AREA ID	γ (MR/HR) LO-HI	MR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	AREA ID	γ (MR/HR) LO-HI	MR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
LAB EXTERIOR NORTHWALL (LENW)												
LENW-1	8-12	10	0-0	0	0							* MATERIAL ON LAB ROOF AS DESCRIBED.
2	↓	↓	↓	↓	↓							
3	↓	↓	↓	↓	↓							
LAB EXTERIOR WESTWALL (LEWW)												
LEWW-1	7-11	9	0-0	0	0							
2	↓	↓	↓	↓	↓							
3	↓	↓	↓	↓	↓							
4	↓	↓	↓	↓	↓							
LAB EXTERIOR SOUTHWALL (LESW)												
LESW-1	10-14	12	0-0	0	0							
2	↓	↓	↓	↓	↓							
3	↓	↓	↓	↓	↓							
LAB EXTERIOR ROOF (LER)												
LER-1	8-12	10	0-0	0	0							
2	↓	↓	0-0	0	0							
3	↓	↓	0-44	22	178							
4	↓	↓	↓	↓	↓							
5	↓	↓	↓	↓	↓							
6	↓	↓	↓	↓	↓							
7	↓	↓	36-52	44	356							
8	↓	↓	↓	↓	↓							
9	↓	↓	↓	↓	↓							
10	↓	↓	↓	↓	↓							
11	↓	↓	↓	↓	↓							
12	↓	↓	↓	↓	↓							
* 3-EXHAUST HOOD	8-12	10	1-6	3.5	28							
* 1-SWAMP COOLER	8-15	11.5	2-15	8.5	69							

Administration Building

Interior Survey Data Log

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714204
Th230/11093 (860 DPM) = 21.0% EFF.
LUD/19/9180 AND LUD/125/9073
Cs137/1524 (1.55 mCi) = 220 - 230 mR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING INTERIOR AREA.

Sheet No. 1 of 7
Made By [illegible] Date 10-12-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²
ROOM	# 100				
F	8-10	9	1-6	3.5	28
EW			0-0	0	0
NW			0-0	0	0
WW			0-0	0	0
SW			0-0	0	0
C			0-0	0	0
ROOM #	101				
F	8-11	9.5	0-0	0	0
EW			1-3	2	16
NW			0-0	0	0
WW			0-0	0	0
SW			0-0	0	0
C			0-0	0	0
ROOM #	103				
F	8-11	9.5	0-1	0.5	4
EW			0-2	1.5	12
NW			0-0	0	0
WW			0-0	0	0
SW			1-3	2	16
C			0-1	0.5	4
ROOM #	104 (ACCT. LUNCH ROOM)				
F-1	7-11	9	0-1	0.5	4
2	7-10	8.5	0-1	0.5	4
EW-1	7-11	9	0-1	0.5	4
2	7-10	8.5	2-6	4	32
NW-1	7-11	9	0-3	1.5	12
2	7-10	8.5	0-3	1.5	12
WW-1	7-11	9	1-6	3.5	28
2	7-10	8.5	0-3	1.5	12
SW-2	7-10	8.5	0-1	0.5	4
C-1	7-11	9	2-6	4	32
2	7-10	8.5	0-1	0.5	4
ROOM #	102				
F	8-11	9.5	0-0	0	0
EW			1-3	2	16
NW			0-1	0.5	4
WW			0-1	0.5	4

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²
SW	8-11	9.5	0-1	0.5	4
C	8-11	9.5	0-0	0	0
ROOM #	105				
F	7-11	9	1-3	2	16
EW			1-3	2	16
NW			2-4	3	24
WW			0-1	0.5	4
SW			0-0	0	0
C			0-0	0	0
ROOM #	106 (SECRETARY OFFICE AREA)				
F	7-10	8.5	0-0	0	0
EW			0-1	0.5	4
NW			2-12	7	57
WW			0-1	0.5	4
SW			0-1	0.5	4
C			0-0	0	0
ROOM #	107 A (WOMEN'S RESTROOM)				
F	6-10	8	1-2	1.5	12
EW			0-1	0.5	4
NW			0-1	0.5	4
WW			0-1	0.5	4
SW			0-1	0.5	4
C			0-0	0	0
ROOM #	107 B (MEN'S RESTROOM)				
F	7-10	8.5	2-6	4	32
EW			0-1	0.5	4
NW			0-1	0.5	4
WW			1-2	1.5	12
SW			0-0	0	0
C			0-0	0	0
ROOM #	108				
F	8-10	9	3-9	6	49
EW			1-2	1.5	12
NW			0-1	0.5	4
WW			0-1	0.5	4
SW			0-1	0.5	4
C			0-0	0	0

COMMENTS

LEGEND:
F - FLOOR
EW - EAST WALL
NW - NORTH WALL
WW - WEST WALL
SW - SOUTH WALL
C - CEILING

LARGE ROOMS ARE SEPERATED OR GRIDDED INTO 10'X10' AREAS (e.g. ROOM #104 HAS F-1 AND F-2, EW-1 AND EW-2 ETC.) DURING THE SURVEY.

BUILDING INTERIOR:
F - CEMENT/CONCRETE W/VA TILE, CARPET
WALL - GYPSUM BOARD
CEILING - GYPSUM BOARD OR ACOUSTICAL TILE
RESTROOMS:
F - QUARRY OR MOSIAC TILE
WALL - GYSUM BOARD W/CERAMIC TILE

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COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING INTERIOR AREA

Sheet No. 2 of 7

Made By MC Date 10-12-93

Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
ROOM #109						
F	6-11	8.5	10-30	20	162	
EW	↓	↓	0-6	3	24	
NW	↓	↓	6-18	12	97	
WW	↓	↓	0-1	0.5	4	
SW	↓	↓	0-0	0	0	
C	↓	↓	2-5	3.5	28	
ROOM #110 (SOURCE CABINET AREA)						
F	8-35	21.5	0-1	0.5	4	
EW	↓	↓	0-1	0.5	4	
NW	↓	↓	0-1	0.5	4	
WW	↓	↓	4-6	5	40	
SW	↓	↓	0-1	0.5	4	
C	↓	↓	2-6	4	32	
ROOM #111						
F	8-12	10	3-13	8	65	
EW	↓	↓	0-1	0.5	4	
NW	↓	↓	0-1	0.5	4	
WW	↓	↓	2-6	4	32	
SW	↓	↓	0-1	0.5	4	
C	↓	↓	2-6	4	32	
ROOM #112						
F	8-10	9	3-5	4	32	
EW	↓	↓	0-1	0.5	4	
NW	↓	↓	4-6	5	40	
WW	↓	↓	0-1	0.5	4	
SW	↓	↓	0-1	0.5	4	
C	↓	↓	0-1	0.5	4	
ROOM #113						
F-1	8-12	10	0-6	3	24	
2	6-10	8	2-5	3.5	28	
3	6-10	8	1-3	2	16	
EW-1	8-12	10	0-1	0.5	4	
2	6-10	8	2-6	4	32	
3	8-10	9	0-1	0.5	4	
NW-1	8-12	10	0-1	0.5	4	
2	6-10	8	0-1	0.5	4	
WW-1	8-12	10	0-1	0.5	4	
WW-2	8-12	10	0-1	0.5	4	
SW-1	6-10	8	2-6	4	32	
2	6-10	8	0-0	0	0	
C-1	8-12	10	0-1	0.5	4	
2	6-10	8	0-1	0.5	4	
3	6-10	8	0-1	0.5	4	
ROOM #114						
F	7-10	8.5	0-1	0.5	4	
EW	↓	↓	0-1	0.5	4	
NW	↓	↓	0-1	0.5	4	
WW	↓	↓	0-1	0.5	4	
SW	↓	↓	6-12	9	73	
C	↓	↓	1-2	1.5	12	
ROOM #115						
F	6-10	8	1-4	2.5	20	
EW	↓	↓	0-1	0.5	4	
NW	↓	↓	0-1	0.5	4	
WW	↓	↓	0-1	0.5	4	
SW	↓	↓	6-18	12	97	
C	↓	↓	0-3	1.5	12	
ROOM #116						
F-1	6-9	7.5	1-3	2	16	
2	↓	↓	1-3	2	16	
EW-1	↓	↓	0-1	0.5	4	
NW-1	↓	↓	2-6	4	32	
2	↓	↓	0-1	0.5	4	
WW-1	↓	↓	2-5	3.5	28	
SW-1	↓	↓	0-1	0.5	4	
2	↓	↓	0-1	0.5	4	
C-1	↓	↓	1-2	1.5	12	
2	↓	↓	1-2	1.5	12	
ROOM #117						
F	6-9	7.5	1-3	2	16	
EW	↓	↓	1-5	3	24	
NW	↓	↓	0-1	0.5	4	
WW	↓	↓	1-4	2.5	20	
SW	↓	↓	0-1	0.5	4	
C	↓	↓	1-3	2	16	

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COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING INTERIOR AREA

Sheet No. 3 of 7
Made By KC Date 10-12-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	COMMENTS
ROOM #	118 (CABINET FILE AREA)					EW-1	6-10	8	2-6	4	32	
F	5-8	6.5	2-5	3.5	28	NW-1			0-1	0.5	4	
EW			2-6	4	32	2			0-1	0.5	4	
NW			0-1	0.5	4	WW-1			2-12	7	57	
WW			0-1	0.5	4	SW-1			6-12	9	73	
C			0-1	0.5	4	2			0-6	3	24	
						C-1			2-6	4	32	
ROOM #	119					2			2-6	4	32	
F	6-9	7.5	2-4	3	24							
EW			1-3	2	16	ROOM	# 124					
NW			0-3	1.5	12	F	6-12	9	1-3	2	16	
WW			0-1	0.5	4	EW			0-1	0.5	4	
SW			1-3	2	16	NW			2-6	4	32	
C			0-1	0.5	4	WW			0-1	0.5	4	
						SW			0-1	0.5	4	
ROOM #	120					C			1-3	2	16	
F	6-8	7	6-36	21	170							
EW			0-1	0.5	4	ROOM #	125					
NW			0-1	0.5	4	F	12-18	15	2-6	4	32	
WW			0-1	0.5	4	EW			2-12	7	57	
SW			2-6	4	32	NW			0-1	0.5	4	
C			1-6	3.5	28	WW			0-1	0.5	4	
						SW			0-1	0.5	4	
ROOM #	121					C			2-6	4	32	
F	6-8	7	2-13	7.5	61							
EW			2-6	4	32	ROOM #	126					
NW			0-1	0.5	4	F-1	6-10	8	2-4	3	24	
WW			0-1	0.5	4	2			1-3	2	16	
SW			0-1	0.5	4	EW-1			0-1	0.5	4	
C			0-1	0.5	4	2			2-6	4	32	
						NW-1			2-12	7	57	
ROOM #	122					WW-1			0-1	0.5	4	
F	5-8	6.5	2-8	5	40	2			0-1	0.5	4	
EW			6-12	9	73	SW-1			0-1	0.5	4	
NW			0-1	0.5	4	C-1			0-1	0.5	4	
WW			0-1	0.5	4	2			0-1	0.5	4	
SW			0-1	6.5	4							
C			0-1	0.5	4	ROOM #	127 A	LOUNGE/ (LOBBY)				
						F	6-8	7	2-8	5	40	
ROOM #	123					EW			0-6	3	24	
F-1	6-10	8	1-8	4.5	36	NW			0-1	0.5	4	
2	6-10	8	0-6	3	24	WW			2-6	4	32	

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COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING INTERIOR AREA

Sheet No. 4 of 7
Made By [illegible] Date 10/12-13/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	COMMENTS
SW	6-8	7	0-6	3	24	
C	6-8	7	4-6	5	40	
ROOM #	127A (REST ROOM)					
F	6-8	7	0-6	3	24	
EW	↓	↓	0-1	0.5	4	
NW			0-1	0.5	4	
WW			2-6	4	32	
SW			0-1	0.5	4	
C	↓	↓	0-1	0.5	4	
ROOM #	128 A (JANITORIAL SUPPLY)					
F	6-8	7	1-3	2	16	
EW	↓	↓	0-1	0.5	4	
NW			2-4	3	24	
WW			0-1	0.5	4	
SW			0-1	0.5	4	
C	↓	↓	0-1	0.5	4	
ROOM #	128 B (OFFICE SUPPLY)					
F	5-7	6	2-6	4	32	
EW	↓	↓	0-1	0.5	4	
NW			0-1	0.5	4	
WW			2-6	4	32	
SW			0-1	0.5	4	
C	↓	↓	2-6	4	32	
ROOM #	127B (REST ROOM)					
F	5-8	6.5	2-13	7.5	61	
EW	↓	↓	0-1	0.5	4	
NW			0-1	0.5	4	
WW			0-1	0.5	4	
SW			0-1	0.5	4	
C	↓	↓	0-1	0.5	4	
ROOM #	129 (CONFERENCE RM.)					
F	6-8	7	1-2	1.5	12	
EW	↓	↓	1-3	2	16	
NW			0-1	0.5	4	
WW			0-1	0.5	4	
SW			2-6	4	32	
C	↓	↓	4-6	5	40	
ROOM	# 130					
F	8-12	10	1-2	1.5	12	
EW	↓	↓	2-6	4	32	
NW			0-1	0.5	4	
WW			0-1	0.5	4	
SW			0-1	0.5	4	
C	↓	↓	2-6	4	32	
ROOM #	131					
F	8-10	9	2-6	4	32	
EW	↓	↓	0-0	0	0	
NW			0-0	0	0	
WW			0-1	0.5	4	
SW			0-0	0	0	
C	↓	↓	0-0	0	0	
ROOM #	132					
F	7-9	8	3-9	6	49	
EW	↓	↓	0-1	0.5	4	
NW			0-1	0.5	4	
WW			0-0	0	0	
SW			0-1	0.5	4	
C	↓	↓	0-1	0.5	4	
ROOM #	133					
F-1	7-10	8.5	1-2	1.5	12	
2	↓	↓	6-12	9	73	
EW-2			0-0	0	0	
NW-1			0-0	0	0	
2			0-0	0	0	
WW-1			0-0	0	0	
SW-1			0-3	1.5	12	
2			0-1	0.5	4	
C-1			0-1	0.5	4	
2	↓	↓	0-1	0.5	4	
EAST LOBBY/WAITING AREA						
F	7-11	9	1-9	5	40	
EW	↓	↓	0-0	0	0	
NW			0-0	0	0	
WW			0-0	0	0	
SW			0-0	0	0	
C	↓	↓	0-0	0	0	

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COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING INTERIOR AREA

Sheet No. 5 of 7
Made By [illegible] Date 10/12-13/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
EAST END FILING AND SECRETARY AREA						ROOM #142						
F-1	8-10	9	0-2	1	8	F	6-10	8	5-17	11	89	
2	↓	↓	1-3	2	16	EW	↓	↓	1-6	3.5	28	
EW-2			0-2	1	8	NW			2-12	7	57	
NW-1			0-0	0	0	WW			1-6	3.5	28	
2			0-0	0	0	SW			0-0	0	0	
WW-1			0-0	0	0	C	↓	↓	1-6	3.5	28	
SW-1			2-12	7	57							
2			0-0	0	0	ROOM #143						
C-1			0-0	0	0	F	6-10	8	2-12	7	57	
2	↓	↓	0-0	0	0	EW	↓	↓	0-0	0	0	
						NW			0-0	0	0	
ROOM #138						SW			0-0	0	0	
F	8-10	9	1-6	3.5	28	C	↓	↓	1-6	3.5	28	
EW	↓	↓	0-2	1	8							
NW			1-3	2	16	ROOM #144						
WW			0-4	2	16	F	6-10	8	3-18	10.5	85	
SW			0-1	0.5	4	NW	↓	↓	0-0	0	0	
C	↓	↓	0-1	0.5	4	SW			0-0	0	0	
						WW			0-0	0	0	
ROOM #139						C	↓	↓	1-6	3.5	28	
F	6-10	8	1-6	3.5	28							
EW	↓	↓	0-0	0	0	ROOM #145						
NW			1-6	3.5	28	F-1	6-10	8	2-8	5	40	
WW			1-6	3.5	28	2	↓	↓	1-6	3.5	28	
SW			0-0	0	0	EW-2			0-0	0	0	
C	↓	↓	0-0	0	0	NW-1			1-6	3.5	28	
						2			0-0	0	0	
ROOM #140						SW-1			1-6	3.5	28	
F	7-10	8.5	1-5	3	24	2			1-6	3.5	28	
EW	↓	↓	0-2	1	8	WW-1			0-0	0	0	
NW			0-0	0	0	C-1			0-0	0	0	
WW			2-12	7	57	2	↓	↓	0-0	0	0	
SW			0-0	0	0							
C	↓	↓	0-0	0	0	NORTH EXIT HALLWAY AREA						
						F-1	6-10	8	1-6	3.5	28	
ROOM #141						2	↓	↓	0-0	0	0	
F	7-9	8	1-4	2.5	20	EW-1			0-0	0	0	
EW	↓	↓	0-2	1	8	2			0-0	0	0	
NW			0-0	0	0	SW-1			1-6	3.5	28	
WW			0-1	0.5	4	WW-1			0-0	0	0	
SW			1-6	3.5	28	2	↓	↓	0-0	0	0	
C	↓	↓	0-0	0	0							

(CONT. ON SHEET #6)

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COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING INTERIOR AREA

Sheet No. 6 of 7
Made By MC Date 10-13-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
NORTH EXIT HALLWAY AREA (CONT.)					
NW-1	6-10	8	0-0	0	0
C-1	↓	↓	0-0	0	0
2	↓	↓	0-0	0	0
ROOM # 146					
F	6-8	7	2-4	3	24
EW	↓	↓	0-0	0	0
NW	↓	↓	0-0	0	0
SW	↓	↓	0-0	0	0
WW	↓	↓	2-12	7	57
C	↓	↓	1-6	3.5	28
ROOM # 147					
F	5-9	7	1-4	2.5	20
EW	↓	↓	0-1	0.5	4
NW	↓	↓	1-6	3.5	28
SW	↓	↓	0-0	0	0
WW	↓	↓	0-0	0	0
C	↓	↓	0-0	0	0
ROOM # 148					
F	6-9	7.5	2-8	5	40
EW	↓	↓	0-0	0	0
NW	↓	↓	0-0	0	0
SW	↓	↓	2-12	7	57
WW	↓	↓	1-6	3.5	28
C	↓	↓	1-6	3.5	28
SOUTH EXIT HALLWAY					
F-1	8-10	9	1-6	3.5	28
2	↓	↓	1-6	3.5	28
3	↓	↓	1-6	3.5	28
4	↓	↓	1-6	3.5	28
EW-1	↓	↓	1-4	2.5	20
2	↓	↓	1-4	2.5	20
3	↓	↓	1-4	2.5	20
4	↓	↓	1-4	2.5	20
NW-1	↓	↓	0-0	0	0
WW-1	↓	↓	0-6	3	24
2	↓	↓	0-6	3	24
3	↓	↓	0-6	3	24

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
WW-4	8-10	9	0-6	3	24	
SW-4	↓	↓	1-12	6.5	53	
C-1	↓	↓	0-4	2	16	
2	↓	↓	0-4	2	16	
3	↓	↓	0-4	2	16	
4	↓	↓	0-4	2	16	
LAB HALLWAY						
F-1	6-10	8	0-6	3	24	
2	↓	↓	0-6	3	24	
3	↓	↓	0-6	3	24	
WW-1	↓	↓	0-0	0	0	
SW-1	↓	↓	1-3	2	16	
2	↓	↓	1-3	2	16	
3	↓	↓	1-3	2	16	
NW-1	↓	↓	0-6	3	24	
2	↓	↓	0-6	3	24	
3	↓	↓	0-6	3	24	
C-1	↓	↓	1-4	2.5	20	
2	↓	↓	1-4	2.5	20	
3	↓	↓	1-4	2.5	20	
ADMINISTRATION HLWY. (TO SOUTH EXIT AREA) 1						ADMINISTRATION HALLWAY ARE SEPERATED OR GRIDDED INTO 10'X10' AREAS (eg. F-1, F-2 AND F-3 ETC.) DURING THE SURVEY.
F-1	6-9	7.5	3-6	4.5	36	
2	↓	↓	3-6	4.5	36	
3	↓	↓	3-6	4.5	36	
SW-1	↓	↓	1-6	3.5	28	
2	↓	↓	1-6	3.5	28	
3	↓	↓	1-6	3.5	28	
NW-1	↓	↓	1-3	2	16	
2	↓	↓	1-3	2	16	
3	↓	↓	1-3	2	16	
C-1	↓	↓	1-3	2	16	
2	↓	↓	1-3	2	16	
3	↓	↓	1-3	2	16	
ADMINISTRATION HLWY (MIDDLE MAIN AREA) 2						
F-1	8-10	9	1-15	8	65	
2	↓	↓	1-15	8	65	
3	↓	↓	1-15	8	65	
NW-1	↓	↓	1-2	1.5	12	
2	↓	↓	1-2	1.5	12	
3	↓	↓	1-2	1.5	12	

(CONT. ON SHEET #7)

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714204
LUD/19/9180 AND LUD/125/9073

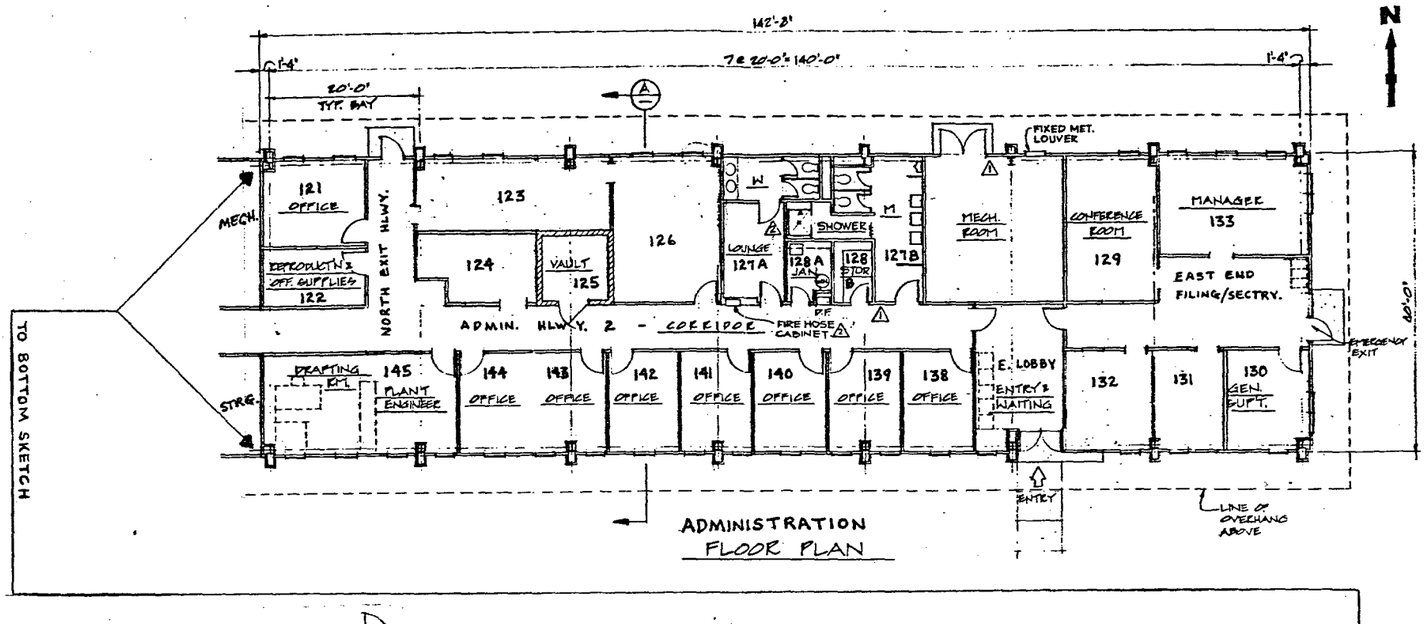
COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE ADMINISTRATION BUILDING INTERIOR AREA

Sheet No. 7 of 7
Made By RC Date 10-13-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
ADMINISTRATION HLWY. (MIDDLE MAIN AREA)-CONT.												
WW-1	8-10	9	0-0	0	0							
EW-1			1-6	3.5	28							
2			1-6	3.5	28							
3			1-6	3.5	28							
SW-1			0-2	1	8							
2			0-2	1	8							
3			0-2	1	8							
C-1			0-2	1	8							
2			0-2	1	8							
3	↓	↓	0-2	1	8							
WEST END FILING AND SECRETARY AREA												
F	7-10	8.5	0-2	1	8							
EW			0-1	0.5	4							
IW			1-2	1.5	12							
WW			1-2	1.5	12							
SW			1-1	1	8							
C	↓	↓	0-1	0.5	4							
MECHANICAL (BOILER) RM.												
F	6-9	7.5	11-14	12.5	101							
EW			0-1	0.5	4							
NW			0-0	0	0							
WW			0-1	0.5	4							
SW			0-0	0	0							
C	↓	↓	0-1	0.5	4							

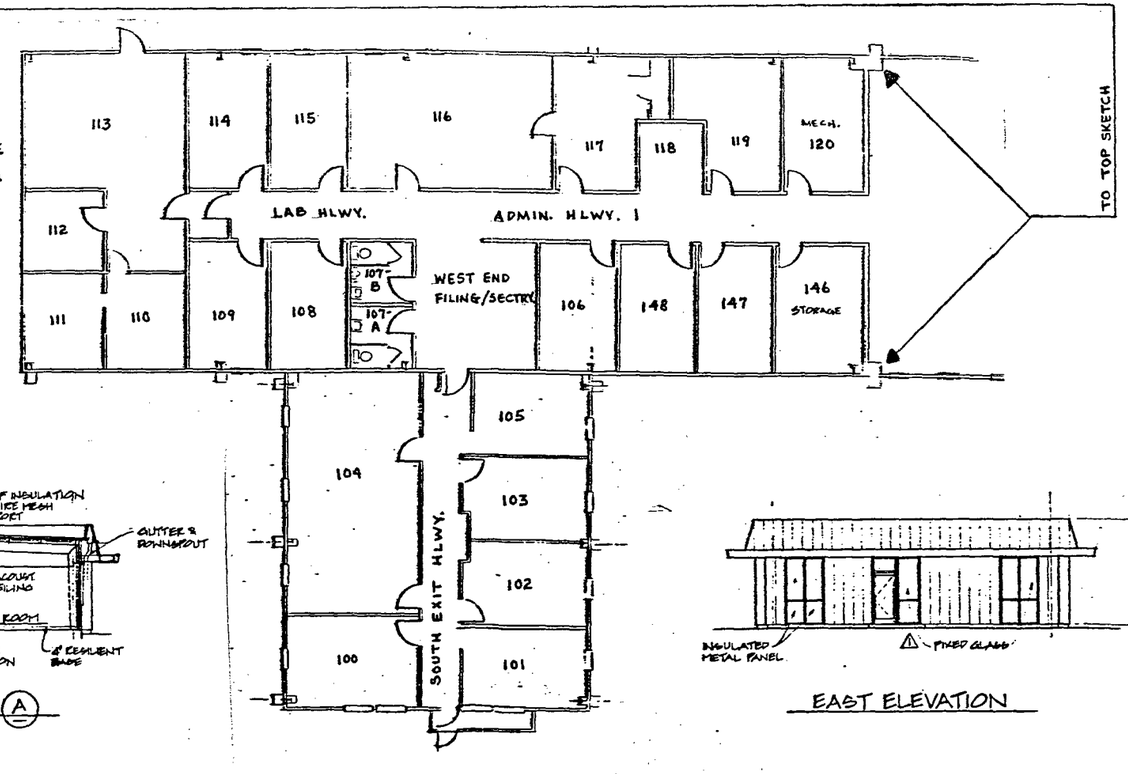
Reference Drawing for
Administration Interior Survey Points

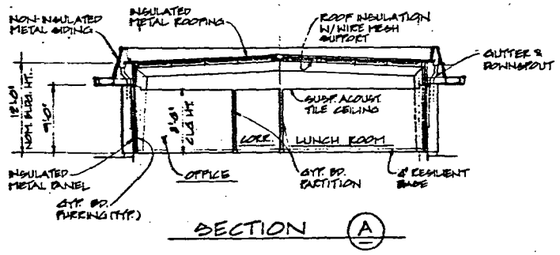


ADMINISTRATION
FLOOR PLAN

NOTE:

SKETCH SHOWN TO INDICATE THE VARIOUS INTERIOR LOCATION AREAS W/ASSIGNED REFERENCE ID TO COINCIDE WITH THE INTERIOR SURVEY DATA LOG.





SECTION (A)

EAST ELEVATION

GENERAL SPECIFICATIONS

GENERAL CONSTRUCTION

BUILDING ENCLOSURE:

FOUNDATION & FLOOR SLAB	– REINFORCED CONCRETE
STRUCTURAL FRAMING	– PREFAB STRUCT STEEL FRAME, PURLINS & GIRTS AS MFRD BY 'AEMCO' OR APPROVED EQUAL.
ROOF SYSTEM	– PREFAB INSULATED, FLUSH FACE 'STEELOX' ROOF PANELS AS MFRD. BY 'AEMCO' OR APPROVED EQUAL.
EXTERIOR WALLS	– PREFAB, INSULATED, SCULPTURED 'STEELOX' WALL PANELS W/ 5/8" GYP. BD. FURRING ON INSIDE FACE.
EXTERIOR WINDOWS	– METAL WINDOW WALL FRAME W/ FIXED GLASS & INSULATED METAL PANEL BELOW
EXTERIOR MANDOORS	– HOLLOW METAL DOORS IN PRESSED METAL FRAMES.
EXTERIOR ENTRANCE DOORS	– EXTRUDED ALUM. NARROW STILE DOOR W/PLATE GLASS ABOVE DOOR SET IN STD METAL FRAME AS MFRD BY 'KAWNEER' OR APPROVED EQUAL
SPECIAL FEATURES	– MANSARD ROOF FACADE: PREFAB NON-INSULATED, FLUSH-FACE 'STEELOX' PANELS W/ STANDING SEAM AS MFRD BY 'AEMCO' OR APPROVED EQUAL. FORMED METAL FASCIA AND METAL SOFFIT LINER @ OVERHANG.

BUILDING INTERIOR:

FLOORS	– VINYL ASBESTOS TILE W/ 4" TOPSET RESILIENT BASE THROUGHOUT. △
	CONCRETE W/ LIGHT BROOM FINISH & DUSTPROOFING IN MECH. ROOM. CERAMIC MOSAIC TILE W/ 4 FT HIGH WAINSCOT IN TOILETS.
WALLS	– LOAD BEARING 8" CONC. BLOCK WALL AT VAULT ONLY.
PARTITIONS	– DRYWALL CONSTRUCTION: 3 5/8" METAL STUDS W/ 5/8" GYPSUM BOARD BOTH SIDES FROM FLOOR TO CEILING (PAINTED) THROUGHOUT.
CEILING	– 24" × 48" ACOUSTICAL TILE W/ EXPOSED TEE GRID SUSPENSION SYSTEM (1 HR RATED) THROUGHOUT EXCEPT; – SUSPENDED GYPSUM BOARD CEILING (8'-0" HIGH) AT TOILETS, JAN. & LOUNGE – EXPOSED CONC. SLAB CEILING AT VAULT. – EXPOSED STRUCTURE AT MECH. ROOM
DOORS	– HOLLOW METAL DOORS WITH PRESSED METAL DOOR FRAMES THROUGHOUT EXCEPT 2-HOUR FIRE RATED METAL DOOR AT VAULT

LIGHTING:

INTERIOR LIGHTING	– RECESSED FLUORESCENT LIGHTING THROUGHOUT EXCEPT; INCANDESCENT LIGHT FIXTURES IN ALL TOILETS, JAN. CLOSET, VAULT, RECEPTIONISTS & MECH. ROOM.
EXTERIOR LIGHTING	– RECESSED INCANDESCENT LIGHT FIXTURES AT SOFFITS OF EAVE OVERHANG AND AT ALL ENTRANCES.

MECHANICAL:

HEATING VENTILATING & AIR-CONDITIONING	– FORCED AIR DUCTED, AIR-CONDITIONING SYSTEM W/ INDIVIDUAL ZONE CONTROLS.
PLUMBING	– DOMESTIC HOT & COLD WATER SYSTEM.

Guard/Change House

Exterior Survey Data Log

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INSTRUMENTATION

UNC

EBERLINE PS-2/285 w/AC-3-7/714209
Th230/11093 (860 DPM) = 21.0% EFF.
LUD/19/9180 AND LUD/125/9073
Cs137/1524 (1.55 mCi) = 220-230 MR/HR

EBERLINE SAC/4/221. Th230/-11093 (860 DPM) = 40.8% EFF.

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GUARD / CHANGE HOUSE EXTERIOR AREAS.

Sheet No. 1 of 1
Made By TC Date 7/21-22/93
Chkd. By _____ Date _____

AREA ID	γ (MR/HR) LO-HI	MR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
EXTERIOR EAST WALL (EEW)					
EEW-1	10-15	12.5	6-26	16	130
2	↓	↓	3-15	9	73
3	↓	↓	3-6	4.5	36
4	15-19	17	6-18	12	97
5	↓	↓	15-27	21	170
6	↓	↓	0-3	1.5	12
7	11-14	12.5	3-6	4.5	36
EXTERIOR NORTH WALL (ENW)					
ENW-1	8-13	10.5	0-0	0	0
2	↓	↓	0-6	3	24
3	↓	↓	6-12	9	73
4	↓	↓	6-18	12	97
EXTERIOR WEST WALL (EWW)					
EWW-1	7-12	9.5	0-42	21	170
2	↓	↓	0-0	0	0
3	↓	↓	0-0	0	0
4	↓	↓	0-6	3	24
5	↓	↓	0-6	3	24
6	↓	↓	0-6	3	24
7	↓	↓	0-15	7.5	61
EXTERIOR SOUTH WALL (ESW)					
ESW-1	10-18	14	6-12	9	73
2	↓	↓	0-0	0	0
3	↓	↓	0-12	6	49
4	↓	↓	0-0	0	0
EXTERIOR ROOF (ER)					
ER-1	9-12	10.5	169-194	182	1,473
2	↓	↓	↓	↓	↓
3	↓	↓	↓	↓	↓
4	↓	↓	↓	↓	↓
5	↓	↓	179-167	173	1,400
6	↓	↓	↓	↓	↓
7	↓	↓	↓	↓	↓
8	↓	↓	↓	↓	↓
9	↓	↓	174-182	178	1,441
10	↓	↓	↓	↓	↓
11	↓	↓	↓	↓	↓

AREA ID	γ (MR/HR) LO-HI	MR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
ER-12	9-12	10.5	174-182	178	1,441
13	↓	↓	164-172	168	1360
14	↓	↓	↓	↓	↓
15	↓	↓	↓	↓	↓
16	↓	↓	↓	↓	↓
17	↓	↓	123-166	145	1,174
18	↓	↓	↓	↓	↓
19	↓	↓	↓	↓	↓
20	↓	↓	↓	↓	↓
21	↓	↓	146-234	190	1,538
22	↓	↓	↓	↓	↓
23	↓	↓	↓	↓	↓
24	↓	↓	↓	↓	↓
25	7-10	8.5	↓	↓	↓
26	↓	↓	0-18	9	73
27	↓	↓	6-18	12	97
28	9-12	↓	15-33	24	194
EXTERIOR CANOPY ROOF (ECR)					
ECR-1	7-11	9	180-193	187	1,514
2	↓	↓	162-178	170	1,376
3	↓	↓	↓	↓	↓
4	↓	↓	↓	↓	↓
5	↓	↓	166-185	176	1,424
6	↓	↓	166-185	176	1,424
EXTERIOR CANOPY CEILING (ECC)					
ECC-1	8-11	9.5	3-3	3	24
2	↓	↓	0-6	3	24
3	↓	↓	3-6	4.5	36
4	↓	↓	0-3	1.5	12
5	↓	↓	0-3	1.5	12
6	↓	↓	0-6	3	24
* 5-EXHAUST HOOD/PIPE	9-12	10.5	10-175	92.5	749
* 1-SWAMP COOLER	9-12	10.5	5-20	12.5	101

COMMENTS

EXTERIOR WALL AND ROOF ARE GRIDDED/SEPERATED INTO APPROXIMATED 10'x10' AREAS (e.g. EXTERIOR EAST WALL HAS 7-10' x 10' AREAS) DURING THE SURVEY

BUILDING EXTERIOR: WALL - METAL SHEATHING W/METAL DOOR AND GLASS WINDOW
ROOF - METAL SHEATHING W/EXHAUST HOOD/PIPE AND SWAMP COOLER

* MATERIAL ON ROOF OF BUILDING AS DESCRIBED.

SWIPE SURVEY ON EXTERIOR ROOF, CANOPY AND 1-EXHAUST HOOD

#	CPM	DPM/100cm²
36	6	15
35	4	10
34	3	7
37	3	7
38	2	5
*39	1	3

↳ ON EXHAUST HOOD READING 175 cpm = 1,417 dpm/100cm²

Guard/Change House

Interior Survey Data Log

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714204
Th230/11093 (860 DPM) = 21.0% EFF.
LUD/19/9180 AND LUD/125/9073
C_{s137}/1524 (1.55 μCi) = 220-230 μR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GUARD/CHANGE HOUSE INTERIOR AREAS.

Sheet No. 1 of 2
Made By MC Date 7-16-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{C}$	α (CPM) LO-HI	CPM $\bar{C}$	DPM 100CM²
LUNCH ROOM/OFFICE (A)					
FL-1	7-12	9.5	2-3	2.5	20
EW-1	13-16	14.5	0-6	3	24
NW-1	10-13	11.5	0-3	1.5	12
WW-1	9-11	10	0-0	0	0
C-1	10-13	11.5	0-3	1.5	12
FL-2	10-13	11.5	0-5	2.5	20
EW-2	11-16	13.5	0-3	1.5	12
WW-2	9-12	10.5	0-3	1.5	12
SW-2	10-14	12	3-12	7.5	61
C-2	10-14	12	0-3	1.5	12
HRLY. EMPLOYEE'S LOCKER ROOM (B)					
FL-1	10-14	12	12-26	19	154
NW-1	10-14	12	0-6	3	24
WW-1	13-17	15	0-0	0	0
C-1	10-14	12	0-3	1.5	12
FL-2	10-14	12	14-29	21.5	174
EW-2	9-13	11	0-1	0.5	4
NW-2	9-12	10.5	0-0	0	0
C-2	10-14	12	0-3	1.5	12
FL-3	10-15	12.5	12-24	18	146
EW-3	10-13	11.5	0-24	12	97
SW-3	12-15	13.5	0-0	0	0
C-3	10-14	12	0-0	0	0
FL-4	11-14	12.5	12-12	12	97
WW-4	14-20	17	0-36	18	146
SW-4	12-15	13.5	0-0	0	0
C-4	10-14	12	0-3	1.5	12
FL-5	15-18	16.5	15-18	16.5	134
NW-5	16-19	17.5	6-12	9	73
WW-5	16-20	18	0-27	13.5	109
SW-5	16-20	18	6-6	6	49
C-5	10-14	12	0-3	1.5	12
FL-6	11-14	12.5	25-26	25.5	206
EW-6	14-16	15	0-0	0	0
NW-6	14-20	17	6-6	6	49
WW-6	16-21	18.5	0-6	3	24
C-6	10-14	12	0-3	1.5	12
MECHANIC ROOM (C)					
FL	10-12	11	1-4	2.5	20
EW	10-12	11	1-2	1.5	12
NW	10-12	11	0-3	1.5	12
WW	10-12	11	0-3	1.5	12
SW	10-12	11	0-1	0.5	4
C	10-12	11	0-0	0	0
ENTRY WAY (D)					
FL	13-17	15	6-11	8.5	69
EW	15-22	18.5	6-18	12	97
NW	15-20	17.5	0-6	3	24
WW	12-19	15.5	12-18	15	121
SW	15-23	19	6-12	6	49
C	13-16	14.5	0-6	3	24
FOREMAN'S LOCKER ROOM (E)					
FL	9-14	11.5	10-18	14	113
EW	13-16	14.5	0-6	3	24
NW	13-17	15	0-6	3	24
WW	8-13	10.5	6-24	15	121
SW	7-10	8.5	0-12	6	49
C	10-11	10.5	0-0	0	0
SHOWER ROOM (F)					
FL	16-24	20	6-15	10.5	85
EW	16-24	20	9-12	10.5	85
NW	16-24	20	0-0	0	0
WW	16-24	20	0-6	3	24
SW	16-24	20	0-18	9	73
C	16-24	20	0-0	0	0
TOILET (G)					
FL	12-22	17	4-8	6	49
EW	12-22	17	0-6	3	24
NW	12-22	17	0-0	0	0
WW	12-22	17	0-0	0	0
SW	12-22	17	6-12	9	73
C	12-22	17	0-0	0	0

COMMENTS

LEGEND:
FL - FLOOR
EW - EAST WALL
NW - NORTH WALL
WW - WEST WALL
C - CEILING

BUILDING INTERIOR:
FL - CONCRETE W/VA QUARRY TILE AND MOSIAC TILE IN RESTROOM AND SHOWER RM.
DOORS - METAL AND WOOD
WALL - gysum board, BRICK & CERAMIC TILE
CEILING - gysum board, OR ACOUSTICAL TILE

LARGE ROOMS ARE (GRIDDED) SEPERATED INTO 10'x10' AREAS (e.g. FL-1 THRU FL-6 ETC.) DURING SURVEY, IN THE HRLY. EMPLOYEE'S LOCKER RM. (B)

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714204
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GUARD / CHANGE HOUSE INTERIOR AREAS

Sheet No. 2 of 2
Made By MC Date 7-16-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	COMMENTS
TOILET (H)						CONTRACTOR OFFICE (M)						
FL	12-21	16.5	9-11	10	81	FL	10-12	11	1-5	3	24	
EW	14-24	19	3-12	7.5	61	EW	11-15	13	0-12	6	49	
NW	16-23	19.5	6-12	9	73	NW	10-15	12.5	0-12	6	49	
WW	17-24	20.5	3-12	7.5	61	WW	10-15	12.5	0-0	0	0	
SW	9-12	10.5	6-12	9	73	SW	9-14	11.5	0-0	0	0	
C	13-18	15.5	0-6	3	24	C	10-12	11	0-3	1.5	12	
JANITORIAL (I)						CONTRACTOR LUNCH ROOM (N)						
FL	15-25	20	0-8	4	32	FL	9-11	10	4-8	6	49	
EW	↓	↓	0-0	0	0	EW	10-11	10.5	0-12	6	49	
NW	↓	↓	0-3	1.5	12	NW	8-13	10.5	0-6	3	24	
WW	↓	↓	0-0	0	0	WW	8-11	9.5	0-6	3	24	
SW	↓	↓	0-0	0	0	SW	10-12	11	0-6	3	24	
C	↓	↓	0-6	3	24	C	8-12	10	0-3	1.5	12	
STORAGE (J)						GUARD HOUSE (O)						
FL	16-24	20	12-15	13.5	109	FL	7-11	9	4-9	6.5	53	
EW	↓	↓	0-0	0	0	EW	8-10	9	0-0	0	0	
NW	↓	↓	0-12	6	49	NW	8-10	9	3-12	7.5	61	
WW	↓	↓	0-0	0	0	WW	6-11	8.5	0-6	3	24	
SW	↓	↓	6-6	6	49	SW	7-11	9	0-3	1.5	12	
C	↓	↓	0-6	3	24	C	8-11	9.5	0-3	1.5	12	
DRYING ROOM (K)												
FL	17-21	19	3-12	7.5	61							
EW	↓	↓	0-0	0	0							
NW	↓	↓	0-0	0	0							
WW	↓	↓	0-6	3	24							
SW	↓	↓	0-0	0	0							
C	↓	↓	0-6	3	24							
SHOWER (L)												
FL	15-20	17.5	30-81	56	453							
EW	↓	↓	0-6	3	24							
NW	↓	↓	0-18	9	73							
WW	↓	↓	0-18	9	73							
SW	↓	↓	0-0	0	0							
C	12-16	14	0-6	3	24							

Garage, Shops, Warehouse, Laboratories and Operation Offices

Exterior Survey Data

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714204
Th230/11093 (860 DPM) = 21.0% EFF.
LUD/19/9180 AND LUD/125/9073
Cs137/1524 (1.55 uCi) = 220-230 uR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE, SHOP, WAREHOUSE AND LAB/OFFICE BLDG. EXTERIOR AREAS

Sheet No. 1 of 6
Made By MC Date 10/11-12/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100cm²	AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100cm²	COMMENTS
LAB EXTERIOR EAST WALL (LEEW)						LER-17	6-11	8.5	1-18	9.5	77	LEGEND:
LEEW-1	8-12	10	0-0	0	0	18			1-18	9.5	77	G - GARAGE
2			0-6	3	24	19			1-18	9.5	77	S - SHOP/WHSE.
3			0-0	0	0	20			0-1	0.5	4	L - LAB/OFFICE
4			0-6	3	24	21			3-18	10.5	8.5	
5			0-6	3	24	22			1-18	9.5	77	EXTERIOR, WALL AND
6			0-0	0	0	23			1-18	9.5	77	ROOF ARE GRIDDED/
7			6-12	9	73	24			0-1	0.5	4	SEPERATED INTO
8			0-0	0	0	25			6-12	9	73	APPROXIMATED 10'x
9			0-0	0	0	26						10' AREAS (e.g. LAB/
10			0-0	0	0	27						OFFICE EXTERIOR ROOF
11			0-0	0	0	28						HAS 60 AREAS) DURING
12			12-24	18	146	29						THE SURVEY.
LAB EXTERIOR NORTH WALL (LENW)						30						
LENW-1	8-10	9	0-0	0	0	31						BUILDING EXTERIOR:
2						32						WALL - METAL SHEATH-
3						33						ING W/METAL
4						34						DOOR AND ROLLUP
5						35						DOOR. WINDOWS
LAB EXTERIOR SOUTH WALL (LESW)						36						IN THE TOP FLOOR
LESW-1	8-12	10	6-12	9	73	37			12-12	12	97	WHSE AND LAB/
2			0-6	3	24	38						OFFICE AREA
3			0-6	3	24	39						ROOF - METAL SHEATHING
4			0-0	0	0	40						W/EXHAUST HOOD
5			0-0	0	0	41						AND SWAMP COOLER
LAB EXTERIOR ROOF (LER)						42						
LER-1	6-11	8.5	4-24	14	113	43						
2						44						
3						45						
4						46						
5						47						
6						48						
7						49			6-12	9	73	
8						50						
9						51						
10						52						
11						53						
12			0-1	0.5	4	54						
13			1-18	9.5	77	55						
14						56						
15						57						
16						58						

(SEE SHEET #6 FOR LAB EXTERIOR EAST DOORWAY SURVEY)

(CONT. ON SHEET #2)

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714204
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE, SHOP, WAREHOUSE AND LAB/OFFICE BLDG. EXTERIOR AREAS.

Sheet No. 2 of 6
Made By ME Date 10/11-12/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
LER-59	6-11	8.5	6-12	9	73	
60	6-11	8.5	6-12	9	73	
* B-EXHAUST HOOD	8-10	9	71-120	95.5	773	
* 1-SWAMP COOLER	8-10	9	5-10	7.5	61	
SHOP EXTERIOR TOP EAST WALL (SETEW)						
SETEW-1	6-10	8	0-1	0.5	4	
2	↓	↓	↓	↓	↓	
3						
4			↓	↓	↓	
5			2-12	7	57	
6			1-6	3.5	28	
7			60-109	85	688	
8			30-120	75	607	
9			1-6	3.5	28	
10			2-12	7	57	
11			3-18	10.5	85	
12	↓	↓	3-18	10.5	85	
SHOP EXTERIOR NORTHWALL (SENW)						
SENW-1	7-11	9	0-0	0	0	
2	↓	↓	↓	↓	↓	
3			↓	↓	↓	
4			0-6	3	24	
5			6-12	9	73	
6			0-6	3	24	
7			0-6	3	24	
8			0-0	0	0	
9			↓	↓	↓	
10						
11						
12						
13			↓	↓	↓	
14			0-6	3	24	
15			0-6	3	24	
16			6-12	9	73	
17			0-0	0	0	
18			12-12	12	97	
19			0-6	3	24	
20			0-0	0	0	
21			0-0	0	0	
22	↓	↓	0-0	0	0	

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
SHOP EXTERIOR SOUTH WALL (SESW)						
SESW-1	6-10	8	0-6	3	24	* MATERIAL ON LAB ROOF
2	↓	↓	0-0	0	0	
3			↓	↓	↓	
4						
5						
6						
7			↓	↓	↓	
8			0-6	3	24	
9			0-6	3	24	
10			0-6	3	24	
11			0-0	0	0	
12			0-0	0	0	
13			0-6	3	24	
14			0-6	3	24	
15			0-6	3	24	
16			0-0	0	0	
17			0-0	0	0	
18			0-0	0	0	
19			0-6	3	24	
20			0-0	0	0	
21			0-0	0	0	
22	↓	↓	0-6	3	24	
SHOP EXTERIOR ROOF (SER)						
SER-1	6-10	8	6-12	9	73	
2	↓	↓	↓	↓	↓	
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18	↓	↓	↓	↓	↓	

(CONT. ON SHEET #3)

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EBERLINE PS-2/285 w/AC-3-7/714209
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE, SHOP, WAREHOUSE AND LAB/OFFICE BLDG. EXTERIOR AREAS

Sheet No. 3 of 6
Made By MC Date 10/11-12/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
SER-19	6-10	8	6-12	9	73	SER-61	6-10	8	0-12	6	49	
20						62						
21						63						
22						64						
23						65						
24						66						
25			0-6	3	24	67						
26						68						
27						69						
28						70						
29						71						
30						72						
31						73						
32						74			0-6	3	24	
33						75						
34						76						
35						77						
36						78						
37						79						
38						80						
39						81						
40						82						
41						83						
42						84						
43						85						
44						86						
45						87						
46						88						
47						89						
48						90						
49			0-12	6	49	91						
50						92						
51						93						
52						94						
53						95						
54						96						
55						97						
56						98			6-6	6	49	
57						99						
58						100						
59						101						
60						102						

(CONT. ON SHEET #4)

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LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE, SHOP, WAREHOUSE AND LAB/OFFICE EXTERIOR AREAS.

Sheet No. 4 of 6
Made By [illegible] Date 10/11-12/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	COMMENTS
SER-103	6-10	8	6-6	6	49	
104						
105						
106						
107						
108						
109						
110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120						
121			0-6	3	24	
122						
123						
124						
125						
126						
127						
128						
129						
130						
131						
132						
* 1B-EXHAUST HOOD	6-8	7	10-84	47	380	
* 3-SWAMP COOLER	6-8	7	6-18	12	97	
GARAGE EXTERIOR EASTWALL (GEEW)						
GEEW-1	8-11	9.5	0-1	0.5	4	
2						
3						
4						
5						
6						
7						
8						

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	COMMENTS
GARAGE EXTERIOR NORTH WALL (GENW)						
GENW-1	8-11	9.5	1-6	3.5	28	* MATERIAL ON SHOP/ WHSE. ROOF
2			0-1	0.5	4	
3			1-6	3.5	28	
4			0-1	0.5	4	
5			0-1	0.5	4	
6			1-6	3.5	28	
7			1-6	3.5	28	
8			0-1	0.5	4	
9			1-6	3.5	28	
10			1-6	3.5	28	
11			1-6	3.5	28	
12			1-6	3.5	28	
GARAGE EXTERIOR WESTWALL (GEWW)						
GEWW-1	6-12	9	0-1	0.5	4	
2			1-6	3.5	28	
3			0-1	0.5	4	
4			2-12	7	57	
5			0-1	0.5	4	
6			0-1	0.5	4	
7			1-6	3.5	28	
8			1-6	3.5	28	
9			0-1	0.5	4	
10			1-6	3.5	28	
11			0-1	0.5	4	
12			0-1	0.5	4	
13			0-1	0.5	4	
14			1-6	3.5	28	
15			4-24	14	113	
16			0-1	0.5	4	
17			0-1	0.5	4	
18			1-6	3.5	28	
19			1-6	3.5	28	
20			1-6	3.5	28	
21			0-1	0.5	4	
22			0-1	0.5	4	
23			1-6	3.5	28	
24			1-6	3.5	28	
25			1-6	3.5	28	
26			0-1	0.5	4	
27			0-1	0.5	4	
28			0-1	0.5	4	

(CONT. ON SHEET #5

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UNC EBERLINE PS-2/285 W/AC-3-7/714204
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE, SHOP, WAREHOUSE AND LAB/OFFICE EXTERIOR AREAS.

Sheet No. 5 of 6
Made By [illegible] Date 10/11-12/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	COMMENTS
GEWW-29	6-12	9	1-6	3.5	28	GER-23	6-12	9	6-12	9	146	
30			2-12	7	57	24						
31			0-1	0.5	4	25						
32			0-1	0.5	4	26						
GARAGE	EXTERIOR	SOUTHWALL		(GESW)		27						
GESW-1	8-12	10	0-1	0.5	4	28						
2			1-6	3.5	28	29						
3			2-12	7	57	30						
4			0-1	0.5	4	31						
5						32						
6						33			3-18	10.5	85	
7						34						
8						35						
9						36						
10			1-6	3.5	28	37						
11			0-1	0.5	4	38						
12						39						
13						40						
14						41						
GARAGE	EXTERIOR	ROOF	(GER)			42						
GER-1	6-12	10	6-12	9	146	43						
2						44						
3						45						
4						46						
5						47						
6						48						
7						49						
8						50						
9						51						
10						52						
11						53						
12						54						
13						55						
14						56						
15						57						
16						58						
17						59						
18						60						
19						61						
20						62						
21						63						
22	6-12	9				64						

(CONT. ON SHEET # 6)

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714209
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE, SHOP, WAREHOUSE AND LAB/OFFICE BLDG. EXTERIOR AREAS.

Sheet No. 6 of 6
Made By MC Date 10/11-12/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	COMMENTS
GER-65	6-12	9	1-12	6.5	53	GER-107	6-12	9	1-12	6.5	53	
66	↓	↓	↓	↓	↓	108	↓	↓	↓	↓	↓	* MATERIAL ON GARAGE ROOF
67						109						
68						110						
69						111						
70						112						
71						* 6-EXHAUST HOOD	6-8	7	6-36	21	170	
72												
73												
74						LAB EXTERIOR EAST DOORWAY (LEED)						SUPPLEMENTAL SURVEY ON EXTERIOR NORTH ENCLOSED EXIT-LAB
75						LEED-1	8-12	10	0-1	0.5	4	
76						LAB EXTERIOR NORTH DOORWAY (LEND)						
77						LEND-1	8-12	10	1-6	3.5	28	
78						LAB EXTERIOR WEST DOORWAY (LEWD)						
79						LEWD-1	8-12	10	2-12	7	57	
80						LAB EXTERIOR ROOF DOORWAY (LERD)						
81						LERD-1	8-12	10	58-92	75	607	
82												
83												
84												
85												
86												
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106	↓	↓	↓	↓	↓							

Garage

Interior Survey Data Log

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EBERLINE PS-2/285 w/AC-3-7/714204
Th230/11093 (860 DPM) = 21.0% EFF.
LUD/19/9180 AND LUD/125/9073
Cs137/1524 (1.55 μCi) = 220-230 μR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE INTERIOR AREAS

Sheet No. 1 of 6
Made By MC Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
STORAGE INTERIOR FLOOR (AIF)					
AIF-1	8-16	12	0-6	3	24
2			0-12	6	49
3			0-12	6	49
4			2-18	10	81
5			2-12	7	57
6			10-12	11	89
7			10-18	14	113
8			12-20	16	130
9			6-12	9	73
10			6-12	9	73
STORAGE INTERIOR EAST WALL (AIEW)					
AIEW-1	10-18	14	1-6	3.5	28
2			0-0	0	0
3			0-0	0	0
4			1-6	3.5	28
STORAGE INTERIOR NORTH WALL (AINW)					
AINW-1	8-12	10	1-6	3.5	28
2			1-6	3.5	28
3			2-12	7	57
4			1-6	3.5	28
5			1-6	3.5	28
6			1-6	3.5	28
7			3-12	7.5	61
8			1-6	3.5	28
9			2-12	7	57
10			1-6	3.5	28
STORAGE INTERIOR WEST WALL (AIWW)					
AIWW-1	8-12	10	1-12	6.5	53
2			1-6	3.5	28
3			1-6	3.5	28
4			1-12	6.5	53
STORAGE INTERIOR SOUTH WALL (AISW)					
AISW-1	10-16	13	0-0	0	0
2			1-6	3.5	28
3			1-6	3.5	28
4			0-0	0	0
5			1-2	1.5	12
AISW-6	10-16	13	2-6	4	32
7			1-6	3.5	28
8			2-6	4	32
9			1-6	3.5	28
10			0-0	0	0
STORAGE INTERIOR CEILING (AIC)					
AIC-1	8-16	12	0-3	1.5	12
2					
3					
4					
5					
6					
7					
8					
9					
10					
ENG. REPAIR RM. INTERIOR FLOOR (BIF)					
BIF-1	8-12	10	0-0	0	0
2			0-12	6	49
3			0-0	0	0
4			0-0	0	0
5			0-0	0	0
6			0-10	5	40
7			0-0	0	0
8			0-0	0	0
9			0-6	3	24
ENG. REPAIR RM. EAST WALL (BIEW)					
BIEW-1	6-8	7	0-1	0.5	4
2			0-4	2	16
3			0-0	0	0
4			0-0	0	0
ENG. REPAIR RM. NORTH WALL (BINW)					
BINW-1	6-14	10	0-0	0	0
2			12-18	15	121
3			0-0	0	0
4			0-0	0	0
5			12-18	15	121

COMMENTS

GARAGE AREA:
A - STORAGE
B - ENGINE REPAIR ROOM

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LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE INTERIOR AREAS

Sheet No. 2 of 6
Made By [illegible] Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²
BINW-6	6-14	10	6-12	9	73
7			0-6	3	24
8			6-18	12	97
9			0-0	0	0
10			0-0	0	0
ENG. REPAIR RM. INTERIOR WEST WALL (BIWW)					
BIWW-1	7-8	7.5	0-0	0	0
2			0-0	0	0
3			0-0	0	0
4			0-0	0	0
ENG. REPAIR RM. INTERIOR SOUTH WALL (BISW)					
BISW-1	7-16	11.5	0-0	0	0
2			2-4	3	24
3			0-0	0	0
4			0-0	0	0
5			0-0	0	0
ENG. REPAIR RM. INTERIOR CEILING (BIC)					
BIC-1	7-14	10.5	0-0	0	0
2			0-6	3	24
3			0-3	1.5	12
4			0-0	0	0
5			0-0	0	0
6			0-0	0	0
7			0-6	3	24
8			0-6	3	24
9			0-6	3	24
ENG. REPAIR RM. INTERIOR ROOF (BIR)					
BIR-1	6-8	7	0-6	3	24
2			18-24	21	170
3			12-18	15	121
4			6-6	6	49
5			6-12	9	73
6			0-0	0	0
7			6-12	9	73
8			0-0	0	0
9			6-12	9	73
10			0-6	3	24

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²
COMP. RM. INTERIOR FLOOR (CIF)					
CIF-1	10-16	13	12-18	15	121
COMP. RM. INTERIOR EASTWALL (CIEW)					
CIEW-1	10-16	13	6-12	9	73
COMP. RM. INTERIOR NORTHWALL (CINW)					
CINW-1	10-16	13	0-0	0	0
COMP. RM. INTERIOR WESTWALL (CIWW)					
CIWW-1	10-16	13	0-0	0	0
COMP. RM. INTERIOR SOUTHWALL (CISW)					
CISW-1	10-16	13	0-0	0	0
COMP. RM. INTERIOR CEILING (CIC)					
CIC-1	10-16	13	0-0	0	0
MAIN AREA INTERIOR FLOOR (DIF)					
DIF-1	10-12	11	0-0	0	0
2			12-24	18	146
3			0-0	0	0
4			10-36	23	186
5			0-6	3	24
6			0-0	0	0
7			0-0	0	0
8			0-0	0	0
9			0-0	0	0
10			12-24	18	146
11			6-12	9	73
12			0-6	3	24
13			10-18	14	113
14			0-0	0	0
15			0-0	0	0
16			0-0	0	0
17			0-6	3	24
18			12-18	15	121
19			0-0	0	0
20			6-12	9	73
21			0-0	0	0
22			6-12	9	73
23			0-6	3	24
24			0-6	3	24
25			0-6	3	24
26			6-6	6	49
27			0-0	0	0

COMMENTS

GARAGE AREA:
B - ENGINE REPAIR ROOM
C - COMPRESSOR ROOM
D - MAIN AREA

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LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE INTERIOR AREAS

Sheet No. 3 of 6
Made By MC Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
DIF-2R	10-12	11	0-6	3	24
29			0-6	3	24
30			6-12	9	73
31			0-0	0	0
32			0-6	3	24
33			0-6	3	24
34			6-12	9	73
35			10-12	11	89
36			0-0	0	0
37			0-6	3	24
38			0-0	0	0
39			0-0	0	0
40			0-0	0	0
MAIN AREA INTERIOR EAST WALL (DIEW)					
EW-1	8-16	12	0-0	0	0
2			6-12	9	73
3			0-6	3	24
4			0-0	0	0
5			0-6	3	24
6			6-12	9	73
7			0-0	0	0
8			0-0	0	0
9			6-12	9	73
10			0-0	0	0
11			0-0	0	0
12			6-6	6	49
13			0-0	0	0
14			0-6	3	24
15			0-6	3	24
16			12-18	15	121
MAIN AREA INTERIOR NORTHWALL (DINW)					
DINW-1	6-14	10	0-0	0	0
2			12-18	15	121
3			0-0	0	0
4			0-0	0	0
5			12-18	15	121
6			6-12	9	73
7			0-6	3	24
8			6-18	12	97
9			0-0	0	0

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
DINW-10	6-14	10	0-0	0	0	
						GARAGE AREA:
MAIN AREA INTERIOR WESTWALL (DIWW)						D-MAIN AREA
DIWW-1	6-8	7	0-0	0	0	
2			0-6	3	24	
3			12-18	15	121	
4			0-0	0	0	
5			0-0	0	0	
6			0-0	0	0	
7			12-24	18	146	
8			0-0	0	0	
9			0-0	0	0	
10			6-12	9	73	
11			0-0	0	0	
12			6-18	12	97	
13			0-0	0	0	
14			0-0	0	0	
15			0-6	3	24	
16			0-0	0	0	
MAIN AREA INTERIOR CEILING (DIC)						
DIC-1	6-8	7	0-3	1.5	12	
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21	5-8	6.5	0-4	2	16	

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LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE INTERIOR AREAS

Sheet No. 4 of 6
Made By [illegible] Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
DIC-22	5-8	6.5	0-4	2	16
23	↓	↓	↓	↓	↓
24	↓	↓	↓	↓	↓
25	↓	↓	↓	↓	↓
26	↓	↓	↓	↓	↓
27	↓	↓	↓	↓	↓
28	↓	↓	↓	↓	↓
29	↓	↓	↓	↓	↓
30	↓	↓	↓	↓	↓
31	↓	↓	↓	↓	↓
32	↓	↓	↓	↓	↓
33	↓	↓	↓	↓	↓
34	↓	↓	↓	↓	↓
35	↓	↓	↓	↓	↓
36	↓	↓	↓	↓	↓
37	↓	↓	↓	↓	↓
38	↓	↓	↓	↓	↓
39	↓	↓	↓	↓	↓
40	↓	↓	↓	↓	↓
DRIVE THRU BAY INTERIOR FLOOR (EIF)					
EIF-1	7-12	9.5	0-6	3	24
2	↓	↓	0-30	15	121
3	↓	↓	0-0	0	0
4	↓	↓	6-36	21	170
5	↓	↓	0-6	3	24
6	↓	↓	18-36	27	219
7	↓	↓	12-18	15	121
8	↓	↓	18-24	21	170
9	↓	↓	0-6	3	24
10	↓	↓	0-0	0	0
11	↓	↓	0-6	3	24
12	↓	↓	6-6	6	49
13	↓	↓	6-12	9	73
14	↓	↓	30-78	54	437
DRIVE THRU INTERIOR EAST WALL (EIEW)					
EW-1	8-12	10	0-24	12	97
2	↓	↓	6-12	9	73
3	↓	↓	6-12	9	73
4	↓	↓	0-24	12	97

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
DRIVE THRU INTERIOR NORTHWALL (EINW)					
EINW-1	10-17	13.5	0-12	6	49
2	↓	↓	0-6	3	24
3	↓	↓	0-6	3	24
4	↓	↓	0-12	6	49
DRIVE THRU BAY INTERIOR WESTWALL (EIWW)					
EIWW-1	6-9	7.5	6-12	9	73
2	↓	↓	18-30	24	194
3	↓	↓	18-30	24	194
4	↓	↓	6-12	9	73
DRIVE THRU BAY INTERIOR SOUTHWALL (EISW)					
EISW-1	8-15	11.5	0-0	0	0
2	↓	↓	0-6	3	24
3	↓	↓	36-36	36	291
4	↓	↓	0-24	12	97
5	↓	↓	0-12	6	49
6	↓	↓	0-6	3	24
7	↓	↓	0-6	3	24
DRIVE THRU BAY INTERIOR CEILING (EIC)					
EIC-1	8-13	10.5	2-3	2.5	20
2	↓	↓	↓	↓	↓
3	↓	↓	↓	↓	↓
4	↓	↓	↓	↓	↓
5	↓	↓	↓	↓	↓
6	↓	↓	↓	↓	↓
7	↓	↓	↓	↓	↓
8	↓	↓	↓	↓	↓
9	↓	↓	↓	↓	↓
10	↓	↓	↓	↓	↓
11	↓	↓	↓	↓	↓
12	↓	↓	↓	↓	↓
13	↓	↓	↓	↓	↓
14	↓	↓	↓	↓	↓
WASH BAY INTERIOR FLOOR (FIF)					
FIF-1	8-12	10	21-21	21	170
2	↓	↓	12-12	12	97
3	↓	↓	0-3	1.5	12

COMMENTS

GARAGE AREA:
D- MAIN GARAGE AREA
E- DRIVE THRU BAY
F- WASH BAY

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INSTRUMENTATION

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LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE INTERIOR AREAS

Sheet No. 5 of 6
Made By MC Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²
FIF-4	8-12	10	6-24	15	121
5	↓	↓	6-21	13.5	109
6	↓	↓	6-12	13.5	109
7	↓	↓	0-0	0	0
8	7-11	9	3-21	12	97
9	↓	↓	3-12	7.5	61
10	↓	↓	12-15	13.5	109
11	↓	↓	18-30	24	194
12	↓	↓	15-15	15	121
13	↓	↓	12-27	19.5	158
14	↓	↓	9-33	21	170
WASH BAY INTERIOR EAST WALL (FIEW)					
FIEW-1	8-10	9	0-18	9	73
2	↓	↓	0-21	10.5	85
3	↓	↓	0-21	10.5	85
4	↓	↓	0-18	9	73
WASH BAY INTERIOR NORTH WALL (FINW)					
FINW-1	11-17	14	45-96	70.5	571
2	↓	↓	48-75	61.5	498
3	↓	↓	36-90	63	510
4	↓	↓	45-54	49.5	401
5	↓	↓	42-51	46.5	376
6	↓	↓	30-69	49.5	401
7	↓	↓	57-60	58.5	474
WASH BAY INTERIOR WEST WALL (FIWW)					
FIWW-1	7-11	9	0-24	12	97
2	↓	↓	0-3	1.5	12
3	↓	↓	0-3	1.5	12
4	↓	↓	0-24	12	97
WASH BAY INTERIOR SOUTH WALL (FISW)					
FISW-1	8-12	10	0-3	1.5	12
2	↓	↓	3-27	15	121
3	↓	↓	6-21	13.5	109
4	↓	↓	9-18	13.5	109
5	↓	↓	9-27	18	146
6	↓	↓	18-39	28.5	231
7	↓	↓	12-18	15	121
8	↓	↓	12-18	15	121
FISW-9	8-12	10	18-39	28.5	231
10	↓	↓	9-27	18	146
11	↓	↓	9-18	13.5	109
12	↓	↓	6-21	13.5	109
13	↓	↓	3-27	15	121
14	↓	↓	0-3	1.5	12
WASH BAY INTERIOR CEILING (FIC)					
FIC-1	8-10	9	01-3	2	16
2	↓	↓	↓	↓	↓
3	↓	↓	↓	↓	↓
4	↓	↓	↓	↓	↓
5	↓	↓	↓	↓	↓
6	↓	↓	↓	↓	↓
7	↓	↓	↓	↓	↓
8	↓	↓	↓	↓	↓
9	↓	↓	↓	↓	↓
10	↓	↓	↓	↓	↓
11	↓	↓	↓	↓	↓
12	↓	↓	↓	↓	↓
13	↓	↓	↓	↓	↓
14	↓	↓	↓	↓	↓
FOREMAN OFFC. INTERIOR FLOOR (GIF)					
GIF-1	12-18	15	0-6	3	24
FOREMAN OFFC. INTERIOR EAST WALL (GIEW)					
GIEW-1	12-18	15	0-0	0	0
FOREMAN OFFC. INTERIOR NORTH WALL (GINW)					
GINW-1	12-18	15	0-0	0	0
FOREMAN OFFC. INTERIOR WEST WALL (GIWW)					
GIWW-1	12-18	15	0-0	0	0
FOREMAN OFFC. INTERIOR SOUTH WALL (GISW)					
GISW-1	12-18	15	0-0	0	0
FOREMAN OFFC. INTERIOR CEILING (GIC)					
GIC-1	12-18	15	0-0	0	0
FOREMAN OFFC. INTERIOR ROOF (GIR)					
GIR-1	6-10	8	0-6	3	24

COMMENTS

GARAGE AREA:
F- WASH BAY
G- GARAGE FOREMAN OFFICE

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INSTRUMENTATION

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LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE GARAGE INTERIOR AREAS

Sheet No. 6 of 6
Made By RC Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²	COMMENTS
RESTROOM INTERIOR FLOOR (HIF)												
HIF-1	16-20	18	12-24	18	146							GARAGE AREA:
RESTROOM INTERIOR EAST WALL (HIEW)												H- GARAGE REST
HIEW-1	16-20	18	0-0	0	0							ROOM
RESTROOM INTERIOR NORTH WALL (HINW)												
HINW-1	16-20	18	0-0	0	0							
RESTROOM INTERIOR WEST WALL (HIWW)												
HIWW-1	16-20	18	6-12	9	73							
RESTROOM INTERIOR SOUTH WALL (HISW)												
HISW-1	16-20	18	0-0	0	0							
RESTROOM INTERIOR CEILING (HIC)												
HIC-1	16-20	18	0-0	0	0							
RESTROOM INTERIOR ROOF (HIR)												
HIR-1	6-10	8	12-18	15	121							

Machine and Electrical Shop

Interior Survey Data Log

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EBERLINE PS-2/285 W/AC-3-7/714209
TH 230/11043 (860 DPM) = 21.0% EFF.
LUD/19/9180 AND LUD/125/9073
Cs137/1524 (1.55 uCi) = 220-230 uR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE MACHINE AND ELECTRICAL SHOP INTERIOR AREAS

Sheet No. 1 of 6
Made By MC Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (uR/HR) LO-HI	uR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
ELEC. FRMN OFFC. INTERIOR FLOOR (IIF)					
IIF-1	8-16	12	0-0	0	0
ELEC. FRMN. OFFC. INTERIOR EAST WALL (IIEW)					
IIEW-1	8-16	12	0-0	0	0
ELEC. FRMN. OFFC. INTERIOR NORTH WALL (IINW)					
IINW-1	8-16	12	0-0	0	0
ELEC. FRMN. OFFC. INTERIOR WEST WALL (IIWW)					
IIWW-1	8-16	12	0-0	0	0
ELEC. FRMN. OFFC. INTERIOR SOUTH WALL (IISW)					
IISW-1	8-16	12	0-0	0	0
ELEC. FRMN. OFFC. INTERIOR CEILING (IIC)					
IIC-1	8-16	12	0-0	0	0
ELEC. FRMN. OFFC. INTERIOR ROOF (IIR)					
IIR-1	6-10	8	6-12	9	73
MACH. SHOP FRMN. OFFC. INTERIOR EAST WALL (JIEW)					
JIEW-1	10-14	12	1-6	3.5	28
MACH. SHOP FRMN. OFFC. INTERIOR NORTH WALL (JINW)					
JINW-1	10-14	12	1-6	3.5	28
MACH. SHOP FRMN. OFFC. INTERIOR WEST WALL (JIWW)					
JIWW-1	10-14	12	1-6	3.5	28
MACH. SHOP FRMN. OFFC. INTERIOR SOUTH WALL (JISW)					
JISW-1	10-14	12	1-12	6.5	53
MACH. SHOP FRMN. OFFC. INTERIOR CEILING (JIC)					
JIC-1	10-14	12	1-6	3.5	28
MACH. SHOP FRMN. OFFC. INTERIOR FLOOR (JIF)					
JIF-1	10-14	12	1-6	3.5	28
SHOP MAIN AREA INTERIOR FLOOR (KIF)					
KIF-1	8-10	9	0-6	3	24
2			6-12	9	73
3			6-12	9	73
4			12-24	18	146
5	6-10	8	0-6	3	24
6			0-12	6	49
7			0-6	3	24
8			0-0	0	0
9	6-11	8.5	12-18	15	121
10			6-6	6	49
11			6-12	9	73
12			0-0	0	0
13	8-15	11.5	6-12	9	73
KIF-14	8-15	11.5	6-12	9	73
15			6-24	15.5	125
16			0-6	3	24
17			12-12	12	97
18			0-6	3	24
19			0-0	0	0
20			0-0	0	0
21	10-14	12	0-0	0	0
22			0-0	0	0
23			6-12	9	73
24			6-12	9	73
25			0-0	0	0
26			10-12	11	89
27			0-0	0	0
28			0-0	0	0
29	6-14	10	0-0	0	0
30			12-24	18	146
31			12-24	18	146
32			0-6	3	24
33			12-18	15	121
34			0-6	3	24
35			0-6	3	24
36			0-0	0	0
37	8-12	10	0-6	3	24
38			6-6	6	49
39			0-6	3	24
40			0-6	3	24
41	8-10	9	12-12	12	97
42			12-18	15	121
43			10-12	11	89
44			0-6	3	24
45	7-10	8.5	24-30	27	219
46			12-18	15	121
47			0-0	0	0
48			0-6	3	24
49	8-12	10	0-0	0	0
50			6-18	12	97
51			0-0	0	0
52			0-0	0	0
53	8-10	9	6-6	6	49
54	8-10	9	0-0	0	0
55	8-14	11	6-12	9	73
56	8-14	11	12-12	12	97

COMMENTS

MACHINE AND ELECTRICAL SHOP AREAS:
I - ELECTRICAL FOREMAN OFFICE
J - MACHINE SHOP FOREMAN OFFICE
K - MACHINE SHOP MAIN AREA

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LUD/19/9180 AND LUD/123/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE MACHINE AND ELECTRICAL SHOP INTERIOR AREAS

Sheet No. 2 of 6

Made By AC Date 10/9-11/93

Chkd. By _____ Date _____

AREA ID	γ (MR/HR) LO-HI	MR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100CM²	AREA ID	γ (MR/HR) LO-HI	MR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100CM²	COMMENTS
MAIN AREA INTERIOR EAST WALL (KIEW)						KIWW-2	9-16	12.5	0-0	0	0	MACHINE AND
KIEW-1	6-14	10	0-6	3	24	3			0-0	0	0	ELECTRICAL SHOP
2			0-0	0	0	4			0-0	0	0	AREAS;
3			0-0	0	0	5			0-0	0	0	K-MACHINE SHOP
4			12-18	15	121	6			0-6	3	24	MAIN AREA
5			0-0	0	0	7			0-0	0	0	
6			0-0	0	0	8			6-6	6	49	
7			0-6	3	24	9			0-0	0	0	
8			6-6	6	49	10			6-12	9	73	
9			0-0	0	0	11			0-0	0	0	
10			0-6	3	24	12			0-0	0	0	
11			0-0	0	0	13			0-6	3	24	
12			6-6	6	49	14			0-0	0	0	
13			0-0	0	0	MAIN AREA INTERIOR SOUTH WALL (KISW)						
14			0-0	0	0	KISW-1	8-17	12.5	0-0	0	0	
15			0-0	0	0	2			12-18	15	121	
16			12-18	15	121	3			0-0	0	0	
17			0-0	0	0	4			0-0	0	0	
18			0-0	0	0	5			12-18	15	121	
19			0-0	0	0	6			0-6	3	24	
20			0-0	0	0	7			6-12	9	73	
21			0-0	0	0	8			12-18	15	121	
22			0-6	3	24	MAIN AREA INTERIOR CEILING (KIC)						
MAIN AREA INTERIOR NORTH WALL (KINW)						KIC-1	8-10	9	0-2	1	9	
KINW-1	8-10	9	0-6	3	24	2						
2			0-0	0	0	3						
3			6-6	6	49	4						
4			6-12	9	73	5						
5	10-16	13	0-0	0	0	6						
6			0-0	0	0	7						
7			0-0	0	0	8						
8			0-0	0	0	9						
9			0-0	0	0	10						
10			0-0	0	0	11						
11			6-12	9	73	12						
12			0-6	3	24	13						
13			6-6	6	49	14						
14			6-12	9	73	15						
15			0-0	0	0	16						
16			18-24	21	170	17						
MAIN AREA INTERIOR WEST WALL (KIWW)						18						
KIWW-1	9-16	12.5	0-0	0	0	19						

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714209, LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE MACHINE AND ELECTRICAL SHOP INTERIOR AREAS

Sheet No. 3 of 6
Made By MC Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
K1C-20	8-10	9	0-2	1	9
21	7-10	8.5	1-2	1.5	12
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40	↓	↓	↓	↓	↓
41	8-11	9.5	0-3	1.5	12
42					
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55	↓	↓	↓	↓	↓
* AREA INTERIOR E. WALL STAIRWAY (K1ES)					
ES-1	8-10	9	6-18	12	97
	8-10	9	2-7	4.5	36
ELEC. RM. INTERIOR FLOOR (L1F)					
L1F-1	7-11	9	6-12	9	73

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
L1F-2	7-11	9	0-0	0	0
3			12-24	18	146
4			12-18	15	121
5			6-24	15	121
6			0-0	0	0
7			6-18	12	97
8			6-18	12	97
9			24-30	27	219
10			10-12	11	89
11			0-0	0	0
12	↓	↓	6-12	9	73
ELEC. RM. INTERIOR EAST WALL (L1EW)					
L1EW-1	12-17	14.5	0-0	0	0
2			0-0	0	0
3			0-0	0	0
4			0-6	3	24
5			0-6	3	24
6	↓	↓	0-6	3	24
ELEC. RM. INTERIOR NORTH WALL (L1NW)					
L1NW-1	6-10	8	0-0	0	0
2			6-12	9	73
3			0-0	0	0
4			12-18	15	121
5			0-0	0	0
6			0-0	0	0
7			0-0	0	0
8	↓	↓	0-0	0	0
ELEC. RM. INTERIOR WEST WALL (L1WW)					
L1WW-1	6-12	9	0-6	3	24
2			6-12	9	73
3			24-30	27	219
4			0-0	0	0
5			12-18	15	121
6	↓	↓	0-0	0	0
ELEC. RM. INTERIOR SOUTH WALL (L1SW)					
L1SW-1	9-14	11.5	0-0	0	0
2			6-12	9	73
3			0-0	0	0
4			24-30	27	219
5			0-0	0	0
6			0-6	3	24
7	↓	↓	0-0	0	0

COMMENTS

MACHINE AND ELECTRICAL SHOP AREAS:
K - MACHINE SHOP MAIN AREA
* ADDITIONAL ITEM ON THE MAIN AREA INTERIOR EAST WALL STAIRWAY TO TOP FLOOR AND HAND-RAIL
L - ELECTRICAL ROOM

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714209
LUP/19/9180 AND LW/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE MACHINE AND ELECTRICAL SHOP INTERIOR AREAS

Sheet No. 4 of 6
Made By MC Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{x}$	α (CPM) LO-HI	CPM $\bar{x}$	DPM 100CM²
L1SW-8	9-14	11.5	0-6	3	24
ELECTRICAL RM. INTERIOR CEILING (L1C)					
L1C-1	7-11	9	0-6	3	24
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
ELECTRICAL SHOP INTERIOR FLOOR (M1F)					
M1F-1	7-10	8.5	0-6	3	24
2			0-0	0	0
3			12-48	30	243
4	8-12	10	14-30	22	178
5			12-18	15	121
6			0-6	3	24
7	8-14	11	12-18	15	121
8			6-12	9	73
9			0-0	0	0
ELECTRICAL SHOP INTERIOR EAST WALL (M1EW)					
M1EW-1	8-10	9	0-0	0	0
2			0-0	0	0
3			0-0	0	0
4			6-18	12	97
5			12-18	15	121
6			18-24	21	170
ELECTRICAL SHOP INTERIOR NORTH WALL (M1NW)					
M1NW-1	8-10	9	0-0	0	0
2			6-12	9	73
3			6-12	9	73
4			0-0	0	0
5			0-6	3	24
6			0-0	0	0
ELECTRICAL SHOP INTERIOR WEST WALL (M1WW)					
M1WW-1	9-16	12.5	0-0	0	0
2	9-16	12.5	6-12	9	73

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{x}$	α (CPM) LO-HI	CPM $\bar{x}$	DPM 100CM²
M1WW-3	9-16	12.5	0-0	0	0
4			12-24	18	146
5			0-6	3	24
6			0-6	3	24
ELECTRICAL SHOP INTERIOR SOUTH WALL (M1SW)					
M1SW-1	10-15	12.5	0-6	3	24
2			0-0	0	0
3			0-0	0	0
4			6-12	9	73
5			0-0	0	0
6			0-0	0	0
ELECTRICAL SHOP INTERIOR CEILING (M1C)					
M1C-1	7-12	9.5	0-0	0	0
2					
3					
4					
5					
6					
7					
8					
9					
INST. REPAIR RM. INTERIOR FLOOR (N1F)					
N1F-1	8-12	10	0-0	0	0
INST. REPAIR RM. INTERIOR EAST WALL (N1EW)					
N1EW-1	8-12	10	0-0	0	0
INST. REPAIR RM. INTERIOR NORTH WALL (N1NW)					
N1NW-1	8-12	10	0-0	0	0
INST. REPAIR RM. INTERIOR WEST WALL (N1WW)					
N1WW-1	8-12	10	0-6	3	24
INST. REPAIR RM. INTERIOR SOUTH WALL (N1SW)					
N1SW-1	8-12	10	0-0	0	0
INST. REPAIR RM. INTERIOR CEILING (N1C)					
N1C-1	8-12	10	6-12	9	73
SUPPLY RM. INTERIOR FLOOR (O1F)					
O1F-1	8-16	12	12-30	21	170
SUPPLY RM. INTERIOR EAST WALL (O1EW)					
O1EW-1	8-16	12	0-6	3	24
SUPPLY RM. INTERIOR NORTH WALL (O1NW)					
O1NW-1	8-16	12	0-0	0	0

COMMENTS

MACHINE AND ELECTRICAL SHOP AREAS:
L - ELECTRICAL ROOM
M - ELECTRICAL SHOP
N - INSTRUMENT REPAIR ROOM
O - SUPPLY ROOM

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714209
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE MACHINE AND ELECTRICAL SHOP INTERIOR AREAS

Sheet No. 5 of 6
Made By [illegible] Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR $\bar{c}$	α (CPM) LO - HI	CPM $\bar{c}$	DPM 100CM²
SUPPLY RM. INTERIOR WEST WALL (O1WW)					
O1WW-1	8-16	12	0-0	0	0
SUPPLY RM. INTERIOR SOUTHWALL (O1SW)					
O1SW-1	8-16	12	0-0	0	0
SUPPLY RM. INTERIOR CEILING (O1C)					
O1C-1	8-16	12	0-0	0	0
CORRIDOR INTERIOR GROUND FLOOR (P1GF)					
P1GF-1	10-18	14	0-0	0	0
2	10-18	14	0-6	3	24
CORRIDOR INTERIOR TOP FLOOR (P1TF)					
P1TF-1	8-10	9	0-6	3	24
2	↓	↓	0-0	0	0
3	↓	↓	0-6	3	24
4	↓	↓	0-6	3	24
CORRIDOR INTERIOR GROUND E. WALL (P1GEW)					
P1GEW-1	14-16	15	0-0	0	0
CORRIDOR INTERIOR GROUND E. STAIRWAY (P1GES)					
P1GES-1	12-16	14	6-18	12	97
CORRIDOR INTERIOR GROUND N. WALL (P1GNW)					
P1GNW-1	10-19	14.5	0-0	0	0
2	10-19	14.5	0-0	0	0
CORRIDOR INTERIOR GROUND S. WALL (P1GSW)					
P1GSW-1	16-18	17	0-0	0	0
2	16-18	17	0-0	0	0
CORRIDOR INTERIOR GROUND CEILING (P1GC)					
P1GC-1	10-18	14	0-0	0	0
P1GC-2	↓	↓	↓	↓	↓
CORRIDOR INTERIOR TOP E. WALL (P1TEW)					
P1TEW-1	12-14	13	0-0	0	0
CORRIDOR INTERIOR TOP E. STAIRWAY (P1TES)					
P1TES-1	10-14	12	0-12	6	49
CORRIDOR INTERIOR TOP NORTH WALL (P1TNW)					
P1TNW-1	8-10	9	0-0	0	0
2	8-10	9	0-0	0	0
CORRIDOR INTERIOR TOP SOUTHWALL (P1TSW)					
P1TSW-1	10-12	11	0-0	0	0
2	10-12	11	0-6	3	24
CORRIDOR INTERIOR TOP CEILING (P1TC)					
P1TC-1	6-10	8	0-6	3	24
2	6-10	8	0-0	0	0

AREA ID	γ (μR/HR) LO - HI	μR/HR $\bar{c}$	α (CPM) LO - HI	CPM $\bar{c}$	DPM 100CM²
TOOL ROOM INTERIOR FLOOR (Q1F)					
Q1F-1	12-20	16	12-18	15	121
TOOL ROOM INTERIOR EASTWALL (Q1EW)					
Q1EW-1	12-20	16	1-6	3.5	28
TOOL ROOM INTERIOR NORTH WALL (Q1NW)					
Q1NW-1	12-20	16	0-0	0	0
TOOL ROOM INTERIOR WEST WALL (Q1WW)					
Q1WW-1	12-20	16	0-0	0	0
TOOL ROOM INTERIOR SOUTH WALL (Q1SW)					
Q1SW-1	12-20	16	1-6	3.5	28
TOOL ROOM INTERIOR CEILING (Q1C)					
Q1C-1	12-20	16	12-37	24.5	198
REST ROOM INTERIOR FLOOR (R1F)					
R1F-1	16-23	19.5	12-14	13	105
REST ROOM INTERIOR EASTWALL (R1EW)					
R1EW-1	16-23	19.5	1-6	3.5	28
REST ROOM INTERIOR NORTH WALL (R1NW)					
R1NW-1	16-23	19.5	12-16	14	113.3
REST ROOM INTERIOR WEST WALL (R1WW)					
R1WW-1	16-23	19.5	1-6	3.5	28
REST ROOM INTERIOR SOUTH WALL (R1SW)					
R1SW-1	16-23	19.5	0-0	0	0
REST ROOM INTERIOR CEILING (R1C)					
R1C-1	16-23	19.5	6-12	9	73
STORAGE INTERIOR FLOOR (S1F)					
S1F-1	12-20	16	1-6	3.5	28
STORAGE INTERIOR EASTWALL (S1EW)					
S1EW-1	12-20	16	0-0	0	0
STORAGE INTERIOR NORTH WALL (S1NW)					
S1NW-1	12-20	16	1-6	3.5	28
STORAGE INTERIOR WEST WALL (S1WW)					
S1WW-1	12-20	16	2-12	7	57
STORAGE INTERIOR SOUTHWALL (S1SW)					
S1SW-1	12-20	16	2-6	4	32
STORAGE INTERIOR CEILING (S1C)					
S1C-1	12-20	16	6-12	9	73

COMMENTS

MACHINE AND ELECTRICAL SHOP AREAS:
O - SUPPLY ROOM
P - CORRIDOR
Q - TOOL ROOM
R - REST ROOM
S - STORAGE

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INSTRUMENTATION

EBERLINE PS-2/285 W/AC-3/714209
LUD/19/9180 & LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE MACHINE AND ELECTRICAL SHOP INTERIOR AREAS

Sheet No. 6 of 6
Made By MC Date 10/9-11/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR $\bar{c}$	α (CPM) LO - HI	CPM $\bar{c}$	DPM 100CM²	AREA ID	γ (μR/HR) LO - HI	μR/HR $\bar{c}$	α (CPM) LO - HI	CPM $\bar{c}$	DPM 100CM²	COMMENTS
INST. REPAIR RM. INTERIOR ROOF (NIR)												MACHINE AND ELECTRICAL SHOP AREAS;
NIR-1	8-12	10	6-12	9	73							
SUPPLY RM. INTERIOR ROOF (OIR)												N - INSTRUMENT REPAIR ROOM
OIR-1	8-12	10	12-18	15	121							O - SUPPLY ROOM
												NOTE: ADDITIONAL SURVEY OF THE ABOVE AREAS.

Warehouse - Ground Floor

Interior Survey Data Log

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UNC EBERLINE PS-2/285 w/AC-3-7/714204
Th230/11093 (860 DPM) = 21.0% EFF.
LUD/19/9180 AND LUD/125/9073
<S137/1524 (1.55 mCi) = 220-230 μR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE WARE HOUSE INTERIOR AREA

Sheet No. 1 of 2
Made By [illegible] Date 7-24-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100cm²
WAREHOUSE INTERIOR FLOOR (VIF)					
VIF-1	9-14	11.5	0-28	14	113
2			12-18	15	121
3			12-27	19.5	158
4			18-35	26.5	215
5			35-35	35	283
6			24-42	33	267
7	6-13	9.5	18-48	31.5	255
8			9-35	22	178
9			26-34	30	243
10			11-22	16.5	134
11			12-26	19	154
12			12-42	27	219
13			0-12	6	49
14			18-26	22	178
15	6-9	7.5	19-24	21.5	174
16			12-24	18	146
17			0-12	6	49
18			6-36	21	170
19			18-36	27	219
20			0-12	6	49
21			6-12	9	73
22			18-30	24	194
23	5-8	6.5	15-19	24.5	198
24			6-18	12	97
25			12-26	19	154
26			0-12	6	49
27			6-35	20.5	166
28			12-36	27	219
29			18-36	27	170
30			0-12	6	49
31	6-10	8	17-18	17.5	142
32			12-42	27	219
33			6-30	18	146
34			0-0	0	0
35			6-6	6	49
36			6-12	9	73
37			18-24	21	170
38			6-18	12	97
39	6-8	7	6-40	23	186
40			12-42	27	219
41			6-12	9	73
VIF-42	6-8	7	12-15	13.5	109
43			6-18	12	97
44			18-24	21	170
45			0-6	3	24
46			0-27	13.5	109
WAREHOUSE INTERIOR EASTWALL (VIEW)					
VIEW-1	10-18	14	0-6	3	24
2			0-6	3	24
3			0-9	4.5	36
4			0-0	0	0
5			0-6	3	24
6			0-6	3	24
WAREHOUSE INTERIOR NORTHWALL (VINW)					
VINW-1	12-17	14.5	0-0	0	0
2			0-0	0	0
3			0-0	0	0
4			0-0	0	0
5			0-12	6	49
6			0-6	3	24
7			6-12	9	73
8			6-12	9	73
WAREHOUSE INTERIOR WESTWALL (VIWW)					
VIWW-1	11-16	13.5	0-6	3	24
2			0-0	0	0
3			0-0	0	0
4			0-12	6	49
5			0-0	0	0
6			0-0	0	0
WAREHOUSE INTERIOR SOUTHWALL (VISW)					
VISW-1	6-10	8	0-0	0	0
2			0-0	0	0
3			0-0	0	0
4			0-9	4.5	36
5			0-9	4.5	36
6			0-6	3	24
7			0-0	0	0
8			0-6	3	24

COMMENTS

WARE HOUSE AREA:
V-WAREHOUSE MAIN AREA

WAREHOUSE MAIN AREA IS GRIDDED INTO 10'x10' AREAS (e.g. FLOOR HAS 46 10'x10' AREAS)

BUILDING INTERIOR:
FLOOR - CONCRETE
WALL - BRICK OR GYPSUM BOARD
CEILING - METAL SHEATHING OR GRATING

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714204
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE WAREHOUSE INTERIOR AREA.

Sheet No. 2 of 2
Made By [illegible] Date 7-24-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²
WAREHOUSE INTERIOR CEILING (VIC)					
VIC - 1	5-7	6	0-0	0	0
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15	4-7	5.5	0-6	3	24
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31	4-7	5.5	0-6	3	24
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					

AREA ID	γ (μR/HR) LO - HI	μR/HR C̄	α (CPM) LO - HI	CPM C̄	DPM 100CM²
VIC - 42	4-7	5.5	0-6	3	24
43					
44					
45					
46					
WAREHOUSE OFFICE (U)					
FL	12-15	13.5	14-15	14.5	117
EW	16-22	19	0-0	0	0
NW	15-21	18	0-0	0	0
WW	15-22	18.5	0-6	3	24
SW	14-20	17	0-9	4.5	36
C	12-17	14.5	0-6	3	24
WAREHOUSE OFFICE STORAGE (T)					
FL	15-18	16.5	7-29	18	146
EW	16-22	19	0-6	3	24
NW	16-22	19	0-6	3	24
WW	16-22	19	0-0	0	0
SW	16-22	19	0-6	3	24
C	14-18	16	0-6	3	24

COMMENTS

WAREHOUSE AREA:
V - MAIN WAREHOUSE AREA
U - WAREHOUSE OFFICE
T - WAREHOUSE STORAGE

LEGEND:
FL - FLOOR
EW - EAST WALL
NW - NORTH WALL
WW - WEST WALL
SW - SOUTH WALL
C - CEILING
(FOR UNGRID AREAS)

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INSTRUMENTATION

UNC

EBERLINE PS-2/285 w/AC-3-7/714204
Th 230/11043 (860 DPM) = 23.0 % EFF.
LUD/19/9180 AND LUD/125/9073
CS 137/1524 (1.55 μci) = 220-230 μR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE LAB / OFFICE INTERIOR AREAS

Sheet No. 1 of 4
Made By MC Date 2/13-18/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
ORE SAMPLE STORAGE (#1)						
FL	7-11	9	10-14	12	89	
EW	7-10	8.5	3-3	3	22	
NW	7-11	9	9-9	9	67	
WW	8-12	10	6-6	6	44	
SW	10-12	11	9-9	9	67	
C	10-13	11.5	3-3	3	22	
METALLURGICAL LAB STORAGE (#2)						
FL	7-13	10	8-14	11	81	
EW	7-13	10	21-21	21	155	
NW	8-11	9.5	0-0	0	0	
* 1-1" DIA. PIPE	7-8	7.5	0-0	0	0	
WW	10-15	12.5	0-0	0	0	
SW	8-12	10	3-3	3	22	
C	9-13	11	0-0	0	0	
1-EXH. FAN	7-8	7.5	0-0	0	0	
CHIEF CHEMIST (#3)						
FL	8-11	9.5	5-9	7	52	
EW	9-12	10.5	3-3	3	22	
NW	8-10	9	3-3	3	22	
WW	6-10	8	0-0	0	0	
SW	7-11	9	6-6	6	44	
C	7-10	8.5	0-0	0	0	
BALANCE ROOM (#4)						
FL	8-10	9	8-9	8.5	63	
EW	7-11	9	0-0	0	0	
NW	8-12	10	3-3	3	22	
WW	7-11	9	6-6	6	44	
SW	7-12	9.5	0-0	0	0	
C	8-10	9	3-3	3	22	
FLUOR 1-METRIC LAB (#5)						
FL	8-13	10.5	8-8	8	59	
EW	8-12	10	0-0	0	0	
NW	8-14	11	3-3	3	22	
1-1" DIA. PIPE	12-14	13	18-18	18	133	
WW	8-12	10	3-3	3	22	
* 1-3" DIA. PIPE	9-10	9.5	18-18	18	133	
SW	7-10	8.5	6-6	6	44	
C	8-12	10	0-0	0	0	
* 1-12" DIA EXH. PIPE	9-10	9.5	18-18	18	133	
STORAGE RM. (#6)						
FL	8-13	10.5	1-10	5.5	41	
EW	6-10	8	3-3	3	22	
NW	8-12	10	0-0	0	0	
WW	12-16	14	0-0	0	0	
SW	7-12	9.5	0-0	0	0	
C	8-10	9	0-0	0	0	
RADIATION CONTROL RM. (#7)						
FL	7-12	9.5	11-13	12	89	
EW	9-12	10.5	12-12	12	89	
NW	6-9	7.5	6-6	6	44	
WW	6-10	8	3-3	3	22	
SW	10-12	11	0-0	0	0	
C	7-9	8	3-3	3	22	
MILL SUPERINTENDENT (#8)						
FL	7-10	8.5	6-9	7	52	
EW	7-10	8.5	3-3	3	22	
NW	7-9	8	3-3	3	22	
WW	6-10	8	3-3	3	22	
SW	8-10	9	3-3	3	22	
C	8-10	9	0-0	0	0	
MILL FOREMAN (#9)						
FL	6-9	7.5	5-6	5.5	41	
EW	6-10	8	3-3	3	22	
NW	7-10	8.5	6-6	6	44	
WW	6-9	7.5	0-0	0	0	
SW	6-9	7.5	0-0	0	0	
C	7-9	8	3-3	3	22	
SHIFT SUPERVISOR'S (#10)						
FL	7-10	8.5	5-10	7.5	55	
EW	6-9	7.5	3-3	3	22	
NW	6-11	8.5	5-10	7.5	55	
WW	6-10	8	6-6	6	44	
SW	6-9	7.5	0-0	0	0	
C	7-9	8	0-0	0	0	

LEGEND:
FL - FLOOR
EW - EAST WALL
NW - NORTH WALL
WW - WEST WALL
SW - SOUTH WALL
C - CEILING
* - MATERIAL AND DESCRIPTION IN AREA (e.g. pipe, EXHAUST FAN ETC.)

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714209
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE LAB/OFFICE INTERIOR AREAS

Sheet No. 2 of 4
Made By MC Date 2/13-18/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
ANALYTICAL LAB					
(A) - FL	7-10	8.5	5-8	6.5	48
EW	7-10	8.5	15-15	15	111
NW	7-9	8	6-6	6	44
WW	7-10	8.5	3-3	3	22
C	7-10	8.5	0-0	0	0
(B) - FL	9-15	12	3-12	7.5	55
* 3-1" DIA. CONDUITS	9-11	10	3-6	4.5	33
NW	9-14	11.5	3-3	3	22
WW	12-15	13.5	9-9	9	67
* 7-1", 2" DIA. pipe	12-15	13.5	3-6	4.5	33
C	9-14	11.5	0-0	0	0
(C) - FL	8-12	10	4-11	7.5	55
* 1-2" DIA. PIPE	11-12	11.5	6-6	6	44
C	9-11	10	0-0	0	0
- FL	9-12	10.5	9-21	15	111
EW	8-12	10	0-0	0	0
NW	9-13	11	0-0	0	0
C	9-11	10	0-0	0	0
(E) - FL	7-12	9.5	10-12	11	81
EW	7-10	8.5	0-0	0	0
C	7-12	9.5	0-0	0	0
(F) - FL	8-12	10	5-8	6.5	48
* 1-1" DIA DRAIN	7-10	8.5	20-20	20	148
* 2-2" DIA. pipe	9-12	10.5	7-7	7	52
C	8-10	9	9-9	9	67
(G) - FL	10-14	12	7-8	7.5	55
* 3-1" DIA. CONDUITS	10-15	12.5	0-0	0	0
WW	13-17	15	6-6	6	44
* 3-2" DIA. pipe	10-15	12.5	0-0	0	0
C	11-14	12.5	0-0	0	0
* 1-8" DIA. pipe	8-11	9.5	0-0	0	0
(H) - FL	10-15	7.5	8-21	14.5	107
WW	11-15	13	3-3	3	22
* 3-2" DIA. 1" pipe	11-13	12	0-0	0	0
C	9-12	10.5	0-0	0	0
(I) - FL	9-12	10.5	12-22	17	126
1-2" DIA. pipe	8-11	9.5	0-0	0	0
C	7-10	8.5	0-0	0	0
(J) - FL	8-10	9	12-18	15	111
EW	7-10	8.5	12-12	12	89
C	7-9	8	0-0	0	0

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
(K) - FL	7-11	9	2-7	4.5	33
EW	6-9	7.5	0-0	0	0
SW	7-10	8.5	0-0	0	0
C	7-9	8	0-0	0	0
(L) - FL	8-12	10	24-30	27	200
SW	8-11	9.5	3-3	3	22
* 12-1/2", 2" DIA. pipe	6-11	8.5	3-3	3	22
C	8-10	9	0-0	0	0
(M) - FL	10-15	12.5	24-30	27	200
SW	9-14	11.5	0-0	0	0
* 8-1/2", 1/4", 2" DIA. pipe	10-13	11.5	0-0	0	0
WW	12-15	13.5	3-3	3	22
C	10-14	12	0-0	0	0
X-RAY ROOM (#11)					
FL	7-11	9	2-10	6	44
EW	7-12	9.5	0-0	0	0
NW	7-9	8	0-0	0	0
WW	6-10	8	3-3	3	22
SW	7-11	9	3-3	3	22
C	6-9	7.5	9-9	9	67
HALLWAY W/STAIRWAY					
(A) - FL	7-14	10.5	8-18	13	96
NW	7-14	10.5	0-0	0	0
WW	11-15	13	3-3	3	22
* HANDRAIL STAIRWAY	9-11	10	12-24	13	96
SW	9-13	11	0-0	0	0
C	7-11	9	0-0	0	0
(B) - FL	7-10	8.5	3-11	7	52
EW	7-9	8	0-0	0	0
NW	6-10	8	0-0	0	0
SW	7-10	8.5	6-6	6	44
C	7-9	8	0-0	0	0
LOBBY W/ENTRY WAY					
FL	7-10	8.5	9-20	14.5	107
EW	6-9	7.5	15-15	15	111
NW	7-11	8	12-12	12	89
WW	7-10	8.5	15-15	15	111
SW	6-8	7	18-18	18	133
C	7-10	8.5	3-3	3	22

COMMENTS

(A) TO (M) ARE 10'x 10' GRIDDED AREAS IN ANALYTICAL LAB

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714209
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE LAB/OFFICE INTERIOR AREAS

Sheet No. 3 of 4
Made By MC Date 2/13-18/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²
MEN'S TOILET W/JANITORIAL STRG. (T-1)					
FL	7-11	9	15-33	24	177
EW	8-10	9	9-9	9	67
NW	6-10	8	15-15	15	111
WW	7-11	9	12-12	12	89
SW	7-10	8.5	3-3	3	22
C	6-9	7.5	12-12	12	89
WOMEN'S TOILET (T-2)					
FL	8-11	9.5	17-23	20	148
EW	8-9	8.5	6-6	6	44
NW	8-10	9	6-6	6	44
WW	7-10	8.5	12-12	12	89
SW	7-11	9	9-9	9	67
C	7-9	8	0-0	0	0
VESTIBLE-1					
FL	6-10	8	11-12	11.5	85
EW	7-10	8.5	6-6	6	44
NW	6-10	8	6-6	6	44
WW	6-9	7.5	6-6	6	44
SW	6-11	8.5	0-0	0	0
C	7-9	8	3-3	3	22
METALLURGICAL LAB					
(A) - FL	7-11	9	8-12	10	74
NW	8-11	9.5	3-3	3	22
WW	7-11	9	3-3	3	22
C	7-11	9	0-0	0	0
(B) - FL	8-11	9.5	5-18	11.5	85
EW	7-10	8.5	3-3	3	22
NW	6-10	8	0-0	0	0
C	7-10	8.5	9-9	9	67
(C) - FL	8-11	9.5	13-18	15.5	115
EW	8-11	9.5	3-3	3	22
C	8-11	9.5	0-0	0	0
(D) - FL	8-11	9.5	8-25	16.5	122
WW	7-11	9	3-3	3	22
C	7-11	9	3-3	3	22
(E) - FL	8-14	11	40-74	57	421
NW	8-13	10.5	6-6	6	44
* 4-1" DIA. PIPE	9-13	11	0-0	0	0

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
(E) - WW	11-15	13	0-0	0	0	
* 1-3/4" DIA. PIPE	9-13	11	0-0	0	0	
C	8-15	11.5	0-0	0	0	
(F) - FL	9-11	10	17-28	22.5	166	
* 1-11" DIA DRAINAGE	7-10	8.5	27-27	27	200	
C	8-12	10	0-0	0	0	
(G) - FL	8-11	9.5	8-39	23.5	174	
* 1-11" DIA. DRAINAGE	9-11	10	13-13	13	96	
C	8-11	9.5	0-0	0	0	
(H) - FL	6-9	7.5	3-6	4.5	33	
EW	8-11	9.5	15-15	15	111	
NW	9-11	10	0-0	0	0	
C	8-10	9	6-6	6	44	
(I) FL	8-11	9.5	15-18	16.5	122	
EW	7-11	9	3-3	3	22	
SW	8-10	9	12-12	12	89	
* 6-3/4", 2" PIPE	8-11	9.5	3-3	3	22	
C	7-11	9	0-0	0	0	
(J) FL	7-11	9	7-15	11	81	
SW	8-11	9.5	6-6	6	44	
* 5-3/4", 2" PIPE DIA	8-10	9	0-0	0	0	
C	8-11	9.5	0-0	0	0	
* 1-1" EXH. DUCT	7-10	8.5	21-21	21	155	
(K) - FL	8-11	9.5	4-6	5	37	
SW	8-11	9.5	0-0	0	0	
C	7-11	9	0-0	0	0	
(L) - FL	9-14	11.5	6-13	9.5	70	
WW	12-16	14	0-0	0	0	
SW	9-13	11	6-6	6	44	
* 6-1/4" 3/4" 2" PIPE	10-15	12.5	0-0	0	0	
C	8-13	10.5	3-3	3	22	
CHIEF AND ASST. METALLURGIST (# 12)						
FL	5-8	7	9-13	11	81	
EW	6-8	7	0-0	0	0	
NW	7-11	9	3-3	3	22	
WW	7-11	9	9-9	9	67	
SW	7-11	9	3-3	3	22	
C	8-11	9.5	0-0	0	0	

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INSTRUMENTATION

UNC EBERLINE PS-2/285 W/AC-3-7/714204

LUD/19/9180 AND LUD/125/9073
EBERLINE SAC/4/221. Th230/11093 (860 DPM) = 41.5% EFF.

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE LAB/OFFICE INTERIOR AREAS

Sheet No. 4 of 4
Made By MC Date 2/13-18/93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100cm²
YELLOWCAKE TESTING RM. (#13)					
FL	6-10	8	10-145	78	577
EW	6-10	8	1-1	1	7
NW	6-10	8	2-2	2	15
WW	6-10	8	2-2	2	15
SW	6-10	8	6-6	6	44
C	6-10	8	1-1	1	7
WOMEN'S LOCKER RM. (T-3)					
FL	8-10	9	2-10	6	44
EW	8-10	9	1-1	1	7
NW	8-10	9	0-0	0	0
WW	8-10	9	0-0	0	0
SW	8-10	9	1-1	1	7
C	8-10	9	1-1	1	7
TOILETRY AREA (T-4)					
FL	7-10	8.5	1-12	6.5	48
EW	7-10	8.5	1-1	1	7
NW	7-10	8.5	1-1	1	7
WW	7-10	8.5	0-0	0	0
SW	7-10	8.5	1-1	1	7
C	7-10	8.5	1-1	1	7
SHOWER RM. (T-5)					
FL	6-10	8	1-10	5.5	41
EW	6-10	8	1-1	1	7
NW	6-10	8	1-1	1	7
WW	6-10	8	0-0	0	0
SW	6-10	8	0-0	0	0
C	6-10	8	2-2	2	15
VESTIBLE - 2					
FL	7-10	8.5	2-8	5	37
EW	7-10	8.5	1-1	1	7
NW	7-10	8.5	1-1	1	7
WW	7-10	8.5	1-1	1	7
SW	7-10	8.5	0-0	0	0
C	7-10	8.5	1-1	1	7

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100cm²
ACID STORAGE ROOM (#14)					
FL	10-14	12	4-15	9.5	70
EW	10-14	12	2-2	2	15
NW	10-14	12	2-2	2	15
WW	10-14	12	1-1	1	7
SW	10-14	12	1-1	1	7
C	10-14	12	1-1	1	7

COMMENTS

SWIPE SURVEY:
#13 (YELLOWCAKE TEST RM.)

	CPM	dpm
FL (#94)	12	29
(#95)	0	0
TABLE (#96)	3	7

Reference Drawing for Garage, Shops, Warehouse, Laboratories and Operations Offices Interior Survey Points

Warehouse - Top Floor

Interior Survey Data Log

and Reference Drawing

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INSTRUMENTATION

UNC

EBERLINE PS-2/285 w/AC-3-7/714209
Th230/11093 (860 DPM) = 23.0% EFF.
LUD/19/9180 AND LUD/125/9073
C_{s137}/1524 (1.55 μCi) = 220-230 μR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE TOP FLOOR WAREHOUSE INTERIOR AREAS.

Sheet No. 1 of 3
Made By [illegible]
Date 2-13-93
Chkd. By
Date

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{C}$	α (CPM) LO-HI	CPM $\bar{C}$	DPM 100CM²
MAB-3					
FL-1	7-14	10.5	5-12	9	67
EW-1	7-10	8.5	6-6	6	44
NW-1	6-10	8	0-0	0	0
WW-1	6-9	7.5	6-6	6	44
C-1	6-7	6.5	6-6	6	44
FL-2	6-12	9	4-18	11	81
EW-2	7-10	8.5	0-0	0	0
SW-2	7-10	8.5	9-9	9	67
WW-2	7-10	8.5	3-3	3	22
C-2	6-10	8	9-9	9	67
ROOM #1					
FL	5-8	6.5	1-4	2.5	18
EW	6-8	7	3-3	3	22
NW	6-8	7	0-0	0	0
WW	7-9	8	0-0	0	0
SW	6-9	7.5	9-9	9	67
C	6-10	8	0-0	0	0
ROOM #2					
FL	6-8	7	1-4	2.5	18
EW	6-7	6.5	3-3	3	22
NW	5-7	6	12-12	12	89
WW	5-8	6.5	0-0	0	0
SW	6-8	7	0-0	0	0
C	5-7	6	3-3	3	22
MAB-1					
FL	6-7	6.5	2-4	3	22
EW	4-6	5	0-0	0	0
NW	5-7	6	0-0	0	0
WW	5-8	6.5	9-9	9	67
C	4-7	5.5	3-3	3	22
MAB-2					
FL	5-7	6	2-3	2.5	18
EW	6-7	6.5	3-3	3	22
WW	5-7	6	3-3	3	22
NW	5-7	6	6-6	6	44
SW	5-7	6	9-9	9	67
C	5-7	6	0-0	0	0

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{C}$	α (CPM) LO-HI	CPM $\bar{C}$	DPM 100CM²
ROOM #3					
FL	6-7	6.5	4-6	5	37
EW	7-8	7.5	0-0	0	0
NW	6-7	6.5	0-0	0	0
WW	5-7	6	0-0	0	0
SW	5-6	5.5	0-0	0	0
C	6-7	6.5	0-0	0	0
ROOM #4 (SURVEY EQUIP. RM)					
FL	5-7	6	1-6	3.5	26
EW	7-8	7.5	0-0	0	0
NW	6-7	6.5	3-3	3	22
WW	5-6	5.5	0-0	0	0
SW	6-7	6.5	0-0	0	0
C	5-7	6	3-3	3	22
MAB-6					
FL	5-8	6.5	3-6	4.5	33
EW	5-7	6	3-3	3	22
NW	5-7	6	3-3	3	22
WW	5-7	6	0-0	0	0
SW	5-7	6	0-0	0	0
C	5-7	6	3-3	3	22
MAB-4					
FL	6-12	9	8-10	9	67
EW	6-12	9	3-3	3	22
NW	6-7	6.5	12-12	12	89
WW	6-7	6.5	9-9	9	67
SW	6-7	6.5	0-0	0	0
C	5-8	6.5	0-0	0	0
ROOM #5					
FL	5-12	8.5	0-5	2.5	18
EW	6-10	8	3-3	3	22
NW	6-10	8	6-6	6	44
WW	5-8	6.5	3-3	3	22
SW	5-8	6.5	3-3	3	22
C	5-7	6	3-3	3	22

COMMENTS

LEGEND:
FL - FLOOR
EW - EAST WALL
NW - NORTH WALL
WW - WEST WALL
C - CEILING

BUILDING INTERIOR:
FL - CONCRETE W/ VA TILE OR CARPET AND MOSIAC TILE IN REST-ROOMS
WALL - gypsum board
C - gysum board OR ACOUSTICAL TILE

LARGE ROOMS ARE SEPERATED INTO 2 AREAS (e.g. FL-1 & FL-2 etc.) DURING SURVEY.

UNC MINING AND MILLING

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714204
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE TOP FLOOR WARE HOUSE INTERIOR AREAS.

Sheet No. 2 of 3
Made By [illegible] Date 2-13-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
ROOM	#6	W/	CLOSET			
FL-1	7-10	8.5	5-6	5.5	41	
NW-1	6-7	6.5	0-0	0	0	
WW-1	5-8	6.5	6-6	6	44	
SW-1	6-7	6.5	0-0	0	0	
C-1	6-8	7	6-6	6	44	
FL-2	7-10	8.5	2-12	7	52	
EW-2	6-14	10	3-3	3	22	
NW-2	6-9	7.5	0-0	0	0	
SW-2	5-8	6.5	3-3	3	22	
C-2	5-7	6	0-0	0	0	
ROOM #	7 (PRINTING	MACHINE	RM)	W/ CLOSET		
FL	5-8	6.5	6-7	6.5	48	
EW	5-9	7	0-0	0	0	
NW	5-8	6.5	3-3	3	22	
WW	5-7	6	6-6	6	44	
SW	5-9	7	6-6	6	44	
C	5-7	6	0-0	0	0	
ROOM	# 8					
FL	5-7	6	10-12	11	81	
EW	5-7	6	6-6	6	44	
NW	5-7	6	0-0	0	0	
WW	5-8	6.5	12-12	12	89	
SW	5-7	6	0-0	0	0	
C	5-7	6	0-0	0	0	
ROOM #	9					
FL	6-9	7.5	3-7	5	37	
EW	6-8	7	9-9	9	67	
NW	5-8	6.5	12-12	12	89	
WW	5-7	6	0-0	0	0	
SW	5-7	6	0-0	0	0	
C	5-8	6.5	3-3	3	22	
HALLWAY A	W/ ENTRY	WAY				
FL	6-8	7	9-9	9	67	
EW	5-10	7.5	3-3	3	22	
NW	5-8	6.5	3-3	3	22	
WW	5-8	6.5	6-6	6	44	
C	5-7	6	3-3	3	22	

AREA ID	γ (μR/HR) LO-HI	μR/HR C̄	α (CPM) LO-HI	CPM C̄	DPM 100CM²	COMMENTS
HALLWAY B						
FL	5-7	6	5-10	7.5	55	
EW	5-7	6	3-3	3	22	
WW	5-8	6.5	0-0	0	0	
C	5-7	6	6-6	6	44	
HALLWAY C						
FL	5-8	6.5	2-6	4	30	
NW	6-7	6.5	0-0	0	0	
WW	5-6	5.5	3-3	3	22	
C	5-8	6.5	3-3	3	22	
HALLWAY D						
FL	6-7	6.5	5-10	7.5	55	
EW	5-7	6	3-3	3	22	
WW	5-7	6	3-3	3	22	
SW	5-8	6.5	3-3	3	22	
C	5-7	6	3-3	3	22	
HALLWAY E						
FL	6-8	7	6-7	6.5	48	
EW	5-8	6.5	6-6	6	44	
NW	6-7	6.5	0-0	0	0	
SW	5-8	6.5	0-0	0	0	
C	5-7	6	12-12	12	89	
STAIRWAY #1	W/ ENTRY	WAY				
FL	5-8	6.5	14-20	17	126	
EW	5-8	6.5	3-3	3	22	
WW	5-7	6	9-9	9	67	
SW	5-8	6.5	9-9	9	67	
NW	5-8	6.5	3-3	3	22	
C	6-7	6.5	6-6	6	44	
HAND-RAIL GRATE	5-6	5.5	9-12	10.5	78	
ROOM	#10	(BOILER	ROOM)			
FL-1	6-8	7	3-15	9	67	
NW-1	6-8	7	0-0	0	0	
WW-1	6-8	7	1-1	1	7	
SW-1	6-8	7	0-0	0	0	
C-1	6-8	7	0-0	0	0	

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714204
LUD/19/9180 AND LUD/125/9073

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF THE TOP FLOOR WAREHOUSE INTERIOR AREAS.

Sheet No. 3 of 3
Made By MC Date 2-13-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100CM²
ROOM # 10 (CONT)					
FL-2	6-8	7	3-15	9	67
EW-2			0-0	0	0
NW-2			2-2	2	15
SW-2			0-0	0	0
C-2			0-0	0	0
ROOM # 11					
FL	6-8	7	1-6	3.5	26
EW			0-0	0	0
NW			1-1	1	7
WW			1-1	1	7
SW			0-0	0	0
C			0-0	0	0
ROOM # 12 (REST ROOM)					
FL	7-9	8	1-6	3.5	26
EW			0-0	0	0
NW			0-0	0	0
WW			0-0	0	0
SW			1-1	1	7
C			0-0	0	0
ROOM # 13 (REST ROOM)					
FL	6-8	7	1-10	5.5	41
EW			0-0	0	0
NW			0-0	0	0
WW			1-1	1	7
SW			0-0	0	0
C			1-1	1	7
ROOM # 14 (OFFICE SUPPLY AREA)					
FL-1	6-8	7	0-3	1.5	12
2					
3					
4					
5					
6					
7					
8					
9					
10					

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100CM²
FL-11	6-8	7	0-3	1.5	12
12			0-3	1.5	12
EW-1			0-1	0.5	4
2					
3					
4					
5					
6					
NW-1			0-0	0	0
2			0-0	0	0
WW-1			0-3	1.5	12
2					
3					
4					
5					
6					
SW-1			0-4	2	15
2			0-4	2	15
C-1			0-1	0.5	4
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

COMMENTS

ROOM #14 IS GRIDDED INTO 10'X10' AREAS
FL - STEEL GRATING
C - METAL W/INSTALLATION

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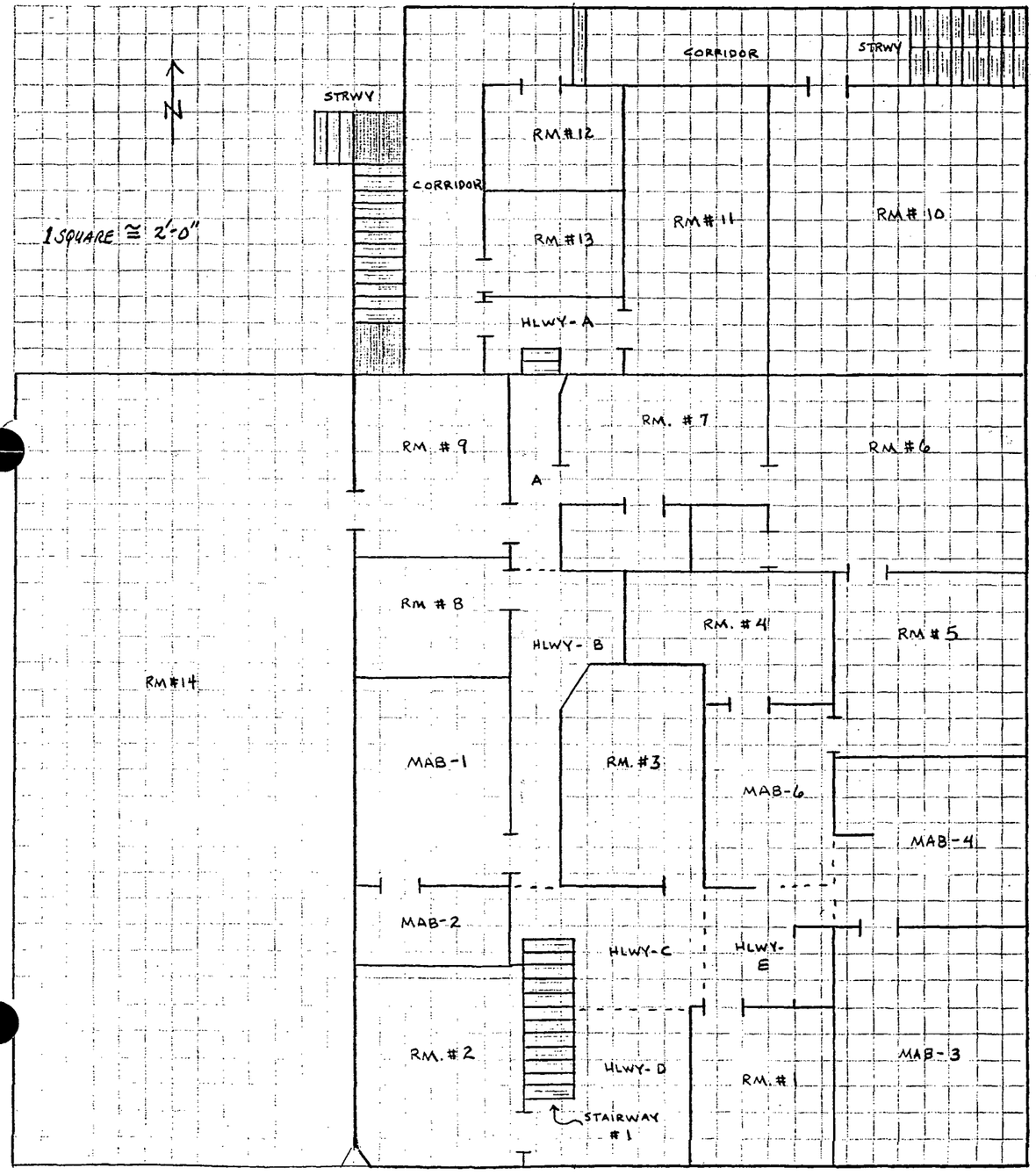
COMPUTATIONS

SUBJECT: SKETCH OF SHOP/WAREHOUSE TOP FLOOR INTERIOR LOCATION AREAS W/ ASSIGNED REFERENCE I.D. TO COINCIDE WITH THE INTERIOR SURVEY DATA LOG.

Sheet No. 1 of 1
Made By [illegible] Date 2-13-93
Chkd. By _____ Date _____



GENERAL SPECIFICATIONS

GENERAL CONSTRUCTION

BUILDING ENCLOSURE:

FOUNDATION & FLOOR SLAB - REINFORCED CONCRETE

STRUCTURAL FRAMING - PREFAB STEEL COLUMNS, RAFTERS PURLINS & GIRTS AS MFR'D BY 'ARMCO' OR APPROVED EQUAL.

ROOFING - PREFAB INSULATED, FLUSHFACE 'STEELOX' ROOF PANELS AS MANUFACTURED BY 'ARMCO' OR APPROVED EQUAL.

SIDING - PREFAB INSULATED, SCULPTURED 'STEELOX' WALL PANELS WITH INTERIOR METAL LINER AS MANUFACTURED BY 'ARMCO' OR APPROVED EQUAL.
NOTE: INTERIOR LINER PANEL NOT REQ'D AT SHOWER & FIRST AID & SAFETY RM.

WINDOWS - METAL WINDOW FRAMES W/ FIXED GLASS.

MANDOORS - HOLLOW METAL DOORS W/ PRESSED METAL FRAME.

BUILDING INTERIOR:

FLOOR - CONCRETE FLOOR, STEEL TROWELED WITH DUSTPROOFING THROUGHOUT EXCEPT: INDOOR/OUTDOOR CARPET WITH WOOD BASE AT FIRST AID & SAFETY ROOM AND CERAMIC MOSAIC TILE AT SHOWER & TOILET.

WALLS & PARTITION - CONCRETE BLOCK (PAINTED) THROUGHOUT EXCEPT WHERE GLAZED FACE IS INDICATED.

CEILING - 24"x48" ACOUSTICAL TILE W/ EXPOSED 'T' GRID IN FIRST AID & SAFETY ROOM; EXPOSED STRUCTURE PAINTED IN MECH ROOM; AND 5/8" GYP. BOARD CEILING IN REMAINING AREAS.

DOORS - HOLLOW METAL DOORS W/ PRESSED METAL FRAME.

TOILET PARTITIONS & URINAL SCREENS - FACTORY FINISHED, BAKED ENAMEL, STEEL PANELS W/ MANUFACTURERS STANDARD COLOR.

METAL LOCKERS - SINGLE TIER METAL LOCKERS (WITHOUT LEGS) WITH SLOPING TOP, COMBINATION LOCKS & MFR'S STANDARD FINISH.
MET LOCKERS SHALL BE SET ON A 18" FLANGE TYPE STEEL PEDESTAL LEVEL W/ CONT. BENCH.

WOOD BENCHES - LAMINATED MAPLE, 1¼" THICK BY 4½" WIDE SUPPORTED ON FLANGE TYPE STEEL PEDESTAL.

NOTE: LOCKERS AND WOOD BENCHES ARE NO LONGER PRESENT IN HRLY. EMPLOYEES LOCKER ROOM. ~~[illegible]~~ FOREMENS ~~[illegible]~~ 16 LOCKERS (15"x18"x72" HIGH)

MECHANICAL REQUIREMENTS

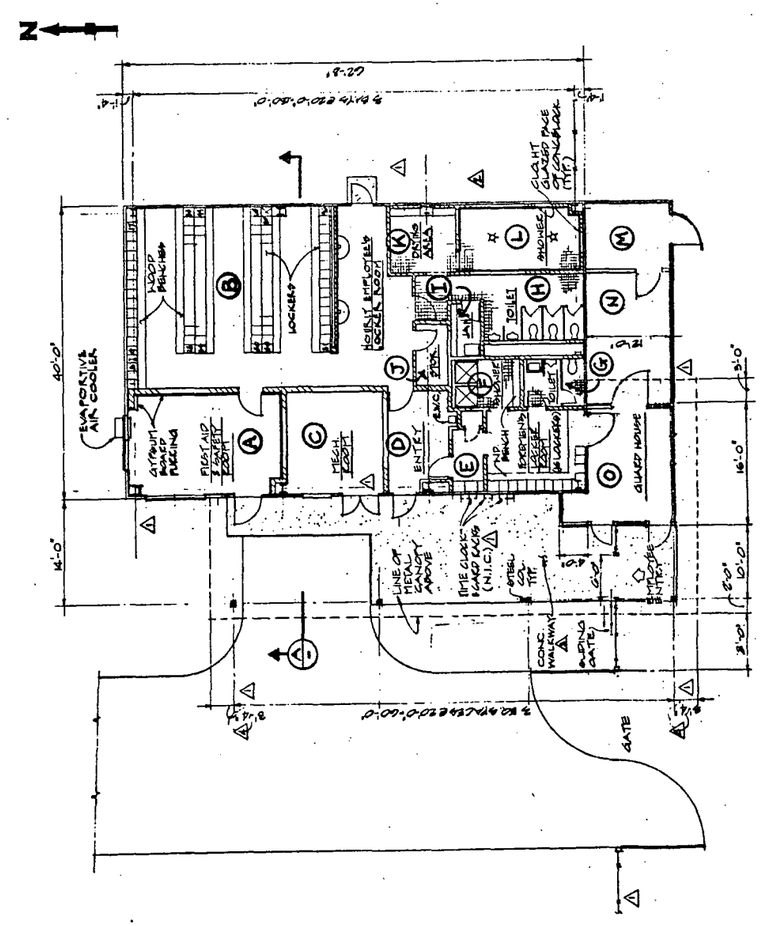
HVAC:

CHANGE HOUSE - FORCED AIR HEATING

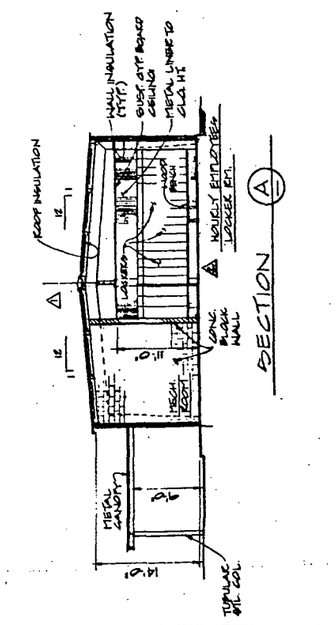
GUARD HOUSE AND FIRST AID & SAFETY RM. - EVAPORATIVE AIR COOLER

PLUMBING

PLUMBING - DOMESTIC HOT & COLD WATER SYSTEM.



FLOOR PLAN - GUARD/CHANGE HOUSE



SECTION A

NOTE:
A TO D ARE THE INTERIOR LOCATIONS I.D. TO COINCIDE WITH THE INTERIOR SURVEY DATA LOG.

Other Areas Exterior and Interior Survey Data

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714209
Th230/11093 (860 DPM) = 21.0% EFF.
LUD/19/9180 AND LUD/125/9073
Cs137/1524 (1.55 mci) = 220-230 mR/HR

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF OTHER SIGNIFICANT AREAS (i.e. TIRE, LUBE, FUEL OIL STORAGE, SCALE HOUSE AND CULVERT)

Sheet No. 1 of 2
Made By mc Date 8-7-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{C}$	α (CPM) LO-HI	CPM $\bar{C}$	DPM 100CM²
TIRE STORAGE EXTERIOR FLOOR					
F-1	6-7	6.5	15-90	52.5	388
2	6-7	6.5	7-42	24.5	181
3	6-7	6.5	10-42	26	192
4	7-8	7.5	18-54	36	266
5	6-7	6.5	14-84	49	362
6	7-8	7.5	4-24	14	104
7	7-8	7.5	15-90	52.5	388
8	6-7	6.5	11-66	38.5	285
TIRE STORAGE EXTERIOR ROOF					
R-1	8-10	9	12-18	15	111
2	↓	↓	6-12	9	67
3			3-14	8.5	63
4			6-8	7	52
5			10-26	18	133
6			4-12	8	59
7			10-12	11	81
8			6-12	9	67
TIRE STORAGE EXTERIOR CEILING					
C-1	8-9	8.5	3-8	5.5	41
2	↓	↓	1-2	1.5	11
3			3-4	3.5	26
4			0-1	0.5	11
5			0-3	1.5	11
6			1-2	1.5	11
7			1-2	1.5	11
8			2-3	2.5	18
4-STEEL BEAMS	6-8	7	6-18	12	89
LUBE STORAGE EXTERIOR FLOOR					
F-1	4-6	5	5-32	18.5	137
2	↓	↓	7-45	26	192
3			6-47	26.5	196
4			8-44	26	192
5			4-26	15	111
6			9-72	40.5	299
TRUCK SCALE EXTERIOR FLOOR					
F-1	6-7	6.5	15-90	52.5	388
2	6-7	6.5	7-42	24.5	181

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{C}$	α (CPM) LO-HI	CPM $\bar{C}$	DPM 100CM²
F-3	6-7	6.5	10-42	26	192
4	7-8	7.5	18-54	36	266
5	6-7	6.5	14-84	49	362
6	7-8	7.5	4-24	14	104
7	7-8	7.5	15-90	52.5	388
8	6-7	6.5	11-66	38.5	285
9	5-6	5.5	12-72	42	310
10	7-8	7.5	2-6	4	30
11	9-10	9.5	4-24	14	104
SCALE HOUSE EXTERIOR FLOOR					
F-1	8-9	8.5	20-120	70	517
2	7-8	7.5	18-108	63	466
3	6-6	6	2-6	4	30
4	6-6	6	4-24	14	104
5	5-5	5	15-92	53.5	395
6	6-7	6.5	7-45	26	192
7	5-5	5	7-48	27.5	203
8	5-6	5.5	8-50	29	214
SCALE SHED INTERIOR FLOOR					
IF-1	15-16	15.5	10-92	51	377
SCALE SHED INTERIOR WALL					
IW-1	15-16	15.5	5-10	7.5	55
SCALE SHED INTERIOR CEILING					
IC-1	15-16	15.5	4-10	7	52
SCALE SHED EXTERIOR WALL					
EW-1	15-16	15.5	6-10	8	59
SCALE SHED EXTERIOR ROOF					
ER-1	15-16	15.5	10-25	175	129
STAIRWAY W/RAIL	15-16	15.5	6-12	9	73
FUEL OIL STORAGE TK. EXTERIOR FOUNDATION					
F-1	6-8	7	2-12	7	52
2	↓	↓	2-14	8	59
3			4-28	16	118
4			6-42	24	177
5			7-48	27.5	203
6			4-30	17	126
7			6-38	22	163
8			7-43	25	185
9			8-48	28	207
10	↓	↓	6-42	24	177
	(CONT. ON		SHEET #	2)	

COMMENTS

LEGEND:
F-FLOOR/FOUNDATION
R-ROOF
C-CEILING
W-WALL

EXISTING EXTERIOR MATERIAL:
TIRE STORAGE CANOPY IS METAL SHEATHING W/4 MAIN STEEL SUPPORT BEAMS AND ASPHALT FLOOR.

LUBE STORAGE HAS EXISTING CONCRETE FLOOR

SCALE HOUSE HAS EXISTING CONCRETE FLOOR, 1-STEEL STAIRWAY AND 1-SHED W/METAL SHEATHING

DRAINAGE CULVERT HAS OVERALL CONCRETE MATERIAL

FUEL OIL STORAGE TANK HAS EXISTING CONCRETE FOUNDATION AND 1 STEEL TANK

LARGE AREAS ARE GRIDDED/SEPERATED INTO APPROXIMATED 10'X10' AREAS

UNC MINING AND MILLING

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INSTRUMENTATION

UNC EBERLINE PS-2/285 w/AC-3-7/714209

LUD/19/9180 AND LUD/125/9073

EBERLINE SAC/4/221. Th230/11093 (860 DPM) = 38.3% EFF.

COMPUTATIONS

SUBJECT MILL DECOMMISSIONING - ALPHA AND GAMMA VERIFICATION SURVEY FIELD DATA SHEET OF OTHER SIGNIFICANT AREAS (i.e. TIRE, LUBE, FUEL OIL STORAGE, SCALE HOUSE AND CULVERT)

Sheet No. 2 of 2
Made By mc Date 8-7-93
Chkd. By _____ Date _____

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100CM²
FUEL OIL STORAGE TANK INTERIOR AREAS					
IT-1	6-8	7	6-15	10.5	78
FUEL OIL STORAGE TANK EXTERIOR AREAS					
ET-1	6-8	7	6-9	7.5	55
(A) INFLOW EXTERIOR FLOOR (IEF)					
IEF-1	9-14	11.5	81-164	122.5	992
2	9-14	11.5	57-166	111.5	903
(A) INFLOW EXTERIOR EASTWALL (IEEW)					
IEEW-1	9-14	11.5	52-210	131	1,060
2	9-14	11.5	74-90	82	664
(A) INFLOW EXTERIOR NORTHWALL (IENW)					
IENW-1	9-14	11.5	66-99	82.5	668
(A) INFLOW EXTERIOR WESTWALL (IEWW)					
IEWW-1	9-14	11.5	62-134	98	793
2	9-14	11.5	93-107	100	810
(A) INFLOW EXTERIOR SOUTHWALL (IESW)					
IESW-1	9-14	11.5	47-71	59	478
(A) INTERIOR TUNNEL WALLS (ITW)					
ITW-1	14-24	19	42-164	103	834
2	↓	↓	114-136	125	1,012
3	↓	↓	30-191	110.5	895
4	↓	↓	76-212	144	1,166
5	↓	↓	51-202	126.5	1,024
6	↓	↓	42-109	75.5	611
7	↓	↓	30-121	75.5	611
8	↓	↓	30-120	75	607
9	↓	↓	33-136	84.5	684
(A) OUTFLOW EXTERIOR EASTWALL (OEEW)					
OEEW-1	18-22	20	39-57	48	389
(B) INFLOW EXTERIOR FLOOR (IEF)					
IEF-1	12-22	17	16-24	20	162
2	↓	↓	45-57	51	413
3	↓	↓	104-125	114.5	927
(B) INFLOW EXTERIOR NORTHWALL (IENW)					
IENW-1	12-16	14	33-45	39	316
2	↓	↓	0-15	7.5	61
3	↓	↓	60-90	75	607
(B) INFLOW EXTERIOR WESTWALL (IEWW)					
IEWW-1	12-16	14	60-75	67.5	546
2	12-16	14	60-66	63	510

AREA ID	γ (μR/HR) LO-HI	μR/HR $\bar{c}$	α (CPM) LO-HI	CPM $\bar{c}$	DPM 100CM²
(B) INFLOW EXTERIOR SOUTHWALL (IESW)					
IESW-1	12-16	14	121-154	137.5	1,113
2	↓	↓	27-72	49.5	401
3	↓	↓	15-27	21	170
(B) INTERIOR INFLOW TUNNEL WALL (IITW)					
IITW-1	14-17	15.5	3-64	33.5	271
2	↓	↓	15-39	27	219
3	↓	↓	60-140	100	810
(B) INTERIOR MIDDLE TUNNEL WALL (IMTW)					
IMTW-1	16-20	18	3-21	12	97
2	↓	↓	18-24	21	170
3	↓	↓	30-78	54	437
(B) INTERIOR OUTFLOW TUNNEL WALL (IOTW)					
IOTW-1	16-22	19	24-45	34.5	279
2	↓	↓	6-15	10.5	85
3	↓	↓	15-24	19.5	158
(B) OUTFLOW EXTERIOR WESTWALL (OEWW)					
OEWW-1	18-22	20	18-24	21	170
(B) OUTFLOW EXTERIOR FLOOR (OEF)					
OEF-1	18-26	22	9-21	15	121
2	↓	↓	18-62	40	324
3	↓	↓	51-72	61.5	498
4	↓	↓	21-24	22.5	182
5	↓	↓	15-40	27.5	223
6	↓	↓	64-144	104	842
7	↓	↓	52-77	64.5	522
8	↓	↓	34-41	37.5	304
9	↓	↓	39-42	40.5	328
10	↓	↓	42-60	51	413
11	↓	↓	54-57	55.5	449
12	↓	↓	18-36	27	219

COMMENTS

CULVERT AREA:

(A) - TO 1-6'5" DIA. CULVERT

(B) - TO 3-4' DIA. CULVERT

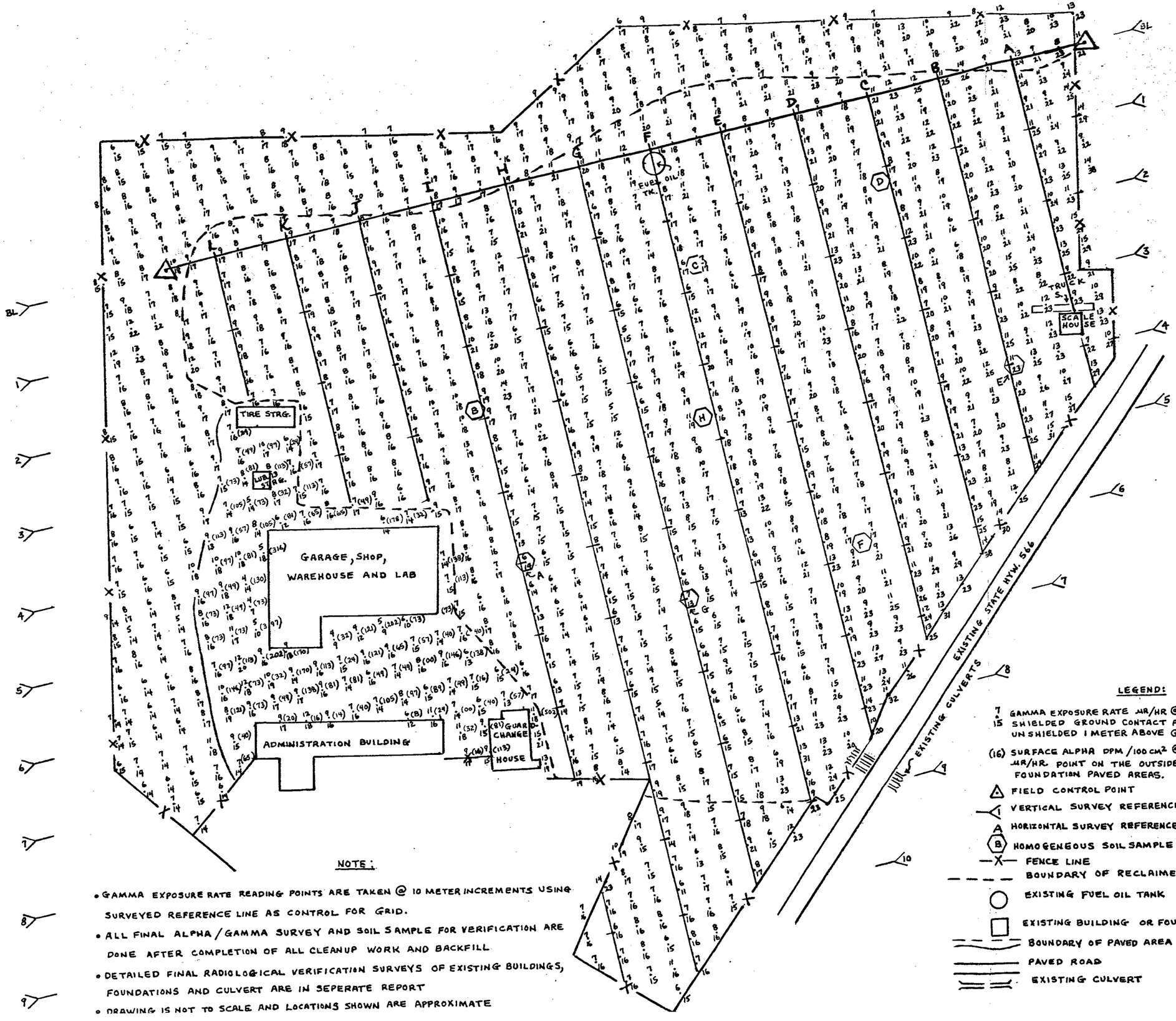
SWIPE SURVEY ON CULVERT AREA (A) & (B) AS ABOVE:

(A) #	CPM	DPM
IEF-1 #48 = 3		8
ITW-2 #49 = 14		37
ITW-4 #50 = 11		29
ITW-5 #51 = 4		10
(B)		
IESW-1 #52 = 2		5

EXISTING CEMENT CULVERT IS LOCATED @ SOUTHEND OF MILL AREA UNDERPASSING ST. RD. 566

Drawing of Mill Surface Area Showing

Survey Data and Reference Points



NOTE:

- GAMMA EXPOSURE RATE READING POINTS ARE TAKEN @ 10 METER INCREMENTS USING SURVEYED REFERENCE LINE AS CONTROL FOR GRID.
- ALL FINAL ALPHA / GAMMA SURVEY AND SOIL SAMPLE FOR VERIFICATION ARE DONE AFTER COMPLETION OF ALL CLEANUP WORK AND BACKFILL
- DETAILED FINAL RADIOLOGICAL VERIFICATION SURVEYS OF EXISTING BUILDINGS, FOUNDATIONS AND CULVERT ARE IN SEPERATE REPORT
- DRAWING IS NOT TO SCALE AND LOCATIONS SHOWN ARE APPROXIMATE

LEGEND:

- 7 / 15 GAMMA EXPOSURE RATE μR/HR @ POINT (I.E. TOP NUMBER - SHIELDED GROUND CONTACT AND BOTTOM NUMBER - UNSHIELDED 1 METER ABOVE GROUND LEVEL.
- (16) SURFACE ALPHA DPM / 100 cm² @ GAMMA EXPOSURE RATE μR/HR. POINT ON THE OUTSIDE EXISTING BUILDING OR FOUNDATION PAVED AREAS.
- FIELD CONTROL POINT
- VERTICAL SURVEY REFERENCE LINE
- HORIZONTAL SURVEY REFERENCE LINE (I.E. ALPHABET LETTER)
- HOMOGENEOUS SOIL SAMPLE W/REFERENCE ID LETTER
- FENCE LINE
- BOUNDARY OF RECLAIMED TARGET AREA
- EXISTING FUEL OIL TANK
- EXISTING BUILDING OR FOUNDATION
- BOUNDARY OF PAVED AREA
- PAVED ROAD
- EXISTING CULVERT