



070-00997

Westinghouse
Electric Corporation

Commercial Nuclear
Fuel Division

Box 355
Pittsburgh Pennsylvania 15230-0355

RS 93-001

January 11, 1993

U. S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Attention: Mr. Jerome M. Roth

Subject: First Submittal of Reports Concerning
Termination of License Number SNM-951
(Docket 70-997)

The Westinghouse Electric Corporation is preparing to request the termination of USNRC License Number SNM-951 (Docket 70-997) for the site located in Large, Pennsylvania. Enclosed are six reports which document certain information concerning the site in the overall effort to demonstrate that the site meets all applicable regulatory requirements for release for unrestricted use and that therefore the license can be terminated. Additional reports will be sent as they become available. Attached is a table which lists the titles of the reports which are being submitted.

If you have any questions concerning the attached information, please contact me at the above address or by telephone on 412-374-4652.

Very truly yours,

A. J. Nardi, Manager
Regulatory Services

dh

090163

FEE NOT REQUIRED

Cost Billing

RECEIVED BY	LFDCB
Date	2/22/93
By	<i>[Signature]</i>
Date Completed	2/22/93

9403210050 930111
PDR ADOCK 07000997
B PDR

117646

The Westinghouse Commercial Nuclear Fuel Division — Winner of the 1988 Malcolm Baldrige National Quality Award

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JAN 19 1993

LICENSE TERMINATION REPORT
USNRC LICENSE NO. SNM-951

INDEX

- REPORT #001 - EVALUATION OF RADIATION DOSIMETERS DISTRIBUTED ON THE
SITE, NOVEMBER 2, 1992
- REPORT #002 - REMOVAL OF THE MONITORED DRAIN LINE SYSTEM
NOVEMBER 24, 1992
- REPORT #003 - EVALUATION OF PORTIONS OF MONITORED DRAIN LINE SYSTEM
ABANDONED IN PLACE, NOVEMBER 24, 1992
- REPORT #004 - DETERMINATION OF RADIOLOGICAL SURVEY ACCEPTANCE CRITERIA
FOR LICENSE TERMINATION SURVEYS, DECEMBER 1, 1992
- REPORT #005 - FINAL RADIOLOGICAL SURVEY OF INCINERATOR BUILDING,
DECEMBER 11, 1992
- REPORT #006 - PRELIMINARY SURVEY OF SELECTED SITE BUILDINGS,
DECEMBER 7, 1992

BETWEEN:
LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

: (FOR LFMS USE)
: INFORMATION FROM LTS
: -----
: PROGRAM CODE: 22110
: STATUS CODE: 0
: FEE CATEGORY: 10 3L
: EXP. DATE: 19961031
: FEE COMMENTS: 2C DELETED 10/1/91
: DECOM FIN ASSUR REQD: Y
: ::::::::::::::::::::::::::::::

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: WESTINGHOUSE ELECTRIC CORP.
RECEIVED DATE: 930119
DOCKET NO: 7000997
CONTROL NO.: 117646
LICENSE NO.: SNM-951
ACTION TYPE: TERMINATION

2. FEE ATTACHED
AMOUNT: 0
CHECK NO.: 0

3. COMMENTS

SIGNED M. A. Perkins
DATE 1/25/93

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILEST **FEE NOT REQUIRED**)

1. FEE CATEGORY AND AMOUNT: ~~10~~ 3L add 14 Cost Billing

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT
RENEWAL
LICENSE

3. OTHER _____

Per Rebecca Brown, SIGNED Rebecca Brown
DATE 2/23/93

RT: John Kinnaman
and this license
is decommissioning,
subject to full cost
recovery.

LICENSE TERMINATION REPORT
USNRC LICENSE NO. SNM-951

EVALUATION OF RADIATION DOSIMETERS
DISTRIBUTED ON THE SITE
NOVEMBER 2, 1992

WESTINGHOUSE ELECTRIC CORPORATION
LARGE, PA

Report #001

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

EVALUATION OF RADIATION DOSIMETERS

DISTRIBUTED ON THE SITE

NOVEMBER 2, 1992

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

Report #001

117646

JAN 19 1993

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EVALUATION OF RADIATION DOSIMETERS
DISTRIBUTED ON THE SITE

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Appendix C - Technical Information on the Dosimeters	

EVALUATION OF RADIATION DOSIMETERS
DISTRIBUTED ON THE SITE

Purpose

The Westinghouse Electric Corporation is preparing to request the termination of USNRC License Number SNM-951 for the site located in Large, PA. This report is one of a series of reports that presents the necessary information to establish that the site meets all applicable regulatory requirements so that the license can be terminated by the United States Nuclear Regulatory Commission.

Scope

This report presents information on the results obtained from the placement of a set of environmental monitors on the site to measure low levels of gamma radiation. The monitors were placed within and without the buildings and the results obtained have been analyzed to determine if there is any indication of a significant difference in the radiation levels at the various locations on the site.

Procedure

A total of 190 Environmental/Low Level Dosimeters were obtained from Landauer, Inc. for placement on the Large, PA site. For comparison purposes, 5 dosimeters were placed offsite at the Westinghouse Energy Center in Monroeville, PA and 15 dosimeters were not distributed, but were kept together in a controlled location. The remaining 170 dosimeters were distributed on the Large Site. Appendix A documents the location of each placement along with the dosimeter number. The dosimeters remained in place for a three month period from June 1, 1992 to September 1, 1992 (92 days). During this period of time, the Monitored Drain Line System was being removed on the site. However, the radiation levels associated with that system were so low that no effect was expected on the dosimeters.

Results

Of the 190 original badges, 189 were returned for processing and 1 was not recovered. The results reported by the dosimeter vendor are presented in Appendix B. Information regarding the dosimeters is provided in Appendix C.

Table 1 presents a listing of all the dosimeters, (sorted by dosimeter badge number) along with information on the placement location, the material on which the dosimeter was located and the reported results. Table 2 presents the same information but sorted by placement location.

The statistical analysis of the results obtained is presented in Table 3. In order to determine if the materials of construction had an effect on the measured radiation level, the measured results were analyzed based on the material the dosimeter was placed on during the period of exposure. Except for brick, there does not appear to be any significant difference in the measured exposure level. There were no enough dosimeters placed on brick to determine if the somewhat higher readings are statistically significant.

The analyzed results as grouped by deployment location are also presented in Table 3. Two questions were asked as part of this analysis:

- 1) Do the measured results indicate that the radiation exposure does not exceed 5 microR/hr above background on the site?
- 2) Is there any significant difference between the radiation levels measured within different buildings on the site?

In order to answer the first question, the value for the background radiation level was based on the average results of 29.3 milli Rem for the 15 unused badges which were stored in a controlled, but not shielded, location on the site. Using a limit of 5 microR/hr above background as the basic limit and multiplying this by 92 days of deployment (2208 hours) gives a value of 11 milli Rem to be added to the background value. This provides a derived "limit" of 40.3 milli Rem. Using the statistical approach provided in NUREG/CR-5849 (draft), "Manual for Conducting Radiological Surveys in Support of License Termination", the measured results justify the following statement:

"The data satisfies the limit at the 95% Confidence Level for the site." With only two dosimeters placed in the fire house, the statistics are inadequate to reach any conclusion regarding this building.

In order to answer the question of whether there is any significant difference between buildings on the site, an ANOVA (Analysis of Variance) Test was conducted. The results of this analysis is presented in Table 4. These results exclude the dosimeters deployed on the fence, the unused ones, and the ones placed offsite at the Energy Center. The computed ratio of 1.956 is less than the F distribution value = 2.04 for these degrees of freedom at the 1% level of significance. The analysis therefore justifies the following statement:

"There is no significant difference between the average radiation levels measured in any of the buildings on the site."

This conclusion can be made even stronger if the limited results for the Fire House are excluded from the analysis. In this case the computed ratio would be 1.209 and the same conclusion is valid at the 10% level of significance.

There is a statistically significant difference between the average radiation levels measured on the Large Site (about 30 milliRem) and the average at the offsite location (about 23 milliRem). The offsite location (Westinghouse Energy Center) is a modern style building located about 24 miles from the site. Differences in the materials of construction, etc. probably account for this difference, but the exact reasons cannot be obtained from this study.

Conclusions

Based on the information obtained from this study, the following general conclusions can be stated:

- 1) The statistical evaluation of the data supports the conclusion that the measured radiation levels do not exceed 5 microR/hr above background at the 95% Confidence Level.
- 2) There is no significant difference between the mean radiation levels within the buildings on the site.
- 3) The background radiation level measured on the site by these dosimeters is equivalent to to 13.5 microRem/hr which compares well with the average value obtained using survey instruments on the site.
- 4) While limited in the amount of data collected, this study does indicate that there is no significant variation in the radiation levels on the site. Further detailed surveys using portable survey instruments will be made to further justify this conclusion.

TABLE 1

 ENVIRONMENTAL TLD MONITORING BADGES
 LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER	NET	COMMENTS
	BLDG.	FLOOR		EXPOSURE (mRem)	EXPOSURE (mRem)	
1	EC-E	2	OTHER	23.1	-8.3	
2	EC-W	5	OTHER	23.1	-8.3	
3	EC-E	1	BLOCK	24.7	-6.7	
4	EC-W	5	OTHER	23.8	-7.6	
5	EC-W	3	OTHER	22.5	-8.9	
6	5	1	OTHER	30.8	-0.6	
7	5	1	BLOCK	26.6	-4.8	
8	5	1	BLOCK	30.3	-1.1	
9	5	1	BLOCK	31.7	0.3	
10	5	1	OTHER	27.1	-4.3	
11	5	2	OTHER	29.5	-1.9	
12	5	2	OTHER	27.3	-4.1	
13	5	2	OTHER	30.9	-0.5	
14	5	2	OTHER	26.1	-5.3	
15	5	2	OTHER	27.9	-3.5	
16	5	4	BLOCK	34.1	2.7	
17	5	4	BRICK	37.0	5.6	
18	5	4	BRICK	39.2	7.8	
19	5	3	OTHER	30.0	-1.4	
20	5	3	OTHER	26.3	-5.1	
21	5	3	OTHER	26.5	-4.9	
22	5A	1	BLOCK	27.9	-3.5	
23	5A	1	OTHER	27.1	-4.3	
24	5A	1	BLOCK	32.3	0.9	
25	6A	1	OTHER	27.2	-4.2	
26	6A	1	OTHER	29.7	-1.7	
27	6A	1	OTHER	30.0	-1.4	
28	6A	1	BLOCK	31.6	0.2	
29	6A	1	OTHER	25.4	-6.0	
30	6A	1	BLOCK	25.5	-5.9	
31	6	1	OTHER	25.2	-6.2	
32	6	1	BLOCK	30.7	-0.7	
33	6	1	OTHER	27.4	-4.0	
34	6	1	OTHER	29.0	-2.4	
35	6	1	OTHER	27.6	-3.8	
36	6	1	OTHER	27.1	-4.3	
37	6	1	OTHER	29.2	-2.2	
38	6	2	OTHER	32.2	0.8	
39	6	2	OTHER	29.1	-2.3	
40	6	2	OTHER	31.8	0.4	
41	6	2	BLOCK	32.0	0.6	
42	6	2	OTHER	27.4	-4.0	
43	7	1	BLOCK	31.8	0.4	

ENVIRONMENTAL TLD MONITORING BADGES
LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER	NET	COMMENTS
	BLDG.	FLOOR		EXPOSURE (mRem)	EXPOSURE (mRem)	
44	7	1	OTHER	31.1	-0.3	
45	7	1	BLOCK	29.4	-2.0	
46	7	1	OTHER	28.2	-3.2	
47	7	1	OTHER	30.7	-0.7	
48	7	1	BRICK	38.0	6.6	
49	7	1	OTHER	29.0	-2.4	
50	7	1	OTHER	28.0	-3.4	
51	7	1	BLOCK	31.6	0.2	
52	7	1	OTHER	27.3	-4.1	
53	7	1	BLOCK	29.6	-1.8	
54	7	2	OTHER	26.3	-5.1	
55	7	2	BLOCK	30.8	-0.6	
56	7	2	OTHER	30.4	-1.0	
57	8	1	OTHER	32.0	0.6	
58	8	1	OTHER	25.5	-5.9	
59	8	1	OTHER	28.0	-3.4	
60	8	1	OTHER	31.1	-0.3	
61	8	1	BRICK	36.7	5.3	
62	8	1		A	A	NOT RECOVERED
63	8	1	OTHER	30.7	-0.7	
64	8	2	BLOCK	31.8	0.4	
65	8	2	OTHER	30.4	-1.0	
66	4	BASEMENT	OTHER	30.4	-1.0	
67	4	BASEMENT	OTHER	26.8	-4.6	
68	4	BASEMENT	OTHER	28.3	-3.1	
69	4	BASEMENT	OTHER	28.8	-2.6	
70	4	BASEMENT	OTHER	35.0	3.6	
71	11	2	OTHER	33.5	2.1	
72	11	2	OTHER	36.4	5.0	
73	11	2	OTHER	35.2	3.8	
74	11	1	OTHER	29.9	-1.5	
75	11	1	OTHER	30.5	-0.9	
76	11	1	OTHER	33.9	2.5	
77	11	1	OTHER	31.4	0.0	
78	4	3	OTHER	38.7	7.3	
79	4	3	OTHER	32.3	0.9	
80	4	2	OTHER	29.8	-1.6	
81	4	2	OTHER	28.3	-3.1	
82	4	2	CONCRETE	36.7	5.3	
83	4	2	OTHER	27.5	-3.9	
84	4	2	OTHER	27.1	-4.3	
85	4	1	OTHER	28.9	-2.5	
86	4	1	OTHER	26.5	-4.9	

ENVIRONMENTAL TLD MONITORING BADGES
 LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER	NET	COMMENTS
	BLDG.	FLOOR		EXPOSURE (mRem)	EXPOSURE (mRem)	
87	4	1	CONCRETE	41.5	10.1	
88	4	1	OTHER	22.4	-9.0	
89	4	1	OTHER	21.8	-9.6	
90	8A	1	OTHER	30.2	-1.2	
91	8A	1	OTHER	30.6	-0.8	
92	8A	1	OTHER	29.4	-2.0	
93	8A	1	OTHER	28.2	-3.2	
94	8A	1	BLOCK	30.0	-1.4	
95	8A	2	OTHER	24.0	-7.4	
96	8A	2	OTHER	26.8	-4.6	
97	8A	2	OTHER	27.8	-3.6	
98	8A	2	OTHER	26.6	-4.8	
99	8A	2	BLOCK	30.7	-0.7	
100	9	2	OTHER	25.4	-6.0	
101	9	2	OTHER	25.0	-6.4	
102	9	2	OTHER	24.8	-6.6	
103	9	2	OTHER	24.3	-7.1	
104	10	1	OTHER	29.9	-1.5	
105	10	1	OTHER	23.5	-7.9	
106	10	1	OTHER	27.6	-3.8	
107	10	1	OTHER	27.8	-3.6	
108	10	1	OTHER	28.0	-3.4	
109	10	2	BLOCK	29.5	-1.9	
110	10	2	OTHER	26.0	-5.4	
111	10	2	OTHER	25.8	-5.6	
112	10	2	OTHER	27.1	-4.3	
113	10	2	OTHER	35.3	3.9	
114	9	1	OTHER	29.7	-1.7	
115	9	1	OTHER	25.5	-5.9	
116	9	1	OTHER	33.5	2.1	
117	9	1	OTHER	26.8	-4.6	
118	9	1	BLOCK	33.0	1.6	
119	9	1	BLOCK	32.2	0.8	
120	9	1	OTHER	35.9	4.5	
121	9	PIT	CONCRETE	27.8	-3.6	
122	9	PIT	CONCRETE	25.1	-6.3	
123	9	PIT	CONCRETE	28.4	-3.0	
124	9	PIT	CONCRETE	28.3	-3.1	
125	9	1	BLOCK	31.8	0.4	
126	9	1	OTHER	31.3	-0.1	
127	9	1	OTHER	29.7	-1.7	
128	9	1	OTHER	33.7	2.3	
129	9	1	BLOCK	34.1	2.7	

ENVIRONMENTAL TLD MONITORING BADGES
LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER	NET	COMMENTS
	BLDG.	FLOOR		EXPOSURE (mRem)	EXPOSURE (mRem)	
130	9	1	BLOCK	31.6	0.2	
131	9	1	OTHER	27.5	-3.9	
132	9	1	OTHER	30.5	-0.9	
133	9	1	BLOCK	29.6	-1.8	
134	9	1	BLOCK	32.1	0.7	
135	9	1	OTHER	25.4	-6.0	
136	9	1	BLOCK	32.4	1.0	
137	12	1	OTHER	31.0	-0.4	
138	12	1	OTHER	31.3	-0.1	
139	12	2	OTHER	26.7	-4.7	
140	12	2	OTHER	28.1	-3.3	
141	FIRE HSE.	1	BRICK	44.4	13.0	
142	FIRE HSE.	1	OTHER	32.7	1.3	
143	6	1	OTHER	35.9	4.5	
144	H2 BLDG	1	BLOCK	32.8	1.4	
145	H2 BLDG	1	BLOCK	24.4	-7.0	
146	H2 BLDG	1	CONCRETE	24.8	-6.6	
147	H2 BLDG	1	CONCRETE	23.2	-8.2	
148	5	1	OTHER	31.9	0.5	
149	5	1	OTHER	35.1	3.7	
150	9	1	BLOCK	31.3	-0.1	
151	9	1	BLOCK	35.0	3.6	
152	7	1	OTHER	28.8	-2.6	
153	8A	1	BLOCK	39.0	7.6	
154	8A	1	BLOCK	33.7	2.3	
155	8A	1	BLOCK	33.1	1.7	
156	NOT USED		HP LAB	30.2	-1.2	
157	NOT USED		HP LAB	30.0	-1.4	
158	NOT USED		HP LAB	28.7	-2.7	
159	NOT USED		HP LAB	30.5	-0.9	
160	NOT USED		HP LAB	29.6	-1.8	
161	NOT USED		HP LAB	29.0	-2.4	
162	NOT USED		HP LAB	29.9	-1.5	
163	NOT USED		HP LAB	28.7	-2.7	
164	NOT USED		HP LAB	28.7	-2.7	
165	NOT USED		HP LAB	28.8	-2.6	
166	NOT USED		HP LAB	30.0	-1.4	
167	NOT USED		HP LAB	30.7	-0.7	
168	NOT USED		HP LAB	28.5	-2.9	
169	NOT USED		HP LAB	27.2	-4.2	
170	NOT USED		HP LAB	28.7	-2.7	
171	FENCE		OUTSIDE	31.0	-0.4	
172	FENCE		OUTSIDE	34.4	3.0	

ENVIRONMENTAL TLD MONITORING BADGES
 LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER	NET	COMMENTS
	BLDG.	FLOOR		EXPOSURE (mRem)	EXPOSURE (mRem)	
173	FENCE		OUTSIDE	31.0	-0.4	
174	FENCE		OUTSIDE	34.8	3.4	
175	FENCE		OUTSIDE	30.1	-1.3	
176	FENCE		OUTSIDE	30.8	-0.6	
177	FENCE		OUTSIDE	27.9	-3.5	
178	FENCE		OUTSIDE	29.8	-1.6	
179	FENCE		OUTSIDE	31.8	0.4	
180	FENCE		OUTSIDE	27.1	-4.3	
181	FENCE		OUTSIDE	31.6	0.2	
182	FENCE		OUTSIDE	32.0	0.6	
183	FENCE		OUTSIDE	31.4	0.0	
184	FENCE		OUTSIDE	35.9	4.5	
185	FENCE		OUTSIDE	30.1	-1.3	
186	FENCE		OUTSIDE	29.1	-2.3	
187	FENCE		OUTSIDE	30.6	-0.8	
188	FENCE		OUTSIDE	33.6	2.2	
189	FENCE		OUTSIDE	29.2	-2.2	
190	FENCE		OUTSIDE	28.6	-2.8	

TABLE 2

 ENVIRONMENTAL TLD MONITORING BADGES
 LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER	NET	COMMENTS
	BLDG.	FLOOR		EXPOSURE (mRem)	EXPOSURE (mRem)	
66	4	BASEMENT	OTHER	30.4	-1.0	
67	4	BASEMENT	OTHER	26.8	-4.6	
68	4	BASEMENT	OTHER	28.3	-3.1	
69	4	BASEMENT	OTHER	28.8	-2.6	
70	4	BASEMENT	OTHER	35.0	3.6	
78	4	3	OTHER	38.7	7.3	
79	4	3	OTHER	32.3	0.9	
80	4	2	OTHER	29.8	-1.6	
81	4	2	OTHER	28.3	-3.1	
82	4	2	CONCRETE	36.7	5.3	
83	4	2	OTHER	27.5	-3.9	
84	4	2	OTHER	27.1	-4.3	
85	4	1	OTHER	28.9	-2.5	
86	4	1	OTHER	26.5	-4.9	
87	4	1	CONCRETE	41.5	10.1	
88	4	1	OTHER	22.4	-9.0	
89	4	1	OTHER	21.8	-9.6	
10	5	1	OTHER	27.1	-4.3	
11	5	2	OTHER	29.5	-1.9	
12	5	2	OTHER	27.3	-4.1	
13	5	2	OTHER	30.9	-0.5	
14	5	2	OTHER	26.1	-5.3	
148	5	1	OTHER	31.9	0.5	
149	5	1	OTHER	35.1	3.7	
15	5	2	OTHER	27.9	-3.5	
16	5	4	BLOCK	34.1	2.7	
17	5	4	BRICK	37.0	5.6	
18	5	4	BRICK	39.2	7.8	
19	5	3	OTHER	30.0	-1.4	
20	5	3	OTHER	26.3	-5.1	
21	5	3	OTHER	26.5	-4.9	
6	5	1	OTHER	30.8	-0.6	
7	5	1	BLOCK	26.6	-4.8	
8	5	1	BLOCK	30.3	-1.1	
9	5	1	BLOCK	31.7	0.3	
22	5A	1	BLOCK	27.9	-3.5	
23	5A	1	OTHER	27.1	-4.3	
24	5A	1	BLOCK	32.3	0.9	
143	6	1	OTHER	35.9	4.5	
31	6	1	OTHER	25.2	-6.2	
32	6	1	BLOCK	30.7	-0.7	
33	6	1	OTHER	27.4	-4.0	
34	6	1	OTHER	29.0	-2.4	

ENVIRONMENTAL TLD MONITORING BADGES
 LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER	NET	COMMENTS
	BLDG.	FLOOR		EXPOSURE (mRem)	EXPOSURE (mRem)	
35	6	1	OTHER	27.6	-3.8	
36	6	1	OTHER	27.1	-4.3	
37	6	1	OTHER	29.2	-2.2	
38	6	2	OTHER	32.2	0.8	
39	6	2	OTHER	29.1	-2.3	
40	6	2	OTHER	31.8	0.4	
41	6	2	BLOCK	32.0	0.6	
42	6	2	OTHER	27.4	-4.0	
25	6A	1	OTHER	27.2	-4.2	
26	6A	1	OTHER	29.7	-1.7	
27	6A	1	OTHER	30.0	-1.4	
28	6A	1	BLOCK	31.6	0.2	
29	6A	1	OTHER	25.4	-6.0	
30	6A	1	BLOCK	25.5	-5.9	
152	7	1	OTHER	28.8	-2.6	
43	7	1	BLOCK	31.8	0.4	
44	7	1	OTHER	31.1	-0.3	
45	7	1	BLOCK	29.4	-2.0	
46	7	1	OTHER	28.2	-3.2	
47	7	1	OTHER	30.7	-0.7	
48	7	1	BRICK	38.0	6.6	
49	7	1	OTHER	29.0	-2.4	
50	7	1	OTHER	28.0	-3.4	
51	7	1	BLOCK	31.6	0.2	
52	7	1	OTHER	27.3	-4.1	
53	7	1	BLOCK	29.6	-1.8	
54	7	2	OTHER	26.3	-5.1	
55	7	2	BLOCK	30.8	-0.6	
56	7	2	OTHER	30.4	-1.0	
57	8	1	OTHER	32.0	0.6	
58	8	1	OTHER	25.5	-5.9	
59	8	1	OTHER	28.0	-3.4	
60	8	1	OTHER	31.1	-0.3	
61	8	1	BRICK	36.7	5.3	
62	8	1		A	A	NOT RECOVERED
63	8	1	OTHER	30.7	-0.7	
64	8	2	BLOCK	31.8	0.4	
65	8	2	OTHER	30.4	-1.0	
153	8A	1	BLOCK	39.0	7.6	
154	8A	1	BLOCK	33.7	2.3	
155	8A	1	BLOCK	33.1	1.7	
90	8A	1	OTHER	30.2	-1.2	
91	8A	1	OTHER	30.6	-0.8	

ENVIRONMENTAL TLD MONITORING BADGES
 LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER EXPOSURE (mRem)	NET EXPOSURE (mRem)	COMMENTS
	BLDG.	FLOOR				
92	8A	1	OTHER	29.4	-2.0	
93	8A	1	OTHER	28.2	-3.2	
94	8A	1	BLOCK	30.0	-1.4	
95	8A	2	OTHER	24.0	-7.4	
96	8A	2	OTHER	26.8	-4.6	
97	8A	2	OTHER	27.8	-3.6	
98	8A	2	OTHER	26.6	-4.8	
99	8A	2	BLOCK	30.7	-0.7	
100	9	2	OTHER	25.4	-6.0	
101	9	2	OTHER	25.0	-6.4	
102	9	2	OTHER	24.8	-6.6	
103	9	2	OTHER	24.3	-7.1	
114	9	1	OTHER	29.7	-1.7	
115	9	1	OTHER	25.5	-5.9	
116	9	1	OTHER	33.5	2.1	
117	9	1	OTHER	26.8	-4.6	
118	9	1	BLOCK	33.0	1.6	
119	9	1	BLOCK	32.2	0.8	
120	9	1	OTHER	35.9	4.5	
121	9	PIT	CONCRETE	27.8	-3.6	
122	9	PIT	CONCRETE	25.1	-6.3	
123	9	PIT	CONCRETE	28.4	-3.0	
124	9	PIT	CONCRETE	28.3	-3.1	
125	9	1	BLOCK	31.8	0.4	
126	9	1	OTHER	31.3	-0.1	
127	9	1	OTHER	29.7	-1.7	
128	9	1	OTHER	33.7	2.3	
129	9	1	BLOCK	34.1	2.7	
130	9	1	BLOCK	31.6	0.2	
131	9	1	OTHER	27.5	-3.9	
132	9	1	OTHER	30.5	-0.9	
133	9	1	BLOCK	29.6	-1.8	
134	9	1	BLOCK	32.1	0.7	
135	9	1	OTHER	25.4	-6.0	
136	9	1	BLOCK	32.4	1.0	
150	9	1	BLOCK	31.3	-0.1	
151	9	1	BLOCK	35.0	3.6	
104	10	1	OTHER	29.9	-1.5	
105	10	1	OTHER	23.5	-7.9	
106	10	1	OTHER	27.6	-3.8	
107	10	1	OTHER	27.8	-3.6	
108	10	1	OTHER	28.0	-3.4	
109	10	2	BLOCK	29.5	-1.9	

ENVIRONMENTAL TLD MONITORING BADGES
 LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER	NET	COMMENTS
	BLDG.	FLOOR		EXPOSURE (mRem)	EXPOSURE (mRem)	
110	10	2	OTHER	26.0	-5.4	
111	10	2	OTHER	25.8	-5.6	
112	10	2	OTHER	27.1	-4.3	
113	10	2	OTHER	35.3	3.9	
71	11	2	OTHER	33.5	2.1	
72	11	2	OTHER	36.4	5.0	
73	11	2	OTHER	35.2	3.8	
74	11	1	OTHER	29.9	-1.5	
75	11	1	OTHER	30.5	-0.9	
76	11	1	OTHER	33.9	2.5	
77	11	1	OTHER	31.4	0.0	
137	12	1	OTHER	31.0	-0.4	
138	12	1	OTHER	31.3	-0.1	
139	12	2	OTHER	26.7	-4.7	
140	12	2	OTHER	28.1	-3.3	
1	EC-E	2	OTHER	23.1	-8.3	
3	EC-E	1	BLOCK	24.7	-6.7	
2	EC-W	5	OTHER	23.1	-8.3	
4	EC-W	5	OTHER	23.8	-7.6	
5	EC-W	3	OTHER	22.5	-8.9	
171	FENCE		OUTSIDE	31.0	-0.4	
172	FENCE		OUTSIDE	34.4	3.0	
173	FENCE		OUTSIDE	31.0	-0.4	
174	FENCE		OUTSIDE	34.8	3.4	
175	FENCE		OUTSIDE	30.1	-1.3	
176	FENCE		OUTSIDE	30.8	-0.6	
177	FENCE		OUTSIDE	27.9	-3.5	
178	FENCE		OUTSIDE	29.8	-1.6	
179	FENCE		OUTSIDE	31.8	0.4	
180	FENCE		OUTSIDE	27.1	-4.3	
181	FENCE		OUTSIDE	31.6	0.2	
182	FENCE		OUTSIDE	32.0	0.6	
183	FENCE		OUTSIDE	31.4	0.0	
184	FENCE		OUTSIDE	35.9	4.5	
185	FENCE		OUTSIDE	30.1	-1.3	
186	FENCE		OUTSIDE	29.1	-2.3	
187	FENCE		OUTSIDE	30.6	-0.8	
188	FENCE		OUTSIDE	33.6	2.2	
189	FENCE		OUTSIDE	29.2	-2.2	
190	FENCE		OUTSIDE	28.6	-2.8	
141	FIRE HSE.	1	BRICK	44.4	13.0	
142	FIRE HSE.	1	OTHER	32.7	1.3	
144	H2 BLDG	1	BLOCK	32.8	1.4	

ENVIRONMENTAL TLD MONITORING BADGES
 LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER EXPOSURE (mRem)	NET EXPOSURE (mRem)	COMMENTS
	BLDG.	FLOOR				
110	10	2	OTHER	26.0	-5.4	
111	10	2	OTHER	25.8	-5.6	
112	10	2	OTHER	27.1	-4.3	
113	10	2	OTHER	35.3	3.9	
71	11	2	OTHER	33.5	2.1	
72	11	2	OTHER	36.4	5.0	
73	11	2	OTHER	35.2	3.8	
74	11	1	OTHER	29.9	-1.5	
75	11	1	OTHER	30.5	-0.9	
76	11	1	OTHER	33.9	2.5	
77	11	1	OTHER	31.4	0.0	
137	12	1	OTHER	31.0	-0.4	
138	12	1	OTHER	31.3	-0.1	
139	12	2	OTHER	26.7	-4.7	
140	12	2	OTHER	28.1	-3.3	
1	EC-E	2	OTHER	23.1	-8.3	
3	EC-E	1	BLOCK	24.7	-6.7	
2	EC-W	5	OTHER	23.1	-8.3	
4	EC-W	5	OTHER	23.8	-7.6	
5	EC-W	3	OTHER	22.5	-8.9	
171	FENCE		OUTSIDE	31.0	-0.4	
172	FENCE		OUTSIDE	34.4	3.0	
173	FENCE		OUTSIDE	31.0	-0.4	
174	FENCE		OUTSIDE	34.8	3.4	
175	FENCE		OUTSIDE	30.1	-1.3	
176	FENCE		OUTSIDE	30.8	-0.6	
177	FENCE		OUTSIDE	27.9	-3.5	
178	FENCE		OUTSIDE	29.8	-1.6	
179	FENCE		OUTSIDE	31.8	0.4	
180	FENCE		OUTSIDE	27.1	-4.3	
181	FENCE		OUTSIDE	31.6	0.2	
182	FENCE		OUTSIDE	32.0	0.6	
183	FENCE		OUTSIDE	31.4	0.0	
184	FENCE		OUTSIDE	35.9	4.5	
185	FENCE		OUTSIDE	30.1	-1.3	
186	FENCE		OUTSIDE	29.1	-2.3	
187	FENCE		OUTSIDE	30.6	-0.8	
188	FENCE		OUTSIDE	33.6	2.2	
189	FENCE		OUTSIDE	29.2	-2.2	
190	FENCE		OUTSIDE	28.6	-2.8	
141	FIRE HSE.	1	BRICK	44.4	13.0	
142	FIRE HSE.	1	OTHER	32.7	1.3	
144	H2 BLDG	1	BLOCK	32.8	1.4	

ENVIRONMENTAL TLD MONITORING BADGES
 LARGE SITE LICENSE TERMINATION PROJECT

BADGE NO.	LOCATION		MATERIAL	DOSIMETER	NET	COMMENTS
	BLDG.	FLOOR		EXPOSURE (mRem)	EXPOSURE (mRem)	
145	H2 BLDG	1	BLOCK	24.4	-7.0	
146	H2 BLDG	1	CONCRETE	24.8	-6.6	
147	H2 BLDG	1	CONCRETE	23.2	-8.2	
156	NOT USED		HP LAB	30.2	-1.2	
157	NOT USED		HP LAB	30.0	-1.4	
158	NOT USED		HP LAB	28.7	-2.7	
159	NOT USED		HP LAB	30.5	-0.9	
160	NOT USED		HP LAB	29.6	-1.8	
161	NOT USED		HP LAB	29.0	-2.4	
162	NOT USED		HP LAB	29.9	-1.5	
163	NOT USED		HP LAB	28.7	-2.7	
164	NOT USED		HP LAB	28.7	-2.7	
165	NOT USED		HP LAB	28.8	-2.6	
166	NOT USED		HP LAB	30.0	-1.4	
167	NOT USED		HP LAB	30.7	-0.7	
168	NOT USED		HP LAB	28.5	-2.9	
169	NOT USED		HP LAB	27.2	-4.2	
170	NOT USED		HP LAB	28.7	-2.7	

STATISTICAL ANALYSIS

	NUMBER OF TLD's	MAXIMUM VALUE (mRem)	MINIMUM VALUE (mRem)	AVERAGE VALUE (mRem)	STD. DEV.	LIMIT (mRem) Note 1	DATA TEST PARAMETER Note 2	NUMBER OF SAMPLES FACTOR Note 3	SATISFY LIMIT CRITERIA? Note 4	NUMBER OF SAMPLES ADEQUATE? Note 5

BY TYPE OF MATERIAL:										
BLOCK	35	39.0	24.4	31.1	2.8	40.3	31.9	3.3	YES	YES
BRICK	5	44.4	36.7	39.1	2.8	40.3	41.8	0.4	?	?
CONCRETE	8	41.5	23.2	29.5	5.9	40.3	33.5	1.8	YES	YES
OTHER	106	38.7	21.8	28.8	3.3	40.3	29.3	3.5	YES	YES
FENCE	20	35.9	27.1	31.0	2.2	40.3	31.9	4.2	YES	YES
UNUSED	15	30.7	27.2	29.3	0.9	40.3	29.7	12.2	YES	YES

BY BUILDING:										
BLDG. #4	17	41.5	21.8	30.0	5.2	40.3	32.2	2.0	YES	YES
BLDG. #5	18	39.2	26.1	30.5	3.8	40.3	32.1	2.6	YES	YES
BLDG. #5A	3	32.3	27.1	29.1	2.3	40.3	33.0	4.9	YES	?
BLDG. #6	13	35.9	25.2	29.6	2.8	40.3	31.0	3.8	YES	YES
BLDG. #6A	6	31.6	25.4	28.2	2.4	40.3	30.2	5.0	YES	?
BLDG. #7	15	38.0	26.3	30.1	2.6	40.3	31.3	3.9	YES	YES
BLDG. #8	8	36.7	25.5	30.8	3.0	40.3	32.8	3.2	YES	?
BLDG. #8A	13	39.0	24.0	30.0	3.6	40.3	31.8	2.9	YES	YES
BLDG. #9	29	35.9	24.3	29.7	3.4	40.3	30.8	3.1	YES	YES
BLDG. #10	10	35.3	23.5	28.1	3.0	40.3	29.8	4.1	YES	YES
BLDG. #11	7	36.4	29.9	33.0	2.3	40.3	34.7	3.2	YES	?
BLDG. #12	4	31.3	26.7	29.3	1.9	40.3	31.5	5.8	YES	?
HYDROGEN BLDG.	4	32.8	23.2	26.3	3.8	40.3	30.8	3.7	YES	?
FIRE HOUSE	2	44.4	32.7	38.6	5.8	40.3	64.5	0.3	NO	NO
FENCE	20	35.9	27.1	31.0	2.2	40.3	31.9	4.2	YES	YES
UNUSED	15	30.7	27.2	29.3	0.9	40.3	29.7	12.2	YES	YES
OFFSITE	5	24.7	22.5	23.4	0.8	40.3	24.2	21.1	YES	?

TOTAL NUMBER	189	44.4	21.8	29.8	3.6	40.3	30.2	2.9	YES	YES

NOTES FOR TABLE:

(1) The limit was established using a value of 5 microR/hr above background for the 3 months the badges were deployed. The background was taken as the average for the unused badges.

TABLE 3

(2) The "Data Test Parameter" is calculated from Eq. 8-13 on page 8.10 of NUREG/CR-5849 (Draft). When this value is less than the limit value established for the measurement, the area being tested meets the limit at a 95% confidence level.

(3) The "Number of Samples Factor" is calculated using the formula from Table B-2 on page B-3 of NUREG/CR-5849 (Draft). When used with that table, the factor establishes the adequacy of the number of samples taken to demonstrate that the limit has been met.

(4) This column compares the "Data Test Parameter" against the Limit.

(5) This column compares the "Number of Samples Factor" against Table B-2 of NUREG/CR-5849 (Draft) to determine if the number of samples taken was adequate. In some cases, the Table does not provide enough values to make a adequate determination.

TABLE 4

ANOVA Table:

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SUM OF SQUARES	COMPUTED RATIO
BETWEEN	13	336.753	25.904	1.956
WITHIN	136	1801.259	13.245	
TOTAL	148	2138.012		

APPENDIX A

PLACEMENT OF DOSIMETERS

APPENDIX A
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- FIGURE A- 1 : SITE PLAN - LARGE, PA
- FIGURE A- 2 : BUILDING 4 - BASEMENT FLOOR
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- FIGURE A- 4 : BUILDING 4 - SECOND FLOOR
- FIGURE A- 5 : BUILDING 4 - THIRD FLOOR
- FIGURE A- 6 : BUILDING 5 - FIRST FLOOR
- FIGURE A- 7 : BUILDING 5 - SECOND FLOOR
- FIGURE A- 8 : BUILDING 5 - THIRD AND FOURTH FLOORS
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- FIGURE A-23 : BUILDING 11 - FIRST AND SECOND FLOORS
- FIGURE A-24 : BUILDING 12 - FIRST AND SECOND FLOORS

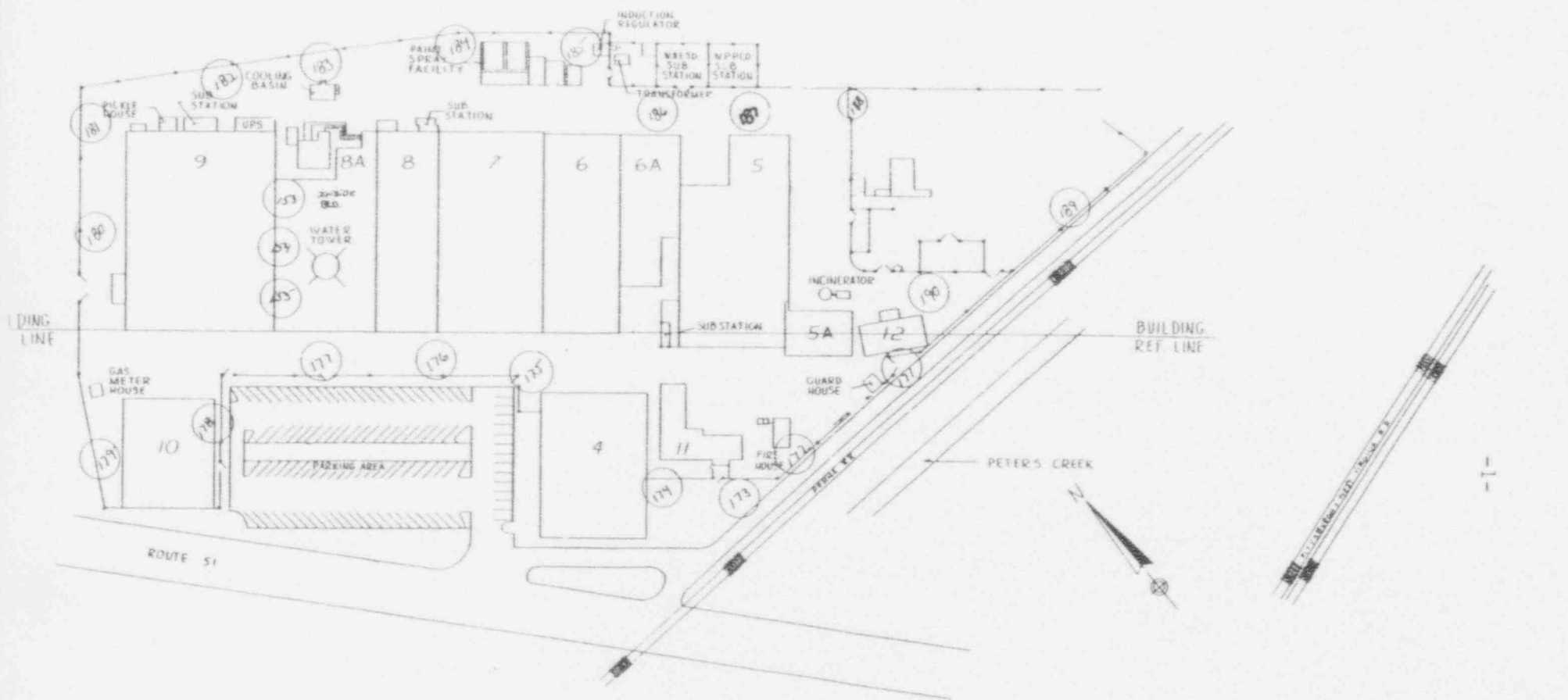
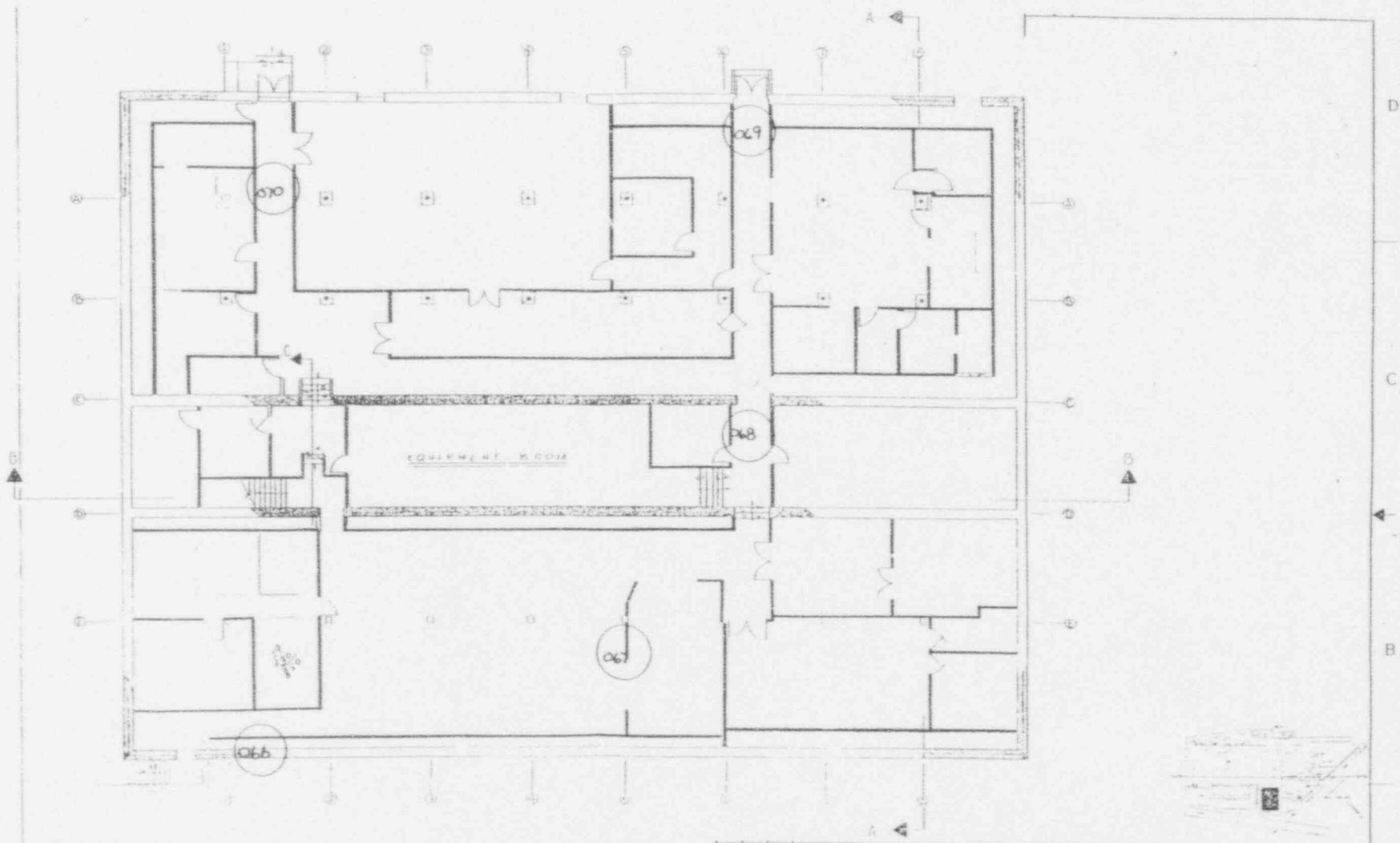


FIGURE A-1 : SITE PLAN - LARGE, PA

REV	DATE	DESCRIPTION	BY	CHKD	MATERIAL	QUANTITY	REMARKS
PARTS LIST							
UNLESS OTHERWISE SPECIFIED		CONTRACT NO.		Westinghouse Advanced Energy Systems Division			
WORKMANSHIP SHALL BE AS SHOWN		DATE OF ORDER		Pittsburgh, Pennsylvania			
DIMENSIONS SHALL BE AS SHOWN		MATERIAL		VAEFSO LARGE PA			
TOLERANCES - DO NOT SCALE		SPECIFICATION		D 14683			
FRACTIONS - DO NOT SCALE		TYPE		JNO 30			
SCALE		BY ACT.		BY CALC.		BY DES.	



BUILDING
4-3 LINE
SEE IN 030

LEGEND
 BRICK
 CONC. BLOCK EXT.
 CONC. BLOCK INT.
 DRYWALL & PANELING
SCALE - FEET
 0 5 10 15 20 25

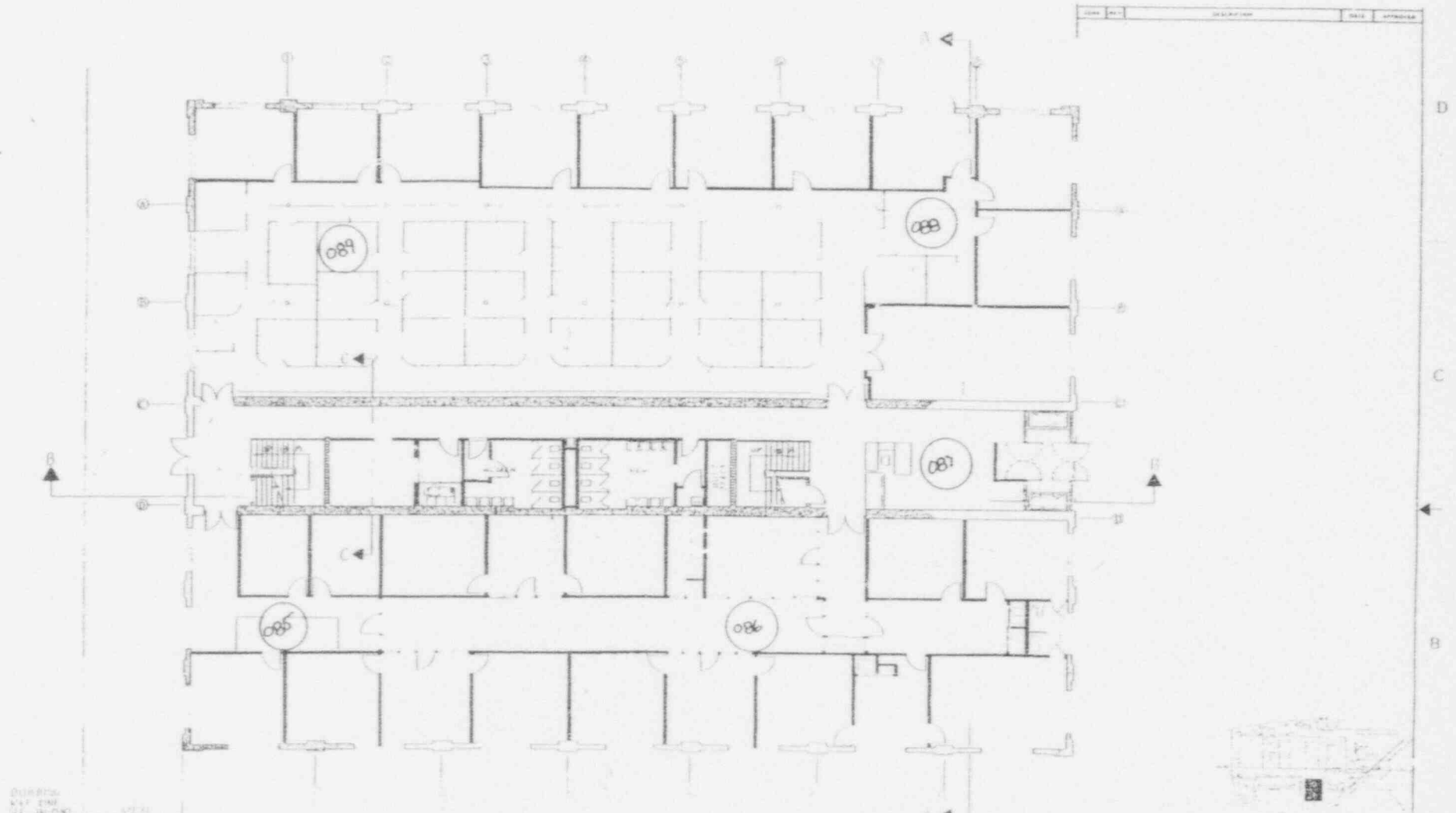
REV	DATE	DESCRIPTION	DATE	BY	CHKD

UNLESS OTHERWISE SPECIFIED	CONTRACT NO.	DATE OF DOC.
INTERIOR FINISH AS SHOWN		
EXTERIOR FINISH AS SHOWN		
DIMENSIONS - DIMENSIONS		

NO.	DESCRIPTION	QTY	UNIT

Westinghouse Advanced Energy Systems Division		
P. A. L. E. M. A. S. D. I. V. I. O. N.		
14683		
DATE	BY	CHKD.

FIGURE A- 2 : BUILDING 4 - BASEMENT FLOOR



DATE: 11/20/83
 DRAWN BY: J. J. WOOD
 CHECKED BY: [Signature]

LEGEND
 [Symbol] BRICK
 [Symbol] CORE BLOCK EXT.
 [Symbol] CORE BLOCK INT.
 [Symbol] COREWALL & FINISH
 SCALE: FEET
 0 5 10 15 20 25

NO.	ITEM	MANUFACTURE OR IDENTIFICATION	QTY	UNIT	REMARKS	APPROVED	DATE
PARTS LIST							

Westinghouse Advanced Energy Systems Division

Engineering Department

PROJECT: [Blank]

DRAWING NO.: [Blank]

DATE: 11/20/83

DRAWN BY: [Blank]

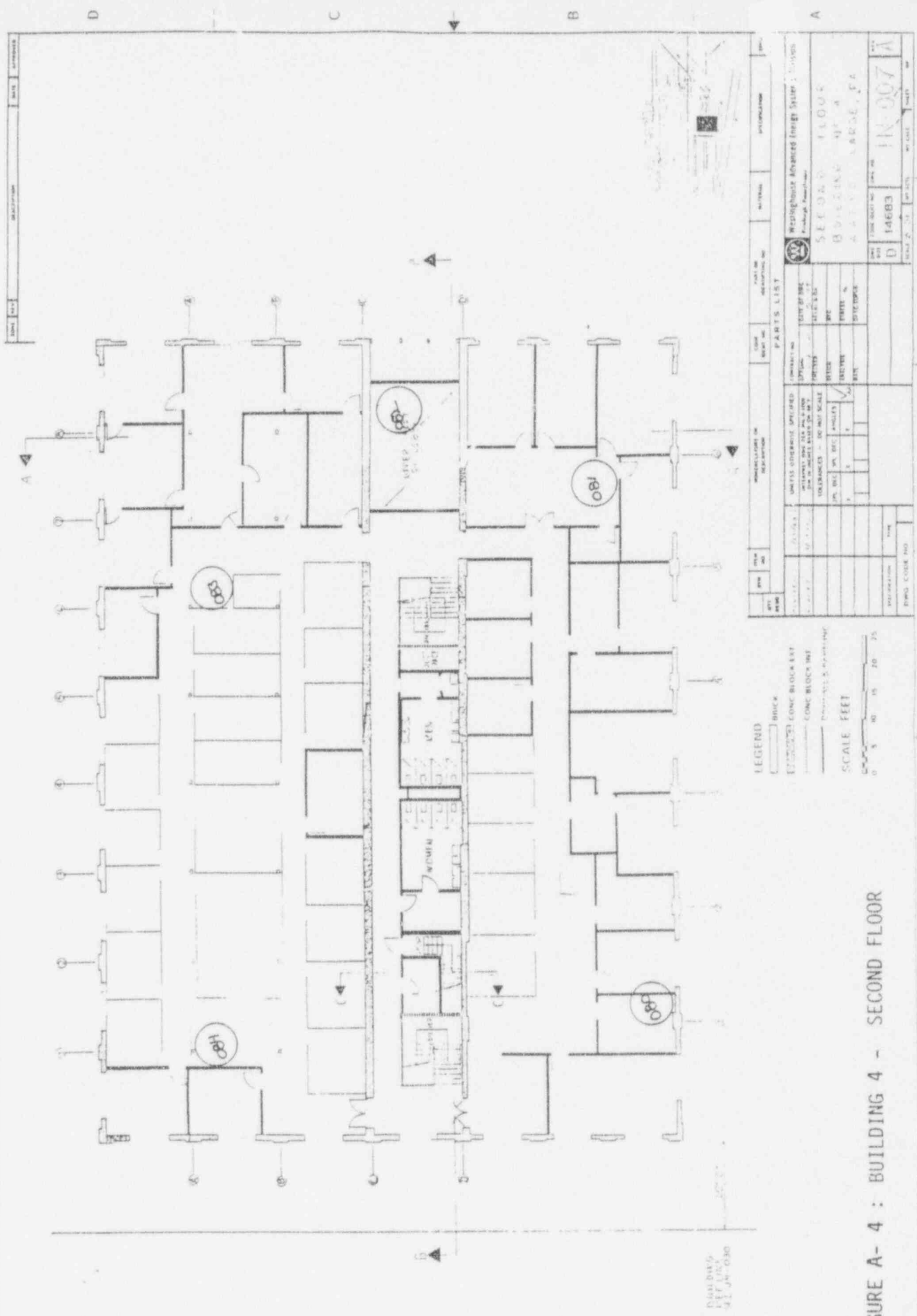
CHECKED BY: [Blank]

SCALE: [Blank]

SHEET NO.: 14683

OF [Blank]

FIGURE A- 3 : BUILDING 4 - FIRST FLOOR



DATE: 04/19/69
 BY: J. W. JONES
 41, JN, 030

LEGEND

- BRICK
- CONC BLOCK EXT
- CONC BLOCK INT
- PARTITION
- DOOR
- WINDOW
- STAIR
- ELEVATOR
- SIGN
- FURNITURE
- PLUMBING
- ELECTRICAL
- MECHANICAL
- OTHER

SCALE - FEET

0 5 10 15 20 25

DATE: 04/19/69		BY: J. W. JONES	
PROJECT NO. 14683			
SECTION 11005			
BUILDING 4 - 2ND FLOOR			
ARCHITECT: ARCADE, F.A.			
DRAWN BY: J. W. JONES		CHECKED BY: [Signature]	
DATE: 04/19/69		SCALE: 1/8" = 1'-0"	
PROJECT NO. 14683		SHEET NO. 11007	
TOTAL SHEETS: 11		THIS SHEET: 7	

FIGURE A-4 : BUILDING 4 - SECOND FLOOR

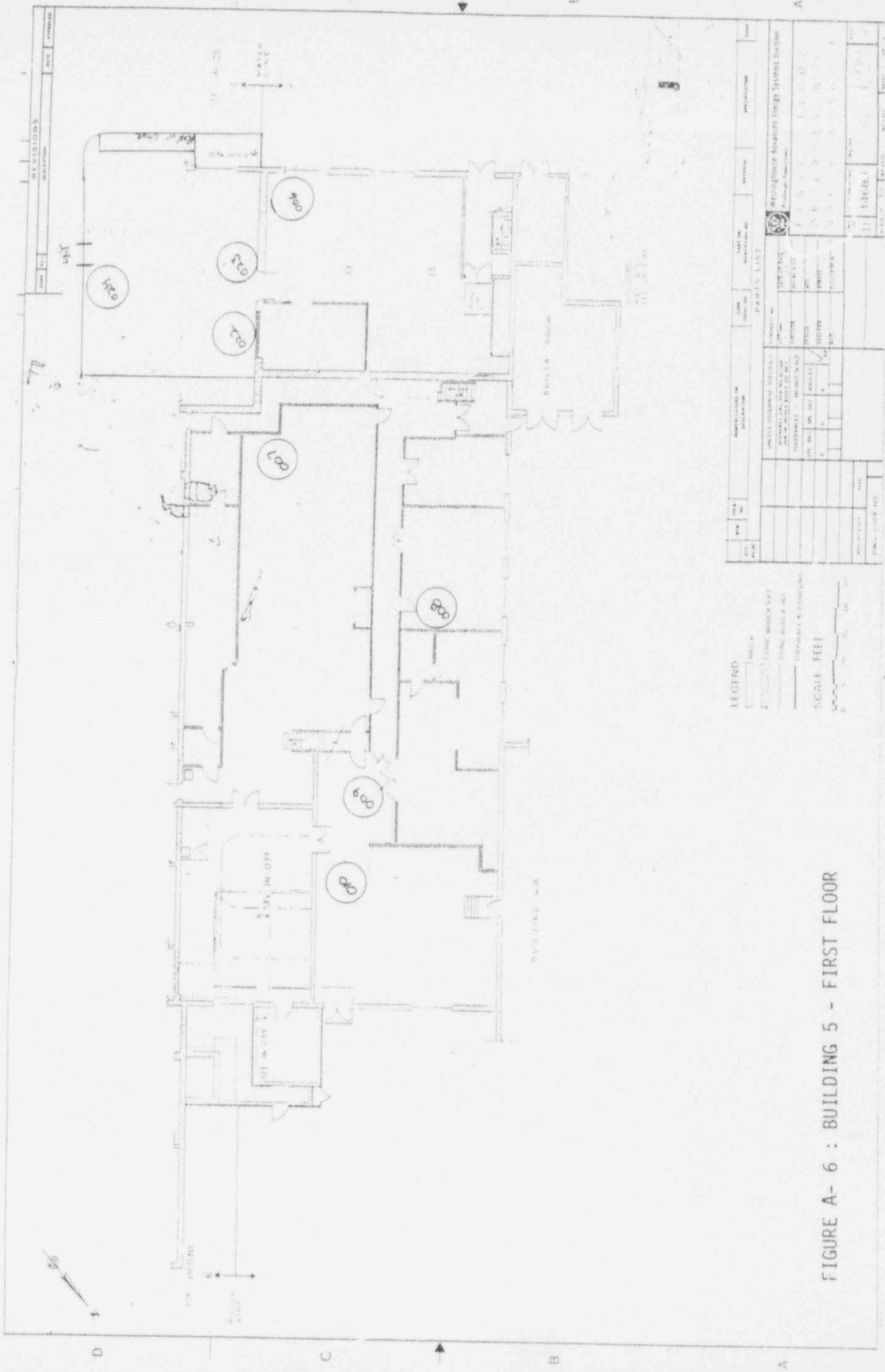


FIGURE A- 6 : BUILDING 5 - FIRST FLOOR

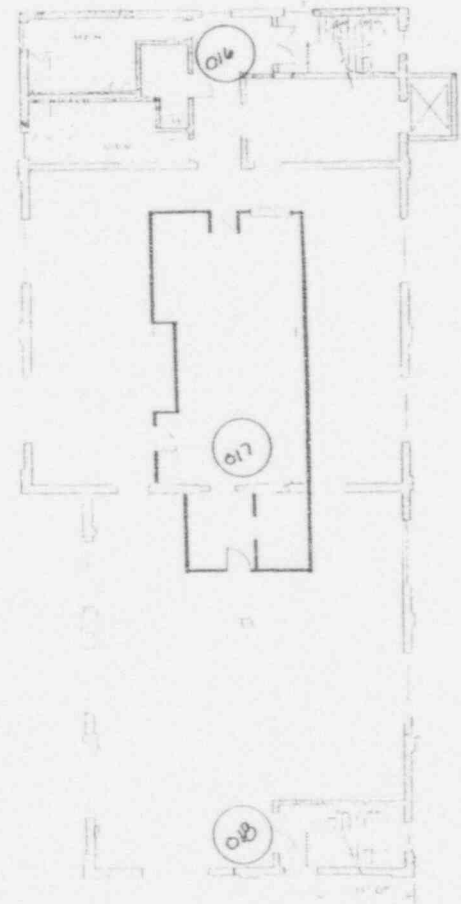
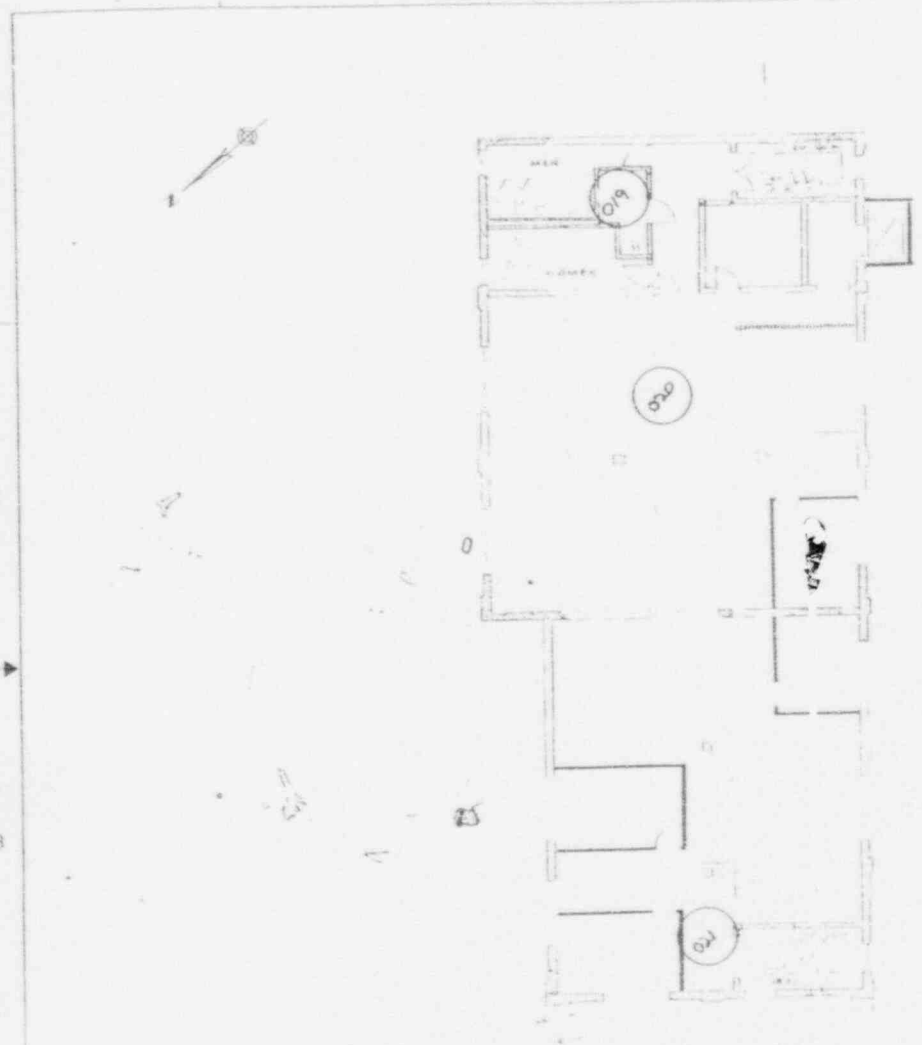


FIGURE A- 7 : BUILDING 5 - SECOND FLOOR

LEGEND
 [Symbol] BRICK
 [Symbol] CONCRETE BLOCK W/ EX
 [Symbol] CONCRETE BLOCK INT
 [Symbol] GYWALL & PARTITION
SCALE FEET
 0 5 10 15 20 25

QTY	SYMBOL	ITEM NO.	MANUFACTURE OR DESCRIPTION	QTY	UNIT	PART NO.	MATERIAL	SPECIFICATION	ZONE

Winghouse Advanced Energy Systems Division
 14083



DATE	DESCRIPTION	DATE	APPROVED
------	-------------	------	----------

FIGURE A- 8 : BUILDING 5 - THIRD AND FOURTH FLOORS

LEGEND

- BRICK
- CONG. BEDEK EXT.
- CONG. BLOCK INT.
- CONCRETE & MASONRY

SCALE FEET

QTY	REV.	PER.	DESCRIPTION OR IDENTIFICATION	UNIT	UNIT PRICE	TOTAL	REVISIONS	REVISIONS							
PARTS LIST															
			STEELS CONTAINERS (SPECIAL)				Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania	14693							
			STEELS CONTAINERS (SPECIAL)												
			STEELS CONTAINERS (SPECIAL)												
			STEELS CONTAINERS (SPECIAL)												
			STEELS CONTAINERS (SPECIAL)												
<table border="1"> <tr> <td>DATE</td> <td>BY</td> <td>CHKD.</td> <td>APPD.</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>						DATE	BY	CHKD.	APPD.						
DATE	BY	CHKD.	APPD.												

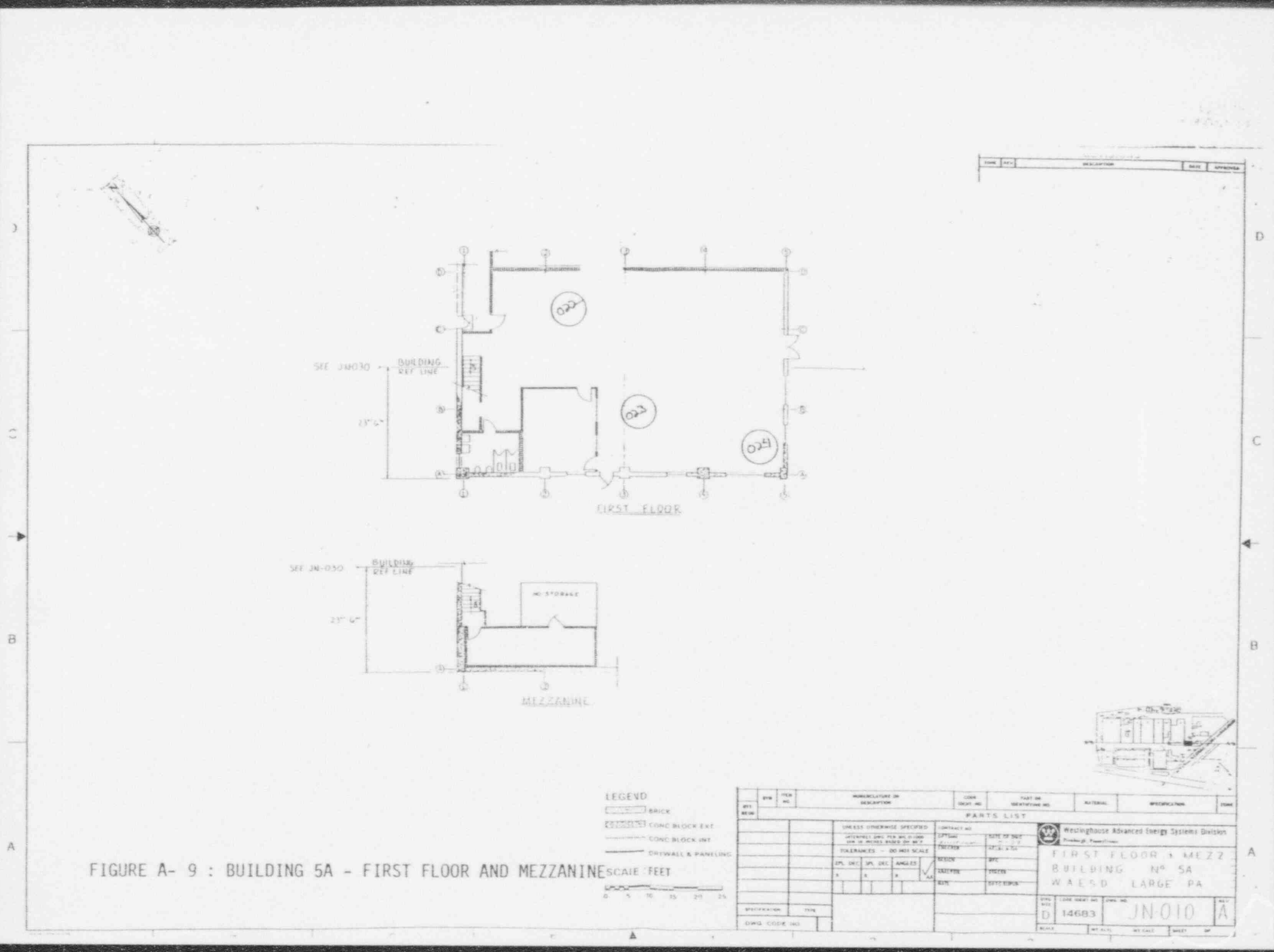


FIGURE A- 9 : BUILDING 5A - FIRST FLOOR AND MEZZANINE

LEGEND
 [Symbol] BRICK
 [Symbol] CONC BLOCK EXT
 [Symbol] CONC BLOCK INT
 [Symbol] DRYWALL & PANELING

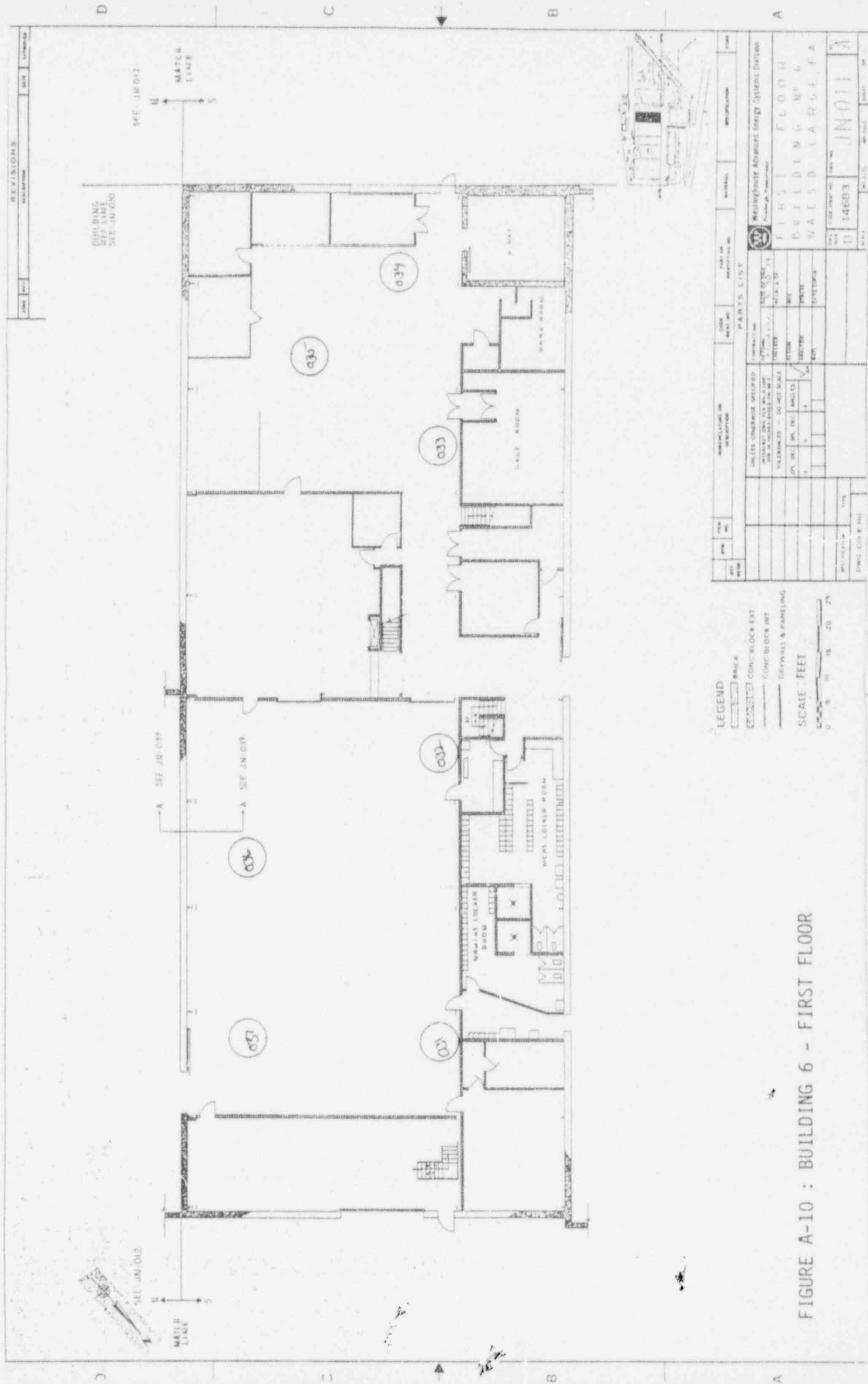
SCALE: FEET
 0 5 10 15 20 25

QTY	REV	DESCRIPTION	CODE	PART NO.	MATERIAL	SPECIFICATION	FORM
PARTS LIST							
UNLESS OTHERWISE SPECIFIED				CONTACT NO.			
INTERVALS SHOWN PER ARCHITECT'S				DATE OF REV.			
DIM. IN INCHES UNLESS OTHERWISE				APPROVED			
TOLERANCES - DO NOT SCALE				BY:			
SPL. DIA.		SPL. DIA.		SPL. DIA.		SPL. DIA.	
SPL. DIA.		SPL. DIA.		SPL. DIA.		SPL. DIA.	
SPECIFICATION				SPECIFICATION			
DWG. CODE NO.				DWG. CODE NO.			

Westinghouse Advanced Energy Systems Division
 Pittsburgh, Pennsylvania

FIRST FLOOR & MEZZ
 BUILDING N° 5A
 WAESD LARGE PA

DATE	CODE	REV	APP. NO.
D	14683	JNO10	A



REVISIONS

NO.	DATE	DESCRIPTION

WESTINGHOUSE ABSTRACTS Energy Systems Division

PROJECT NO. 14683

DATE: JN 011

SCALE: 1/4" = 1'-0"

FIG. NO. 6

REV. NO. 1

DESIGNED BY: JN 011

CHECKED BY: JN 011

APPROVED BY: JN 011

LEGEND

BRICK

CONC. BLOCK EXT.

CONC. BLOCK INT.

GYPSUM & PANELING

SCALE: FEET

0 5 10 15 20 25

FIGURE A-10 : BUILDING 6 - FIRST FLOOR

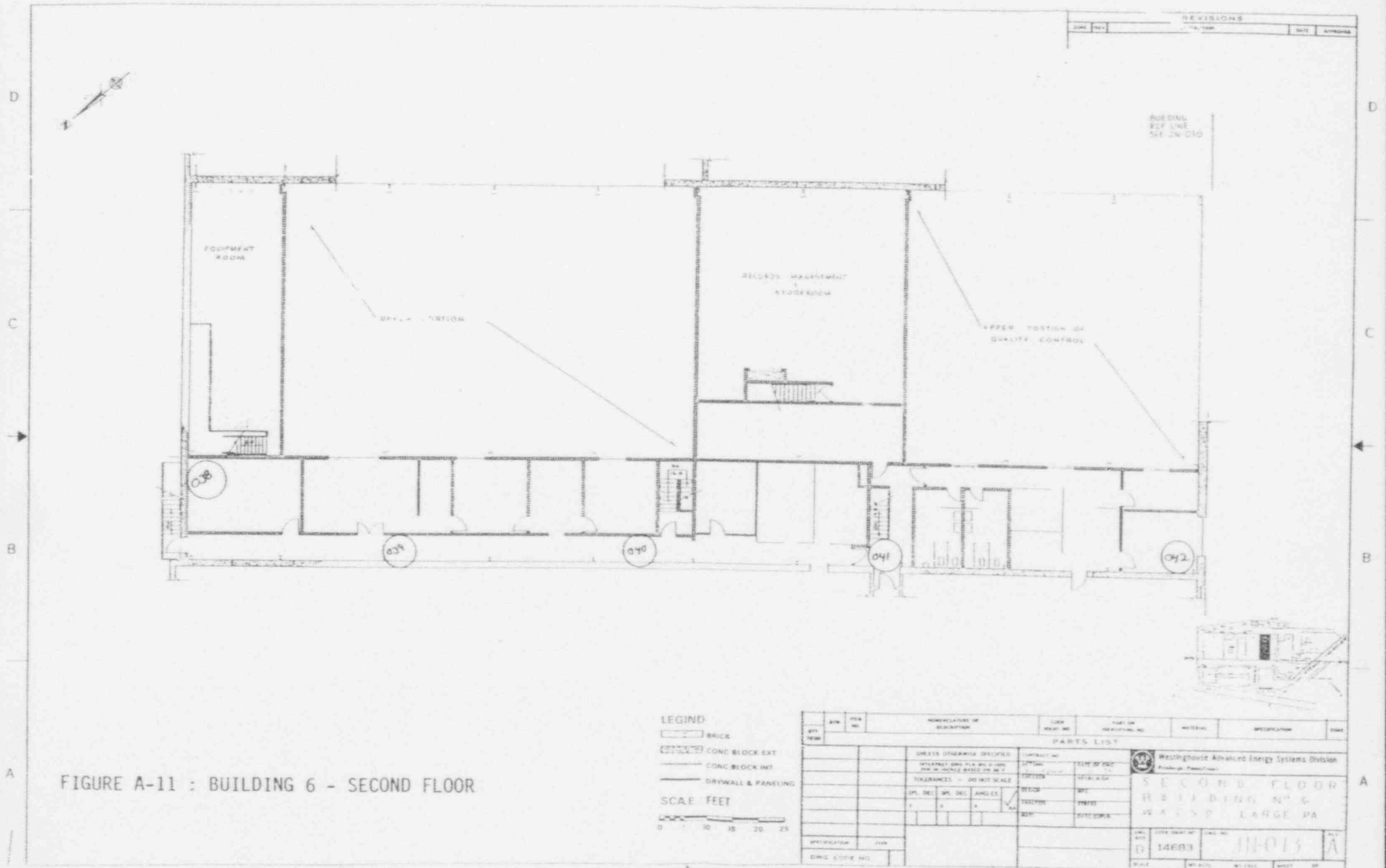


FIGURE A-11 : BUILDING 6 - SECOND FLOOR

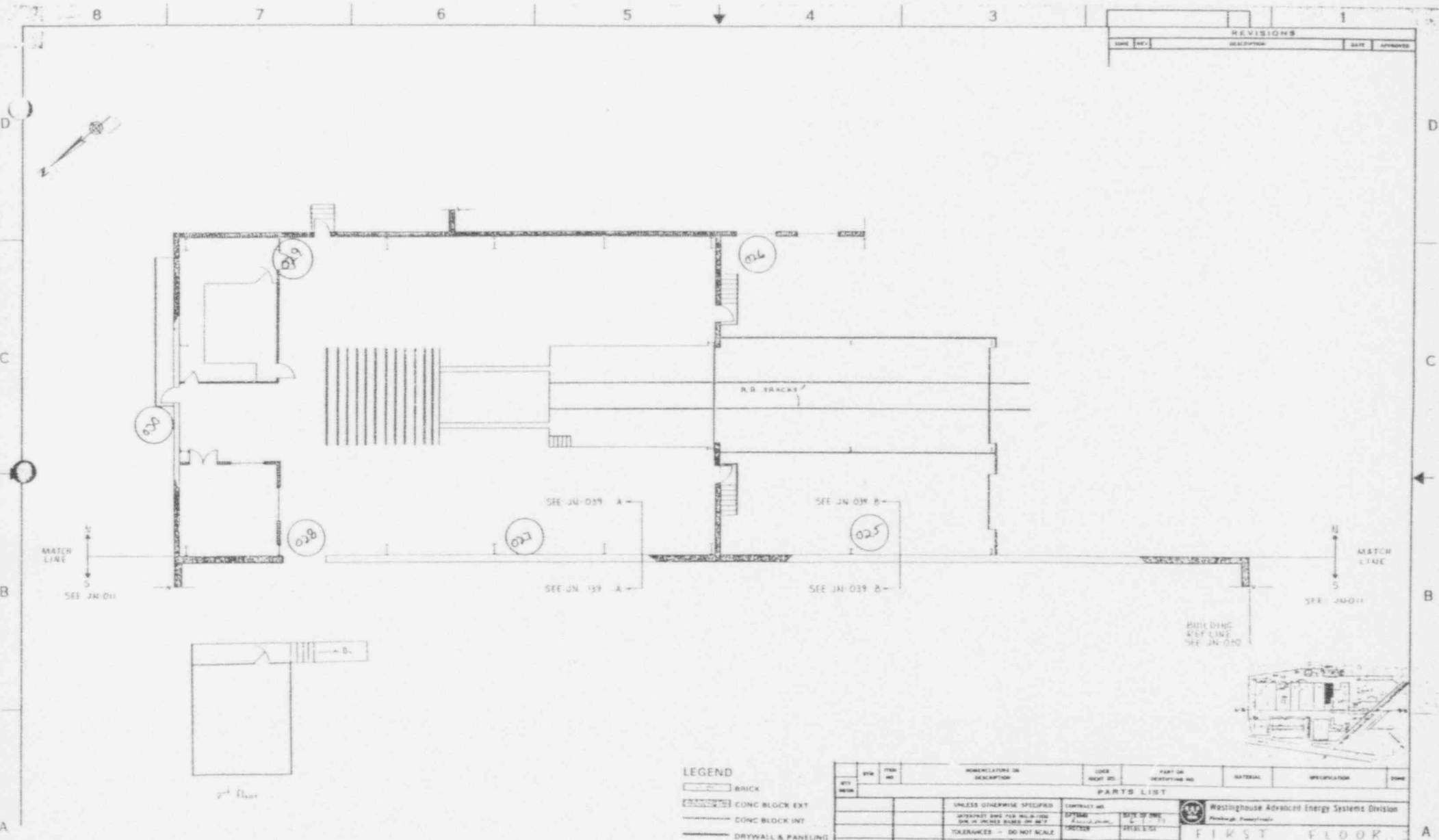


FIGURE A-12 : BUILDING 6A - FIRST FLOOR

LEGEND

- BRICK
- CONC BLOCK EXT
- CONC BLOCK INT
- DRYWALL & PANELING

SCALE : FEET

REV. NO.	REV. DATE	DESCRIPTION	DATE	BY	CHKD	APP'D

SYMBOL	DESCRIPTION	UNIT	QUANTITY	REMARKS

CONTRACT NO.	DATE OF ORDER	WESTINGHOUSE

DESCRIPTION	TYPE	QTY	UNIT

Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania	
FIRST FLOOR BUILDING N° 6A WAESD LARGE PA	
DWG. NO. D 14683	REV. NO. JN-012 A

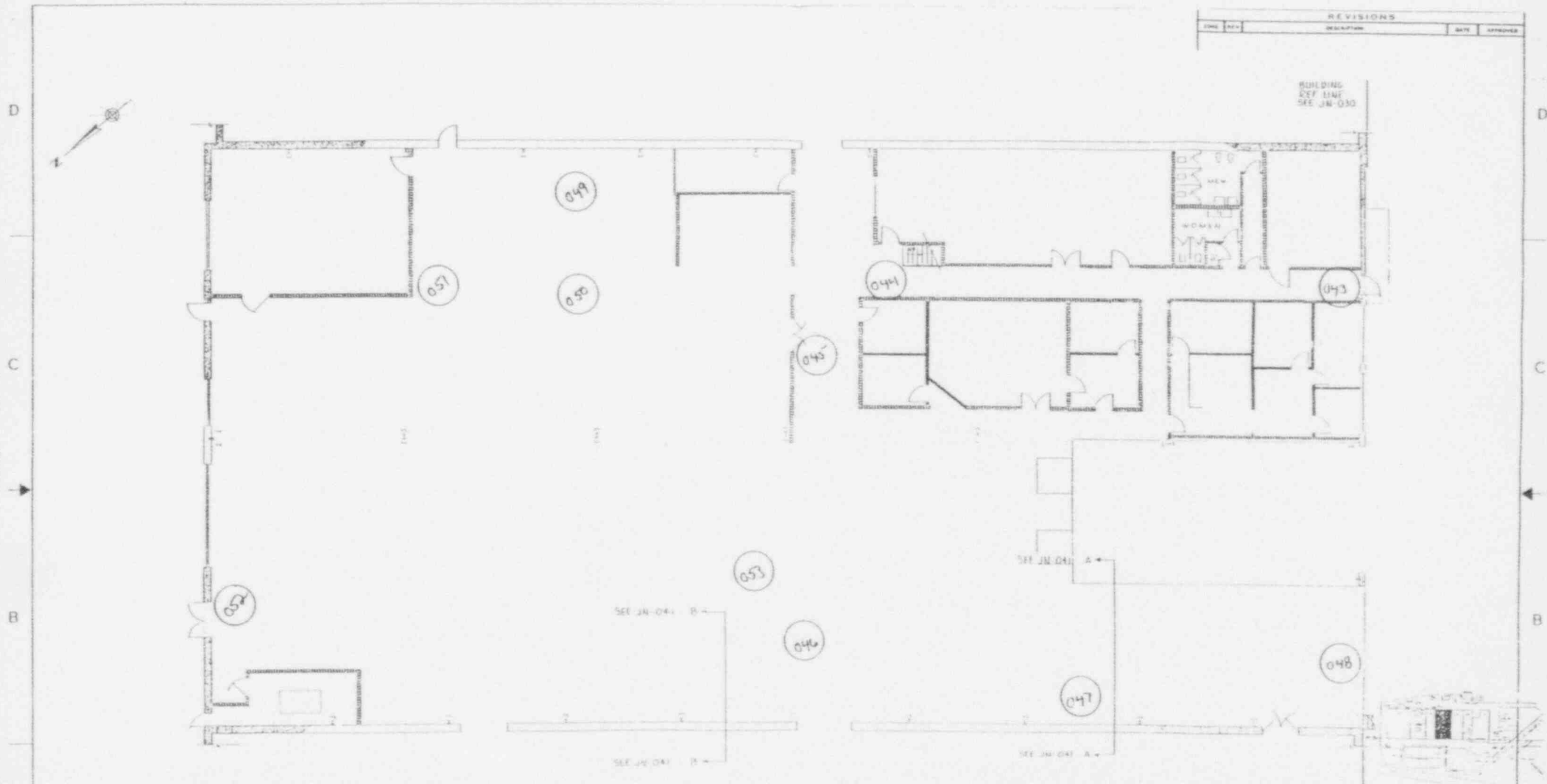


FIGURE A-13 : BUILDING 7 - FIRST FLOOR

LEGEND

- [Symbol] BRICK
- [Symbol] CONC BLOCK EXT
- [Symbol] CONC BLOCK INT
- [Symbol] DRIVEWAY & PARKING

SCALE FEET



REVISIONS			
NO	DATE	DESCRIPTION	APPROVED

BUILDING
DEF LINE
SEE JN-030

QTY	ITEM NO	MINIATURE OR DESCRIPTION	CODE	PART OR IDENTIFYING NO	MATERIAL	OPERATION	FORM
PARTS LIST							
		UNLESS OTHERWISE SPECIFIED:	CONTRACT NO.	TYPE OF SPEC.	Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania FIRST FLOOR BUILDING NO. 7 WALDEN LAKE, PA		
		INTERIOR DIMS FOR ALL DIMS UNLESS OTHERWISE SPECIFIED	PROJECT NO.	TYPE OF SPEC.			
		TOLERANCES - UNLESS OTHERWISE SPECIFIED	SECTION NO.	DATE			
		FRACTIONS - UNLESS OTHERWISE SPECIFIED	DATE	DATE			
		CONSTRUCTION	SECTION NO.	DATE	IN OH		
		DRUG CODE NO.	SECTION NO.	DATE			



REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED

QTY	REV	DESCRIPTION	CODE	PART OR REVISING NO.	MATERIAL	APPLICATION	DATE

PARTS LIST		PARTS LIST	

Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania	
MEZZANINE BUILDING NO. 7 WASD - LARGE PA	
SPECIFICATION DWG. CODE NO.	DATE 14683
REV. NO. 1N-013	APPR.

LEGEND

BRICK
 CONC. BLOCK EXT.
 CONC. BLOCK INT.
 DRYWALL & PARTITIONING

SCALE - FEET

0 5 10 15 20 25

FIGURE A-14 : BUILDING 7 - MEZZANINE

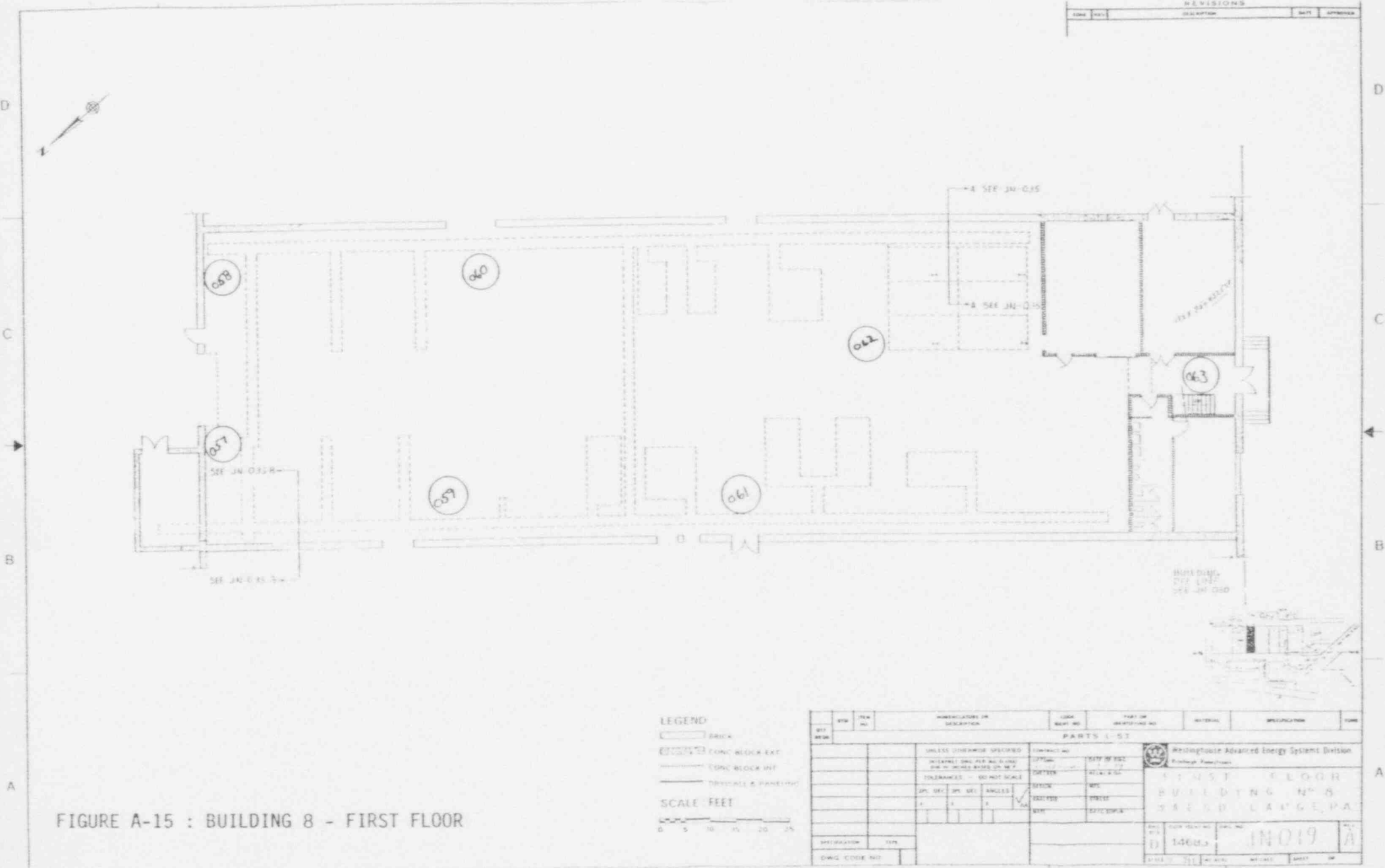
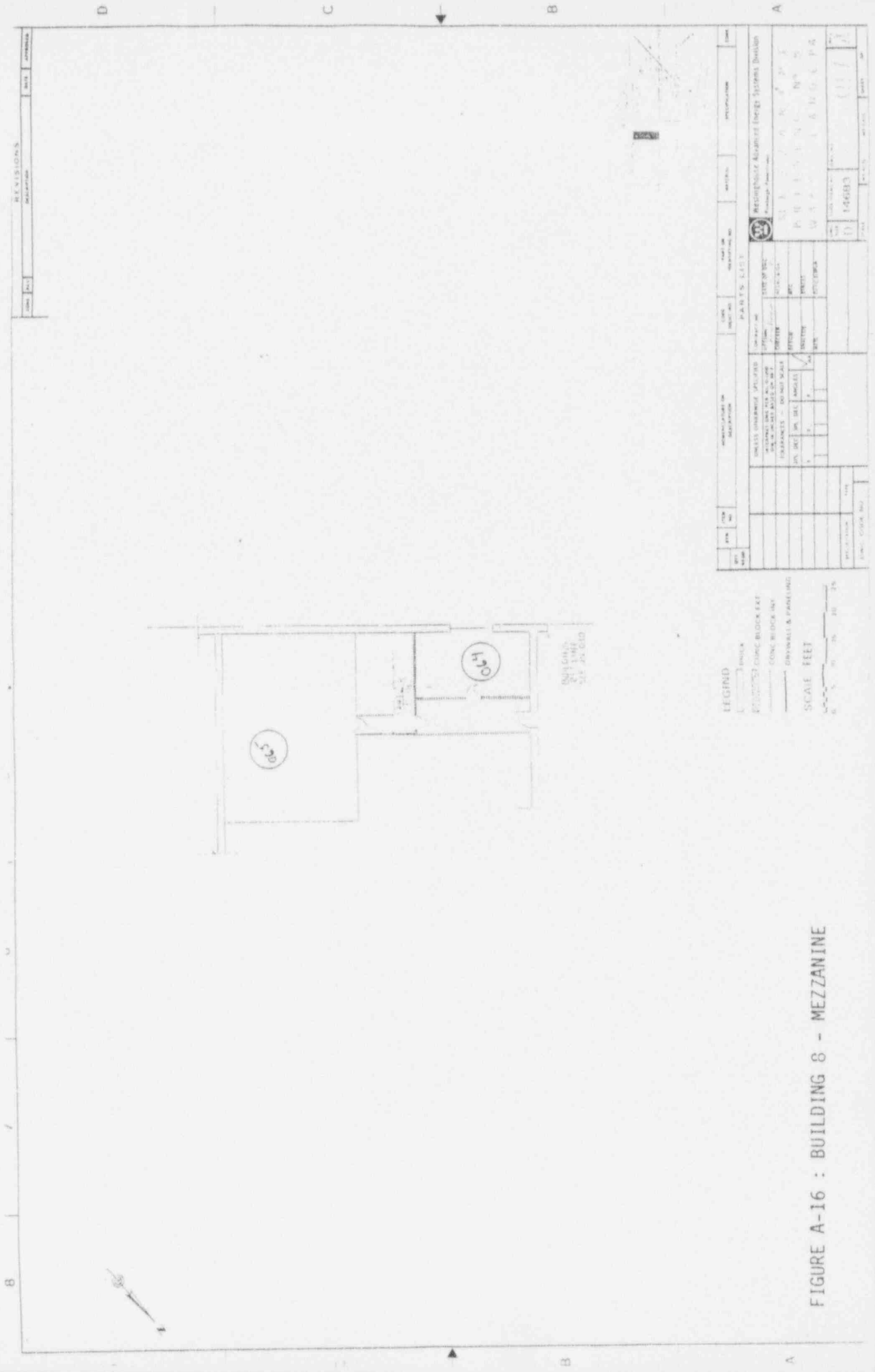


FIGURE A-15 : BUILDING 8 - FIRST FLOOR

LEGEND
 [Symbol] BRICK
 [Symbol] CONCRETE BLOCK EXT.
 [Symbol] CONCRETE BLOCK INT.
 [Symbol] DRYWALL & PANELING
 SCALE FEET
 0 5 10 15 20 25

SYM	REV	ITEM NO.	DIMENSIONS OR DESCRIPTION	QTY	MATERIAL	SPECIFICATION	UNIT	PARTS LIST			
								UNLESS OTHERWISE SPECIFIED		CONTRACT NO.	
			UNLESS OTHERWISE SPECIFIED DIMENSIONS SHALL BE AS SHOWN DIMENSIONS SHALL BE TO CENTER UNLESS NOTED					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			TOLERANCES - SEE NOTES					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			SYMBOLS					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			UNLESS OTHERWISE SPECIFIED DIMENSIONS SHALL BE AS SHOWN DIMENSIONS SHALL BE TO CENTER UNLESS NOTED					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			TOLERANCES - SEE NOTES					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			SYMBOLS					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			UNLESS OTHERWISE SPECIFIED DIMENSIONS SHALL BE AS SHOWN DIMENSIONS SHALL BE TO CENTER UNLESS NOTED					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			TOLERANCES - SEE NOTES					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			SYMBOLS					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			UNLESS OTHERWISE SPECIFIED DIMENSIONS SHALL BE AS SHOWN DIMENSIONS SHALL BE TO CENTER UNLESS NOTED					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			TOLERANCES - SEE NOTES					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	
			SYMBOLS					CONTRACT NO.		WESTINGHOUSE ADVANCED ENERGY SYSTEM DIVISION TREED LAKE, PA.	



REVISIONS

NO.	DATE	BY	APP.	DESCRIPTION

LEGEND

- BRICK
- ▨ CONCRETE BLOCK EXT
- ▩ CONCRETE BLOCK INT
- ▧ GYPSUM & PANELING

SCALE FEET

NO.	DATE	BY	APP.	DESCRIPTION

PARTS LIST

NO.	DESCRIPTION	QTY	UNIT

REVISIONS

NO.	DATE	BY	APP.	DESCRIPTION

REVISIONS

NO.	DATE	BY	APP.	DESCRIPTION

REVISIONS

NO.	DATE	BY	APP.	DESCRIPTION

REVISIONS

NO.	DATE	BY	APP.	DESCRIPTION

REVISIONS

NO.	DATE	BY	APP.	DESCRIPTION

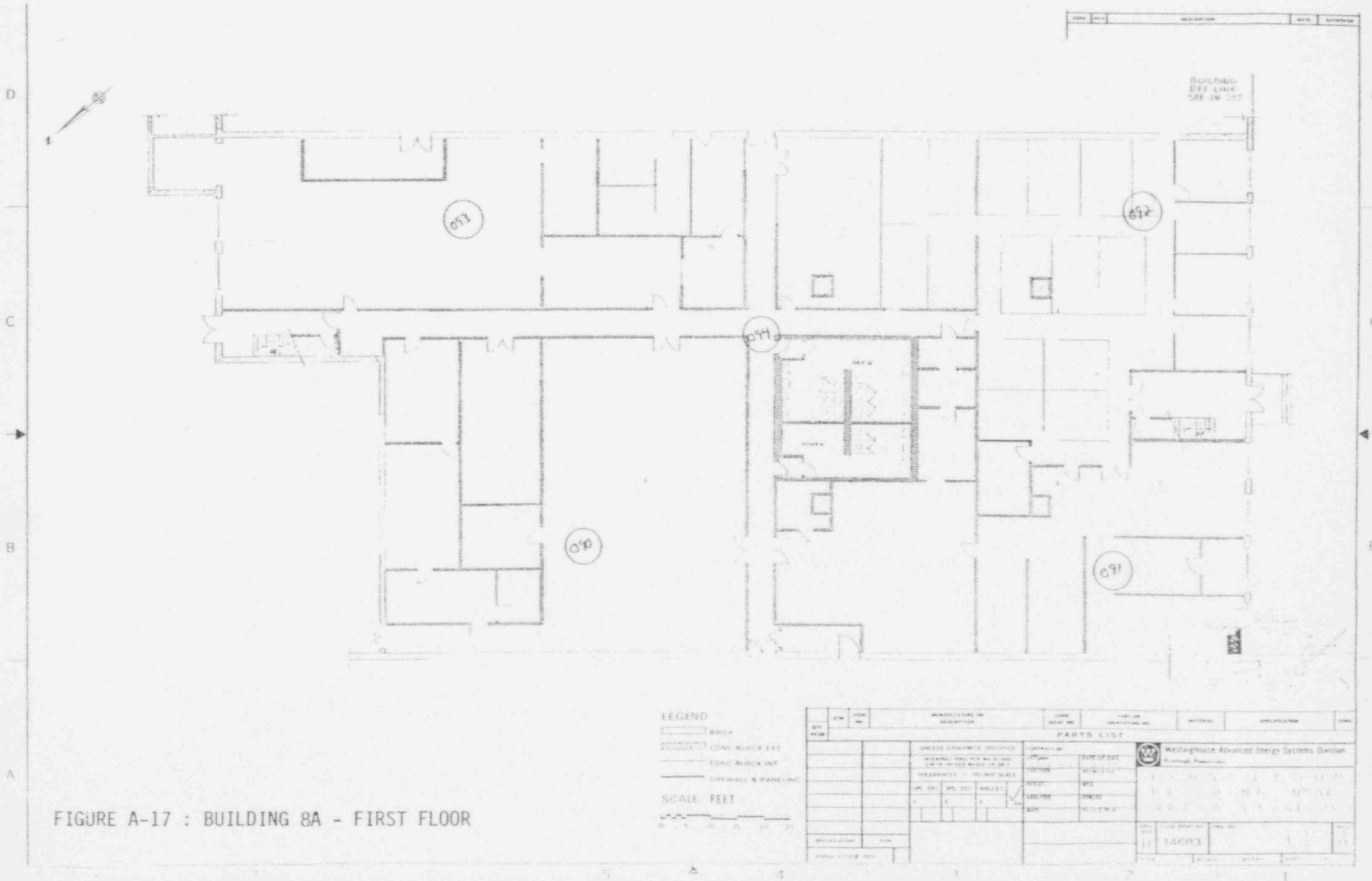
REVISIONS

NO.	DATE	BY	APP.	DESCRIPTION

REVISIONS

NO.	DATE	BY	APP.	DESCRIPTION

FIGURE A-16 : BUILDING 8 - MEZZANINE



DATE	DESCRIPTION	DATE	APPROVED
------	-------------	------	----------

BUILDING
DEF LINE
SEE 2M 207





080

082

081

090

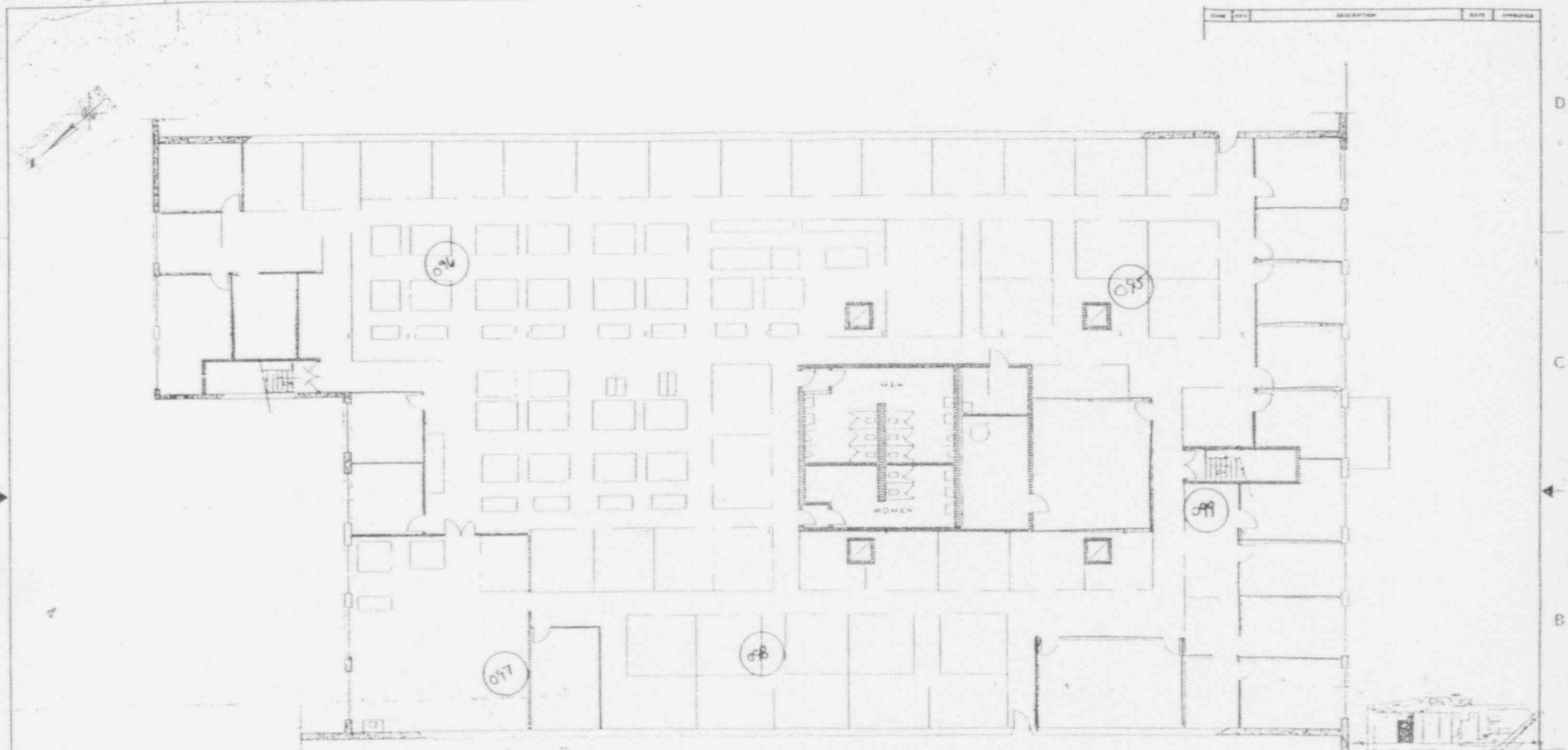
091

- LEGEND**
-  BRICK
 -  CONG. BLOCK EXT
 -  CONG. BLOCK INT
 -  DRYWALL & PANELING

SCALE: FEET
0 5 10 15 20 25

QTY	DIM	REV	DESCRIPTION	UNIT	PRICE	PARTS LIST		APPROVAL	
						NO.	DESCRIPTION		
			UNLESS OTHERWISE SPECIFIED					Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania	
			WIRE AND CABLE SHALL BE AS SHOWN ON THE DRAWINGS						
			RESISTANCE - TO AIR SCALE						
			IMP. DWT.						
			CONC. WT.						
			ANGLE						
			TYPE						
			SIZE						
							11		1409X3

FIGURE A-17 : BUILDING 8A - FIRST FLOOR

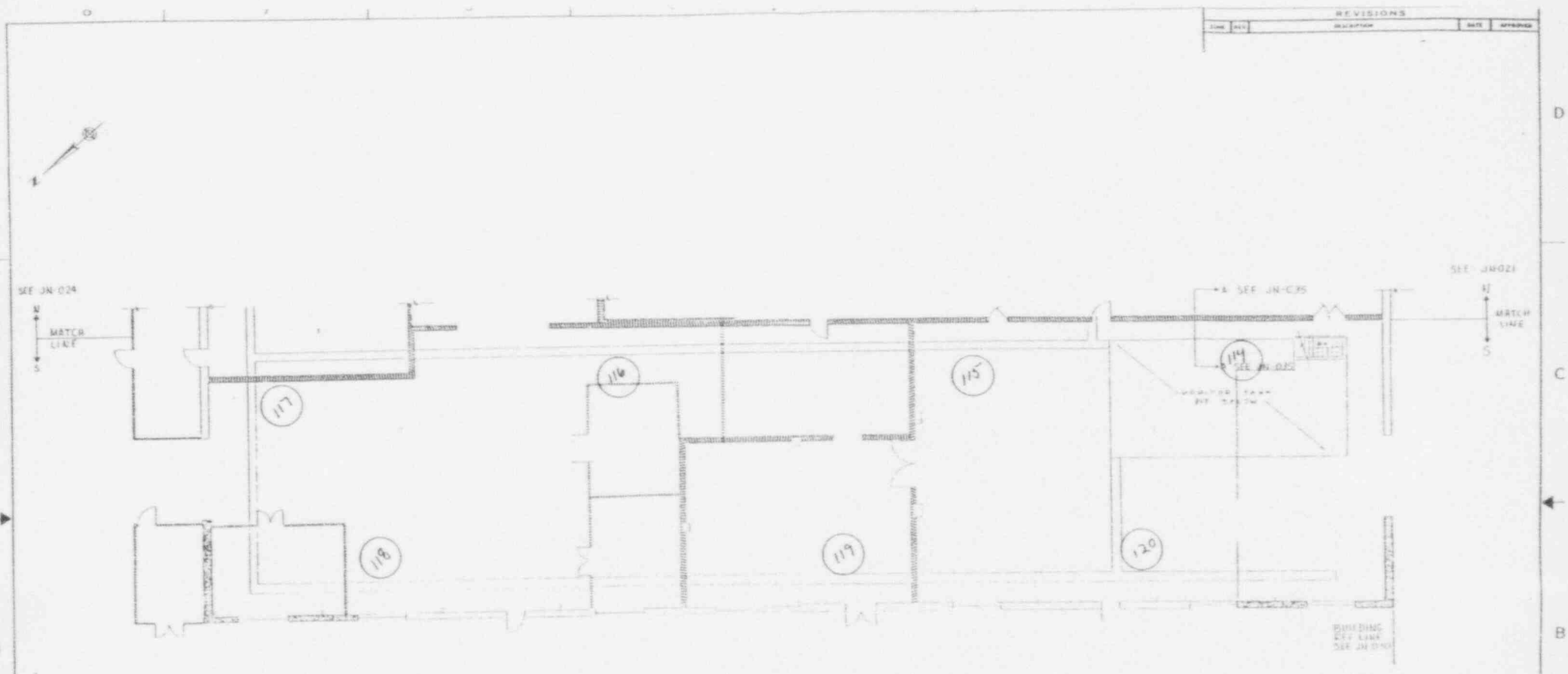


BUILDING
REF LINE
DET IN 030

FIGURE A-18 : BUILDING 8A - SECOND FLOOR

LEGEND
 [Symbol] BRICK
 [Symbol] CONC. BLOCK EXT
 [Symbol] CONC. BLOCK INT
 [Symbol] DRYWALL & PANELING
SCALE FEET
 0 5 10 15 20 25

BY			DATE			REVISION			DATE			APPROVED																																										
REV			ITEM NO.			DESCRIPTION OR IDENTIFICATION NO.			QUANTITY			MATERIAL			SPECIFICATION			DATE																																				
PARTS LIST																																																						
UNLESS OTHERWISE SPECIFIED																																																						
WEIGHTS AND DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED																																																						
TOLERANCES - DO NOT SCALE																																																						
FIN. OR. UN. DEC. ANGLES																																																						
<table border="1"> <tr> <td>PLATE</td> <td>24</td> <td>30</td> <td>36</td> <td>42</td> <td>48</td> <td>54</td> <td>60</td> <td>66</td> <td>72</td> </tr> <tr> <td>ANGLE</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>8</td> <td>10</td> <td>12</td> <td>16</td> </tr> <tr> <td>PIPE</td> <td>1/2"</td> <td>3/4"</td> <td>1"</td> <td>1 1/4"</td> <td>1 1/2"</td> <td>2"</td> <td>2 1/2"</td> <td>3"</td> <td>4"</td> </tr> <tr> <td>ROOF</td> <td>1/8"</td> <td>1/4"</td> <td>3/8"</td> <td>1/2"</td> <td>5/8"</td> <td>3/4"</td> <td>1"</td> <td>1 1/4"</td> <td>1 1/2"</td> </tr> </table>															PLATE	24	30	36	42	48	54	60	66	72	ANGLE	2	3	4	5	6	8	10	12	16	PIPE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	ROOF	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"
PLATE	24	30	36	42	48	54	60	66	72																																													
ANGLE	2	3	4	5	6	8	10	12	16																																													
PIPE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"																																													
ROOF	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"																																													
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COMPANY NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL	TAXES	NET	DATE																																														
<table border="1"> <tr> <td rowspan="2">SYMBOL</td> <td>DATE</td> <td>BY</td> <td>APPROVED</td> </tr> <tr> <td>DESCRIPTION</td> <td></td> <td></td> </tr> </table>															SYMBOL	DATE	BY	APPROVED	DESCRIPTION																																			
SYMBOL	DATE	BY	APPROVED																																																			
	DESCRIPTION																																																					
Westinghouse Advanced Energy Systems Division Princeton, Pennsylvania SECOND FLOOR BUILDING No 3A WAESD LARGE 0A																																																						
<table border="1"> <tr> <td>WORK NO.</td> <td>DATE</td> <td>BY</td> <td>APPROVED</td> </tr> <tr> <td>D 14683</td> <td>JN-022</td> <td></td> <td></td> </tr> </table>															WORK NO.	DATE	BY	APPROVED	D 14683	JN-022																																		
WORK NO.	DATE	BY	APPROVED																																																			
D 14683	JN-022																																																					



REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED

SEE JN 024

MATCH LINE

SEE JN 021

SEE JN 021

MATCH LINE

BUILDING
SEE LINE
SEE JN 021

LEGEND

- BRICK
- CONCRETE BLOCK EXT.
- CONCRETE BLOCK INT.
- CURB WALL & PASS LINE

SCALE FEET



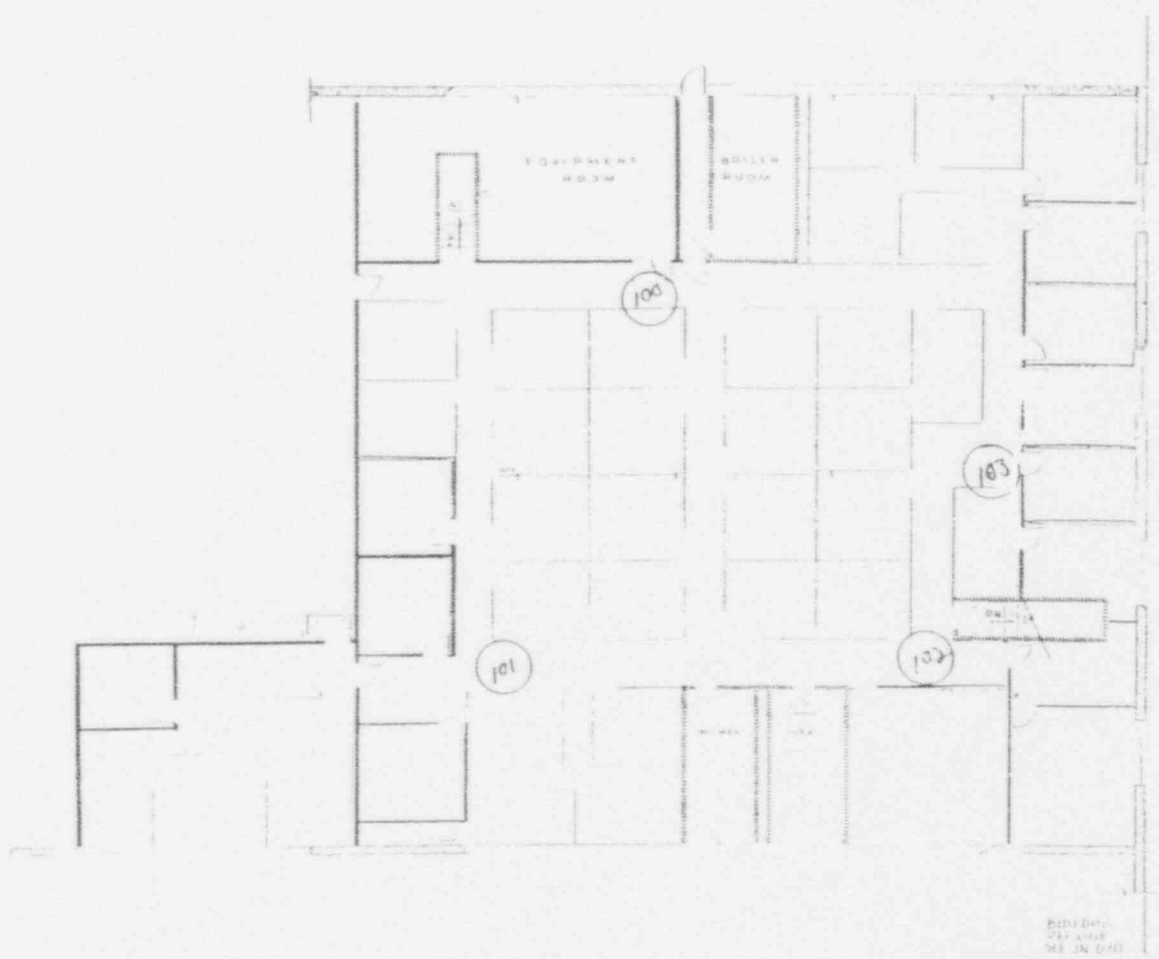
REV.	DATE	DESCRIPTION	BY	CHECKED	DATE	DESCRIPTION	MATERIAL	SPECIFICATION	QTY
PARTS LIST									
UNLESS OTHERWISE SPECIFIED:					CONTRACT NO.				
WELDED WIRE PER MIL SPEC.					TYPE				
FIN IN OTHER SIZES ON REQ.					FINISH				
TOLERANCES - DIMENSIONS					FINISH				
1/8" DEC.					FINISH				
3/16" DEC.					FINISH				
1/4" DEC.					FINISH				
1/2" DEC.					FINISH				
3/4" DEC.					FINISH				
1" DEC.					FINISH				
1 1/2" DEC.					FINISH				
2" DEC.					FINISH				
3" DEC.					FINISH				
4" DEC.					FINISH				
6" DEC.					FINISH				
8" DEC.					FINISH				
10" DEC.					FINISH				
12" DEC.					FINISH				
14" DEC.					FINISH				
16" DEC.					FINISH				
18" DEC.					FINISH				
20" DEC.					FINISH				
24" DEC.					FINISH				
30" DEC.					FINISH				
36" DEC.					FINISH				
42" DEC.					FINISH				
48" DEC.					FINISH				
60" DEC.					FINISH				
72" DEC.					FINISH				
84" DEC.					FINISH				
96" DEC.					FINISH				
108" DEC.					FINISH				
120" DEC.					FINISH				
144" DEC.					FINISH				
168" DEC.					FINISH				
192" DEC.					FINISH				
216" DEC.					FINISH				
240" DEC.					FINISH				
264" DEC.					FINISH				
288" DEC.					FINISH				
312" DEC.					FINISH				
336" DEC.					FINISH				
360" DEC.					FINISH				
384" DEC.					FINISH				
408" DEC.					FINISH				
432" DEC.					FINISH				
456" DEC.					FINISH				
480" DEC.					FINISH				
504" DEC.					FINISH				
528" DEC.					FINISH				
552" DEC.					FINISH				
576" DEC.					FINISH				
600" DEC.					FINISH				
624" DEC.					FINISH				
648" DEC.					FINISH				
672" DEC.					FINISH				
696" DEC.					FINISH				
720" DEC.					FINISH				
744" DEC.					FINISH				
768" DEC.					FINISH				
792" DEC.					FINISH				
816" DEC.					FINISH				
840" DEC.					FINISH				
864" DEC.					FINISH				
888" DEC.					FINISH				
912" DEC.					FINISH				
936" DEC.					FINISH				
960" DEC.					FINISH				
984" DEC.					FINISH				
1008" DEC.					FINISH				
1032" DEC.					FINISH				
1056" DEC.					FINISH				
1080" DEC.					FINISH				
1104" DEC.					FINISH				
1128" DEC.					FINISH				
1152" DEC.					FINISH				
1176" DEC.					FINISH				
1200" DEC.					FINISH				

Westinghouse Advanced Energy Systems Division
 Pittsburgh, Pennsylvania
 FIRST FLOOR
 BUILDING NO. 9
 WAFSD LARGE PA

FIGURE A-19 : BUILDING 9 - FIRST FLOOR



REVISIONS				
DATE	BY	DESCRIPTION	DATE	APPROVED



BUILDING
9 - 2ND FLOOR
SCALE IN OAD

LEGEND

- [Symbol] BRICK
- [Symbol] CONC BLOCK EXT
- [Symbol] CONC BLOCK INT
- [Symbol] PARTIAL WALL & PANELING

SCALE FEET
0 5 10 15 20 25

FIGURE A-20 : BUILDING 9 - SECOND FLOOR

QTY	SYM	ITEM NO	DESCRIPTION OR SPECIFICATION	CODE	PLANT OR IDENTIFYING NO	MATERIAL	REMARKS	ZONE
PARTS LIST								

Westinghouse Advanced Energy Systems Division			
Pittsburgh, Pennsylvania			
SIGNATURE: <i>STUCH FAIR</i>			
BUILDING NO 9			
W A I L D L A N E P A			

D
C
B
A

BUILDING #9 PIT (DETAILS)

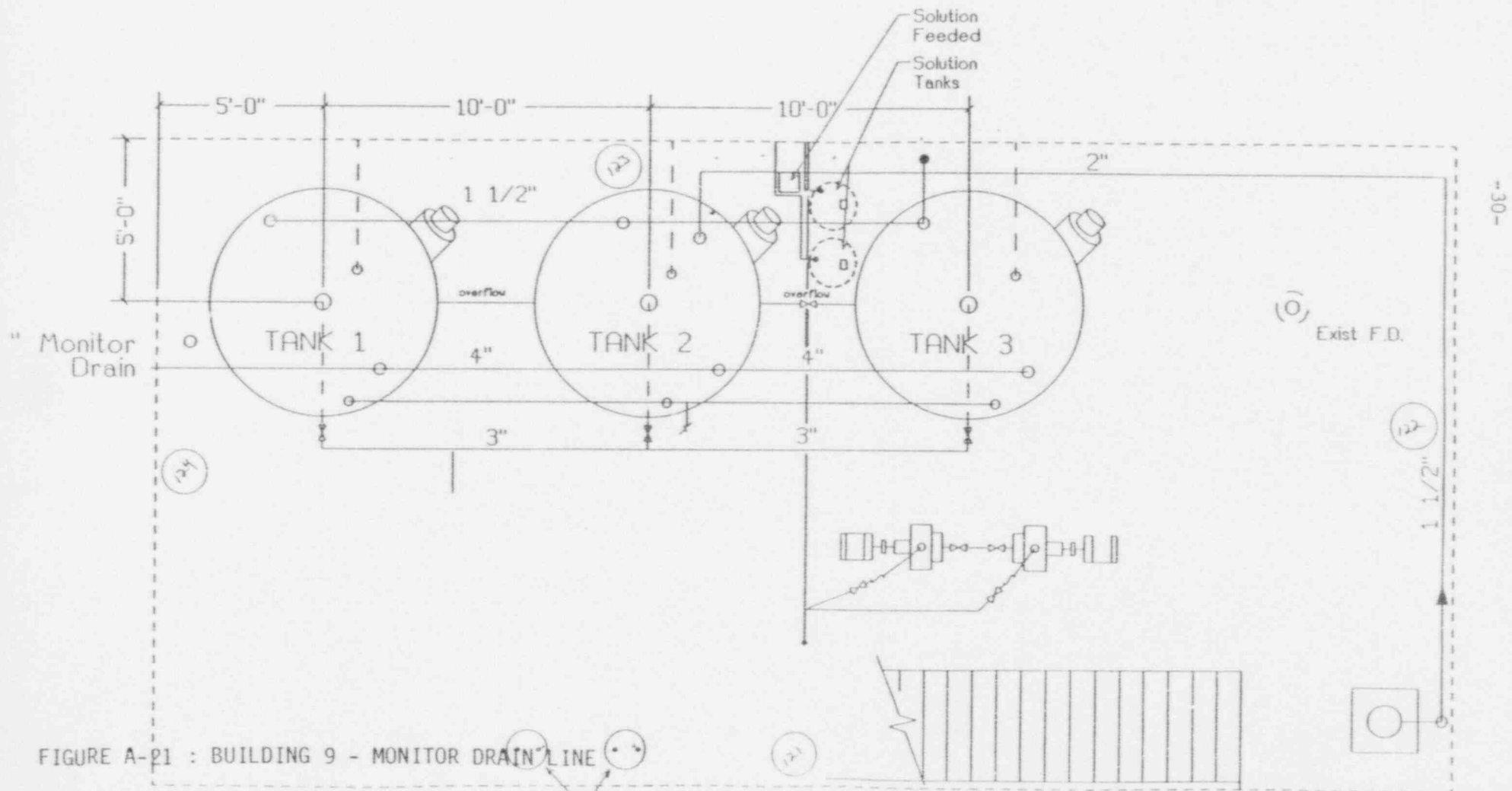
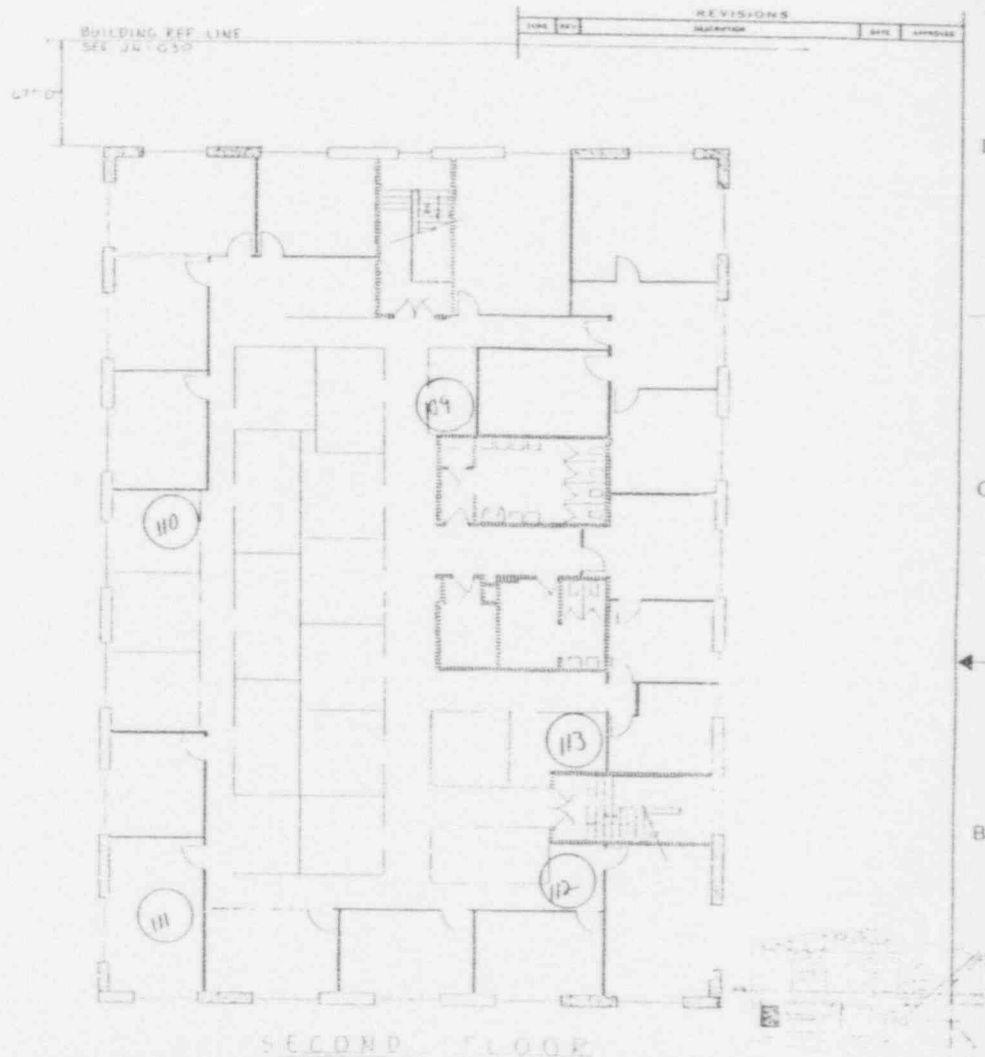
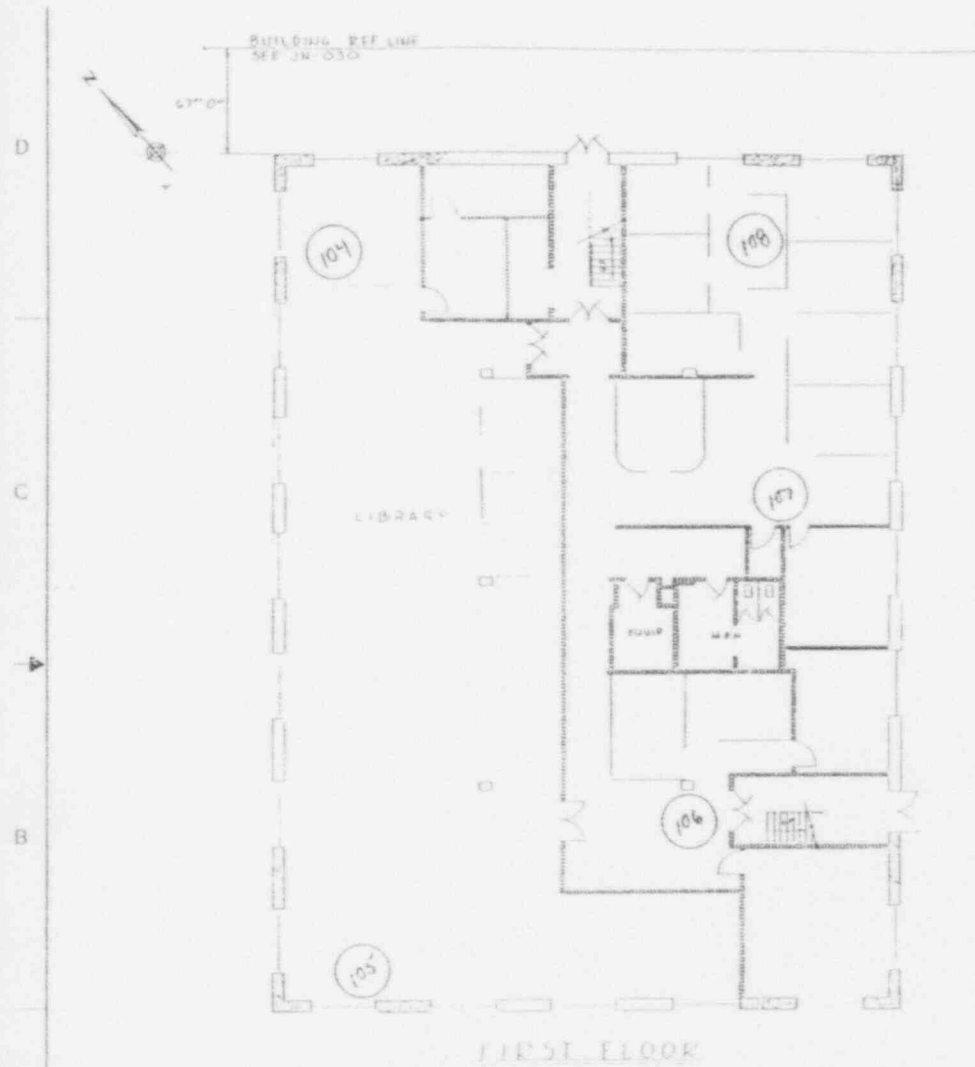


FIGURE A-21 : BUILDING 9 - MONITOR DRAIN LINE



FIRST FLOOR

SECOND FLOOR

FIGURE A-22 : BUILDING 10 - FIRST AND SECOND FLOORS

- LEGEND**
- BRICK
 - LONG BRICK EXIT
 - LONG BRICK INT
 - TRIMWORK & PANELING
- SCALE FEET**
-

REV	DATE	DESCRIPTION	BY	CHKD	DATE	DESCRIPTION	BY	CHKD	DATE

QTY	UNIT	DESCRIPTION	QTY	UNIT	DESCRIPTION

UNLESS OTHERWISE SPECIFIED	TOLERANCES	FINISHES	PAINTS

WESTINGHOUSE	ADVANCED ENERGY SYSTEMS DIVISION

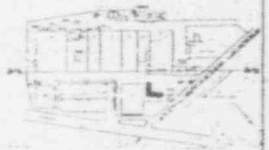
PROJECT	DATE	SCALE	BY	CHKD



REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED

FIRST FLOOR

SECOND FLOOR



LEGEND

- BRICK
- CONC BLOCK EXT
- CONC BLOCK INT
- DRYWALL & PARTITIONING

SCALE FEET

QTY	PKT	CON	MANUFACTURE OR	COND	PART OR	MATERIAL	DESCRIPTION	NOTE
PER	NO	NO	DESCRIPTION	REAT NO	IDENTIFYING NO			
PARTS LIST								
UNLESS OTHERWISE SPECIFIED				DRAWING NO.		DATE OF DOW		
INTERPRET AND FOR MFG. AND				SPECIES		SHEET NO.		
DIM. OR DIMENSIONS BASED ON M.F.				TOLERANCES - DO NOT SCALE		SERIES		
DPL. DEC.		MPL. DEC.		ANGLES		SPEC.		
6		3		3		FINISH		
						APPLICABLE		
MATERIAL		TYPE						
SYNG CODE NO.								

Westinghouse Advanced Energy Systems Division <i>Pittsburgh, Pennsylvania</i>	
FIRST & SECOND FLOORS BUILDING NO. 11 WAESD LARGE PA	
DATE	SCALE
NOV 11	1/4" = 1'-0"
PROJECT NO.	14683
DRAWING NO.	11N024
SHEET NO.	A

FIGURE A-23 : BUILDING 11 - FIRST AND SECOND FLOORS

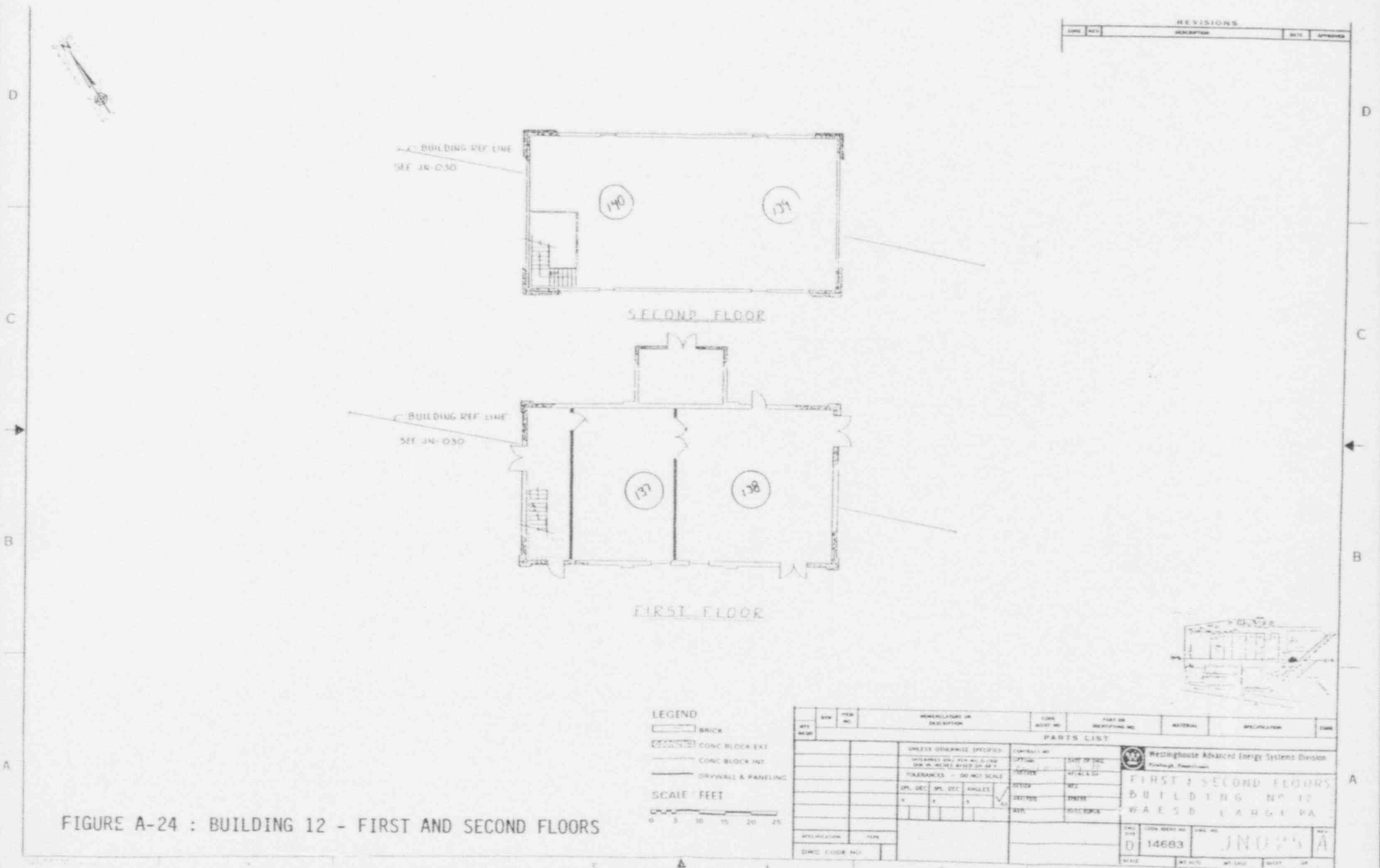


FIGURE A-24 : BUILDING 12 - FIRST AND SECOND FLOORS

APPENDIX B

ORIGINAL DATA SHEETS FOR DOSIMETER RESULTS

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS

WESTINGHOUSE ELECTRIC
ATTN : JIM FLANAGAN
HAYBAKER RD & NORTHERN
PIKE ROAD
MONROEVILLE, PA 15146

ACCOUNT NO. SERIES CODE

290021

FOR EXPOSURE PERIOD

06/01/92

NET CUMULATIVE TOTALS (MILLIREMS)

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)		CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS	NET						
00000	TRANSIT CTRL		22.4	-9.0						
000X9	DEPLOYMENT CTRL		31.4	0.0						
00001			23.1	-8.3	-8.3	-8.3	-8.3		1	06/01/92
00002			23.1	-8.3	-8.3	-8.3	-8.3		1	06/01/92
00003			24.7	-6.7	-6.7	-6.7	-6.7		1	06/01/92
00004			23.8	-7.6	-7.6	-7.6	-7.6		1	06/01/92
00005			22.5	-8.9	-8.9	-8.9	-8.9		1	06/01/92
00006			30.8	-0.6	-0.6	-0.6	-0.6		1	06/01/92
00007			26.6	-4.8	-4.8	-4.8	-4.8		1	06/01/92
00008			30.3	-1.1	-1.1	-1.1	-1.1		1	06/01/92
00009			31.7	0.3	0.3	0.3	0.3		1	06/01/92
00010			27.1	-4.3	-4.3	-4.3	-4.3		1	06/01/92
00011			29.5	-1.9	-1.9	-1.9	-1.9		1	06/01/92
00012			27.3	-4.1	-4.1	-4.1	-4.1		1	06/01/92
00013			30.9	-0.5	-0.5	-0.5	-0.5		1	06/01/92
00014			26.1	-5.3	-5.3	-5.3	-5.3		1	06/01/92
00015			27.9	-3.5	-3.5	-3.5	-3.5		1	06/01/92
00016			34.1	2.7	2.7	2.7	2.7		1	06/01/92
00017			37.0	5.6	5.6	5.6	5.6		1	06/01/92
00018			39.2	7.8	7.8	7.8	7.8		1	06/01/92
00019			30.0	-1.4	-1.4	-1.4	-1.4		1	06/01/92
00020			26.3	-5.1	-5.1	-5.1	-5.1		1	06/01/92
00021			26.5	-4.9	-4.9	-4.9	-4.9		1	06/01/92

R.L. Release	Process No.	Reported Date	Date Received	Page	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent
LB	E0021A	16-Oct-92	08-Sep-92	1	0.14

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS

WESTINGHOUSE ELECTRIC
ATTN : JIM FLANAGAN
HAYMAKER RD & NORTHERN
PIKE ROAD
MONROEVILLE, PA 15146

ACCOUNT NO. SERIES CODE

290021

FOR EXPOSURE PERIOD

06/01/92

NET CUMULATIVE TOTALS (MILLIREMS)

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)		CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS	NET						
00022			27.9	-3.5	-3.5	-3.5	-3.5		1	06/01/92
00023			27.1	-4.3	-4.3	-4.3	-4.3		1	06/01/92
00024			32.3	0.9	0.9	0.9	0.9		1	06/01/92
00025			27.2	-4.2	-4.2	-4.2	-4.2		1	06/01/92
00026			29.7	-1.7	-1.7	-1.7	-1.7		1	06/01/92
00027			30.0	-1.4	-1.4	-1.4	-1.4		1	06/01/92
00028			31.6	0.2	0.2	0.2	0.2		1	06/01/92
00029			25.4	-6.0	-6.0	-6.0	-6.0		1	06/01/92
00030			25.5	-5.9	-5.9	-5.9	-5.9		1	06/01/92
00031			25.2	-6.2	-6.2	-6.2	-6.2		1	06/01/92
00032			30.7	-0.7	-0.7	-0.7	-0.7		1	06/01/92
00033			27.4	-4.0	-4.0	-4.0	-4.0		1	06/01/92
00034			29.0	-2.4	-2.4	-2.4	-2.4		1	06/01/92
00035			27.6	-3.8	-3.8	-3.8	-3.8		1	06/01/92
00036			27.1	-4.3	-4.3	-4.3	-4.3		1	06/01/92
00037			29.2	-2.2	-2.2	-2.2	-2.2		1	06/01/92
00038			32.2	0.8	0.8	0.8	0.8		1	06/01/92
00039			29.1	-2.3	-2.3	-2.3	-2.3		1	06/01/92
00040			31.8	0.4	0.4	0.4	0.4		1	06/01/92
00041			32.0	0.6	0.6	0.6	0.6		1	06/01/92
00042			27.4	-4.0	-4.0	-4.0	-4.0		1	06/01/92

Q.C. Release	Process No.	Reported Date	Date Received	Page	Minimum Detectable Dose In This Process Millirems Ambient Dose Equivalent
1B	E0021A	16-Oct-92	08-Sep-92	2	0.14

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS ACCOUNT NO. SERIES CODE
 WESTINGHOUSE ELECTRIC 290021
 ATTN : JIM FLANAGAN
 HAYBAKER RD & NORTHERN
 PIKE ROAD
 MONROEVILLE, PA 15146

FOR EXPOSURE PERIOD 06/01/92

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)		CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUSTMENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS	NET						
00043			31.8	0.4	0.4	0.4	0.4	1	06/01/92	
00044			31.1	-0.3	-0.3	-0.3	-0.3	1	06/01/92	
00045			29.4	-2.0	-2.0	-2.0	-2.0	1	06/01/92	
00046			28.2	-3.2	-3.2	-3.2	-3.2	1	06/01/92	
00047			30.7	-0.7	-0.7	-0.7	-0.7	1	06/01/92	
00048			38.0	6.6	6.6	6.6	6.6	1	06/01/92	
00049			29.0	-2.4	-2.4	-2.4	-2.4	1	06/01/92	
00050			28.0	-3.4	-3.4	-3.4	-3.4	1	06/01/92	
00051			31.6	0.2	0.2	0.2	0.2	1	06/01/92	
00052			27.3	-4.1	-4.1	-4.1	-4.1	1	06/01/92	
00053			29.6	-1.8	-1.8	-1.8	-1.8	1	06/01/92	
00054			26.3	-5.1	-5.1	-5.1	-5.1	1	06/01/92	
00055			30.8	-0.6	-0.6	-0.6	-0.6	1	06/01/92	
00056			30.4	-1.0	-1.0	-1.0	-1.0	1	06/01/92	
00057			32.0	0.6	0.6	0.6	0.6	1	06/01/92	
00058			25.5	-5.9	-5.9	-5.9	-5.9	1	06/01/92	
00059			28.0	-3.4	-3.4	-3.4	-3.4	1	06/01/92	
00060			31.1	-0.3	-0.3	-0.3	-0.3	1	06/01/92	
00061			36.7	5.3	5.3	5.3	5.3	1	06/01/92	
00062		A								

NOTES (COLUMN 3) : A Absent

U.C. Release	Process No.	Reported Date	Date Received	Fase	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent
LD	E0021A	16-Oct-92	08-Sep-92	1	0.14

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS

WESTINGHOUSE ELECTRIC
 ATTN : JIM FLANAGAN
 HAYMAKER RD & NORTHERN
 PIKE ROAD
 MONROEVILLE • PA 15146

ACCOUNT NO.

290021

SERIES CODE

FOR EXPOSURE PERIOD

06/01/92

NET CUMULATIVE TOTALS (MILLIREMS)

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)		CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS	NET						
00063			30.7	-0.7	-0.7	-0.7	-0.7		1	06/01/92
00064			31.8	0.4	0.4	0.4	0.4		1	06/01/92
00065			30.4	-1.0	-1.0	-1.0	-1.0		1	06/01/92
00066			30.4	-1.0	-1.0	-1.0	-1.0		1	06/01/92
00067			26.8	-4.6	-4.6	-4.6	-4.6		1	06/01/92
00068			28.3	-3.1	-3.1	-3.1	-3.1		1	06/01/92
00069			28.8	-2.6	-2.6	-2.6	-2.6		1	06/01/92
00070			35.0	3.6	3.6	3.6	3.6		1	06/01/92
00071			33.5	2.1	2.1	2.1	2.1		1	06/01/92
00072			36.4	5.0	5.0	5.0	5.0		1	06/01/92
00073			35.2	3.8	3.8	3.8	3.8		1	06/01/92
00074			29.9	-1.5	-1.5	-1.5	-1.5		1	06/01/92
00075			30.5	-0.9	-0.9	-0.9	-0.9		1	06/01/92
00076			33.9	2.5	2.5	2.5	2.5		1	06/01/92
00077			31.4	0.0	0.0	0.0	0.0		1	06/01/92
00078			38.7	7.3	7.3	7.3	7.3		1	06/01/92
00079			32.3	0.9	0.9	0.9	0.9		1	06/01/92
00080			29.8	-1.6	-1.6	-1.6	-1.6		1	06/01/92
00081			28.3	-3.1	-3.1	-3.1	-3.1		1	06/01/92
00082			36.7	5.3	5.3	5.3	5.3		1	06/01/92
00083			27.5	-3.9	-3.9	-3.9	-3.9		1	06/01/92

Q.C. Release	Process No.	Reported Date	Date Received	Page	Minimum Detectable Dose In This Process Millirems Ambient Dose Equivalent
LB	E0021A	16-Oct-92	08-Sep-92	4	0.14

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS

WESTINGHOUSE ELECTRIC
ATTN : JIM FLANAGAN
HAYMAKER RD & NORTHERN
PIKE ROAD
MONROEVILLE , PA 15146

ACCOUNT NO.

290021

SERIES CODE

FOR EXPOSURE PERIOD

06/01/92

NET CUMULATIVE TOTALS (MILLIREMS)

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)		CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST-MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS	NET						
00084			27.1	-4.3	-4.3	-4.3	-4.3		1	06/01/92
00085			28.9	-2.5	-2.5	-2.5	-2.5		1	06/01/92
00086			26.5	-4.9	-4.9	-4.9	-4.9		1	06/01/92
00087			41.5	10.1	10.1	10.1	10.1		1	06/01/92
00088			22.4	-9.0	-9.0	-9.0	-9.0		1	06/01/92
00089			21.8	-9.6	-9.6	-9.6	-9.6		1	06/01/92
00090			30.2	-1.2	-1.2	-1.2	-1.2		1	06/01/92
00091			30.6	-0.8	-0.8	-0.8	-0.8		1	06/01/92
00092			29.4	-2.0	-2.0	-2.0	-2.0		1	06/01/92
00093			28.2	-3.2	-3.2	-3.2	-3.2		1	06/01/92
00094			30.0	-1.4	-1.4	-1.4	-1.4		1	06/01/92
00095			24.0	-7.4	-7.4	-7.4	-7.4		1	06/01/92
00096			26.8	-4.6	-4.6	-4.6	-4.6		1	06/01/92
00097			27.8	-3.6	-3.6	-3.6	-3.6		1	06/01/92
00098			26.6	-4.8	-4.8	-4.8	-4.8		1	06/01/92
00099			30.7	-0.7	-0.7	-0.7	-0.7		1	06/01/92
00100			25.4	-6.0	-6.0	-6.0	-6.0		1	06/01/92
00101			25.0	-6.4	-6.4	-6.4	-6.4		1	06/01/92
00102			24.8	-6.6	-6.6	-6.6	-6.6		1	06/01/92

U.C. Release	Process No.	Reported Date	Date Received	Page	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent
LD	E0021A	16-Oct-92	08-Sep-92	5	0.14

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS

WESTINGHOUSE ELECTRIC
 ATTN : JIM FLANAGAN
 HAYMAKER RD & NORTHERN
 PINE ROAD
 MONROEVILLE * PA 15146

ACCOUNT NO. SERIES CODE

290021

FOR EXPOSURE PERIOD

06/01/92

NET CUMULATIVE TOTALS (MILLIREMS)

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)		CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST-MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DAT. OF PERM. TOTAL
			GROSS	NET						
00103			24.3	-7.1	-7.1	-7.1	-7.1		1	06/01/92
00104			29.9	-1.5	-1.5	-1.5	-1.5		1	06/01/92
00105			23.5	-7.9	-7.9	-7.9	-7.9		1	06/01/92
00106			27.6	-3.8	-3.8	-3.8	-3.8		1	06/01/92
00107			27.8	-3.6	-3.6	-3.6	-3.6		1	06/01/92
00108			28.0	-3.4	-3.4	-3.4	-3.4		1	06/01/92
00109			29.5	-1.9	-1.9	-1.9	-1.9		1	06/01/92
00110			26.0	-5.4	-5.4	-5.4	-5.4		1	06/01/92
00111			25.8	-5.6	-5.6	-5.6	-5.6		1	06/01/92
00112			27.1	-4.3	-4.3	-4.3	-4.3		1	06/01/92
00113			35.3	3.9	3.9	3.9	3.9		1	06/01/92
00114			29.7	-1.7	-1.7	-1.7	-1.7		1	06/01/92
00115			25.5	-5.9	-5.9	-5.9	-5.9		1	06/01/92
00116			33.5	2.1	2.1	2.1	2.1		1	06/01/92
00117			26.8	-4.6	-4.6	-4.6	-4.6		1	06/01/92
00118			33.0	1.6	1.6	1.6	1.6		1	06/01/92
00119			32.2	0.8	0.8	0.8	0.8		1	06/01/92
00120			35.9	4.5	4.5	4.5	4.5		1	06/01/92
00121			27.8	-3.6	-3.6	-3.6	-3.6		1	06/01/92
00122			25.1	-6.3	-6.3	-6.3	-6.3		1	06/01/92
00123			28.4	-3.0	-3.0	-3.0	-3.0		1	06/01/92

Q.C. Release	Process No.	Reported Date	Date Received	Page	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent
LD	E0021A	16-Oct-92	08-Sep-92	6	0.14

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS
 WESTINGHOUSE ELECTRIC
 ATTN : JIM FLANAGAN
 HAYMAKER RD & NORTHERN
 PIKE ROAD
 MONROEVILLE , PA 15146

ACCOUNT NO. SERIES CODE
 290021

FUR EXPOSURE PERIOD 06/01/92

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)		CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS	NET						
00124			28.3	-3.1	-3.1	-3.1	-3.1		1	06/01/92
00125			31.8	0.4	0.4	0.4	0.4		1	06/01/92
00126			31.3	-0.1	-0.1	-0.1	-0.1		1	06/01/92
00127			29.7	-1.7	-1.7	-1.7	-1.7		1	06/01/92
00128			33.7	2.3	2.3	2.3	2.3		1	06/01/92
00129			34.1	2.7	2.7	2.7	2.7		1	06/01/92
00130			31.6	0.2	0.2	0.2	0.2		1	06/01/92
00131			27.5	-3.9	-3.9	-3.9	-3.9		1	06/01/92
00132			30.5	-0.9	-0.9	-0.9	-0.9		1	06/01/92
00133			29.6	-1.8	-1.8	-1.8	-1.8		1	06/01/92
00134			32.1	0.7	0.7	0.7	0.7		1	06/01/92
00135			25.4	-6.0	-6.0	-6.0	-6.0		1	06/01/92
00136			32.4	1.0	1.0	1.0	1.0		1	06/01/92
00137			31.0	-0.4	-0.4	-0.4	-0.4		1	06/01/92
00138			31.3	-0.1	-0.1	-0.1	-0.1		1	06/01/92
00139			26.7	-4.7	-4.7	-4.7	-4.7		1	06/01/92
00140			28.1	-3.3	-3.3	-3.3	-3.3		1	06/01/92
00141			44.4	13.0	13.0	13.0	13.0		1	06/01/92
00142			32.7	1.3	1.3	1.3	1.3		1	06/01/92
00143			35.9	4.5	4.5	4.5	4.5		1	06/01/92
00144			32.8	1.4	1.4	1.4	1.4		1	06/01/92

D.C. Release	Process No.	Reported Date	Date Received	Page	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent
LD	E0021A	16-Oct-92	08-Sep-92	7	0.14

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS
 WESTINGHOUSE ELECTRIC
 ATTN : JIM FLANAGAN
 HAYMAKER RD & NORTHERN
 PIKE ROAD
 MONROEVILLE , PA 15146

ACCOUNT NO. SERIES CODE
 290021

FOR EXPOSURE PERIOD 06/01/92

NET CUMULATIVE TOTALS (MILLIREMS)

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)		CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS	NET						
00145			24.4	-7.0	-7.0	-7.0	-7.0		1	06/01/92
00146			24.8	-6.6	-6.6	-6.6	-6.6		1	06/01/92
00147			23.2	-8.2	-8.2	-8.2	-8.2		1	06/01/92
00148			31.5	0.5	0.5	0.5	0.5		1	06/01/92
00149			35.1	3.7	3.7	3.7	3.7		1	06/01/92
00150			31.3	-0.1	-0.1	-0.1	-0.1		1	06/01/92
00151			35.0	3.6	3.6	3.6	3.6		1	06/01/92
00152			28.8	-2.6	-2.6	-2.6	-2.6		1	06/01/92
00153			39.0	7.6	7.6	7.6	7.6		1	06/01/92
00154			33.7	2.3	2.3	2.3	2.3		1	06/01/92
00155			33.1	1.7	1.7	1.7	1.7		1	06/01/92
00156			30.2	-1.2	-1.2	-1.2	-1.2		1	06/01/92
00157			30.0	-1.4	-1.4	-1.4	-1.4		1	06/01/92
00158			28.7	-2.7	-2.7	-2.7	-2.7		1	06/01/92
00159			30.5	-0.9	-0.9	-0.9	-0.9		1	06/01/92
00160			29.6	-1.8	-1.8	-1.8	-1.8		1	06/01/92
00161			29.0	-2.4	-2.4	-2.4	-2.4		1	06/01/92
00162			29.9	-1.5	-1.5	-1.5	-1.5		1	06/01/92
00163			28.7	-2.7	-2.7	-2.7	-2.7		1	06/01/92
00164			28.7	-2.7	-2.7	-2.7	-2.7		1	06/01/92
00165			28.8	-2.6	-2.6	-2.6	-2.6		1	06/01/92

Q.C. Release	Process No.	Reported Date	Date Received	Page	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent
LD	E0021A	16-Oct-92	08-Sep-92	8	0.14

ENVIRONMENTAL / LOW LEVEL DOSIMETRY REPORT

ADDRESS

WESTINGHOUSE ELECTRIC
 ATTN : JIM FLANAGAN
 HAYMAKER RD & NORTHERN
 PIKE ROAD
 MONROEVILLE , PA 15146

ACCOUNT NO.

290021

SERIES CODE

FOR EXPOSURE PERIOD

06/01/92

NET CUMULATIVE TOTALS (MILLIREMS)

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)		CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST- MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF PERM. TOTAL
			GROSS	NET						
00166			30.0	-1.4	-1.4	-1.4	-1.4		1	06/01/92
00167			30.7	-0.7	-0.7	-0.7	-0.7		1	06/01/92
00168			28.5	-2.9	-2.9	-2.9	-2.9		1	06/01/92
00169			27.2	-4.2	-4.2	-4.2	-4.2		1	06/01/92
00170			28.7	-2.7	-2.7	-2.7	-2.7		1	06/01/92
00171			31.0	-0.4	-0.4	-0.4	-0.4		1	06/01/92
00172			34.4	3.0	3.0	3.0	3.0		1	06/01/92
00173			31.0	-0.4	-0.4	-0.4	-0.4		1	06/01/92
00174			34.8	3.4	3.4	3.4	3.4		1	06/01/92
00175			30.1	-1.3	-1.3	-1.3	-1.3		1	06/01/92
00176			30.8	-0.6	-0.6	-0.6	-0.6		1	06/01/92
00177			27.9	-3.5	-3.5	-3.5	-3.5		1	06/01/92
00178			29.8	-1.6	-1.6	-1.6	-1.6		1	06/01/92
00179			31.8	0.4	0.4	0.4	0.4		1	06/01/92
00180			27.1	-4.3	-4.3	-4.3	-4.3		1	06/01/92
00181			31.6	0.2	0.2	0.2	0.2		1	06/01/92
00182			32.0	0.6	0.6	0.6	0.6		1	06/01/92
00183			31.4	0.0	0.0	0.0	0.0		1	06/01/92
00184			35.9	4.5	4.5	4.5	4.5		1	06/01/92
00185			30.1	-1.3	-1.3	-1.3	-1.3		1	06/01/92
00186			29.1	-2.3	-2.3	-2.3	-2.3		1	06/01/92

G.C. Release	Process No.	Reported Date	Date Received	Page	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent.
LD	E0021A	16-Oct-92	08-Sep-92	9	0.14

ENVIRONMENTAL / LOW LEVEL ROSTIMETRY REPORT

ADDRESS

WESTINGHOUSE ELECTRIC
 ATTN : JIM FLANAGAN
 HAYMAKER RD & NORTHERN
 PIKE ROAD
 MONROEVILLE , PA 15146

ACCOUNT NO. SERIES CODE

290021

FOR EXPOSURE PERIOD

06/01/92

NET CUMULATIVE TOTALS (MILLIREMS)

LOCATION ID NUMBER	IDENTIFIER (CLIENT SUPPLIED)	NOTE CODE	EXPOSURE OF DOSIMETER (MILLIREMS AMBIENT DOSE EQUIVALENT)	CALENDAR QUARTER	YEAR TO DATE	PERMANENT	ADJUST-MENTS	NUMBER OF DOSIMETERS REPORTED	INCEPTION DATE OF -ENR. TOTAL
			GROSS						
			NET						
00187			30.6	-0.8	-0.8	-0.8		1	06/01/92
00188			33.6	2.2	2.2	2.2		1	06/01/92
00189			29.2	-2.2	-2.2	-2.2		1	06/01/92
00190			28.6	-2.8	-2.8	-2.8		1	06/01/92

O.C. Release	Process No.	Reported Date	Date Received	Page	Minimum Detectable Dose In This Process, Millirems Ambient Dose Equivalent
LI	E0021A	16-Oct-92	08-Sep-92	10	0.14

APPENDIX C

TECHNICAL INFORMATION ON THE DOSIMETERS

90 " X-9
Environmental
Monitors
On desk
5-6-92

LANDAUER

RECEIVED
MAY 4 1992

May 1, 1992

Westinghouse Electric Corp.
P.O. Box 355
Pittsburgh, PA 15230

Dear Jim Flanigan:

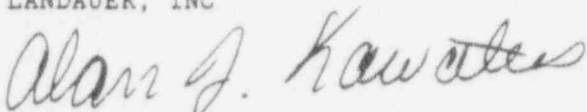
Thank you for your interest in our radiation dosimetry service. We have been in the dosimetry business for over 35 years and supply many institutions in your area. Enclosed is our current price list/order form and a copy of our current brochures for your perusal. A "Quick Reference Guide" carefully detailing instructions for using the service is sent with the initial shipment to ensure trouble free service.

Our prices are moderate and are based on minimum order periods of thirteen weeks on a weekly exchange basis or twelve months on a monthly basis, with an initial set-up charge for each individual. Won't you complete the enclosed order form and return it to us promptly; it will receive our immediate attention.

If you need assistance to place your order you may call collect (708) 755-7000 and ask for the New Order Desk. If calling "COLLECT" you must ask for the "NEW ORDER DESK".

Sincerely,

LANDAUER, INC



Alan J. Kawaters
Director of Sales

AJK/vb
Enclosures

LANDAUER

ENVIRONMENTAL/LOW LEVEL DOSIMETRY ALUMINUM OXIDE "X9" SERVICE

CONTROL DOSIMETERS

Two types of control dosimeter accompany each shipment, at no charge, to monitor radiation exposure of the dosimeters during transit, while in storage, and during field deployment and retrieval. CONTROL DOSIMETERS SHOULD NOT BE USED FOR ANY OTHER PURPOSE. Control dosimeters and any other dosimeters not in use should be kept free from radiation exposure and high temperatures. Control dosimeters should be returned with the dosimeters of the same issue (use) date.

The control dosimeter labeled "TRANSIT CONTROL" measures radiation exposure during shipment from Landauer to your main facility and during shipment from your main facility back to Landauer for analysis. It should stay at your main facility between receipt of the shipment and return of the shipment. It should be stored in the same location as any dosimeters which are not at field sites.

You should carry the control dosimeter labeled "DEPLOYMENT CONTROL" when you place dosimeters at their field monitoring locations. It should then be stored in a low radiation shielded location at a satellite field facility or site* or stored at your main facility. The "DEPLOYMENT CONTROL" should also accompany you during retrieval of the dosimeters from their field monitoring locations. It should then stay at your main facility with the dosimeters and the "TRANSIT CONTROL" until the dosimeters are returned to Landauer for analysis.

There is an individual "DEPLOYMENT CONTROL" dosimeter supplied for each series in a series account. "DEPLOYMENT CONTROL" dosimeters measure radiation exposure during shipment and during placement and retrieval of dosimeters in the field. "DEPLOYMENT CONTROL" dosimeters are used to calculate net exposure of the issued dosimeters and of the "TRANSIT CONTROL." The reported dose of the "TRANSIT CONTROL" will typically be a negative value since its exposure is usually less than that of the "DEPLOYMENT CONTROL."

*Appendix B, "Use of Control TLD's for Isolating Field Exposures," American National Standard No. N545-1975, Performance, Testing, and Procedural Specifications for Thermoluminescence Dosimetry (Environmental Applications), American National Standards Institute, Inc., 105-111 South State Street, Hackensack, New Jersey 07601

LANDAUER

THERMOLUMINESCENT MATERIALS FOR ENVIRONMENTAL MONITORING

Ronald E. Zelac, Ph.D., C.H.P., C.M.P.
January, 1992

This paper presents information about the various thermoluminescent (TL) materials used for monitoring of radiation exposures in the environment. It will become apparent that the material which has been chosen by Landauer for use in an environmental/low level monitor now being introduced has a combination of properties which make the monitor significantly better for this purpose than other commercially available TL based devices.

In a recently reported intercomparison of environmental monitors based on TL (Ma90), 51% of the TL materials used were calcium compounds and 35% were LiF:Mg,Ti. The principal advantages of LiF:Mg,Ti (TLD-100) are an effective atomic number relatively close to that of wet tissue (8.1 for TLD-100 compared to 7.4 for tissue), important for response vs. photon energy without need for significant correction, and low fade rate of latent signal, approximately 5% per year (Pi81). Calcium compounds, those commonly used including CaF₂:Dy, CaF₂:Mn, CaSO₄:Dy, and CaSO₄:Tm have the advantage of increased sensitivity (lower reported minimum detectable doses) compared to TLD-100 but the disadvantages of great over response at low photon energies because of the relatively high effective atomic number of all of them, driven by the calcium, and generally higher fade rates than TLD-100. Thus, to gain the added sensitivity desirable for environmental monitoring (TLD-100 having minimum detectable doses generally stated to be 1 mrem), significantly worsened photon energy response and generally poorer latent signal retention properties have been the compromise. Efforts to improve the energy response of calcium TL materials require the use of appropriate shielding materials, but these affect sensitivity (Pi81). For CaF₂:Dy, a manufacturer-suggested (So91) post-exposure, pre-evaluation anneal is said to normalize fading, but it does not, as claimed, eliminate or even significantly reduce the appreciable fading (16% in two weeks) of this material (Ra92).

Over the years, a wide variety of materials have been investigated for their suitability in TL environmental monitors. These studies resulted in the above-discussed materials being the ones most widely used for this purpose. Also in use are Li₂B₄O₇:Mn and Li₂B₄O₇:Cu. The Li₂B₄O₇:Mn, with Zeff=7.3, removes

January, 1992

R. E. Zelac, Ph.D.

TL Materials for Environmental Monitoring

most of the effective atomic number mismatch with tissue of the calcium compounds but does this with a significant decrease in sensitivity (Sh91) compared to LiF:Mg,Ti, having a minimum reportable dose of approximately 10 mrem or more (So91). Fading, however, becomes significant at up to 10% per month. The $\text{Li}_2\text{B}_4\text{O}_7:\text{Cu}$ has sensitivity greater than that of $\text{Li}_2\text{B}_4\text{O}_7:\text{Mn}$ by approximately a factor of 20, (Sh91) which puts it approximately equivalent in sensitivity to LiF:Mg,Ti. Fading remains significant at up to 10% per month (Pa84).

More recently, two additional materials, LiF:Mg,Cu,P and $\text{Al}_2\text{O}_3:\text{C}$ have been considered for use as TL-based environmental monitors. Both of them have exceptionally low minimum detectable doses (MDD's), i.e., have high sensitivity for photon radiation. LiF:Mg,Cu,P's MDD is reported to be 0.01 mrem as is that for $\text{Al}_2\text{O}_3:\text{C}$ (Lu91). In this respect, both are considerably better than the presently used Li and most Ca based materials. LiF:Mg,Cu,P has an effective atomic number of approximately 8.3 while that for $\text{Al}_2\text{O}_3:\text{C}$ is 10.2, both more desirable than the calcium based fluors with respect to low energy photon response. LiF:Mg,Cu,P has a reported latent signal fade rate of 3% per month at elevated temperature (50 degrees Centigrade), and that for Al_2O_3 is claimed to be 3% per year at ambient temperature (Lu91), comparable to somewhat less than that for TLD-100. Thus, based on these factors, it would appear that significant overall improvement in environmental monitoring could be achieved by the use of either LiF:Mg,Cu,P or $\text{Al}_2\text{O}_3:\text{C}$. However, for the following reasons based on experimental results, LiF:Mg,Cu,P has been deemed to not be most suitable for use at this time.

1. Residual dose is a problem. Dosimeters require multiple readouts to clear for reuse (We91).
2. Annealing is suggested before reuse after accumulated exposures exceeding 100 mR (Lu91).
3. Energy response is not as favorable as for other high sensitivity TL materials (We91). For example, the response at 100 keV is reported to be 20% less than that at 33 keV and 660 keV (Lu91).

Therefore, $\text{Al}_2\text{O}_3:\text{C}$ appears to be the material of choice for environmental monitoring, superior overall to other TL materials used or available. The environmental monitors being introduced by Landauer, based on these considerations and extensive field and laboratory testing, utilize $\text{Al}_2\text{O}_3:\text{C}$ TL material.

January, 1992
R. E. Zelac, Ph.D.
TL Materials for Environmental Monitoring

References

- Lu91 Lucas, A. and Kapsar, B., 1991, "Characteristics of aluminum oxide- $Al_2O_3:C$," Victoreen, Inc. unpublished data.
- Ma90 Maiello, M., Gulbin, J., de Planque, G., and Gesell, T., 1990, "8th international intercomparison of environmental dosimeters," *Rad. Prot. Dosimetry* 32, 91-98.
- Pa84 Panasonic Industrial Company, 1984, "Panasonic new TLD TL badge system," Brochure no. PDD-84-001.
- Pi81 Piesch, E., 1981, "Application of TLD systems for environmental monitoring," in: *Applied Thermoluminescence Dosimetry* (Edited by M. Oberhofer and A. Scharmann), pp. 197-228 (Bristol, GB: Adam Hilger Ltd.).
- Ra92 Ramlo, M., 1992, Solon Technologies, Inc., personal communication.
- Sh91 Shani, G., 1991, *Radiation Dosimetry Instrumentation and Methods* (Boca Raton, FL; CRC Press).
- So91 Solon Technologies, Inc, 1991, "TLD systems & materials/performance specifications," Brochure no. TL203.
- We91 Wernli, C. and Merk, M., 1991, "Evaluation of new TL materials for environmental dosimetry," presented at Third Conference on Radiation Protection and Dosimetry, 21-24 October, 1991, Orlando, FL, abstract in *Third Conference on Radiation Protection and Dosimetry, Program and Abstracts, Report ORNL/TM-11882* (Oak Ridge, TN: Oak Ridge National Laboratory).

d:envmon.rz

Introducing Landauer's environmental/low level dosimetry service



Introducing Landauer's environmental/low level dosimetry service, designed to provide accurate reporting to 0.1 mrem. For years, many organizations have measured in environmental and low level exposure conditions with badges known to be better suited for the needs of personnel monitoring. Now Landauer introduces a significantly improved dosimeter designed specifically for use in environmental and other low level applications - the Landauer "X9" aluminum oxide TLD dosimeter.

Landauer's objective was to develop a truly unique dosimeter that was rugged enough to withstand the rigors of outdoor usage and environmental extremes, but sensitive enough to measure to tenths of a millirem.

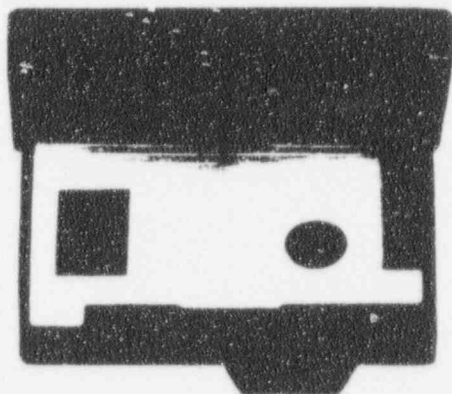
Laboratory and field testing validated the efficacy of highly sensitive aluminum oxide TLDs and found them superior for this purpose, with distinct advantages over other available materials. Our packaging - a compact, light tight holder sealed in a heavy duty vinyl pouch - was subjected to a variety of environmental challenges, including heat, freezing and submersion in water. The result - a rugged, easy-to-use dosimeter, highly sensitive and accurate, for measuring very low levels of radiation exposure.

APPLICATIONS

- Environmental Monitoring - site characterization, site boundaries, offsite, compliance with administrative and regulatory requirements
- Low Level Exposure Studies - area monitoring, shielding studies, special studies
- Determining Exposure to Members of the Public - ensure compliance with current guidelines and upcoming regulations in the revised Title 10 Part 20 of the Code of Federal Regulations (10CFR20) which limit dosage for non-occupationally exposed persons to 100 mrem annually (or less), a factor of five lower than previously required

*Not recommended
for greater than 3 mo
deployment*

BY
Landauer



Environmental/low level dosimetry aluminum oxide "X9" service specifications

DOSIMETER

- Thermoluminescent element - aluminum oxide ($Al_2O_3:C$)
- Favorable atomic number (10.2) compared to calcium-based TL materials (14-16)
- Number of TLDs per device-2
- Minimum Detectable Dose - nominally 0.1 mrem; reporting to tenths of a millirem ambient dose equivalent
- Maximum Dose (linear range) - 100 rem; if exposure at a level of 25 rem or higher is suspected, notify Landauer in advance of return so that special processing can be performed
- Fade - During three months of deployment, fade is negligible under normal indoor conditions and less than 10% for most extreme environmental conditions

PACKAGING

- Holder - opaque, matte black polypropylene plastic
- Tamper resistant pouch - heavy duty vinyl; sealed to secure holder
- Mode of attachment - pouch has multiple slots to permit several methods of attachment
- Configuration - one holder (2 TLDs) per pouch
- Usage - both indoor and outdoor; designed to withstand extremes of temperature, humidity, precipitation, other environmental conditions
- Laser engraved ID - will not smear or fade

ADMINISTRATIVE

- Controls - 2 provided per shipment free of charge; one for field deployment/retrieval, used to measure exposure during shipment and placement/collection, and one for transit, used to measure exposure during shipment only. The deployment/retrieval control is used to calculate net exposure
- Shipment frequency - all routine frequencies: monthly, quarterly, one time only, etc.
- Lost/unreturned dosimeters-fee is charged for those lost or unreturned
- Reporting - gross dosage and net dosage of device will be reported. Gross dosage will include the dosage to the controls. For each batch processed, the minimum detectable dose for that batch will be reported

LANDAUER®

Landauer, Inc.
2 Science Road Glenwood, Illinois 60425-1586
Telephone: (708) 755-7000 Facsimile: (708) 755-7016

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

EVALUATION OF PORTIONS OF
MONITORED DRAIN LINE SYSTEM ABANDONED IN PLACE

NOVEMBER 24, 1992

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

Report #003

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

MI 10

#

117646

EVALUATION OF PORTIONS OF MONITORED DRAIN LINE SYSTEM
ABANDONED IN PLACE

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Justification for Leaving Monitored Drain Line Section Beneath Building 6A	2-3
Current Status	3
Conclusions	3
Appendix A - Radiological Survey Results for Vent Pipe Openings	
Appendix B - Analytical Laboratory Reports	
Appendix C - Radiological Survey Of Pipe Section	

EVALUATION OF PORTIONS OF MONITORED DRAIN LINE SYSTEM
ABANDONED IN PLACE

Purpose

The Westinghouse Electric Corporation is preparing to request the termination of USNRC License Number SNM-951 for the site located in Large, PA. This report is one of a series of reports that presents the necessary information to establish that the site meets all applicable regulatory requirements so that the license can be terminated by the United States Nuclear Regulatory Commission.

Scope

This report presents an evaluation and justification as to why specific sections of the Monitored Drain Line System have been "Abandoned in Place" rather than removed. A separate report was prepared to describe the overall removal project (Report #002).

Description Of Monitored Drain Line System

Figure 1 shows an overall layout of the Monitored Drain Line (MDL) piping that was removed. Report #002 provides a more detailed description of the MDL system and the removal project. During the removal project, every section of piping uncovered was followed to its termination. With the following exceptions, the piping was removed and packaged for shipment to other licensed operations:

- 1) Four vent lines were identified which vented the MDL system up to the roof level. The location of these vent lines is shown on Figure 1 with more specific locations identified on the floor plans presented in Figures 2, 3 and 4.
- 2) A portion of the piping located beneath Building 6A was found to be encased in concrete. Figure 5 shows all the MDL piping that was located beneath Building 6A and identifies those sections which have been abandoned in place.

Justification For Leaving Vent Pipes

Each of the four vent pipes connected to the MDL system were removed to a height approximately three to four feet above the buried sections of piping. The remaining vent pipe was in general located within the walls up to the roof levels and in some cases was needed to reconnect as a vent for other piping systems. In each case, the exposed opening of the vent pipe was surveyed by the following radiological techniques:

- 1) A smear survey for removable radioactive material on the inside surfaces of the vent pipe as far as could be reached.
- 2) An instrument survey for beta radiation at the opening of the pipe.

The results of these surveys are included in Appendix A. The surveys did not indicate the presence of radioactive material within the vent pipes. None would be expected, since it would not be possible to have gotten contaminated liquids up to the levels of the piping that was exposed. In all cases, an investigation was conducted to assure that the vent pipe was not actually a drain line for process equipment that had been located at a higher level. Based on these investigations, it was determined that the vent lines could be left in place.

Justification For Leaving MDL Section Beneath Building 6A

Figure 5 provides a schematic of the MDL piping that was beneath Building 6A and identifies that portion that remains in place. It is important to understand that the portion that remains in place was not a part of the original MDL system that existed during the 1960's and early 1970's when the NERVA project was undertaken for the U. S. Atomic Energy Commission on the Large Site. After the NERVA project in 1970, Building 6A was extensively renovated to install a massive concrete bed in order to conduct seismic testing. During the construction of the reinforced concrete structure, it was necessary to relocate a portion of the MDL system. Figure 5 indicates the approximate location of the original piping. All of the piping that remains in place is "new" pipe that was installed after the NERVA project and was never known to have been used to transport any radioactive liquids. During the tunneling project to remove the MDL piping beneath Building 6A, the section of piping that was eventually left in place was found to be encased in concrete.

Rather than remove this portion of "new" piping, the following actions were taken:

- 1) The section of "new" pipe that was exposed in the pit in Building 6A was removed. A sample of the dirt found inside the pipe was collected for analysis. A section of pipe approximately one foot long was cut in half to enable a better radiological survey of the pipe.

- 2) The inside diameter of that portion of piping that was to remain was cleaned by passing a rotating wire brush through the pipe three times. All loose debris collected during the cleaning process was submitted for analytical analysis.
- 3) The two sections of pipe were filled with concrete grout and the two exposed faces in the pit area were resurfaced.

The analytical results for the two samples taken are presented in Table 1 and the Analytical Report sheets are included as Appendix B. No detectable radioactive material was identified in either sample of material removed from the inside of the pipe. The radiological survey of the piece of pipe that was split in half is given in Appendix C. Again there was no detectable radioactive material on the inside surfaces. This information indicates that this "new" piping had never been exposed to any contaminated liquids.

Current Status

The vent pipes remain in place and in two cases are connected to other piping systems. The section of piping remaining beneath Building 6A is both filled with cement grout and encased in concrete. It would be physically impossible for there to be any future use of that pipe.

Conclusions

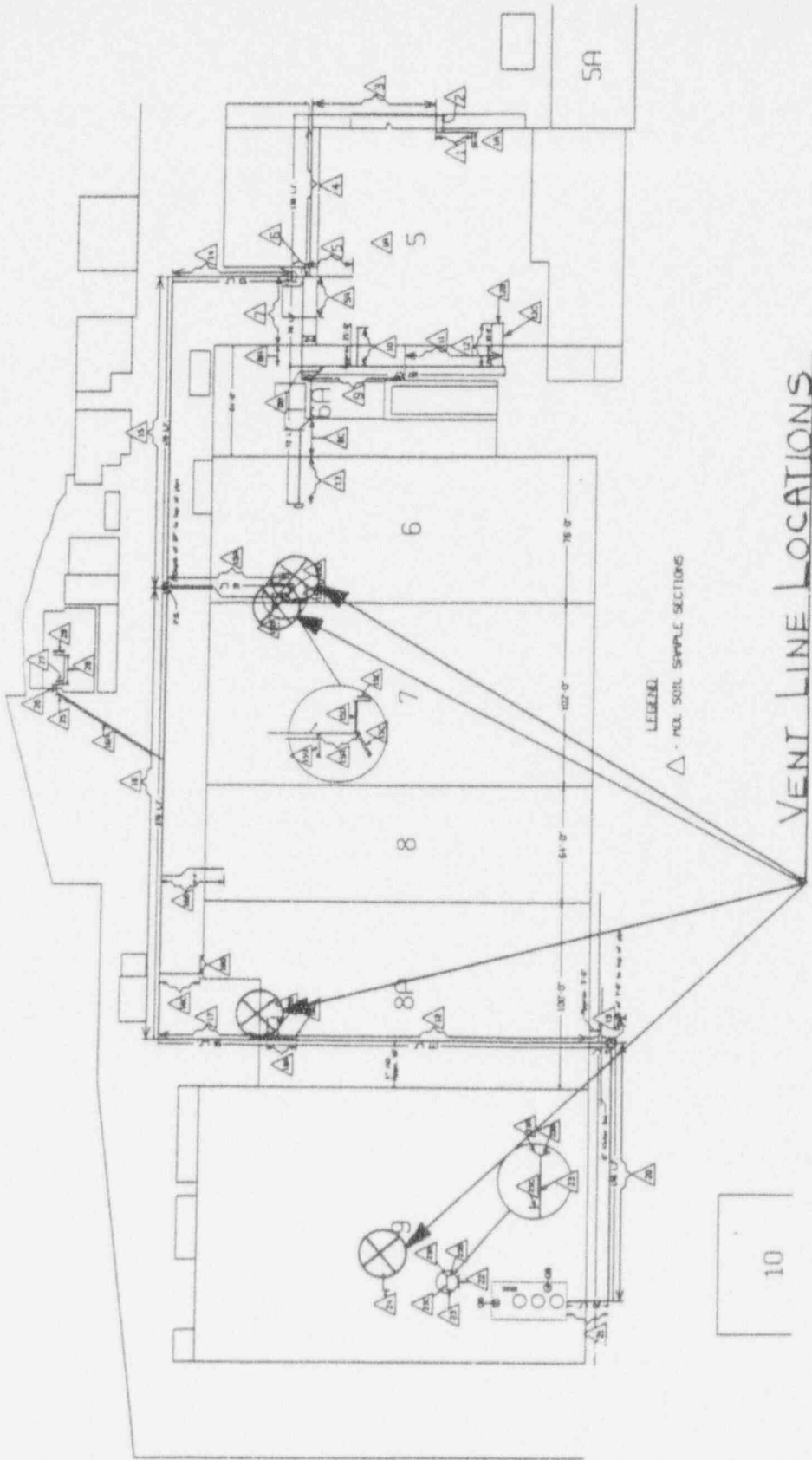
The radiological surveys of the vent pipes and the pipe beneath Building 6A indicate that there is no detectable residual radioactive material present. Thus, this piping may remain in place as described in this report.

TABLE 1

ANALYTICAL RESULTS FOR MATERIAL REMOVED FROM SECTION 8
OF MONITORED DRAIN LINE


PROJECT ID	ANALYTICAL LABORATORY NUMBER	DESCRIPTION	U-235 PcI/GRAM (WET BASIS)
418-08	92-2654	Sediment from inside pipe - Seismic Table	<4.40E-01
491-8C-14	92-2883	Material collected from pipe cleanout.	<2.40E-01

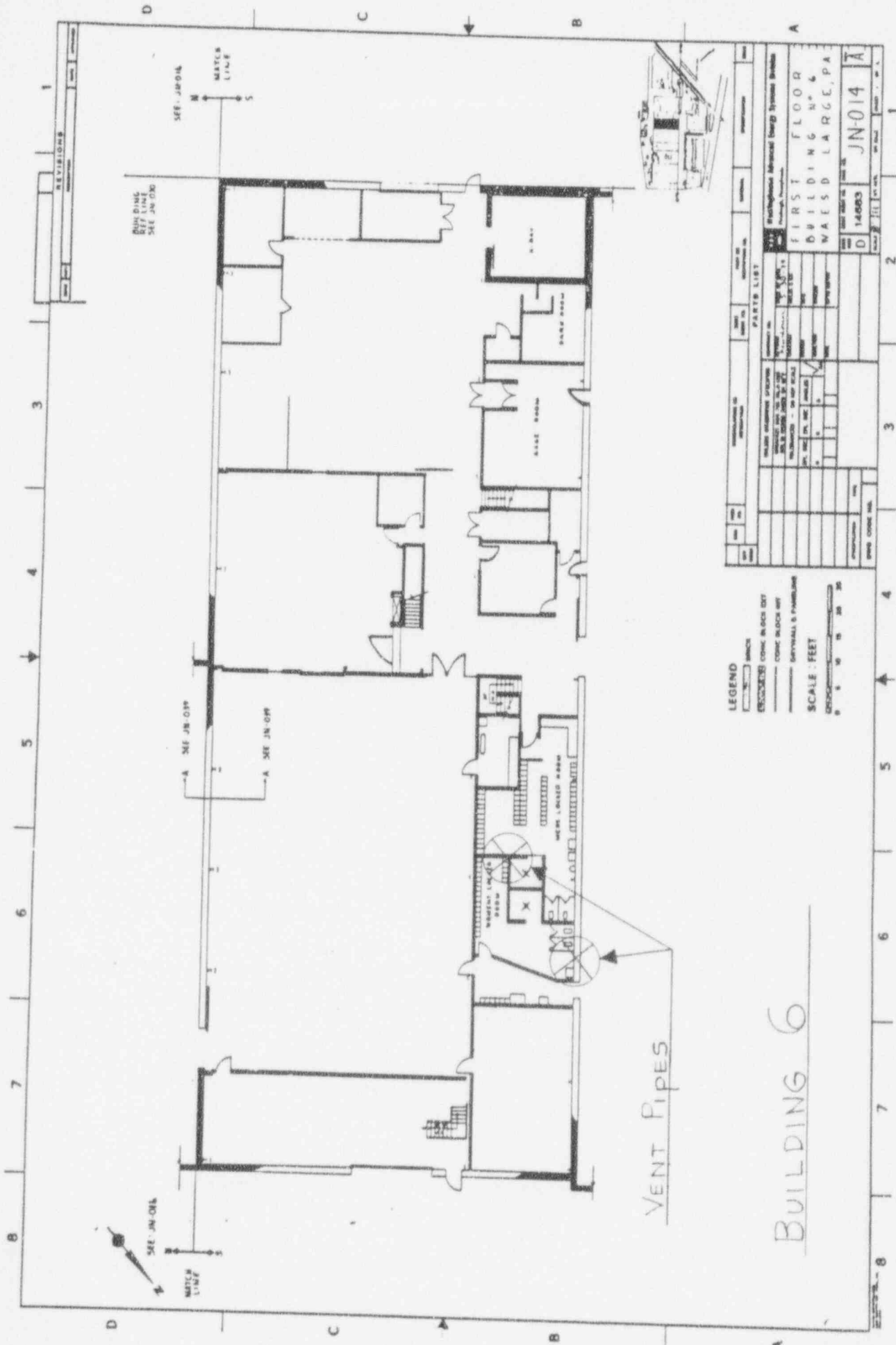
MDL SECTION BREAKDOWN
FOR SOIL SAMPLE CONSIDERATIONS



VENT LINE LOCATIONS

FIGURE 1

REVISIONS	designer	 WESTINGHOUSE ELECTRIC CORPORATION ENERGY SYSTEMS BUSINESS UNIT FACILITIES ENGINEERING & DESIGN ENERGY CENTER, MONROEVILLE, PA.	TITLE: LARGE SITE MONITOR DRAW LINE		MDL-1
	des. eng.		SOIL SAMPLE SECTION LOCATIONS		
	mech. eng.		SCALE: N.T.S.	DATE: 12-14-92	
	elec. eng.		SHEET	OF	
	cust. app.				
app.	oper. mgr.	DATE: 12-14-92			
	fac. mgr.				



LEGEND

- CONDENSER COND. BLOCK DET.
- COND. BLOCK DET.
- REF. LINE
- SEWER & FLOORING

BUILDING 6

VENT PIPES

PARTS LIST			
QTY	DESCRIPTION	UNIT	MARKING

Project Name		Project No.	Revision No.
FIRST FLOOR		D 14863	JN-014
BUILDING N° 6		DATE	
WAESD LARGE, PA		BY	

FIGURE 2

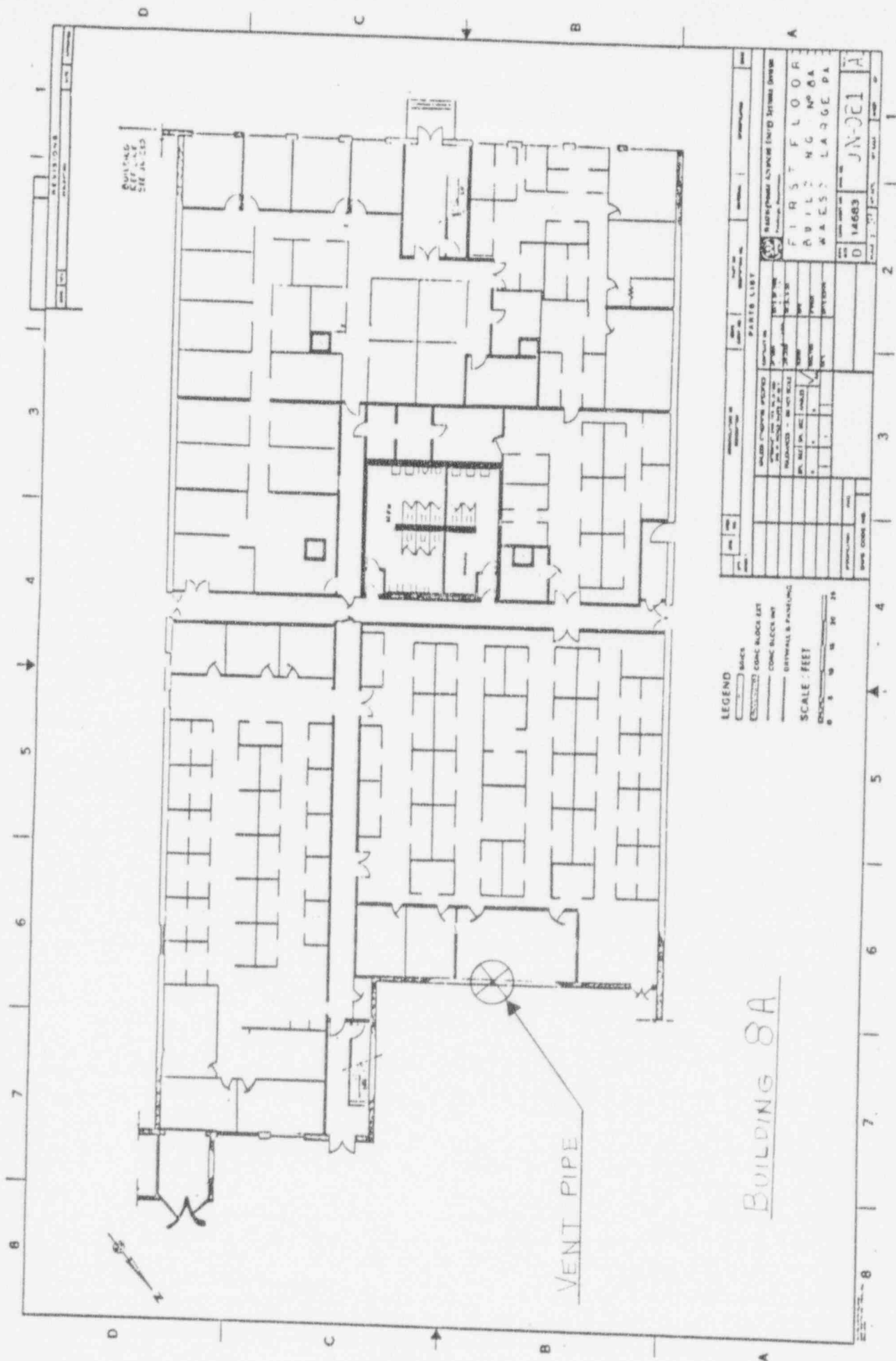


FIGURE 3

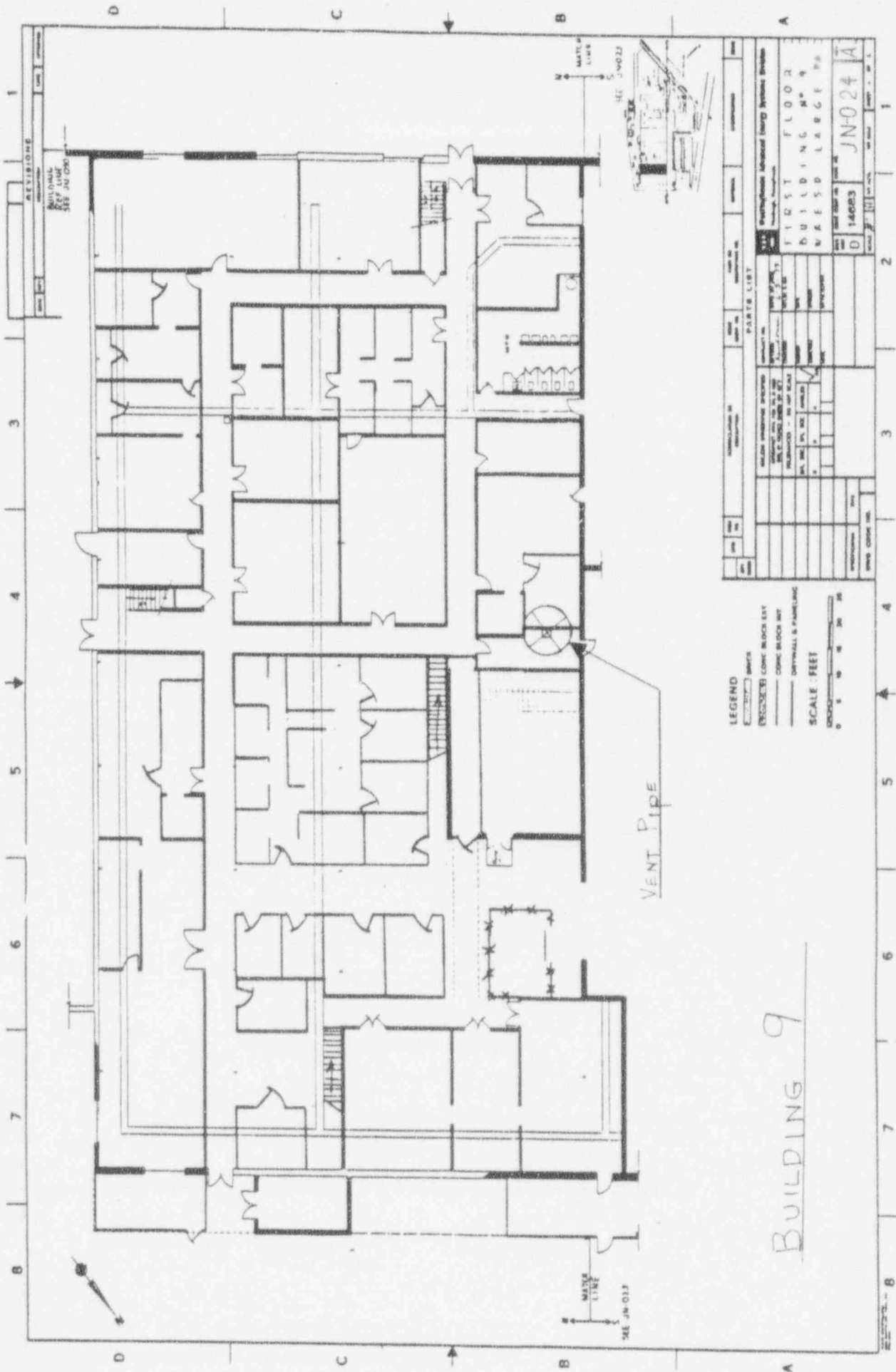
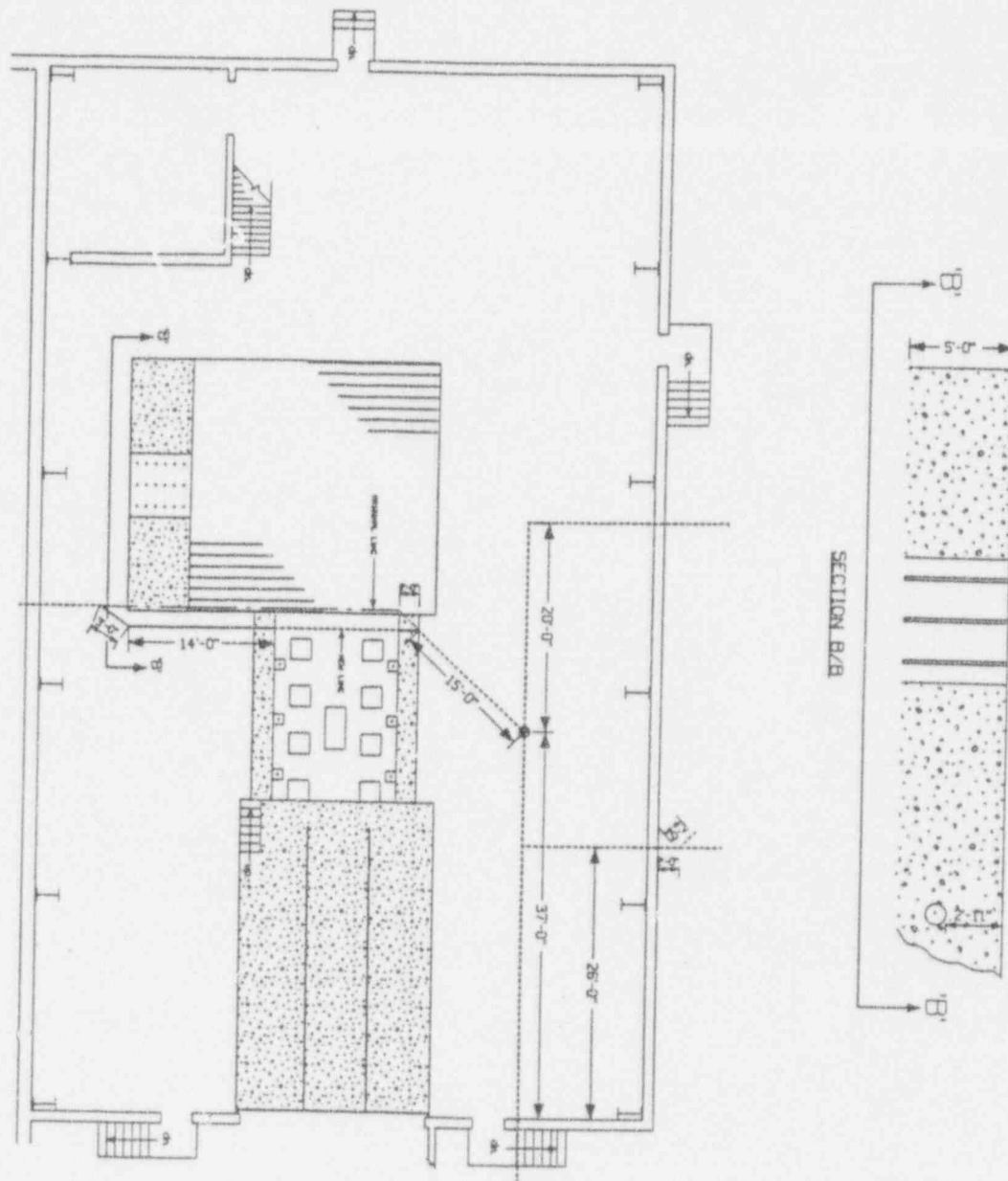


FIGURE 4

BUILDING 9



LEGEND

----- ORIGINAL LINE

----- NEW LINE

----- LINE LEFT IN PLACE


REVISIONS	designer dtp <i>Diana P. DeLorenzo</i>	 WESTINGHOUSE ELECTRIC CORPORATION ENERGY SYSTEMS BUSINESS UNIT FACILITIES ENGINEERING & DESIGN ENERGY CENTER, MONROEVILLE, PA.	TITLE: MONITOR DRAIN LINE		
	des. eng. <i>Raymond</i>		BUILDING 6A LARGE SITE		
	mech. eng.		job #	scale n/a	date 11/24/92
	elec. eng.		storage	sheet	of 1
	cust. app.				
	app.				
	oper. mgr.				
	fac. mgr.				
					S-1

FIGURE 5

APPENDIX A

RADIOLOGICAL SURVEY RESULTS
FOR VENT PIPE OPENINGS

=====
 I H&S FORM I
 #1006
 LRD 3/88
 =====

 ROUTINE AREA
 SHEAR & RADIATION SURVEY



LOCATION B/D 8A / LARGE S.T.C	SURVEYOR L. SMITH	SURVEY DATE 7-10-92
MTD STORAGE RM	COUNTED BY S. Gillespie	COUNT DATE 7-10-92

BETA/GAMMA

ALPHA

COUNTER NO.	Gm 2 DC4					ALPHA / SA 4	
BKG. (CPM)	24.1 CPM	CPM	CPM	CPM	CPM	.25 CPM	CPM
EFF. (%)	17.3 %	%	%	%	%	33.3 %	%

ACTIVITY IN :	REMARKS : < 200 DPM / 100 cm²β	< 10 DPM / 100cm²α
<input type="checkbox"/> UCI <input checked="" type="checkbox"/> DPM <input type="checkbox"/> CPM	SURVEY INSTRU. MODEL	SN. NO. PROBE TYPE

	α	β		α	β		α	β		α	β		α	β
1	0	0	16			31			46			61		
2	0	0	17			32			47			62		
3	0	0	18			33			48			63		
4	0	0	19			34			49			64		
5	0	0	20			35			50			65		
6	0	0	21			36			51			66		
7	0	0	22			37			52			67		
8	0	0	23			38			53			68		
9	0	0	24			39			54			69		
10	0	0	25			40			55			70		
11			26			41			56			71		
12			27			42			57			72		
13			28			43			58			73		
14			29			44			59			74		
15			30			45			60			75		

SMEAR NOS.	SMEAR LOCATION
1-10	MTD STORAGE RM

ACTION ITEMS OR COMMENTS	DATE CORRECTED	HP INIT.
VENT PIPES IN WALL		
CUTTING EQUIPMENT		SDG

(SEE BACK FOR AREA DIAGRAM, SMEAR LOCATIONS, AND RADIATION LEVELS)

=====
 I H&S FORM I
 I #1006 I
 I LRD 3/88 I
 =====

 * ROUTINE AREA *
 * SMEAR & RADIATION SURVEY *



LOCATION <i>See notes</i> <i>(Vent pipes)</i>	SURVEYOR <i>D. Shaffer</i>	SURVEY DATE <i>12-15-92</i>
	COUNTED BY <i>D. Shaffer</i>	COUNT DATE <i>12-15-92</i>

COUNTER NO.	BETA/GAMMA			ALPHA		
	GM-2	ALPHA 3	E-520			
BKG. (CPM)	<i>27.5</i> CPM	<i>3</i> CPM	<i>50</i> CPM	CPM	CPM	CPM
EFF. (%)	<i>17.9</i> %	<i>34.3</i> %	<i>20.3</i> %	%	%	%

ACTIVITY IN :	REMARKS : — < 200 DPM / 100 cm ² BT — < 10 DPM / 100cm ² α
<input type="checkbox"/> CI <input type="checkbox"/> DPM <input checked="" type="checkbox"/> CPM	SURVEY INSTRU. MODEL <i>E 520</i> SM. NO. <i>5242</i> PROBE TYPE <i>PG-44</i>

	α	β		α	β		α	β		α	β		α	β
1	<i>0</i>	<i>20</i>	16			31			46			61		
2	<i>0</i>	<i>19</i>	17			32			47			62		
3	<i>0</i>	<i>20</i>	18			33			48			63		
4	<i>0</i>	<i>20</i>	19			34			49			64		
5	<i>0</i>	<i>20</i>	20			35			50			65		
6	<i>0</i>	<i>20</i>	21			36			51			66		
7			22			37			52			67		
8			23			38			53			68		
9			24			39			54			69		
10			25			40			55			70		
11			26			41			56			71		
12			27			42			57			72		
13			28			43			58			73		
14			29			44			59			74		
15			30			45			60			75		

SMEAR NOS.	SMEAR LOCATION
<i>1</i>	<i>VENT PIPE BLDG 9 Hwy</i>
<i>2</i>	<i>" " "</i>
<i>3</i>	<i>VENT PIPE BLDG 6 Bldg</i>
<i>4</i>	<i>" " "</i>
<i>5</i>	<i>" " " KITH</i>
<i>6</i>	<i>" " "</i>

ACTION ITEMS OR COMMENTS	DATE CORRECTED	HP INIT.
<i>50 cpm Bkg 50 cpm on vent pipes.</i>		
<i>40 cpm Bkg 50 cpm</i>		
<i>" " "</i>		
<i>" " "</i>		
<i>" " "</i>		

(SEE BACK FOR AREA DIAGRAM, SMEAR LOCATIONS, AND RADIATION LEVELS)

APPENDIX B

ANALYTICAL LABORATORY REPORTS

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14840

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/26/92
Reported: 8/31/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 26, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
414	92-2650	6.00E-01	+/- 3.4E-01		
415	92-2651	<3.9E-01	+/- 2.3E-01		
416	92-2652	<2.4E-01		3.19E-01	+/- 1.7E-01
417	92-2653	<1.5E-01			
418	92-2654	<4.4E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14840
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kurth

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14884

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/30/92
Reported: 10/1/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 30, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis) pCi/gram	2 sigma
491	92-2883	<2.4E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14884
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

APPENDIX C

RADIOLOGICAL SURVEY OF PIPE SECTION



Form S/N: 24-003

SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> RWP <input checked="" type="checkbox"/> (RWP #)		SURVEY DATE: 9-3-92
LOCATION: H.P. OFFICE LARGE SIDE		SURVEY TIME: 9-3-92
INSTRUMENT: PAC 4G	SERIAL # 4478	PROBE TYPE: AC-21 B
INSTRUMENT: PAC 4G	SERIAL # 4478	PROBE TYPE: AC-21

DESCRIPTION OF SURVEY

PIPE SECTION FROM WEST FACE TUNNEL TO GA

SURVEY TYPE	BKG (CPM)	NET CPM	EFF
ALPHA @ 1/4" - 1/2"	0	≤ BKG	23.4
BETA @ 1/4" - 1/2"	100	0-25	38.4

JOINTED PIPE SECTION FROM SEIZEMIC TABLE AREA PIT

SURVEY TYPE	BKG (CPM)	NET CPM	EFF
ALPHA @ 1/4" - 1/2"	0	≤ BKG	23.4
BETA @ 1/4" - 1/2"	100	0-25	38.4

SKETCH

REMARKS

NOTE: ABOVE SECTIONS ARE REMOVED PIECES 12" TO 16" LONG AND ARE PART OF SECTION # 8 MDL

H.P. SIGNATURE

[Handwritten Signature]

DATE: 9-3-92

 I IH&S FORM I
 I #1004 I
 I LRD 3/88 I

 * SHEAR SAMPLE *



LOCATION : H.P.O.	SURVEYOR : "HP STAFF"	SURVEY DATE 9-3-92
LARGE SITE	COUNTED BY : "HP STAFF"	COUNT DATE 9-3-92

COUNTER NUMBER	BETA/GAMMA			ALPHA
	GM - 1			ALPHA - 3
BACKGROUND (CPM)	22.9 CPM	CPM	CPM	.05 CPM
EFFICIENCY (%)	25.9 %	%	%	33.3 %

ACTIVITY IN: MICROCURIES DPM CPM

	α	β		α	β		α	β		α	β		α	β
1	0	4	21			41			61			81		
2	0	0	22			42			62			82		
3	0	0	23			43			63			83		
4	0	12	24			44			64			84		
5	0	8	25			45			65			85		
6	0	0	26			46			66			86		
7	0	0	27			47			67			87		
8	0	4	28			48			68			88		
9	3	0	29			49			69			89		
10	0	0	30			50			70			90		
11	0	16	31			51			71			91		
12	0	0	32			52			72			92		
13	3	0	33			53			73			93		
14	0	0	34			54			74			94		
15	0	12	35			55			75			95		
16	0	0	36			56			76			96		
17	0	0	37			57			77			97		
18	0	0	38			58			78			98		
19			39			59			79			99		
20			40			60			80			100		

REMARKS : — <200 DPM / 100cm² βT — <10 DPM / 100cm² α

9 : 16" PIECE PIPE FROM WEST FACE TUNNEL SECTION #8 MOL
 10-18 : 20" JOINTED PIPE PIECE FROM UNDER SEISMIC TABLE ROSS.
 SECTION #8 MOL

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

REMOVAL OF THE MONITORED DRAIN LINE SYSTEM

NOVEMBER 24, 1992

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

Report #002

APPROVED FOR RELEASE BY THE
"OFFICE OF THE DIRECTOR"

W. 10

117446

070-00997

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

REMOVAL OF THE MONITORED DRAIN LINE SYSTEM

NOVEMBER 24, 1992

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

Report #002

OFFICIAL RECORD COPY **ML 10**

117646

REMOVAL OF THE MONITORED DRAIN LINE SYSTEM

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Appendix E - Backfill Authorization Packages For Monitored Drain Line Sections	
Appendix F - Radiological Survey Procedure	

REMOVAL OF THE MONITORED DRAIN LINE SYSTEM

Purpose

The Westinghouse Electric Corporation is preparing to request the termination of USNRC License Number SNM-951 for the site located in Large, PA. This report is one of a series of reports that presents the necessary information to establish that the site meets all applicable regulatory requirements so that the license can be terminated by the United States Nuclear Regulatory Commission.

Scope

This report presents the results of radiological surveys and soil samples taken following the removal of the monitored drain line piping to demonstrate that the excavated areas met the applicable criteria prior to backfilling. Additional information is presented to describe in summary form, the pipe removal process along with water sample data on water discharged during the project. A statistical analysis is presented to demonstrate that the criteria for soil release is met. The justification for the soil contamination criteria is presented in a separate report. Information related to the two tank pits associated with this system is also presented in a separate report. Certain sections of piping associated with the MDL system have been left in place. A separate report provides the rationale and justification for leaving that piping in place.

Description of the Monitored Drain Line System

The monitored drain line system consisted of a system of piping and holding tanks which collected potentially contaminated water at various locations on the site. Most of the piping was buried directly in the ground. Ultimately, all the collected water was directed to three large tanks located in a below grade pit located within Building Number 9 on the site. An overall site plan showing a schematic layout of the system is presented in Figure 1. Figure 2 describes the numbering system which was used throughout the project to consistently identify specific location information such as soil sampling and radiological surveys. The numbering system is based on the following:

- 1) Each section of the monitored drain line system was given a unique number as shown on Figure 1. The section numbers range from 1 to 29. In some cases, alpha characters were added to designate new pipe sections found during the removal that were not originally shown on the drawing. One section, (Section #22) was originally designated based on the original drawings, but was found to have been previously removed. In addition, Section 24 piping was removed without the need for any trenching operation. Therefore, there is no data presented in this report for MDL Sections #22 and #24. Table 1 presents a summary of the individually numbered sections including the length of that section.

REMOVAL OF THE MONITORED DRAIN LINE SYSTEM

- 2) Specific distances along a trench section were consistently numbered by defining the zero point to be the north or east end of that section. Distances were then measured from that point towards the south or towards the west as appropriate.
- 3) Soil samples were given a project ID that provides specific information regarding location. Each sample number is of the format XXX-YYY-ZZZ where:

XXX - is the unique sequential number assigned to the sample.
YYY - is the section of the MDL as shown on Figure 1.
ZZZ - is the distance in feet from the zero end of that trench section.

The MDL system was primarily a gravity flow system with one exception. MDL Sections 1 through 13 were a gravity flow into a tank located in a concrete pit behind Building 5. From that tank, the water was pumped uphill to a point where it then was a gravity flow into the tanks in Building 9. Therefore, Sections 14 and 15 of the MDL piping were under pressure during water transfers out of the tank in the pit behind Building 5.

Summary of Removal Project

The removal of the monitored drain line system can be broken into two phases which separate the two different removal techniques. The first phase consisted of standard excavation techniques to trench down to the MDL pipe, remove it and backfill the trench. This technique was used for all portions of the buried MDL except for that piping buried under Building 6A. Due to other constraints, the MDL piping under Building 6A was removed by tunneling under the building. A major consideration throughout the project was dealing with the ground water present on the site, which in some locations is very close to the surface.

Phase I of the project involved excavation of the MDL by digging a trench and exposing the pipe. All water collected from the excavations was pumped to holding systems where it could be sampled and analyzed prior to discharge. Prior to removal of the pipe, marks were made at the location of each pipe joint. Additional marks were made at each location where the pipe was cut in order to remove easily handled sections. These marks served to identify soil sample locations. After the MDL piping was removed, radiological surveys and soil samples were taken (See Appendix F for Procedure). In summary, gamma measurements were made at each 2 foot interval and soil samples were taken at intervals of no greater than 10 feet with emphasis on locations directly below pipe joints and cuts. All information related to a specific MDL section was compiled into "Backfill Authorization Requests". (See Appendix E for review and approval packages). Each excavation was filled with about three inches of a gravel mix in order to provide a known demarcation in case

REMOVAL OF THE MONITORED DRAIN LINE SYSTEM

it ever becomes necessary to re-excavate or core-bore down to the original bottom of the trench. All excavations have been backfilled and covered over as appropriate. The soil samples taken were transferred to the Analytical Laboratory and a portion of each sample retained in the event that an independent reanalysis of any sample is requested.

Phase 2 of the removal project involved only the MDL piping beneath Building 6A. This piping was removed by digging a tunnel under the building to follow and remove the MDL piping. During the tunneling operation, whenever a pipe joint was encountered, a sample was taken of the soil directly below the joint. Soil samples were not required at each pipe cut location because the pipe had been fully exposed inside the tunnel prior to the cut being made. The floors, walls and ceilings of the tunnel were generally lined with oak planks except for a few locations where it was not necessary. Radiological surveys were made at two foot intervals along the length of each tunnel section by coring out a hole in the wood plank floor and making gamma measurements in direct contact with the soil. Upon completion of the pipe removal operations, the tunnel was backfilled with a cement grout to assure future stability.

There are three notable items with respect to the MDL removal project:

- 1) In general the buried piping was found to be in excellent condition with no indication of failure or leakage. Section 14 of the MDL was found to have two breaks. The first was located at the point where an initial test excavation was made in an effort to specifically locate the pipe. It was determined that the back hoe had snagged the pipe and it was bent and came apart at a joint. No soil contamination was found around the break. Another portion (about a ten foot length) of Section 14 of the MDL was found to be severely corroded and to have several holes through the pipe wall. This was the section of pipe leading out of the pit behind Building 5. No soil contamination was found. Since this section of pipe had not been used for many years, it may be that the corrosion occurred after the period when it was used.
- 2) Approximately 17 feet of pipe beneath Building 6A could not be removed because it was encased in concrete. A separate report details the analysis made to justify leaving this pipe length in place.
- 3) A large volume of ground water was collected during the project. Samples taken of the water established that all the water met the regulatory requirements of 10CFR20 prior to discharge. A listing of the water samples taken along with the analytical data is presented in Appendix B.

REMOVAL OF THE MONITORED DRAIN LINE SYSTEM

Radiological Survey Results

After removal of the piping and prior to backfilling, each section of excavation was surveyed by two methods:

- 1) Radiation readings were made at two foot intervals using a survey instrument sensitive to low energy gamma radiation. (NaI Scintillation detector, Model SPA-3, connected to an Eberline Model PRS-2 instrument with the results integrated for a one minute period). These results were used for comparative purposes to determine if any section of the excavation exhibited readings significantly greater than background. Because of the sensitivity of the instrument, the value for the background depends strongly on the nature of the surface (i.e., soil or concrete) and the depth of the excavation.
- 2) Soil samples were taken at intervals along the excavations at intervals not exceeding 10 feet. These samples were primarily analyzed by gamma spectrometry with some samples verified by alpha spectrometry. For working purposes, the applicable criteria was established as 1 pCi/gram of U-235. The derivation and justification for this criteria is presented in a separate report.

For each section of the excavation, a "Backfill Authorization Request" package was prepared, reviewed and approved. These packages are included in Appendix E. No statistical evaluation was made of the gamma radiation measurements since these results were made for relative comparison only and would have been used to guide the selection of soil sample location if any gamma readings seemed to be significantly different than background. A total of 385 soil samples from the excavations were taken and analyzed. The original Analytical Laboratory Report Sheets are included in Appendix A. Summary tables of the 385 soil samples are presented in Appendices C and D where:

- a) Appendix C has the information sorted by sample number so that it is easy to compare the results reported against the original data sheets in Appendix A.
- b) Appendix D has the same information sorted by sample location so that it is easy to review the specific results for any section of the excavation.

Of the 385 samples taken only 5 samples were found to exceed the working criteria of 1 pCi/gram U-235. Table 2 provides a summary of the evaluation steps taken and the conclusions reached for each of these five samples. Table 3 presents a statistical summary of the 385 soil samples.

REMOVAL OF THE MONITORED DRAIN LINE SYSTEM

Status of Excavations

Based on the review of the radiological survey information, all sections of the excavation have been backfilled. Within the buildings, the floors have been restored as appropriate for the area. Beneath Building 6A the tunnels were backfilled with a cement grout to assure stability of the subsurface foundation. Exterior to the buildings, the excavations were backfilled to grade level at least and the only remaining restoration work is to repair the asphalt road surfaces. As previously noted, the excavations were initially filled with a three inch layer of gravel to provide a definitive demarkation of the original bottom of the excavation. The exception to this is the tunnels under Building 6A. There, the oak planks used to support the tunnel during the project remain in place with the tunnel voids filled with the cement grout. There is no visible indication on the floor surfaces within Building 6A to identify where the pipe was removed.

Conclusions

Based on the radiological survey information, the following conclusions have been reached:

- 1) The statistical evaluation of the soil sample data supports the conclusion that the backfilled sections of excavation do not exceed 30 pCi/gram of total uranium (equivalent to the working criteria of 1 pCi/gram of U-235) at the 95% Confidence Level.
- 2) The gamma radiation surveys did not indicate any areas where the radiation levels were significantly different from background radiation levels.
- 3) The Monitored Drain Line System has been successfully removed and the excavations have been restored in accordance with applicable criteria.

Separate reports discuss the radiological surveys of the two pits associated with the Monitored Drain Line System and the sections of piping that were abandoned in place.

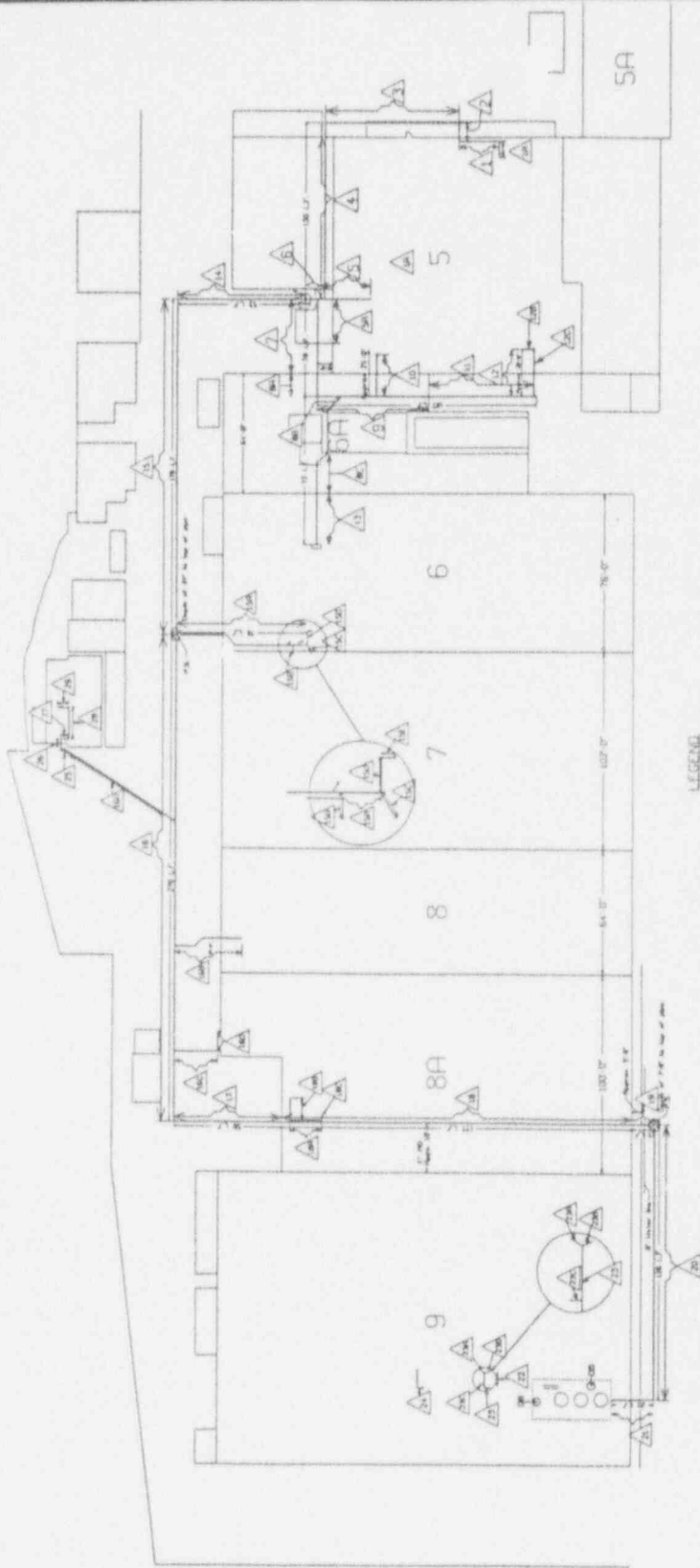
REMOVAL OF THE MONITORED DRAIN LINE SYSTEM

Addendum

Upon completion of the writeup and statistical analysis of this report, it was noted that two soil samples had not been included. Since their inclusion would not alter any conclusion, they are simply documented here for completeness.

<u>PROJECT ID</u>	<u>ANALYTICAL LABORATORY NUMBER</u>	<u>DESCRIPTION</u>	<u>U-235 PcI/GRAM (WET BASIS)</u>
462-10-16	92-2830	Pipe Joint	2.82E-01
463-10-18	92-2831	Ending Elbow	2.87E-01

MDL SECTION BREAKDOWN
FOR SOIL SAMPLE CONSIDERATIONS



LEGEND
Δ - MDL SOIL SAMPLE SECTIONS

See Fig. 2a See Fig. 2b See Fig. 2c See Fig. 2d

FIGURE 1

WESTINGHOUSE ELECTRIC CORPORATION ENERGY SYSTEMS BUSINESS UNIT FACILITIES ENGINEERING & DESIGN ENERGY CEN. MONROEVILLE, PA.		designer des. eng. mech. eng. elec. eng. cust. app. app. oper. mgr. fac. mgr.	REVISIONS 5/20/83
TITLE: LARGE SITE MONITOR DRAIN LINE SOIL SAMPLE SECTION LOCATIONS SCALE: 0.1" = 1'-0"	JOB # DATE: 12-14-82 DRAWN BY MCL-1	PROJECT # MON-1	

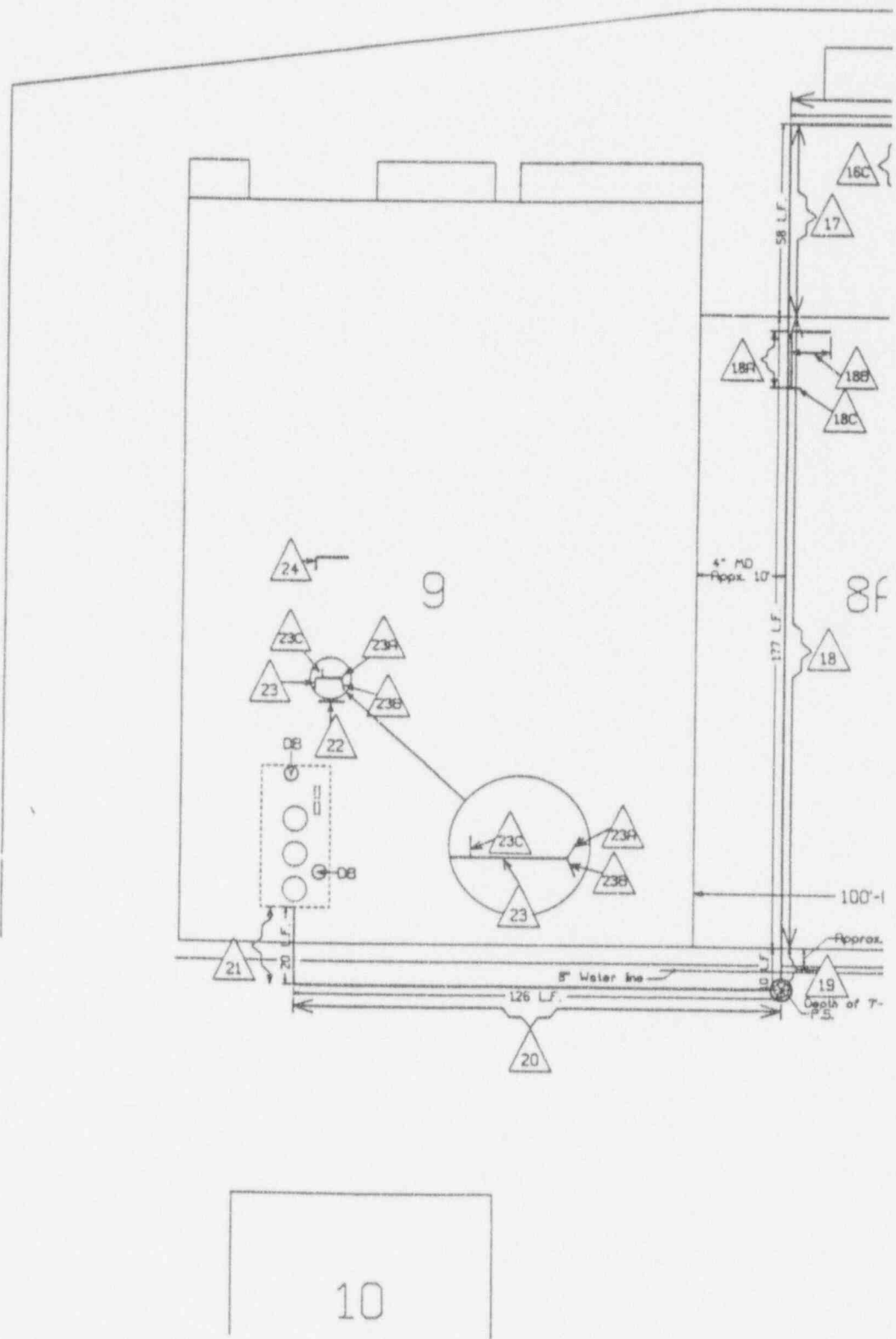
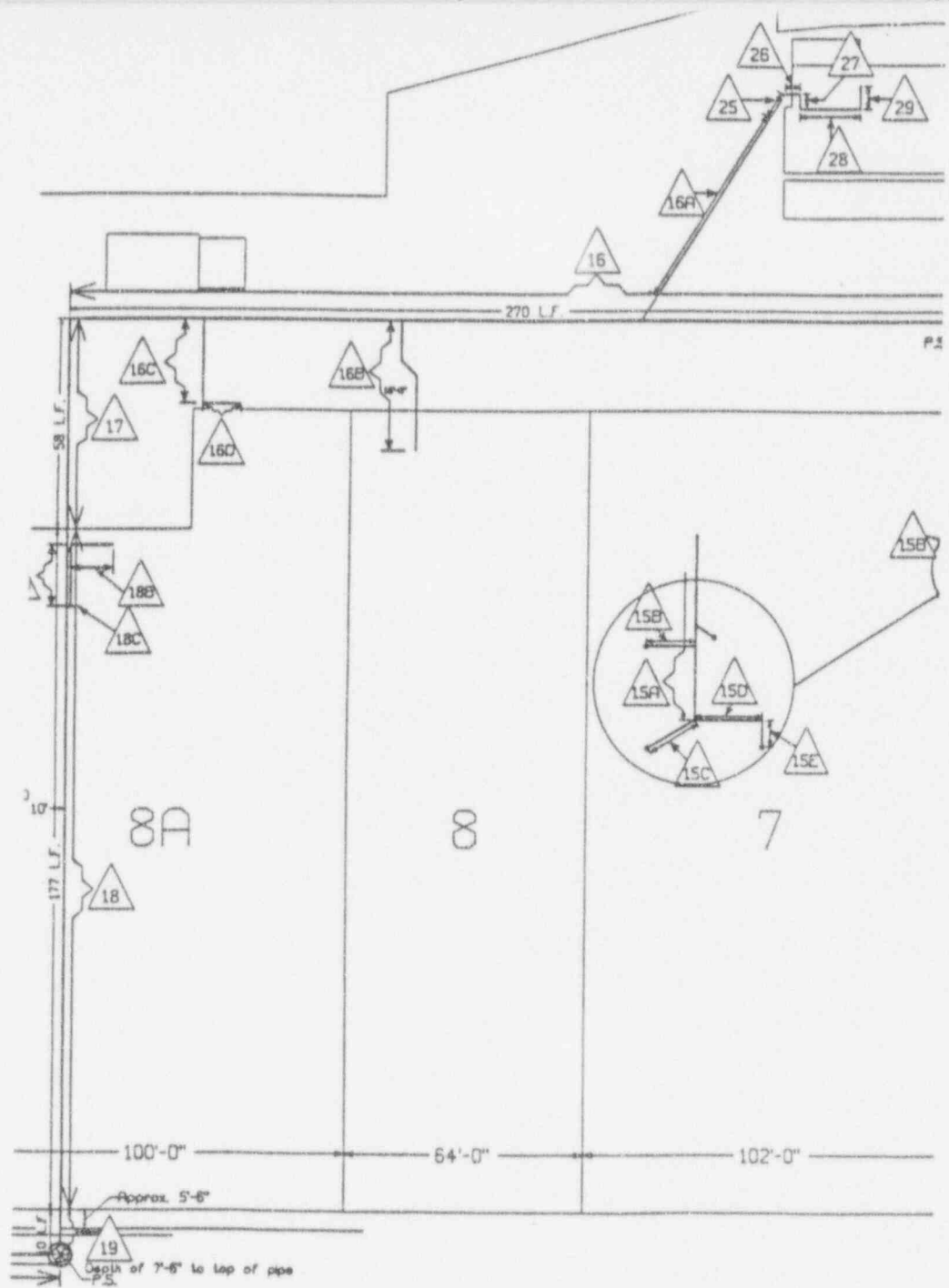


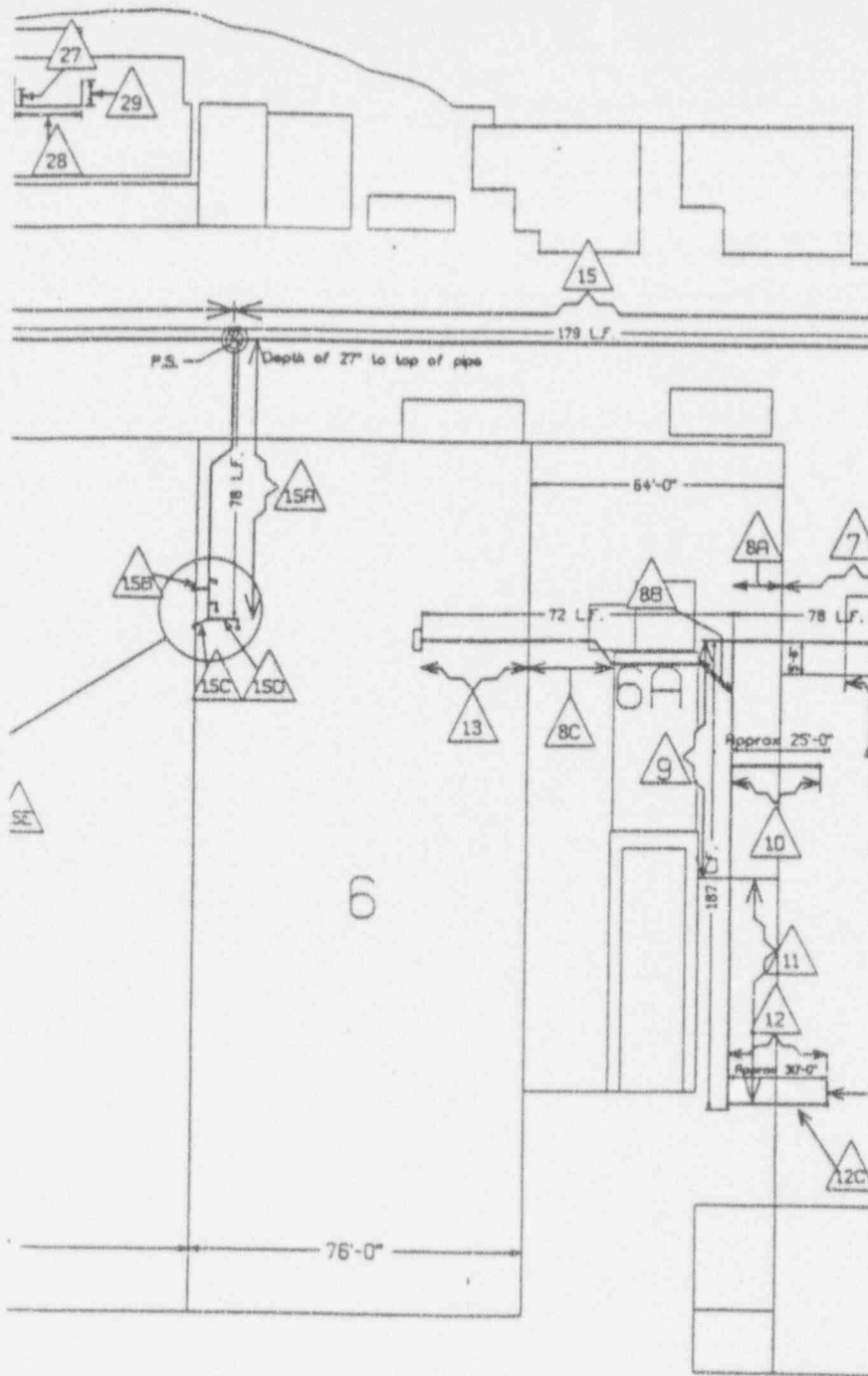
FIGURE 2a.



LEGEND

△ - MDL SOIL SAMPLE

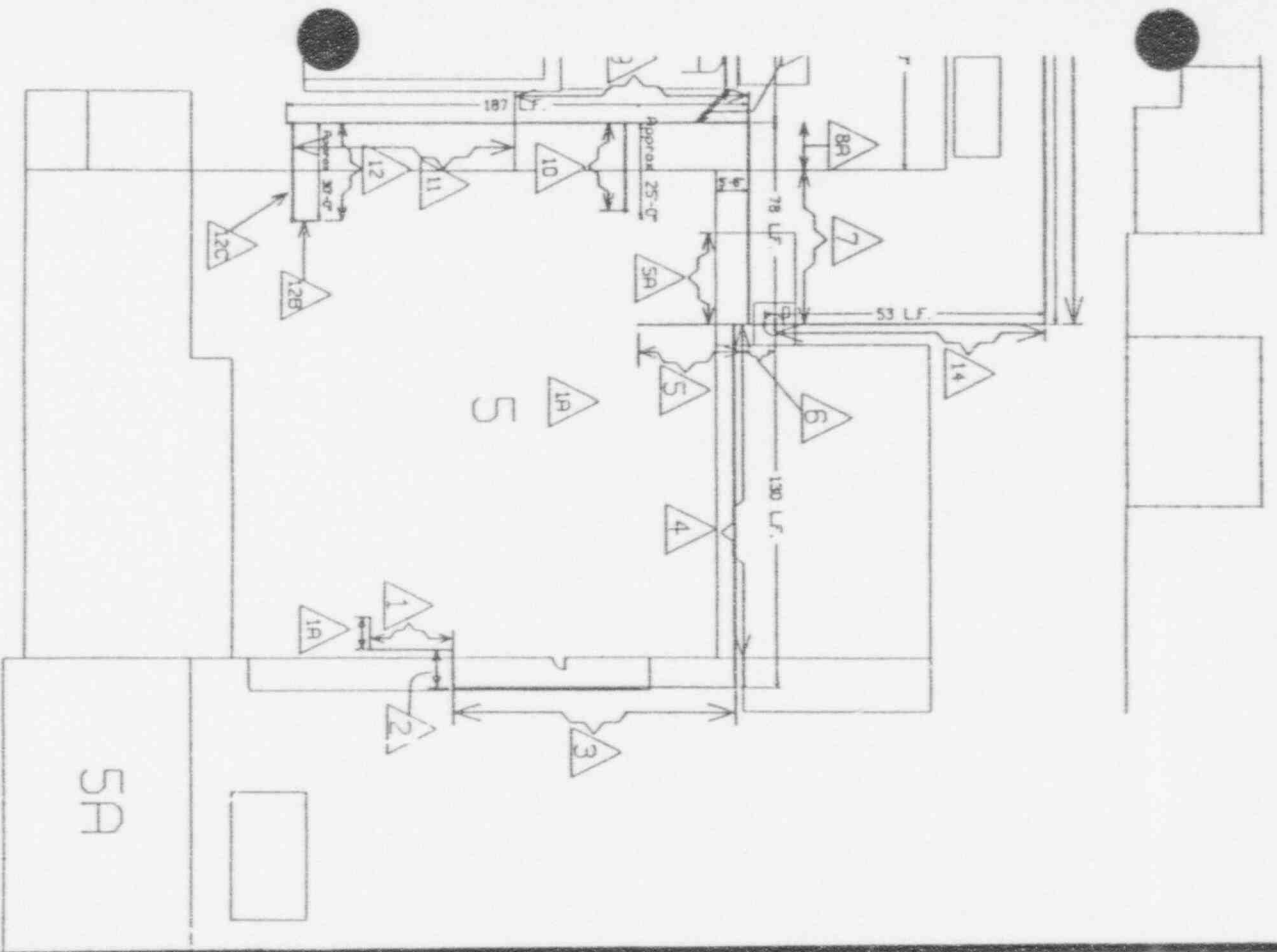
FIGURE 26.




1
 - SAMPLE SECTIONS

FIGURE 2c.

FIGURE 2d.



REVISIONS:	designer	 WESTINGHOUSE ELEC ENERGY SYSTEMS FACILITIES ENGINE ENERGY CENTER, P	
	des. eng.		
	mech. eng.		
	elec. eng.		
	cust. app.		
	app.		
	oper. mgr.		
	fac. mgr.		
TITLE: LARGE SITE MONITOR DRAIN LINE		job #:	scale: n.t.s.
		storage:	

M.D.L. TRENCH SOIL SAMPLE INDEX DATA

TRENCH #	BUILDING LOCATION	BUILDING PROXIMITY	INSIDE/ OUTSIDE	TOTAL LINEAL FEET (Approximate)	
				East to west	North to south
1	5	East Side	INSIDE		22
1-A	5	East Side	INSIDE	9	
2	5	East Side	INSIDE	5	
3	5	East Side	IN/OUT		65.5
4	5	North Side	IN/OUT	64	
5	5	North Side	INSIDE		26.5
5-A	5	North Side	INSIDE	18.5	
6	5	North Side	OUTSIDE		9
7	5	North Side	OUTSIDE	57	
8A	6A	Mid Bldg.	INSIDE		
8B	6A	Mid Bldg.	INSIDE		
8C	6A	Mid Bldg.	INSIDE		
9	6A	Mid/South	INSIDE		54
9A	6A	Mid	INSIDE	VERTICLE RISER 9' CLEANOUT	
10	5,6A		INSIDE	25	
11	6A	South Side	OUTSIDE		55
12	5	South Side	IN/OUT	30	
12-A	5	West Side	INSIDE		2
12-B	5	West Side	INSIDE		3
13	6	Mid Bldg.	INSIDE	25	
14	5	North Side	OUTSIDE		58
15	5,6A,6	North Side	OUTSIDE	179	
15-A	6	North Side	IN/OUT		78
15-B	6	North Side	INSIDE		9.5
15-C	6	North Side	INSIDE	3	
15-D	6	North Side	INSIDE	8	
15-E	6	North Side	INSIDE		7
16	8A,8,7,6	North Side	OUTSIDE	270	

TABLE 1

M.D.L. TRENCH SOIL SAMPLE INDEX DATA

TRENCH #	BUILDING LOCATION	BUILDING PROXIMITY	INSIDE/ OUTSIDE	TOTAL LINEAL FEET (Approximate)	
				East to west	North to south
16-A	7	North Side	OUTSIDE		56
16-B	8	North Side	OUTSIDE		16
16-C	8A	North Side	OUTSIDE		21
16-D	8A	North Side	OUTSIDE	10	
17	8A	North Side	OUTSIDE		53
18	8A	West Side	INSIDE		167
18-A	8A	West Side	INSIDE		21
18-B	8A	West Side	INSIDE	18	
18-C	8A	West Side	INSIDE	1	
19	8A	South Side	OUTSIDE		9.5
20	8A,9	South Side	OUTSIDE	126	
21	9	South Side	IN/OUT		14
23	9	Mid-Bldg.	INSIDE	11	
23-A	9	Mid-Bldg.	INSIDE		3
23-B	9	Mid Bldg.	INSIDE		2
23-C	9	Mid Bldg.	INSIDE		4
24	9	Mid Bldg.	INSIDE	13	
25	7	North Side	OUTSIDE		6
26	7	North Side	OUTSIDE	6	
27	7	North Side	OUTSIDE		4
28	7	North Side	OUTSIDE	20	
29	7	North Side	OUTSIDE		4

TABLE 1

TABLE 2

EVALUATION OF SPECIFIC SAMPLE RESULTS

ORIGINAL SAMPLE ID	ANALYTICAL LAB	SAMPLE LOCATION		INITIAL RESULTS U-235 (pCi/g)	ACTIONS TAKEN	EVALUATION
PROJECT	LAB	MDL SECTION	DISTANCE (FT)			
069	92-1488	15	66	1.29E+00	No dirt removed. Area was surveyed on a grid pattern and four additional soil samples taken.	Detailed survey indicated no problems. New samples (#167, 168, 169 & 170) were all less than 0.25 pCi/gram U-235.
085	92-1535	5	24	1.26E+00	No dirt removed. Three additional samples taken initially and one sample split with NRC inspector.	Averaging all samples (#85, 86, 87, 179, 180, 181 & 432) in this small area from 24' to 26' gives an average of 0.7 pCi/gram U-235.
325	92-2186	15D	3	1.46E+00	This short section of trench was 8.5' long. Seven soil samples had been taken.	The average of all the samples (323 thru 329) in this section is 0.6 pCi/gram U-235.
327	92-2377	20	124	1.50E+00	An area of soil about 2'x'2 was removed to a depth of 6". Two samples were taken afterwards.	Resamples #387 and 388 after dirt removal were <0.065 and 0.281 pCi/gram U-235 respectively.
405	92-2572	25	04	1.07E+00	Some dirt was removed from area and placed in a drum. Samples were taken of both the removed soil and the new trench surface.	The resample of the dirt placed in the drum was <0.24 pCi/gram U-235. The resample of the trench was <0.15 pCi/gram U-235.

TABLE 3

STATISTICAL SUMMARY OF SOIL SAMPLE DATA

Number of Soil Samples Taken:	385
Maximum Result (pCi/gram U-235):	1.50E+00
Minimum Result (pCi/gram U-235):	<6.50E-02
Average Result (pCi/gram U-235):	3.14E-01
Standard Deviation:	1.73E-01
Limit Criteria (pCi/gram U-235):	1.0E+00 (1)
Data Test Parameter:	3.82E-01 (2)
Does the Data Pass the Limit Test:	Yes (3)
Number of Samples Factor:	3.957 (4)
Were a Sufficient Number of Samples Taken:	Yes (5)

Notes:

- 1) This working criteria of 1 pCi/gram U-235 is equivalent to the established criteria of 30 pCi/gram U-total for enriched uranium.
- 2) The "Data Test Parameter" is calculated from Eq. 8-13 on page 8.10 of NUREG/CR-5849 (Draft).
- 3) When the "Data Test Parameter" is less than the limit value established for the measurement, the measurement being tested meets the limit at the 95% Confidence Level.
- 4) The "Number of Samples Factor" is calculated based on Table B-2 of NUREG/CR-5849 (Draft).
- 5) Using the "Number of Samples Factor", Table B-2 of NUREG/CR-5859 (Draft) is used to determine the number of samples that would be required to demonstrate the acceptance limit, assuming a desired false positive rate of 5% and a false negative rate of 10%.

APPENDIX A

ANALYTICAL REPORT SHEETS FOR SOIL SAMPLES
TAKEN DURING REMOVAL OF MONITORED DRAIN LINE SYSTEM

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14679

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/15/92
Reported: 5/21/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Mn-54		Co-60	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
006	92-1394	3.22E-01	+/- 3.0E-01				
007	92-1395	<5.4E-01					
008	92-1396	<3.2E-01					
5/15/92							
009	92-1397	<3.8E-01					
5/15/92							
010	92-1398	<3.6E-01					
5/15/92							
011	92-1399	<3.8E-01					
5/15/92							
012	92-1400	<3.6E-01					
5/15/92							
013	92-1401	1.40E-01	+/- 6.2E-02	8.30E-02	+/- 4.2E-02	1.33E-01	+/- 7.1E-02
5/15/92							
014	92-1402	<3.3E-01					
5/15/92							
015	92-1403	<3.6E-01					
5/15/92							
016	92-1404	<2.4E-01					
5/15/92							
017	92-1405	<2.2E-01					
5/15/92							
018	92-1406	1.27E-01	+/- 6.7E-02			1.07E-01	+/- 3.9E-02
5/15/92							
019	92-1407	<2.2E-01					
5/15/92							
018	92-1408	<1.6E-01					
5/15/92							
019	92-1409	1.44E-01	+/- 1.4E-01				
5/15/92							

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14679
Procedures: A-524
Analyst: FRC, DZ, WTF, MRK

Approved: Mark Kurchak

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14679

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/15/92
Reported: 5/21/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (May 16, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
020	92-1408	<1.6E-01	
021	92-1409	1.44E-01	+/- 1.4E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14679
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: Mark Kowalski

REPORT

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

Request# 14679

TO: Larry Smith
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 5/15/92
 Reported: 6/15/92

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (@ June 1, 1992)

Orig ID	Lab.Spl#	U-238 (Dry Basis)		U-235 (Dry Basis)		U-234 (Dry Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
006	92-1394	5.37E-01	+/- 1.9E-01	1.00E-01	+/- 9.8E-02	1.50E+00	+/- 3.1E-01
007	92-1395	<1.5E-02		1.00E-01	+/- 5.9E-02	<8.9E-02	
008	92-1396	7.91E-01	+/- 1.1E-01	7.56E-02	+/- 4.0E-02	1.10E+00	+/- 1.4E-01
009	92-1397	5.3E-01	+/- 9.7E-02	2.00E-01	+/- 6.3E-02	8.00E-01	+/- 1.4E-01
010	92-1398	7.64E-01	+/- 1.7E-01	4.87E-01	+/- 1.4E-01	1.10E+00	+/- 2.6E-01
011	92-1399	5.05E-01	+/- 9.9E-02	3.40E-02	+/- 3.2E-02	7.00E-01	+/- 1.2E-01
012	92-1400	5.12E-01	+/- 1.1E-01	<1.9E-02		8.00E-01	+/- 1.3E-01
013	92-1401	9.14E-01	+/- 1.4E-01	<3.2E-02		8.00E-01	+/- 1.4E-01
014	92-1402	8.45E-01	+/- 1.4E-01	1.00E-01	+/- 4.7E-02	9.00E-01	+/- 1.3E-01
015	92-1403	9.82E-01	+/- 1.3E-01	3.00E-01	+/- 7.4E-02	2.00E+00	+/- 1.9E-01
016	92-1404	6.80E-01	+/- 1.4E-01	<3.4E-02		1.35E+00	+/- 1.4E-01
017	92-1405	5.78E-01	+/- 1.2E-01	<3.2E-02		7.00E-01	+/- 1.3E-01
018	92-1406	6.15E-01	+/- 9.3E-02	9.46E-02	+/- 4.5E-02	2.00E+00	+/- 1.7E-01
019	92-1407	4.90E-01	+/- 8.9E-02	<2.9E-02		6.00E-01	+/- 1.0E-01
020	92-1408	1.03E+00	+/- 1.0E-01	<2.7E-02		1.20E+00	+/- 1.1E-01
021	92-1409	1.04E+00	+/- 1.2E-01	<2.9E-02		1.40E+00	+/- 1.5E-01

Remarks: Alpha Spectrometry Analysis

ND - Not Detected

References:
 Procedures: Request# 14679
 Analyst: WTF, MRK, TRK, FRC
 Page 1

Approved: Mark Kuchas

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14679

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/15/92
Reported: 6/15/92

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (@ June 1, 1992)

Orig ID	Lab.Spl#	U-233 (Dry Basis)	
		pCi/gram	2 sigma
006	92-1394	ND	
007	92-1395	3.98E-01 +/- 1.5E-01	
008	92-1396	<2.8E-02	
009	92-1397	2.34E-01 +/- 1.0E-01	
010	92-1398	5.70E-01 +/- 2.3E-01	
011	92-1399	ND	
012	92-1400	<2.8E-02	
013	92-1401	<2.7E-02	
014	92-1402	<3.7E-02	
015	92-1403	8.32E-02 +/- 5.9E-02	
016	92-1404	ND	
017	92-1405	<5.9E-02	
018	92-1406	ND	
019	92-1407	<2.0E-02	
020	92-1408	ND	
021	92-1409	<1.8E-02	

Remarks: Alpha Spectrometry Analysis


ND - Not Detected

References:

Procedures: Request# 14679

Analyst: WTF, MRK, TRK, FRC

Page 2

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14682

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/19/92
Reported: 5/28/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 18, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
022	92-1416	<2.5E-01	
023	92-1417	<2.3E-01	
024	92-1418	<2.5E-01	
025	92-1419	1.46E-01	+/- 5.0E-02
026	92-1420	7.98E-02	+/- 4.2E-02
027	92-1421	<4.0E-01	
028	92-1422	5.17E-01	+/- 3.1E-01
029	92-1423	3.67E-01	+/- 2.2E-01
030	92-1424	2.18E-01	+/- 5.6E-02
031	92-1425	3.78E-01	+/- 2.5E-01
032	92-1426	2.32E-01	+/- 2.2E-01
033	92-1427	2.76E-01	+/- 1.7E-01
034	92-1428	2.27E-01	+/- 6.5E-02
035	92-1429	<2.0E-01	
036	92-1430	<2.7E-01	
037	92-1431	<3.1E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14682
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: _____

Mark Kowchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14682

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/19/92
Reported: 5/28/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 18, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137	
		pCi/gram	2 sigma	pCi/gram	2 sigma
038	92-1432	<3.4E-01		3.29E-01 +/-	2.6E-01
039	92-1433	<2.4E-01			
040	92-1434	2.20E-01	+/- 2.1E-01		
041	92-1435	<3.2E-01			
042	92-1436	<3.5E-01			
043	92-1437	2.42E-01	+/- 2.2E-01		
044	92-1438	<2.3E-01			
045	92-1439	<3.0E-01			
046	92-1440	<2.2E-01			
047	92-1441	<2.1E-01			
048	92-1442	<2.8E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14682
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14686

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/22/92
Reported: 6/2/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
049	92-1468	<4.6E-01	
050	92-1469	2.78E-01	+/- 2.3E-01
051	92-1470	<2.8E-01	
052	92-1471	5.8E-01	+/- 3.1E-01
053	92-1472	<1.7E-01	
054	92-1473	<2.0E-01	
055	92-1474	<3.8E-01	
056	92-1475	<2.3E-01	
057	92-1476	<1.4E-01	
058	92-1477	<2.6E-01	
059	92-1478	<1.9E-01	
060	92-1479	<3.9E-01	
061	92-1480	<2.0E-01	
062	92-1481	<2.3E-01	
063	92-1482	2.15E-01	+/- 1.8E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14686
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14686

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/22/92
Reported: 6/2/92

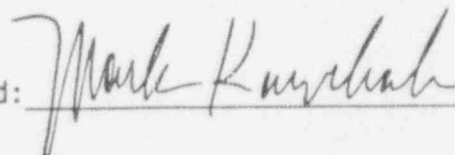
[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
064	92-1483	<2.5E-01	
065	92-1484	<2.5E-01	
066	92-1485	<1.9E-01	
067	92-1486	<1.9E-01	
068	92-1487	<2.4E-01	
069	92-1488	1.29E+00	+/- 2.8E-01
070	92-1489	<1.9E-01	
071	92-1490	2.08E-01	+/- 1.5E-01
072	92-1491	<2.5E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14686
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: 

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14693

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/29/92
Reported: 6/9/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
073	92-1523	<1.0E-01	
074	92-1524	<3.0E-01	
075	92-1525	<3.1E-01	
076	92-1526	<3.4E-01	
077	92-1527	9.57E-02	+/- 6.0E-02
078	92-1528	<2.8E-01	
079	92-1529	<2.6E-01	
080	92-1530	<2.9E-01	
081	92-1531	<2.9E-01	
082	92-1532	<2.7E-01	
083	92-1533	<2.7E-01	
084	92-1534	1.23E-01	+/- 1.6E-01
085	92-1535	1.26E+00	+/- 6.0E-01
086	92-1536	4.64E-01	+/- 3.2E-01
087	92-1537	<5.0E-01	
088	92-1538	<2.4E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14693
Procedures: A-524
Analyst: WTF, MRK

Approved: 

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14693

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/29/92
Reported: 6/9/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Ce-141 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
089	92-1539	<4.3E-01			
090	92-1540	1.83E-01	+/- 1.6E-01		
091	92-1541	<3.1E-01			
092	92-1542	<4.0E-01			
093	92-1543	<1.9E-01		3.1E-01	+/- 3.0E-01
094	92-1544	<2.7E-01			
095	92-1545	1.10E-01	+/- 4.0E-02		

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14693
Procedures: A-524
Analyst: WTF, MRK

Approved: J. Carl Kouchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14694

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/9/92
Reported: 6/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 1, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
096	92-1546	<1.7E-01	
097	92-1547	<3.0E-01	
098	92-1548	<2.3E-01	
099	92-1549	<2.3E-01	
100	92-1550	1.60E-01	+/- 1.4E-01
101	92-1551	<2.7E-01	
102	92-1552	<2.0E-01	
103	92-1553	<2.4E-01	
104	92-1554	7.38E-01	+/- 2.5E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14694
Procedures: A-524
Analyst: WTF, MRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

*
Received: 6/2/92
Reported: 6/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Np-239 (Wet Basis)		Eu-155 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
105	92-1579	<2.3E-01					
106	92-1580	<1.9E-01					
107	92-1581	<1.1E-01					
108	92-1582	<1.6E-01					
109	92-1583	<2.2E-01					
110	92-1584	<2.5E-01					
111	92-1585	<2.4E-01					
112	92-1586	<2.8E-01					
113	92-1587	<2.5E-01					
114	92-1588	<2.9E-01					
115	92-1589	<3.1E-01					
116	92-1590	<2.3E-01					
117	92-1591	<3.1E-01					
118	92-1592	<2.4E-01					
119	92-1593	1.30E-01	+/- 4.1E-02	1.77E+00	+/- 1.5E+00	1.53E-01	+/- 9.4E-02

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
120	92-1594	8.19E-02	+/- 4.1E-02		
121	92-1595	<2.9E-01			
122	92-1596	<2.2E-01			
123	92-1597	<3.5E-01			
124	92-1598	<3.9E-01			
125	92-1599	<5.9E-01			
126	92-1600	<3.5E-01			
127	92-1601	6.17E-01	+/- 4.7E-01		
128	92-1602	5.22E-01	+/- 4.0E-01	5.17E-01	+/- 2.7E-01
129	92-1603	<2.4E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/12/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
130	92-1604	<4.8E-01	
131	92-1605	<4.1E-01	
132	92-1606	<4.5E-01	
133	92-1607	3.4E-01	+/- 2.7E-01
134	92-1608	1.9E-01	+/- 8.4E-02
135	92-1609	1.6E-01	+/- 6.2E-02
136	92-1610	<2.9E-01	
137	92-1611	<3.7E-01	
138	92-1612	<3.3E-01	
139	92-1613	<3.5E-01	
140	92-1614	<5.0E-01	
141	92-1615	<3.8E-01	
142	92-1616	<4.7E-01	
143	92-1617	<2.5E-01	
144	92-1618	<3.8E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/12/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
145	92-1619	<3.5E-01			
146	92-1620	<6.4E-01			
147	92-1621	<3.9E-01			
148	92-1622	<5.1E-01			
149	92-1623	<2.8E-01			
150	92-1624	<3.8E-01			
151	92-1625	<3.4E-01			
152	92-1626	<3.3E-01		2.94E-01 +/-	2.6E-01
153	92-1627	<3.3E-01			
154	92-1628	<5.9E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kuroshah

REVISED
REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/17/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Co-60 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
155	92-1629	1.01E-01	+/- 3.4E-02		
156	92-1630	1.11E-01	+/- 5.6E-02	7.96E-02	+/- 5.1E-02
157	92-1631	<8.0E-01			
158	92-1632	<4.4E-01			
159	92-1633	<4.9E-01			
160	92-1634	<6.5E-01			
161	92-1635	5.30E-01	+/- 4.6E-01		

Originator ID	Lab.Spl#	U-235	
		pCi/ml	2 sigma
W-05-92	92-1636	<5.6E-02	

Remarks: Gamma Spectrometry Analysis for U-235
Sample ID for W-05-92 corrected

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kanchar

PRELIMINARY
REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14702

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/5/92
Reported: 6/8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 5, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Co-60 (Wet Basis)		Ru-106 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
162	92-1638	2.69E-01	+/- 2.0E-01	5.27E-01	+/- 3.4E-01		
163	92-1639	8.20E-02	+/- 4.2E-02				
164	92-1640	2.59E-01	+/- 4.5E-02	1.29E+00	+/- 9.8E-02		
165	92-1641	3.85E-01	+/- 1.9E-01	7.20E-01	+/- 3.0E-01	2.85E+00	+/- 2.0E+00
166	92-1642	<3.5E-01					
167	92-1643	<2.1E-01		4.86E-01	+/- 4.6E-01		
168	92-1644	<2.5E-01					
169	92-1645	2.37E-01	+/- 2.2E-01	5.93E-01	+/- 3.9E-01		
170	92-1646	<2.4E-01					

Remarks: Gamma Spectrometry Analysis for U-235
92-1647 Results pending

References: Request# 14702
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14702

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/5/92
Reported: 3/15/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 5, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Nb-94 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
171**	92-1647	4.21E+00	+/- 2.6E-01	1.30E-01	+/- 6.3E-02	1.34E+01	+/- 2.3E-01

Remarks: Gamma Spectrometry Analysis for U-235
** This sample, from which a metal wire containing Co-60 was removed prior to analysis, was obtained within a sealed pipe.

References: Request# 14702
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kuvish

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14710

TQ: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/10/92
Reported: 6/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
172	92-1665	<2.3E-01	
173	92-1666	<1.5E-01	
174	92-1667	<2.3E-01	
175	92-1668	<2.2E-01	
176	92-1669	<2.3E-01	
177	92-1670	<1.8E-01	
178	92-1671	1.81E-01	+/- 1.3E-01
179	92-1672	3.47E-01	+/- 2.4E-01
180	92-1673	5.93E-01	+/- 3.3E-01
181	92-1674	7.89E-01	+/- 3.9E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14710
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kowchak

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14719

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/15/92
Reported: 6/16/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
182	92-1723	<2.9E-01	
183	92-1724	<1.5E-01	
184	92-1725	<2.5E-01	
185	92-1726	<1.6E-01	
186	92-1727	<2.5E-01	
187	92-1728	<1.9E-01	
188	92-1729	<2.7E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14719
Procedures: A-524
Analyst: WTF, MRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14729

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/19/92
Reported: 6/24/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 19, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
189	92-1803	<1.6E-01	
190	92-1804	<1.7E-01	
191	92-1805	<1.9E-01	
192	92-1806	2.10E-01	+/- 2.0E-01
193	92-1807	<2.7E-01	
194	92-1808	<3.2E-01	
195	92-1809	<2.9E-01	
196	92-1810	<4.5E-01	
197	92-1811	<3.0E-01	
198	92-1812	2.55E-01	+/- 2.5E-01
199	92-1813	<3.6E-01	
200	92-1814	<4.0E-01	
201	92-1815	<3.2E-01	
202	92-1816	<4.0E-01	
203	92-1817	<2.5E-01	
204	92-1818	<4.2E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14729
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kowalski

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14729

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/19/92
Reported: 6/24/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 19, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Pa-233 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
205	92-1819	<2.6E-01			
206	92-1820	<3.4E-01			
207	92-1821	<3.8E-01			
208	92-1822	<2.1E-01			
209	92-1823	<3.8E-01			
210	92-1824	2.78E-01	+/- 2.6E-01		
211	92-1825	<4.6E-01			
212	92-1826	<3.9E-01			
213	92-1827	2.33E-01	+/- 2.3E-01		
214	92-1828	<1.6E-01		2.17E-01	+/- 2.1E-01
215	92-1829	<1.6E-01			
216	92-1830	<2.4E-01			
217	92-1831	<3.8E-01			
218	92-1832	4.11E-01	+/- 2.9E-01		

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14729
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kunchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14735

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/23/92
Reported: 6/26/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 23, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
219	92-1871	<3.9E-01	
220	92-1872	<2.7E-01	
221	92-1873	<3.5E-01	
222	92-1874	<4.2E-01	
223	92-1875	<2.3E-01	
224	92-1876	<4.1E-01	
225	92-1877	2.15E-01	+/- 2.0E-01
226	92-1878	<4.1E-01	
227	92-1879	<1.5E-01	
228	92-1880	<2.4E-01	
229	92-1881	<1.6E-01	
230	92-1882	<2.9E-01	
231	92-1883	4.40E-01	+/- 2.2E-01
232	92-1884	<2.6E-01	
233	92-1885	<2.0E-01	
234	92-1886	<2.4E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14735
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kowchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14735

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/23/92
Reported: 6/26/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 23, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
235	92-1887	3.11E-01 +/-	2.3E-01
236	92-1888	<1.7E-01	
237	92-1889	<1.7E-01	
238	92-1890	<1.9E-01	
239	92-1891	<3.0E-01	
240	92-1892	<3.7E-01	
241	92-1893	<3.1E-01	
242	92-1894	<4.2E-01	
243	92-1895	3.29E-01 +/-	2.9E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14735
Procedures: A-524
Analyst: WTF, MRK

Approved: Neil Kawchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14742

* TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/26/92
Reported: 6/29/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 26, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
244	92-1945	<2.7E-01	
245	92-1946	1.93E-01	+/- 1.5E-01
246	92-1947	<2.5E-01	
247	92-1948	<1.4E-01	
248	92-1949	<2.0E-01	
249	92-1950	1.78E-01	+/- 1.3E-01
250	92-1951	<1.8E-01	
251	92-1952	<2.3E-01	
252	92-1953	<2.7E-01	
253	92-1954	1.53E-01	+/- 1.4E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14742
Procedures: A-524
Analyst: WTF, MRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14748

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/30/92
Reported: 7/8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 30, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
54	92-2002	1.44E-01	+/- 1.3E-01
55	92-2003	7.24E-01	+/- 2.5E-01
56	92-2004	7.68E-01	+/- 2.3E-01
57	92-2005	<2.1E-01	
58	92-2006	3.13E-01	+/- 2.3E-01
59	92-2007	<2.4E-01	
60	92-2008	<2.8E-01	
61	92-2009	<1.2E-01	
62	92-2010	5.37E-01	+/- 2.5E-01
63	92-2011	<1.6E-01	
64	92-2012	4.24E-01	+/- 2.4E-01
65	92-2013	2.68E-01	+/- 1.0E-01
66	92-2014	<2.6E-01	
67	92-2015	2.16E-01	+/- 1.8E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14748
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14750

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/6/92
Reported: 7/9/92

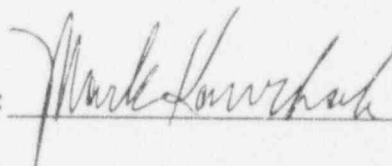
[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 6, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
268	92-2062	<3.1E-01	
269	92-2063	1.95E-01	
270	92-2064	<2.4E-01	
271	92-2065	1.38E-01	+/- 6.2E-02
272	92-2066	<2.8E-01	
273	92-2067	<1.8E-01	
274	92-2068	<3.1E-01	
275	92-2069	<1.7E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14750
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14751

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/7/92
Reported: 7/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 7, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
276	92-2070	<3.8E-01			
277	92-2071	<2.7E-01			
278	92-2072	<4.0E-01			
279	92-2073	2.84E-01	+/- 2.4E-01		
280	92-2074	<4.3E-01			
281	92-2075	4.08E-01	+/- 2.7E-01		
282	92-2076	<2.7E-01			
283	92-2077	<1.1E-01			
284	92-2078	<1.5E-01			
285	92-2079	<2.3E-01		2.3E-01	+/- 1.5E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14751
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kurchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14753

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/8/92
Reported: 7/13/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 8, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
286	92-2084	2.34E-01	+/- 1.7E-01
287	92-2085	1.86E-01	+/- 1.6E-01
288	92-2086	<2.7E-01	
289	92-2087	<2.6E-01	
290	92-2088	<2.4E-01	
291	92-2089	<2.4E-01	
292	92-2090	2.07E-01	+/- 2.0E-01
293	92-2091	1.62E-01	+/- 1.3E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14753
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kowalek

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14758

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/10/92
Reported: 7/15/92

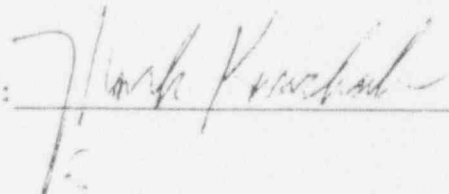
[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 10, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
294	92-2133	<1.9E-01	
295	92-2134	<2.0E-01	
296	92-2135	<1.3E-01	
297	92-2136	<1.4E-01	
298	92-2137	<2.0E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14758
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14762

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/13/92
Reported: 7/17/92

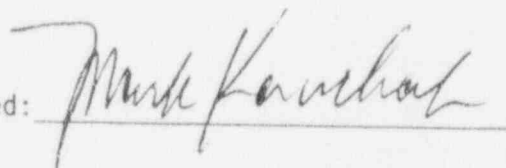
[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Mn-54 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
299	92-2156	<2.1E-01					
300	92-2157	<2.2E-01					
301	92-2158	<2.5E-01					
302	92-2159	<2.0E-01					
303	92-2160	2.04E-01	+/- 1.7E-01				
304	92-2161	<2.6E-01					
305	92-2162	<2.3E-01					
306	92-2163	<2.3E-01					
307	92-2164	<3.9E-01					
308	92-2165	<2.6E-01					
309	92-2166	<3.5E-01					
310	92-2167	<3.6E-01					
311	92-2168	2.61E-01	+/- 2.4E-01				
312	92-2169	<4.1E-01		1.37E-01	+/- 1.1E-01	2.89E-01	+/- 1.6E-0
313	92-2170	<2.9E-01					
314	92-2171	2.46E-01	+/- 2.1E-01				

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14762
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14762

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/13/92
Reported: 7/17/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
315	92-2172	2.76E-01 +/-	2.7E-01
316	92-2173	<1.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14762
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14764

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/15/92
Reported: 7/22/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
317	92-2178	6.59E-01	+/- 2.6E-01		
318	92-2179	5.56E-01	+/- 2.3E-01	2.63E-01	+/- 2.0E-01
319	92-2180	3.12E-01	+/- 1.7E-01	3.21E-01	+/- 2.2E-01
320	92-2181	<5.2E-01			
321	92-2182	<4.2E-01			
322	92-2183	<5.5E-01			
323	92-2184	4.01E-01	+/- 3.2E-01		
324	92-2185	<5.1E-01			
325	92-2186	1.46E+00	+/- 3.8E-01		
326	92-2187	<5.7E-01			
327	92-2188	3.98E-01	+/- 3.5E-01		
328	92-2189	<3.9E-01			
329	92-2190	<3.8E-01			
330	92-2191	<3.8E-01			
331	92-2192	<2.4E-01		2.59E-01	+/- 2.3E-01
332	92-2193	<2.6E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14764
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14764

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/15/92
Reported: 7/22/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

		U-235 (Wet Basis)	
Originator ID	Lab.Spl#	pCi/gram	2 sigma
333	92-2194	3.88E-01 +/-	2.4E-01
334	92-2195	<7.0E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14764
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14773

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/17/92
Reported: 7/23/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
335	92-2242	7.49E-01	+/- 3.0E-01	5.03E-01	+/- 2.9E-01
336	92-2243	<3.6E-01			
337	92-2244	2.83E-01	+/- 2.6E-01		
338	92-2245	<2.6E-01			
339	92-2246	<4.0E-01			
340	92-2247	<3.5E-01			
341	92-2248	5.36E-01	+/- 1.0E-01		
342	92-2249	<2.3E-01			
343	92-2250	<2.4E-01			
344	92-2251	<2.3E-01			
345	92-2252	<2.3E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14773
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14776

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/20/92
Reported: 7/21/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 20, 1992)

Lab.Spl# 92-2271
Orig ID 346

NUCLIDE pCi/gram 2 sigma

U-235 1.07E+02 +/- 4.4E-01
U-238 4.00E+01 +/- 1.5E+01
Mn-54 8.66E-02 +/- 7.9E-02
Co-60 7.55E-01 +/- 1.2E-01
Cs-137 9.84E-01 +/- 9.8E-02
Hg-203 7.07E-02 +/- 3.5E-02

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14776
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kawchaj

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14780

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/22/92
Reported: 7/28/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
347	92-2281	3.65E+00	+/- 2.3E-01	2.02E-01	+/- 1.0E-01
348	92-2282	<1.9E-01			

GAMMA SPECTROMETRY ANALYSIS (@ July 22, 1992)

Originator ID	Lab.Spl#	U-235	
		pCi/ml	2 sigma
W-6-92	92-2283	4.69E-02	+/- 4.0E-02
W-7-92	92-2284	<3.6E-01	
W-8-92	92-2285	1.63E+01	+/- 9.9E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14780
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kowchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14789

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/29/92
Reported: 8/6/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 29, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
349	92-2354	3.81E+00	+/- 4.6E-01	4.73E-01	+/- 2.3E-01
350	92-2355	<2.8E-01			
351	92-2356	<2.2E-01			
352	92-2357	4.31E-01	+/- 4.0E-01		
353	92-2358	<2.9E-01			
354	92-2359	2.78E-01	+/- 1.9E-01		
355	92-2360	<4.1E-01			
356	92-2361	<4.2E-01			
357	92-2362	<3.2E-01			
358	92-2363	<2.2E-01			
359	92-2364	<3.2E-01			
360	92-2365	<2.9E-01			
361	92-2366	<3.5E-01			
362	92-2367	<2.5E-01			
363	92-2368	<3.7E-01			
364	92-2369	<4.5E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14789
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14789

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/29/92
Reported: 8/6/92

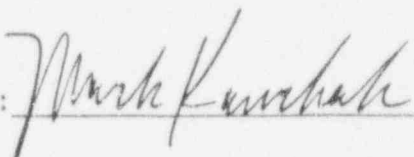
[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 29, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
365	92-2370	<2.6E-01			
366	92-2371	<3.3E-01			
367	92-2372	1.54E-01	+/- 1.9E-02		
368	92-2373	<1.9E-01			
369	92-2374	2.27E-01	+/- 1.8E-02		
370	92-2375	<2.7E-01			
371	92-2376	7.04E-01	+/- 3.3E-01		
372	92-2377	1.50E+00	+/- 1.8E-01	1.4E-01	+/- 5.0E-02
373	92-2378	4.21E-01	+/- 2.8E-01		
374	92-2379	5.37E-01	+/- 2.1E-01		
375	92-2380	1.63E-01	+/- 1.4E-01		
376	92-2381	3.69E-01	+/- 2.3E-01		
377	92-2382	<2.5E-03			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14789
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14793

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/3/92
Reported: 8/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 7, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
378	92-2406	<3.1E-01	
379	92-2407	<2.4E-01	
380	92-2408	<3.4E-01	
381	92-2409	3.37E-01	+/- 2.4E-01
382	92-2410	1.50E+00	+/- 3.2E-01
383	92-2411	<2.1E-01	
384	92-2412	<3.6E-01	
385	92-2413	<2.5E-01	
386	92-2414	<3.4E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14793
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kowchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14796

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/7/92
Reported: 8/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 7, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
387	92-2417	<6.5E-02	
388	92-2418	2.81E-01	+/- 1.3E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14796
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kunchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14812

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/11/92
Reported: 8/18/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 11, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
389	92-2489	<3.6E-01	
390	92-2490	2.20E-01	+/- 1.6E-01
391	92-2491	2.52E-01	+/- 8.9E-02
392	92-2492	<2.6E-01	
393	92-2493	<3.5E-01	
394	92-2494	2.18E-01	+/- 1.9E-01
395	92-2495	<3.4E-01	
396	92-2496	<3.0E-01	
397	92-2497	<3.7E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14812
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14813

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/12/92
Reported: 8/25/92

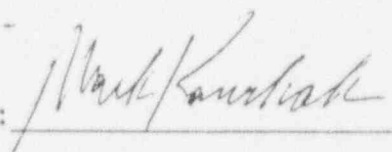
[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 12, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
398	92-2498	<3.0E-01	
399	92-2499	2.56E-01	+/- 2.3E-01
400	92-2500	<3.1E-01	
401	92-2501	<2.6E-01	
402	92-2502	3.76E-01	+/- 2.2E-01
403	92-2503	<2.5E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14813
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14828

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/17/92
Reported: 8/25/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
404	92-2571	2.31E-01	+/- 1.5E-01
405	92-2572	1.07E+00	+/- 2.4E-01
406	92-2573	<2.6E-01	
407	92-2574	<3.0E-01	
408	92-2575	6.68E-01	+/- 2.4E-01
409	92-2576	<3.4E-01	
410	92-2577	<2.4E-01	
411	92-2578	<3.4E-01	
412	92-2579	<2.1E-01	
413	92-2580	<2.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14828
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: *[Signature]*

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14840

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/26/92
Reported: 8/31/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 26, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
414	92-2650	6.00E-01	+/- 3.4E-01		
415	92-2651	<3.9E-01	+/- 2.3E-01		
416	92-2652	<2.4E-01		3.19E-01	+/- 1.7E-01
417	92-2653	<1.5E-01			
418	92-2654	<4.4E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14840
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Furth

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14846

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/28/92
Reported: 9/3/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 28, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
419	92-2672	5.25E+00 +/-	5.2E-01
420	92-2673	9.77E+00 +/-	6.1E-01
421	92-2674	4.65E+00 +/-	4.7E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14846
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Korschak

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14851

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/2/92
Reported: 9/8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Sep 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
422	92-2681	<3.4E-01	
423	92-2682	<3.6E-01	
424	92-2683	<3.8E-01	
425	92-2684	<5.4E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14851
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kawchok

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14856

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/8/92
Reported: 9/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Sep 8, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
426	92-2690	<3.0E-01	
427	92-2691	<5.1E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14856
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kowalski

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14865

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/14/92
Reported: 9/16/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@Sep 14, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
428	92-2716	<2.2E-01			
429	92-2717	<2.3E-01			
430	92-2718	<2.2E-01			
431	92-2719	7.7E-01	+/- 2.7E-01	1.8E+00	+/- 4.1E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14865
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: _____

Mark Kowalski

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Reques # 14869

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /18/92
Reported: /21/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@Sep 18, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
432	92-2731	2.78E-01 +/-	1.1E-01
433	92-2732	3.01E-01 +/-	2.0E-01
434	92-2733	2.69E-01 +/-	1.6E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14869
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

REPORT

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

Reque t# 14700

TO: Larry Smith/Joe Nardi
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 7/25/92
 Reported: 9/24/92

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab.Spl# ID	92-1471 052		92-1488 069		92-1535 085	
NUCLIDE	pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
U-238	9.28E-01	+/- 1.2E-01	1.42E+00	+/- 1.7E-01	8.64E-01	+/- 8.3E-02
U-235	4.68E-02	+/- 3.9E-02	1.40E+00	+/- 1.8E-01	3.00E-01	+/- 6.0E-02
U-234	1.40E+00	+/- 1.7E+00	4.00E+00	+/- 3.2E-01	7.60E+00	+/- 2.6E-01
U-233	<1.1E-02		5.48E-01	+/- 1.7E-01	<1.4E-02	

Lab.Spl# ID	92-1536 086		92-1537 087		92-1593 119	
NUCLIDE	pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
U-238	7.27E-01	+/- 8.7E-02	1.14E+00	+/- 1.0E-01	5.05E-01	+/- 8.0E-02
U-235	1.89E-01	+/- 5.3E-02	4.00E-01	+/- 6.8E-02	<2.9E-02	
U-234	3.30E+00	+/- 2.0E-01	8.30E+00	+/- 2.8E-01	3.00E-01	+/- 1.0E-01
U-233	<2.2E-02		<1.1E-02		<.02	

Remarks: Uranium Alpha Spectrometry Analysis
 Large Facility Samples (5/19/92 to 6/24/92)
 92-1422 to be reanalyzed

References: Request# 14700
 Procedures: A-529
 Analyst: WTF, MRK, TRK

Approved: Mark Kowalski

REVISED
REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14700

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/25/92
Reported: 10/12/92

[RESULTS OF ANALYSIS]

ALPHA SPECTROMETRY ANALYSIS (DRY)

Lab. Spl# ID	92-1601 127		92-1602 128		92-1672 179	
NUCLIDE	pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
U-238	5.51E-01	+/- 1.4E-01	7.73E-01	+/- 3.1E-01	8.03E-01	+/- 9.2E-02
U-235	2.00E-01	+/- 9.8E-02	1.00E+00	+/- 3.7E-01	1.00E-01	+/- 4.8E-02
U-234	1.10E+00	+/- 2.6E-01	2.00E+00	+/- 7.0E-01	2.70E+00	+/- 1.9E-01
U-233	1.75E-01	+/- 1.2E-01	1.43E+00	+/- 6.7E-01	<1.8E-02	

Lab. Spl# ID	92-1673 180		92-1674 181		92-1832 218	
NUCLIDE	pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
U-238	1.07E+00	+/- 1.1E-01	1.29E+00	+/- 1.1E-01	9.46E-01	+/- 1.2E-01
U-235	5.56E-01	+/- 8.7E-02	4.00E-01	+/- 7.2E-02	5.16E-02	+/- 4.2E-02
U-234	1.03E+01	+/- 3.4E-01	8.80E+00	+/- 3.0E-01	9.00E-01	+/- 1.5E-01
U-233	<1.9E-02		<1.2E-02		<2.5E-02	

Remarks: Uranium Alpha Spectrometry Analysis
Large Facility Samples (5/19/92 to 6/24/92)
92-1422 to be reanalyzed
This report has been revised to to correct the sample number for 92-1832.

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14875

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/22/92
Reported: 9/29/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
435	92-2800	4.46E-01	+/- 2.3E-01
436	92-2801	<3.4E-01	
437	92-2802	3.41E-01	+/- 3.0E-01
438	92-2803	<3.4E-01	
439	92-2804	3.81E-01	+/- 2.2E-01
440	92-2805	<4.1E-01	
441	92-2806	<4.0E-01	
442	92-2807	<4.8E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14875
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kauris

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14876

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/23/92
Reported: 10/8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 23, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
443	92-2808	<4.7E-01	
444	92-2809	1.48E+00	+/- 2.4E-01
445	92-2810	<1.7E-01	
446	92-2811	4.55E-01	+/- 3.0E-01
447	92-2812	5.86E-01	+/- 1.8E-01
448	92-2813	<3.2E-01	
449	92-2814	<8.7E-01	
450	92-2815	<9.9E-01	
451	92-2816	<9.6E-01	
452	92-2817	<7.9E-01	
453	92-2818	<4.6E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14876
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14878

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/24/92
Reported: 10/1/92


[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 30, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
454	92-2822	1.76E-01	+/- 1.7E-01
455	92-2823	<3.8E-01	
456	92-2824	<8.3E-01	
457	92-2825	<6.8E-01	
458	92-2826	<3.2E-01	
459	92-2827	<7.1E-01	
460	92-2828	<7.7E-01	
461	92-2829	<6.8E-01	
462	92-2830	2.82E-01	+/- 2.6E-01
463	92-2831	2.87E-01	+/- 2.6E-01
464	92-2832	<4.3E-01	
465	92-2833	3.83E-01	+/- 1.9E-01
466	92-2834	<3.8E-01	
467	92-2835	<3.5E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14878
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

APPENDIX B

ANALYTICAL INFORMATION FOR WATER SAMPLES
TAKEN DURING REMOVAL OF MONITORED DRAIN LINE SYSTEM

WATER SAMPLE COUNT DATA
DURING M. D. L. REMOVAL PROCESS

SAMPLE DATE	TOTAL VOLUME DISCHARGED [NO DISCHARGE (*)] IN GALLONS	SAMPLE VOLUME (ml)	COUNTING VOLUME (ml)	SAMPLE LOCATION / COMMENTS	ANALYTICAL REFERENCE # (if applicable)	SAMPLE ACTIVITY IN uC/ml [(*) denotes >MDA VALUE]	
						ALPHA	BETA
4/27/92	2800 -	1000	5	M. D. L. TANK PIT #5		1.4 E-7	7.5 E-7
4/27/92	2800 -	1000	5	M. D. L. TRENCH SECTION #6		1.9 E-7	1.9 E-6
4/28/92	2800 -	1000	5	M. D. L. TRENCH SECTION #7 @ 44'		1.9 E-7	2.0 E-6
4/28/92	2800 -	1000	5	M. D. L. TRENCH #4 IN SMALL BACK LAB ROOM		2.2 E-7	1.9 E-6
4/29/92	2800 -	1000	5	M. D. L. TANK PIT #5		1.9 E-7	2.0 E-6
4/29/92	10	1000	5	VACUUMED CONCRETE CUTTING WATER BLDG. #5		3.1 E-7	1.8 E-6
5/1/92	2800 -	1000	5	M. D. L. TANK PIT #5		1.3 E-7	1.8 E-6
5/5/92	2800 -	1000	5	M. D. L. TANK PIT #5		1.3 E-7	5.9 E-7
5/7/92	2800 -	1000	5	M. D. L. TANK PIT #5		2.8 E-7	3.9 E-7
5/8/92	2800 -	1000	5	M. D. L. TRENCH SECTION #6		(*) 5.6 E-8	6.1 E-7
5/8/92	2800 -	1000	5	M. D. L. TANK PIT #5		(*) 8.2 E-7	8.0 E-7
5/8/92	2800 -	1000	5	M. D. L. TANK PIT #5 SLUDGE WATER AT BOTTOM OF PIT	W-2-92	(*) 2.5 E-7	5.5 E-7
5/8/92	SEVERAL GALLONS	1000	5	M. D. L. TANK PIT #5 RESIDUAL H2O IN PUMPS		(*) 6.6 E-7	5.5 E-7
5/8/92	<50	1000	5	M. D. L. TANK #5 (INSIDE TANK NEAR BOTTOM RESIDUAL H2O)		(*) 6.1 E-7	5.3 E-7
5/11/92	2 (*)	1000	5	M. D. L. TANK #5 (INSIDE TANK SLUDGE AT BOTTOM)	W-4-92	(*) 7.8 E-6	(*) 7.8 E-6
5/11/92	<50	1000	5	M. D. L. SECTION #6 (RESIDUAL H2O FROM INSIDE LINE)		(*) 3.7 E-7	6.1 E-7
5/11/92	2035	1000	5	M. D. L. TANK PIT #5		1.7 E-7	5.7 E-7
5/15/92	NOT MEASURED	1000	5	M. D. L. TRENCH SECTION #14 @ 20' (PIPE JOINT BREAK AREA)		1.9 E-7	1.9 E-6
5/15/92	NOT MEASURED	1000	5	M. D. L. TRENCH SECTION #14 @ 50' (HOLES IN LINE AREA)		2.6 E-7	(*) 4.2 E-6
5/15/92	SEVERAL GALLONS	1000	5	M. D. L. TRENCH SECTION #14 @ 20' (BLACK SILICON LIKE LIQUID)		(*) 3.5 E-7	(*) 2.3 E-6
5/18/92	2393	1000	5	M. D. L. TANK PIT #5		4.1 E-8	5.0 E-7
5/26/92	3270	1000	5	M. D. L. TANK PIT #5		1.0 E-7	5.0 E-7
5/29/92	1000 ML	1000	5	M. D. L. TRENCH SECTION #16 @ 185' (EARTH SCIENCE CO. SAMPLE)		2.6 E-7	8.1 E-7
5/30/92	<50	1000	5	M. D. L. PIPE SECTION #15 @ 150' (OIL FROM INSIDE LINE)		1.6 E-7	6.1 E-7

WATER SAMPLE COUNT DATA
DURING M. D. L. REMOVAL PROCESS

SAMPLE DATE	TOTAL VOLUME DISCHARGED	SAMPLE VOLUME (ml)	COUNTING VOLUME (ml)	SAMPLE LOCATION / COMMENTS	ANALYTICAL REF. # (if applicable)	SAMPLE ACTIVITY IN uC/ml	
	[NO DISCHARGE (*)]					[(*) denotes >MDA Value]	ALPHA
6/1/92	3749	1000	5	M. D. L. TANK PIT #5		(*) 6.9 E-7	6.2 E-7
6/1/92	3270	1000	5	M. D. L. TANK PIT #5		(*) 2.1 E-7	6.3 E-7
6/5/92	4706	1000	5	M. D. L. TANK PIT #5		1.2 E-7	6.2 E-7
6/5/92	1200	1000	5	HOLDING POOL REAR BLDG 7 (EARTH SCIENCE CO. SAMPLE) Note: Held for controlled processing.		3.0 E-7	6.5 E-7
6/5/92	NOT MEASURED (*)	1000	5	M. D. L. TRENCH SECTION #17 (EARTH SCIENCE CO. SAMPLE) Note: Held for controlled processing.		1.7 E-7	6.3 E-7
6/5/92	NOT MEASURED (*)	1000	5	M. D. L. TRENCH SECTION #16 (EARTH SCIENCE CO. SAMPLE) Note: Held for controlled processing.		(*) 9.7 E-6	(*) 1.0 E-6
6/8/92	< 5	1000	5	BLDG. #9 TANK PIT (H2O FROM M.D.L. #21)		(*) 1.7 E-6	8.3 E-7
6/10/92	3193	1000	5	M. D. L. TANK PIT #5		1.6 E-7	6.6 E-7
6/11/92	1.5	1000	5	M. D. L. #16 (RESIDUAL H2O IN LINE)		2.2 E-7	6.6 E-7
6/16/92	5	1000	5	VACUUMED H2O FROM CONCRETE SAW CUTTING IN BLDG 8A		1.7 E-7	(*) 6.9 E-7
6/16/92	1250	1000	5	M. D. L. TRENCH #20		1.0 E-7	5.1 E-7
6/16/92	200	1000	5	M. D. L. TRENCH #19		(*) 1.9 E-7	5.4 E-7
6/17/92	T O T A L 3200 V O L	1000	5	M. D. L. TRENCH #17 @ 15' (PRE-TANKER DISCHARGE) Note: Released via tanker truck for controlled processing.		1.7 E-7	(*) 6.6 E-7
6/17/92		1000	5	M. D. L. TRENCH #17 @ 28' (PRE-TANKER DISCHARGE) Note: Released via tanker truck for controlled processing.		5.9 E-8	5.8 E-7
6/17/92		1000	5	M. D. L. TRENCH #17 @ 40' (PRE-TANKER DISCHARGE) Note: Released via tanker truck for controlled processing.		1.3 E-7	5.8 E-7
6/17/92		1000	5	M. D. L. TRENCH #16 @ 225' (PRE-TANKER DISCHARGE) Note: Released via tanker truck for controlled processing.		1.8 E-7	5.1 E-7
6/17/92		1000	5	M. D. L. TRENCH #16 @ 250' (PRE-TANKER DISCHARGE) Note: Released via tanker truck for controlled processing.		1.3 E-7	5.1 E-7
6/24/92	1300	1000	5	SOUTH BLDG. 9 HOLDING POOL		(*) 3.7 E-7	8.4 E-7
6/25/92	1500	1000	5	SOUTH BLDG. 9 HOLDING POOL		2.22 E-7	4.6 E-7
6/25/92	3500	1000	5	M. D. L. TANK PIT #5		6.3 E-7	5.7 E-7
6/26/92	1600	1000	5	SOUTH BLDG. 9 HOLDING POOL		3.4 E-7	2.6 E-6
6/29/92	2000	1000	5	SOUTH BLDG. 9 HOLDING POOL		6.3 E-7	2.1 E-6
7/1/92	2000	1000	5	SOUTH BLDG. 9 HOLDING POOL		(*) 2.6 E-7	2.1 E-6
7/6/92	2400	1000	5	SOUTH BLDG. 9 HOLDING POOL		1.7 E-7	2.0 E-6
7/7/92	2200	1000	5	SOUTH BLDG. 9 HOLDING POOL		3.0 E-7	2.0 E-6
7/13/92	2500	1000	5	SOUTH BLDG. 9 HOLDING POOL		2.4 E-7	1.9 E-6

WATER SAMPLE COUNT DATA
DURING M. D. L. REMOVAL PROCESS

SAMPLE DATE	TOTAL VOLUME DISCHARGED (NO DISCHARGE (*))	SAMPLE VOLUME (ml)	COUNTING VOLUME (ml)	SAMPLE LOCATION / COMMENTS	ANALYTICAL REF. # (if applicable)	SAMPLE ACTIVITY IN $\mu\text{C}/\text{ml}$ [(*) denotes >MDA Value]	
						ALPHA	BETA
7/22/92	30	1000	5	BLDG. #5 TRENCH WATER IN A DRUM (SAMPLE FOR RELEASE)	W-6-92	4.1 E-8	1.8 E-6
7/22/92	15 (*)	1000	5	M. D. L. TRENCH #16 OILY WATER	W-7-92	1.2E-7	2.1 E-6
7/22/92	50	1000		RESIDUAL M.D.L. IN LINE WATER (IN A DRUM)	W-8-92	(*) 4.4 E-6	3.1 E-6
7/22/92	2400	1000		SOUTH BLDG. 9 HOLDING POOL		1.5 E-7	1.9 E-6
7/22/92	2400	1000	5	SOUTH BLDG. 9 HOLDING POOL		1.9 E-7	2.0 E-6
7/27/92	2500	1000	5	SOUTH BLDG. 9 HOLDING POOL		2.5 E-7	1.6 E-6
7/27/92	2500	1000	5	SOUTH BLDG. 9 HOLDING POOL		(*) E.7 E-7	2.1 E-6
7/27/92	2-4 (*)	1000	5	M. D. L. #24 PIPE CHASE FLOOR DRAIN P-TRAP		(*) 1.5 E-6	2.1 E-6
7/28/92	2500	1000	5	SOUTH BLDG. 9 HOLDING POOL		1.4 E-7	2.1 E-6
8/3/92	2500	1000	5	REAR BLDG. 8 HOLDING POOL		1.5 E-7	2.1 E-6
8/3/92	2500	1000	5	REAR BLDG. 8 HOLDING POOL		1.3 E-7	1.9 E-6
8/4/92	5027	1000	5	M. D. L. TANK PIT #5		1.0 E-7	2.0 E-6
8/4/92	2500	1000	5	REAR BLDG. 8 HOLDING POOL		2.0 E-7	2.0 E-6
8/5/92	2000	500	5	SOUTH BLDG. 9 HOLDING POOL		1.8 E-7	2.9 E-6
8/13/92	4070	1000	5	M. D. L. TANK PIT #5		1.8 E-7	2.0 E-6
9/3/92	5-10	1000	5	H2O ON TOP OF SLUDGE FROM TANK PIT #5 (IN DRUM)		2.6 E-7	2.0 E-6
10/29/92	225 ml (*)	225 ml	5	RESIDUAL H2O IN PIPE CHASE "1" DRAIN TRAP		(*) 8.0 E-6	6.6 E-6

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14672

TO: R.G.Kitzer, Larry Smith
Health Physics - Large Site
Westinghouse Electric Corporation

Received: 5/13/92
Reported: 5/22/92

[RESULTS OF ANALYSIS]

Analytical Lab ID ----> SAMPLE# 92-1341

Health Physics ID ----> #2-92 Sludge Waterludge
From Tank 5 Pit
Sampled 5/8/92

NUCLIDE	uCi/ml +/- 2 sigma	10CFR20 MPC	% of MPC
U-235	5.6E-08 +/- 2.4E-08	3E-05	0.19
----- (Sum Nuclides)= 5.6E-08		----- (Sum MPC's)= 0.19	

Remarks: Water for release (55 gallon drums)

Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kurchak

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14672

TO: R.G.Kitzer, Larry Smith
Health Physics - Large Site
Westinghouse Electric Corporation

Received: 5/13/92
Reported: 5/22/92

[RESULTS OF ANALYSIS]

Analytical Lab ID ---->

SAMPLE# 92-1343

Health Physics ID ---->

#4-92 MDL Tank #5 Tank 5 Pit Sludge
in Tank Sludge
Sampled 5/11/92

NUCLIDE	uCi/ml	+/-	2 sigma	10CFR20 MPC	% of MPC
Cs-137	1.4E-06	+/-	6.2E-08	2E-05	6.98
U-235	2.5E-05	+/-	2.4E-07	3E-05	82.33
(Sum Nuclides)= 2.6E-05				(Sum MPC's)=	89.31

Remarks: Water for release (55 gallon drums)

Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kuvshin

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14780

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/22/92
Reported: 7/28/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
347	92-2281	3.65E+00	+/- 2.3E-01	2.02E-01	+/- 1.0E-01
348	92-2282	<1.9E-01			

GAMMA SPECTROMETRY ANALYSIS (@ July 22, 1992)

Originator ID	Lab.Spl#	U-235	
		pCi/ml	2 sigma
W-6-92	92-2283	4.69E-02	+/- 4.0E-02
W-7-92	92-2284	<3.6E-01	
W-8-92	92-2285	1.63E+01	+/- 9.9E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14780
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kowalski

APPENDIX C

SUMMARY TABLE FOR SOIL SAMPLE ANALYSIS AND LOCATION
(SORTED IN ORDER OF ANALYTICAL SAMPLE NUMBER)

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
006-03-23	05/15/92	Pipe joint	92-1394	3.22E-01	3	23.0
007-03-25	05/15/92	Pipe cut	92-1395	< 5.40E-01	3	25.0
008-03-32	05/15/92	Random sample	92-1396	< 3.20E-01	3	32.0
009-03-38	05/15/92	Pipe cut	92-1397	< 3.80E-01	3	38.0
010-03-46.5	05/15/92	Pipe cut	92-1398	< 3.60E-01	3	46.5
011-03-45	05/15/92	Pipe joint	92-1399	< 3.80E-01	3	45.0
012-03-45	05/15/92	Duplicate split of sample 011-03-45	92-1400	< 3.60E-01	3	45.0
013-03-56	05/15/92	Pipe cut	92-1401	1.40E-01	3	56.0
014-03-63	05/15/92	Pipe cut	92-1402	< 3.30E-01	3	63.0
015-03-67	05/15/92	Ending elbow joint	92-1403	< 3.60E-01	3	63.0
016-03-00	05/15/92	Beginning elbow joint	92-1404	< 2.40E-01	3	0.0
017-03-10	05/15/92	Random sample	92-1405	< 2.20E-01	3	10.0
018-03-16.5	05/15/92	Pipe cut	92-1406	1.27E-01	3	16.5
019-03-2.5	05/15/92	Pipe cut and joint area	92-1407	< 2.20E-01	3	2.5
020-14-20	05/15/92	Pipe break area	92-1408	< 1.60E-01	14	20.0
021-14-50	05/15/92	Degraded pipe. (Hole in pipe)	92-1409	1.44E-01	14	50.0
022-14-00	05/18/92	Beginning elbow joint	92-1416	< 2.50E-01	14	0.0
023-14-10	05/18/92	Pipe cut area	92-1417	< 2.30E-01	14	10.0
024-14-21	05/18/92	Broken joint area	92-1418	< 2.50E-01	14	21.0
025-14-31	05/18/92	Pipe cut area	92-1419	1.46E-01	14	31.0
026-14-41	05/18/92	Pipe cut and joint	92-1420	7.98E-02	14	41.0
027-14-51	05/18/92	Holes in line	92-1421	< 4.00E-01	14	51.0
028-14-53	05/18/92	Pipe cut	92-1422	5.17E-01	14	53.0
029-01-00	05/18/92	Elbow	92-1423	3.67E-01	1	0.0
030-01-07	05/18/92	Pipe cut	92-1424	2.18E-01	1	7.0
031-01-12	05/18/92	High count rate joint area	92-1425	3.78E-01	1	12.0
032-01-14	05/18/92	Pipe cut	92-1426	2.32E-01	1	14.0
033-01-20	05/18/92	Pipe joint	92-1427	2.76E-01	1	20.0
034-01-23	05/18/92	Elbow	92-1428	2.27E-01	1	23.0
035-05-01	05/19/92	Pipe cut	92-1429	< 2.00E-01	5	1.0
036-05-03	05/19/92	Pipe cut	92-1430	< 2.70E-01	5	3.0
037-05-05	05/19/92	Pipe joint	92-1431	< 3.10E-01	5	5.0
038-05-09	05/19/92	Pipe cut	92-1432	< 3.40E-01	5	9.0
039-05-10	05/19/92	Pipe joint	92-1433	< 2.40E-01	5	10.0
040-05-12	05/19/92	Pipe cut	92-1434	2.20E-01	5	12.0
041-05-14	05/19/92	Pipe joint	92-1435	< 3.20E-01	5	14.0
042-05-19	05/19/92	Pipe joint	92-1436	< 3.50E-01	5	19.0
043-05-23	05/19/92	Pipe cut	92-1437	2.42E-01	5	23.0
044-15-06	05/19/92	Random sample	92-1438	< 2.30E-01	15	6.0
045-15-12	05/19/92	Pipe joint	92-1439	< 3.00E-01	15	12.0
046-15-18	05/19/92	Random Sample	92-1440	< 2.20E-01	15	18.0
047-15-24	05/19/92	Pipe cut	92-1441	< 2.20E-01	15	24.0
048-15-33	05/19/92	Pipe joint	92-1442	< 2.20E-01	15	33.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
049-1A-05	05/19/92	Pipe joint	92-1468	< 4.60E-01	1A	5.0
050-1A-09	05/19/92	End elbow	92-1469	2.78E-01	1A	9.0
051-02-02	05/19/92	Pipe cut	92-1470	< 2.80E-01	2	2.0
052-02-04	05/19/92	Pipe joint	92-1471	5.80E-01	2	4.0
053-05-10	05/19/92	Joint down comer into storm sewer	92-1472	< 1.70E-01	5	10.0
054-04-01	05/20/92	Pipe cut	92-1473	< 2.00E-01	4	1.0
055-04-02	05/20/92	Pipe joint	92-1474	< 3.80E-01	4	2.0
056-04-10	05/20/92	Pipe cut	92-1475	< 2.30E-01	4	10.0
057-04-16	05/20/92	Random sample	92-1476	< 1.40E-01	4	16.0
058-04-22	05/20/92	Pipe joint	92-1477	< 2.60E-01	4	22.0
059-04-23	05/20/92	Pipe cut	92-1478	< 1.90E-01	4	23.0
060-04-32	05/20/92	Pipe cut	92-1479	< 3.90E-01	4	32.0
061-04-41 5	05/20/92	Pipe joint	92-1480	< 2.00E-01	4	41.5
062-04-44	05/20/92	Pipe cut	92-1481	< 2.30E-01	4	44.0
063-04-54	05/20/92	Random sample	92-1482	2.15E-01	4	54.0
064-04-62	05/20/92	Pipe cut	92-1483	< 2.50E-01	4	62.0
065-04-64	05/20/92	Ending "Y" joint	92-1484	< 2.50E-01	4	64.0
066-15-43 5	05/22/92	Pipe cut	92-1485	< 1.90E-01	15	43.5
067-15-53 5	05/22/92	Pipe joint	92-1486	< 1.90E-01	15	53.5
068-15-60	05/22/92	Random sample	92-1487	< 2.40E-01	15	60.0
069-15-66	05/22/92	Pipe cut	92-1488	1.29E+00	15	66.0
070-15-81	05/22/92	Pipe cut	92-1489	< 1.90E-01	15	81.0
071-15-88	05/22/92	Random sample	92-1490	2.08E-01	15	88.0
072-15-95	05/22/92	Pipe joint	92-1491	< 2.50E-01	15	95.0
073-15-105	05/22/92	Random sample	92-1523	< 1.00E-01	15	105.0
074-15-115	05/22/92	Pipe cut	92-1524	< 3.00E-01	15	115.0
075-15-125	05/26/92	Random sample	92-1525	< 3.10E-01	15	125.0
076-15-131	05/26/92	Random sample	92-1526	< 3.40E-01	15	131.0
077-15-137 5	05/26/92	Pipe joint	92-1527	< 9.57E-02	15	137.5
078-15-139 5	05/26/92	Pipe cut	92-1528	< 2.80E-01	15	139.5
079-15-149	05/26/92	Random sample	92-1529	< 2.60E-01	15	149.0
080-15-159	05/26/92	Random sample	92-1530	< 2.90E-01	15	159.0
081-15-169	05/26/92	Random sample	92-1531	< 2.90E-01	15	169.0
082-15-175 5	05/26/92	Pipe cut	92-1532	< 2.70E-01	15	175.5
083-15-157 5	05/26/92	Pipe joint	92-1533	< 2.70E-01	15	157.5
084-15-157 5	05/26/92	Duplicate split of sample 083-15-157 5	92-1534	1.23E-01	15	157.5
085-05-24	05/27/92	Valve joint	92-1535	1.26E+00	5	24.0
086-05-25	05/27/92	Valve joint	92-1536	4.64E-01	5	25.0
087-05-26 5	05/27/92	Ending elbow	92-1537	< 5.00E-01	5	26.5
088-07-03	05/27/92	Pipe joint	92-1538	< 2.40E-01	7	3.0
089-07-08	05/27/92	Pipe cut	92-1539	< 4.30E-01	7	8.0
090-07-14	05/27/92	Random sample	92-1540	1.83E-01	7	14.0
091-07-20	05/27/92	Pipe cut	92-1541	< 3.10E-01	7	20.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
092-07-23	05/27/92	Pipe joint	92-1542	< 4.00E-01	7	23.0
093-07-29	05/27/92	Pipe joint	92-1543	< 1.90E-01	7	29.0
094-07-38	05/27/92	Random sample	92-1544	< 2.70E-01	7	38.0
095-07-45.5	05/27/92	Pipe cut	92-1545	1.10E-01	7	45.5
096-16-3.5	05/28/92	Pipe cut	92-1546	< 1.70E-01	16	3.5
097-16-10	05/28/92	Random sample	92-1547	< 3.00E-01	16	10.0
098-16-19	05/28/92	Pipe joint	92-1548	< 2.30E-01	16	19.0
099-16-29.5	05/28/92	Pipe cut	92-1549	< 2.30E-01	16	29.5
100-16-39.5	05/28/92	Pipe joint	92-1550	1.7E-01	16	39.5
101-07-49	05/28/92	Pipe joint	92-1551	< 2.70E-01	7	49.0
102-07-57	05/28/92	Pipe cut	92-1552	< 2.00E-01	7	57.0
103-16-175	05/28/92	Broken 3" copper line (MDL 16-B)	92-1553	< 2.40E-01	16	475.0
105-16-46	05/30/92	Random sample	92-1579	< 2.30E-01	16	46.0
106-16-56	05/30/92	Pipe cut	92-1580	< 1.90E-01	16	56.0
107-16-61	05/30/92	Pipe joint	92-1581	< 1.10E-01	16	61.0
108-16-71	05/30/92	Random sample	92-1582	< 1.60E-01	16	71.0
109-16-081	05/30/92	Pipe cut	92-1583	< 2.20E-01	16	81.0
110-16-83	05/30/92	Pipe joint	92-1584	< 2.50E-01	16	83.0
111-15-75	05/30/92	Pipe joint	92-1585	< 2.40E-01	15	75.0
112-16-93	06/01/92	Pipe cut	92-1586	< 2.80E-01	16	93.0
113-16-103	06/01/92	Pipe joint	92-1587	< 2.50E-01	16	103.0
114-16-113	06/01/92	Random sample	92-1588	< 2.90E-01	16	113.0
115-16-119	06/01/92	Random sample	92-1589	< 3.10E-01	16	119.0
116-16-124	06/01/92	Pipe joint	92-1590	< 2.30E-01	16	124.0
117-16-134	06/01/92	Random sample	92-1591	< 3.10E-01	16	134.0
118-16-140	06/01/92	Random sample	92-1592	< 2.40E-01	16	140.0
119-16-145.5	06/01/92	Pipe joint	92-1593	< 1.30E-01	16	145.5
120-16-147.5	06/01/92	Pipe cut	92-1594	8.19E-02	16	147.5
121-16-155	06/01/92	Random sample	92-1595	< 2.90E-01	16	155.0
122-16-164	06/01/92	Pipe joint	92-1596	< 2.20E-01	16	164.0
123-16-168	06/01/92	Pipe cut	92-1597	< 3.50E-01	16	168.0
124-11-5.5	06/02/92	Pipe cut	92-1598	< 3.90E-01	11	5.5
125-11-08	06/02/92	Pipe joint	92-1599	< 5.90E-01	11	8.0
126-11-16	06/02/92	Random sample	92-1600	< 3.50E-01	11	16.0
127-11-22	06/02/92	Random sample	92-1601	6.17E-01	11	22.0
128-11-29.5	06/02/92	Pipe joint	92-1602	5.22E-01	11	29.5
129-11-31.5	06/02/92	Pipe cut	92-1603	< 2.40E-01	11	31.5
130-11-40	06/02/92	Random sample	92-1604	< 4.80E-01	11	40.0
131-11-48	06/02/92	Pipe cut	92-1605	< 4.10E-01	11	48.0
132-11-49	06/02/92	Ending elbow	92-1606	< 4.50E-01	11	49.0
133-12B-00	06/02/92	Elbow	92-1607	3.40E-01	12B	0.0
134-12B-03	06/02/92	Ending elbow	92-1608	1.90E-01	12B	3.0
135-12-01	06/02/92	Pipe joint	92-1609	1.60E-01	12	1.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
136-12-02	06/02/92	Pipe joint	92-1610	< 2.90E-01	12	2.0
137-12-04	06/02/92	Pipe cut	92-1611	< 3.70E-01	12	4.0
138-12-06	06/02/92	Pipe cut	92-1612	< 3.30E-01	12	6.0
139-12-07	06-02-92	Pipe joint/"Y"	92-1613	< 3.50E-01	12	7.0
140-12A-02	06/02/92	Pipe joint	92-1614	< 5.00E-01	12A	2.0
141-12-00	06/02/92	Pipe joint/elbow	92-1615	< 3.80E-01	12	0.0
142-12-08	06/02/92	Pipe joint	92-1616	< 4.70E-01	12	8.0
143-12-10.5	06/02/92	Pipe cut	92-1617	< 2.50E-01	12	10.5
144-12-13.5	06/02/92	Pipe joint	92-1618	< 3.80E-01	12	13.5
145-12-17.5	06/02/92	Pipe cut	92-1619	< 3.50E-01	12	17.5
146-12-19	06/02/92	Pipe joint/elbow	92-1620	< 6.40E-01	12	19.0
147-12-23	06/02/92	Pipe joint	92-1621	< 3.90E-01	12	23.0
148-12-24	06/02/92	Pipe cut	92-1622	< 5.10E-01	12	24.0
149-12-26	06/02/92	Pipe joint	92-1623	< 2.80E-01	12	26.0
150-12-29	06/02/92	Pipe cut	92-1624	< 3.80E-01	12	29.0
151-12-35	06/02/92	End elbow	92-1625	< 3.40E-01	12	35.0
152-15-178	06/02/92	Pipe joint inside manhole	92-1626	< 3.30E-01	15	178.0
153-16-01	06/02/92	Pipe joint inside manhole	92-1627	< 3.30E-01	16	1.0
154-15A-01	06/02/92	Pipe joint inside manhole	92-1628	< 5.90E-01	15A	1.0
155-16B-03	06/02/92	Pipe cut	92-1629	1.01E-01	16B	3.0
156-16B-07	06/02/92	Pipe cut	92-1630	1.11E-01	16B	7.0
157-5A-01	06/02/92	Pipe joint	92-1631	< 8.00E-01	5A	1.0
158-5A-07	06/02/92	Pipe cut	92-1632	< 4.40E-01	5A	7.0
159-5A-11.5	06/02/92	Pipe joint	92-1633	< 4.90E-01	5A	11.5
160-5A-13.5	06/02/92	Pipe cut	92-1634	< 6.50E-01	5A	13.5
161-5A-18.5	06/02/92	Ending elbow	92-1635	5.30E-01	5A	18.5
162-06-01	06/03/92	Pipe cut	92-1638	2.69E-01	6	1.0
163-06-03	06/03/92	Pipe joint	92-1639	8.20E-02	6	3.0
164-06-04	06/03/92	Pipe joint	92-1640	2.59E-01	6	4.0
165-06-06	06/03/92	Pipe cut	92-1641	3.85E-01	6	6.0
166-06-09	06/03/92	Pipe joint	92-1642	< 3.50E-01	6	9.0
167-15-65	06/03/92	Follow up for suspect sample #069	92-1643	< 2.10E-01	15	65.0
168-15-66	06/03/92	Follow up for suspect sample #069	92-1644	< 2.50E-01	15	66.0
169-15-66	06/03/92	Follow up for suspect sample #069	92-1645	2.37E-01	15	66.0
170-15-67	06/03/92	Follow up for suspect sample #069	92-1646	< 2.40E-01	15	67.0
172-16A-06	06/09/92	Random sample	92-1665	< 2.30E-01	16A	6.0
173-16A-15	06/09/92	Pipe joint	92-1666	< 1.50E-01	16A	15.0
174-16A-24	06/09/92	Pipe cut	92-1667	< 2.30E-01	16A	24.0
175-16A-30	06/09/92	Random sample	92-1668	< 2.20E-01	16A	30.0
176-16A-36	06/09/92	Pipe joint	92-1669	< 2.30E-01	16A	36.0
177-16A-42	06/09/92	Random sample	92-1670	< 1.80E-01	16A	42.0
178-16A-50	06/09/92	Pipe cut	92-1671	1.81E-01	16A	50.0
179-05-24	06/09/92	Flow valve area	92-1672	3.47E-01	5	24.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
180-05-25	06/09/92	"Y" joint	92-1673	5.93E-01	5	25.0
181-05-26	06/09/92	Ending elbow	92-1674	7.89E-01	5	26.0
182-16B-16	06/12/92	End of pipe (found as open)	92-1723	< 2.90E-01	16B	16.0
183-16B-14	06/12/92	Pipe joint	92-1724	< 1.50E-01	16B	14.0
184-16B-13	06/12/92	Pipe joint	92-1725	< 2.50E-01	16B	13.0
185-16B-12	06/12/92	Pipe joint	92-1726	< 1.60E-01	16B	12.0
186-16B-10	06/12/92	Pipe joint	92-1727	< 2.50E-01	16B	10.0
187-16B-08	06/12/92	Pipe joint	92-1728	< 1.90E-01	16B	8.0
188-16B-06	06/12/92	Pipe cut	92-1729	< 2.70E-01	16B	6.0
189-15A-06	06/18/92	Pipe cut	92-1803	< 1.60E-01	15A	6.0
190-15A-13	06/18/92	Random sample	92-1804	< 1.70E-01	15A	13.0
191-15A-20	06/18/92	Pipe joint	92-1805	< 1.90E-01	15A	20.0
192-15A-24	06/18/92	Pipe cut	92-1806	2.10E-01	15A	24.0
193-15A-29	06/18/92	Pipe cut	92-1807	< 2.70E-01	15A	29.0
194-15A-30	06/18/92	Pipe joint	92-1808	< 3.20E-01	15A	30.0
195-15A-32	06/18/92	Pipe cut	92-1809	< 2.90E-01	15A	32.0
196-15A-32.5	06/18/92	Pipe joint	92-1810	< 4.50E-01	15A	32.5
197-15A-33.5	06/18/92	Pipe joint	92-1811	< 3.00E-01	15A	33.5
198-15A-35	06/18/92	Pipe joint	92-1812	2.55E-01	15A	35.0
199-15A-41	06/18/92	Pipe cut	92-1813	< 3.60E-01	15A	41.0
200-15A-44	06/18/92	Pipe joint	92-1814	< 4.00E-01	15A	44.0
201-15A-48	06-18-92	Pipe cut	92-1815	< 3.20E-01	15A	48.0
202-15A-53	06-18-92	Pipe cut	92-1816	< 4.00E-01	15A	53.0
203-15A-53.5	06-18-92	Pipe joint	92-1817	< 2.50E-01	15A	53.5
204-15A-56	06-18-92	Pipe joint	92-1818	< 4.20E-01	15A	56.0
205-15A-59	06-18-92	Pipe joint	92-1819	< 2.60E-01	15A	59.0
206-15A-64	06-18-92	Pipe joint	92-1820	< 3.40E-01	15A	64.0
207-15A-65	06-18-92	Pipe joint	92-1821	< 3.80E-01	15A	65.0
208-15A-66	06-18-92	Pipe cut	92-1822	< 2.10E-01	15A	66.0
209-15A-68	06-18-92	Pipe joint	92-1823	< 3.80E-01	15A	68.0
210-15A-71	06-18-92	Pipe joint	92-1824	2.78E-01	15A	71.0
211-15A-73	06-18-92	Pipe cut	92-1825	< 4.60E-01	15A	73.0
212-15A-74	06-18-92	Pipe cut	92-1826	< 3.90E-01	15A	74.0
213-17-00	06-17-92	Pipe elbow	92-1827	2.33E-01	17	0.0
214-17-02	06-17-92	Random sample	92-1828	< 1.60E-01	17	2.0
215-17-08	06-17-92	Random sample	92-1829	< 1.60E-01	17	8.0
216-15A-3.5	06-19-92	Pipe cut	92-1830	< 2.40E-01	15A	3.5
217-15B-3.5	06-19-92	Pipe joint	92-1831	< 3.80E-01	15B	3.5
218-15B-9.5	06-19-92	Ending elbow	92-1832	4.11E-01	15B	9.5
219-13-01	06-22-92	Pipe cut	92-1871	< 3.90E-01	13	1.0
220-13-2.5	06-22-92	Pipe joint	92-1872	< 2.70E-01	13	2.5
221-13-09	06-22-92	Pipe cut	92-1873	< 3.50E-01	13	9.0
222-13-16	06-22-92	Pipe cut	92-1874	< 4.20E-01	13	16.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
223-13-22	06-22-92	Pipe joint	92-1875	< 2.30E-01	13	22.0
224-13-23	06-22-92	Joint / Tee	92-1876	< 4.10E-01	13	23.0
225-13-00	06-22-92	Trough @ north end	92-1877	2.15E-01	13	0.0
226-13-08	06-22-92	Trough @ south end	92-1878	< 4.10E-01	13	8.0
227-16-205	06-22-92	Pipe joint	92-1879	< 1.50E-01	16	205.0
228-16-212	06-22-92	Pipe cut	92-1880	< 2.40E-01	16	212.0
229-16-219	06-22-92	Pipe joint	92-1881	< 1.60E-01	16	219.0
230-16-225	06-22-92	Pipe cut	92-1882	< 2.90E-01	16	225.0
231-16-226	06-22-92	Pipe joint	92-1883	4.40E-01	16	226.0
232-16-236	06-22-92	Pipe cut	92-1884	< 2.60E-01	16	236.0
233-16-242	06-22-92	Random sample	92-1885	< 2.00E-01	16	242.0
234-16-247	06-22-92	Pipe joint	92-1886	< 2.40E-01	16	247.0
235-16-248	06-22-92	Pipe cut	92-1887	3.11E-01	16	248.0
236-16-258	06-22-92	Random sample	92-1888	< 1.70E-01	16	258.0
237-16-264	06-22-92	Pipe cut	92-1889	< 1.70E-01	16	264.0
238-16-268	06-22-92	Pipe joint	92-1890	< 1.90E-01	16	268.0
239-16C-08	06-22-92	Random sample	92-1891	< 3.00E-01	16C	8.0
240-16C-16	06-22-92	Random sample	92-1892	< 3.70E-01	16C	16.0
241-16C-21	06-22-92	Random sample	92-1893	< 3.10E-01	16C	21.0
242-16D-00	06-22-92	Beginning	92-1894	< 4.20E-01	16D	0.0
243-16D-08	06-22-92	Ending elbow	92-1895	3.29E-01	16D	8.0
244-16-175	06-24-92	"Y" Joint	92-1945	< 2.70E-01	16	175.0
245-16-183	06-24-92	Pipe joint	92-1946	1.93E-01	16	183.0
246-16-184	06-24-92	Pipe cut	92-1947	< 2.50E-01	16	184.0
247-16-190	06-24-92	Random sample	92-1948	< 1.40E-01	16	190.0
248-16-196	06-24-92	Pipe cut	92-1949	< 2.00E-01	16	196.0
249-17-15	06-25-92	Pipe cut	92-1950	1.78E-01	17	15.0
250-17-23	06-25-92	Pipe joint	92-1951	< 1.80E-01	17	23.0
251-17-27	06/25/92	Pipe cut	92-1952	< 2.30E-01	17	27.0
252-17-32	06/25/92	Random sample	92-1953	< 2.70E-01	17	32.0
253-17-38	06/25/92	Pipe cut	92-1954	1.53E-01	17	38.0
254-17-43	06/25/92	Pipe joint	92-2002	1.44E-01	17	43.0
255-17-53	06/25/92	Random sample	92-2003	7.24E-01	17	53.0
256-18-02	06/29/92	Pipe cut	92-2004	7.68E-01	18	2.0
257-18-9.5	06/29/92	Pipe joint	92-2005	< 2.10E-01	18	9.5
258-18-18	06/29/92	Pipe cut	92-2006	3.13E-01	18	18.0
259-20-05	06/29/92	Pipe cut	92-2007	< 2.40E-01	20	5.0
260-20-11	06/29/92	Random sample	92-2008	< 2.80E-01	20	11.0
261-20-18	06/29/92	Pipe cut	92-2009	< 1.20E-01	20	18.0
262-20-19	06/29/92	Pipe joint	92-2010	5.37E-01	20	19.0
263-20-27	06/29/92	Random sample	92-2011	< 1.60E-01	20	27.0
264-20-33	06/29/92	Pipe cut	92-2012	4.24E-01	20	33.0
265-20-39	06/29/92	Pipe joint	92-2013	2.68E-01	20	39.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
266-20-45	06/29/92	Random sample	92-2014	< 2.60E-01	20	45.0
267-20-51	06/29/92	Pipe cut	92-2015	2.16E-01	20	51.0
268-18-23	07/01/92	Pipe joint	92-2062	< 3.10E-01	18	23.0
269-18-24	07/01/92	"Y" joint	92-2063	1.95E-01	18	24.0
270-18-25	07/01/92	Pipe joint	92-2064	< 2.40E-01	18	25.0
271-18-30	07/01/92	Pipe joint	92-2065	1.38E-01	18	30.0
272-18-38.5	07/01/92	Pipe cut	92-2066	< 2.80E-01	18	38.5
273-18-46	07/01/92	Random sample	92-2067	< 1.80E-01	18	46.0
274-18-51.5	07/01/92	Pipe joint	92-2068	< 3.10E-01	18	51.5
275-18-57.5	07/01/92	Pipe cut	92-2069	< 1.70E-01	18	57.5
276-18A-00	07/02/92	Pipe joint	92-2070	< 3.80E-01	18A	0.0
277-18A-.5	07/02/92	Pipe joint	92-2071	< 2.70E-01	18A	0.5
278-18A-1.5	07/02/92	Pipe joint	92-2072	< 4.00E-01	18A	1.5
279-18A-11	07/02/92	Random sample	92-2073	2.84E-01	18A	11.0
280-18A-21	07/02/92	Ending "Y" joint	92-2074	< 4.30E-01	18A	21.0
281-18C-00	07/02/92	Ending elbow	92-2075	4.08E-01	18C	0.0
282-18-68	07/06/92	Pipe cut	92-2076	< 2.70E-01	18	68.0
283-18-73	07/06/92	Pipe joint	92-2077	< 1.10E-01	18	73.0
284-18-80	07/06/92	Random sample	92-2078	< 1.50E-01	18	80.0
285-18-86	07/06/92	Pipe cut	92-2079	< 2.30E-01	18	86.0
286-20-59.5	07/07/92	Pipe cut	92-2084	2.34E-01	20	59.5
287-20-60	07/07/92	Pipe joint	92-2085	1.86E-01	20	60.0
288-20-60	07/07/92	Duplicate split of sample #287	92-2086	< 2.70E-01	20	60.0
289-20-68.5	07/07/92	Pipe cut	92-2087	< 2.60E-01	20	68.5
290-20-76	07/07/92	Random sample	92-2088	< 2.40E-01	20	76.0
291-20-81.5	07/07/92	Pipe joint	92-2089	< 2.40E-01	20	81.5
292-20-82	07/07/92	Pipe cut	92-2090	2.07E-01	20	82.0
293-17-53	07/07/92	Repeat of #255 sample	92-2091	1.62E-01	17	53.0
294-18-93	07/07/92	Pipe joint	92-2133	< 1.90E-01	18	93.0
295-18-98	07/07/92	Random sample	92-2134	< 2.00E-01	18	98.0
296-18-104	07/07/92	Pipe cut	92-2135	< 1.30E-01	18	104.0
297-18-114	07/08/92	Pipe joint	92-2136	< 1.40E-01	18	114.0
298-18-121	07/08/92	Pipe cut	92-2137	< 2.00E-01	18	121.0
299-18-154	07/09/92	Pipe cut	92-2156	< 2.10E-01	18	154.0
300-18-157	07/09/92	Pipe joint	92-2157	< 2.20E-01	18	157.0
301-18-167.5	07/09/92	End of MDL section in Bldg 8-A	92-2158	< 2.50E-01	18	167.5
302-19-6.5	07/09/92	Pipe cut	92-2159	< 2.00E-01	19	6.5
303-18-128	07/09/92	Random sample	92-2160	2.04E-01	18	128.0
304-18-134	07/09/92	Pipe joint	92-2161	< 2.60E-01	18	134.0
305-18-135	07/09/92	Pipe cut	92-2162	< 2.30E-01	18	135.0
306-18-144	07/09/92	Random sample	92-2163	< 2.30E-01	18	144.0
307-18B-00	07/10/92	Ending elbow	92-2164	< 3.70E-01	18B	0.0
308-18B-6.5	07/10/92	Pipe cut	92-2165	< 2.60E-01	18B	6.5

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
309-18B-7.5	07/10/92	Pipe joint	92-2166	< 3.50E-01	18B	7.5
310-18B-08	07/10/92	"Y" joint	92-2167	< 3.60E-01	18B	8.0
311-18B-8.5	07/10/92	Pipe joint	92-2168	2.61E-01	18B	5.0
312-18B-12	07/10/92	Pipe cut	92-2169	< 4.10E-01	18B	12.0
313-18B-12.5	07/10/92	Pipe joint	92-2170	< 2.90E-01	18B	12.5
314-18B-13	07/10/92	"Y" joint	92-2171	2.46E-01	18B	13.0
315-18B-13.5	07/10/92	Pipe joint	92-2172	2.76E-01	18B	13.5
316-18B-18	07/10/92	End of section	92-2173	< 1.90E-01	18B	18.0
317-19-09	07/14/92	Pipe joint (inside manhole)	92-2178	6.59E-01	19	19.0
318-20-00	07/14/92	Pipe joint (inside manhole)	92-2179	5.56E-01	20	0.0
319-20-01	07/14/92	Pipe joint (inside manhole)	92-2180	3.12E-01	20	1.0
320-15E-01	07/15/92	"Y" joint	92-2181	< 5.20E-01	15E	1.0
321-15E-3.5	07/15/92	Pipe joint	92-2182	< 4.20E-01	15E	3.5
322-15E-07	07/15/92	Ending elbow	92-2183	< 5.50E-01	15E	7.0
323-15D-00	07/15/92	Ending elbow/cleanout	92-2184	4.01E-01	15D	0.0
324-15D-02	07/15/92	"Y" joint	92-2185	< 5.10E-01	15D	2.0
325-15D-03	07/15/92	"Y" joint	92-2186	1.46E+00	15D	3.0
326-15D-04	07/15/92	Pipe joint	92-2187	< 5.70E-01	15D	4.0
327-15D-05	07/15/92	Pipe joint	92-2188	3.98E-01	15D	5.0
328-15D-08	07/15/92	Pipe cut	92-2189	< 3.90E-01	15D	8.0
329-15D-8.5	07/15/92	Ending "Y"	92-2190	< 3.80E-01	15D	8.5
330-15A-75	07/15/92	Flow valve	92-2191	< 3.80E-01	15A	75.0
331-15A-80	07/15/92	Pipe cut	92-2192	< 2.40E-01	15A	80.0
332-15C-02	07/15/92	Flow valve	92-2193	< 2.60E-01	15C	2.0
333-15C-03	07/15/92	Pipe cut/joint	92-2194	3.88E-01	15C	3.0
334-15C-03	07/15/92	Duplicate split of sample #333	92-2195	< 7.00E-01	15C	3.0
335-23-11	07/16/92	End in pipe chase	92-2242	7.49E-01	23	11.0
336-23-07	07/16/92	Pipe joint	92-2243	< 3.60E-01	23	7.0
337-23-6.5	07/16/92	Pipe joint	92-2244	2.83E-01	23	6.5
338-23-1.5	07/16/92	Pipe joint	92-2245	< 2.60E-01	23	1.5
339-23-00	07/16/92	Beginning "Y"	92-2246	< 4.00E-01	23	0.0
340-23A-01	07/16/92	Pipe joint	92-2247	< 3.50E-01	23A	1.0
341-23A-00	07/16/92	Elbow	92-2248	5.36E-01	23A	0.0
342-23B-01	07/16/92	Pipe joint	92-2249	< 2.30E-01	23B	1.0
343-23B-02	07/16/92	Elbow	92-2250	< 2.40E-01	23B	2.0
344-23C-00	07/16/92	Elbow	92-2251	< 2.30E-01	23C	0.0
345-23C-03	07/16/92	Pipe joint	92-2252	< 2.30E-01	23C	3.0
367-20-92	07/29/92	Random sample	92-2372	1.54E-01	20	92.0
368-20-102	07/29/92	Pipe joint	92-2373	< 1.90E-01	20	102.0
369-20-106	07/29/92	Pipe cut	92-2374	2.27E-01	20	106.0
370-20-116	07/29/92	Random sample	92-2375	< 2.70E-01	20	116.0
371-20-123	07/29/92	Pipe joint	92-2376	7.04E-01	20	123.0
372-20-124	07/29/92	Pipe cut	92-2377	1.50E+00	20	124.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
373-20-126	07/29/92	Ending elbow	92-2378	4.21E-01	20	126.0
374-21-14	07/29/92	Pipe joint	92-2379	5.37E-01	21	14.0
375-21-10	07/29/92	Pipe joint	92-2380	1.63E-01	21	10.0
376-21-08	07/29/92	Pipe cut	92-2381	3.69E-01	21	8.0
377-21-06	07/29/92	Pipe joint	92-2382	< 2.50E-01	21	6.0
387-20-123	08/07/92	Follow up sample at pipe cut	92-2417	< 6.50E-02	20	123.0
388-20-124	08/07/92	Follow up sample at pipe cut	92-2418	2.81E-01	20	124.0
397-09-10	08/11/92	North to south random sample	92-2497	< 3.70E-01	9	10.0
404-25-00	08/14/92	Pipe elbow	92-2571	2.31E-01	25	0.0
405-25-04	08/14/92	Pipe cut	92-272	1.07E+00	25	4.0
406-26-00	08/14/92	Pipe elbow	92-2573	< 2.60E-01	26	0.0
407-27-02	08/14/92	Pipe joint	92-2574	< 3.00E-01	27	2.0
408-27-04	08/14/92	Pipe cut	92-2575	6.68E-01	27	4.0
409-28-00	08/14/92	Pipe elbow	92-2576	< 3.40E-01	28	0.0
410-28-10	08/14/92	Random sample	92-2577	< 2.40E-01	28	10.0
411-28-12	08/14/92	Penetrated pipe area	92-2578	< 3.40E-01	28	12.0
412-29-00	08/14/92	Beginning elbow	92-2579	< 2.10E-01	29	0.0
413-09-13	08/17/92	South to north pipe joint	92-2580	< 2.90E-01	9	13.0
414-09-26	08/19/92	South to north tee to MDL #10	92-2650	6.00E-01	9	26.0
415-8B-9.5	08/24/92	West to east elbow	92-2651	< 3.90E-01	8B	9.5
417-25-04	08/25/92	In trench after dirt was removed	92-2653	< 1.50E-01	25	4.0
422-09-36	09/01/92	South to north random sample	92-2681	< 3.40E-01	9	36.0
423-09-43	09/02/92	South to north Tee to MDL #9A	92-2682	< 3.60E-01	9	43.0
424-9A-43	09/02/92	5' up from bottom joint for MDL #8C	92-2683	< 3.80E-01	9A	43.0
425-9A-43	09/02/92	6' up from bottom tee	92-2684	< 5.40E-01	9A	43.0
426-8A-10	09/08/92	East tunnel east to west sample	92-2690	< 3.00E-01	8A	10.0
427-09-49	09/08/92	South to north random sample	92-2691	< 5.10E-01	9	49.0
428-8A-13	09/10/92	Pipe union joint	92-2716	< 2.20E-01	8A	13.0
429-8A-15	09/10/92	Ending elbow to MDL #9	92-2717	< 2.30E-01	8A	15.0
430-09-01	09/10/92	North to south joint	92-2718	< 2.20E-01	9	1.0
432-05-24	09/15/92	NRC split sample	92-2731	2.78E-01	5	24.0
433-8C-10.5	09/15/92	East to west to siezmic union	92-2732	3.01E-01	8C	10.5
434-10-03	09/18/92	West to east from tee off of MDL #9	92-2733	2.69E-01	10	3.0
436-09-12	09/22/92	North to south random sample	92-2801	< 3.40E-01	9	12.0
437-09-15	09/22/92	North to south pipe joint	92-2802	3.41E-01	9	15.0
438-10-07	09/22/92	Pipe joint	92-2803	< 3.40E-01	10	7.0
439-10-08	09/22/92	Pipe joint	92-2804	3.81E-01	10	8.0
440-10-09	09/22/92	Pipe joint	92-2805	< 4.10E-01	10	9.0
441-10-10	09/22/92	Pipe joint	92-2806	< 4.00E-01	10	10.0
442-10-11	09/22/92	Pipe joint	92-2807	< 4.80E-01	10	11.0
443-10-13	09/22/92	Pipe joint	92-2808	< 4.70E-01	10	13.0

APPENDIX D

SUMMARY TABLE FOR SOIL SAMPLE ANALYSIS AND LOCATION
(SORTED IN ORDER OF SAMPLE LOCATION)

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
029-01-00	05/18/92	Elbow	92-1423	3.67E-01	1	0.0
030-01-07	05/18/92	Pipe cut	92-1424	2.18E-01	1	7.0
031-01-12	05/18/92	High count rate joint area	92-1425	3.78E-01	1	12.0
032-01-14	05/18/92	Pipe cut	92-1426	2.32E-01	1	14.0
033-01-20	05/18/92	Pipe joint	92-1427	2.76E-01	1	20.0
034-01-23	05/18/92	Elbow	92-1428	2.27E-01	1	23.0
049-1A-05	05/19/92	Pipe joint	92-1468	< 4.60E-01	1A	5.0
050-1A-09	05/19/92	End elbow	92-1469	2.78E-01	1A	9.0
051-02-02	05/19/92	Pipe cut	92-1470	< 2.90E-01	2	2.0
052-02-04	05/19/92	Pipe joint	92-1471	5.80E-01	2	4.0
016-03-00	05/15/92	Beginning elbow joint	92-1404	< 2.40E-01	3	0.0
019-03-2.5	05/15/92	Pipe cut and joint area	92-1407	< 2.20E-01	3	2.5
017-03-10	05/15/92	Random sample	92-1405	< 2.20E-01	3	10.0
018-03-16.5	05/15/92	Pipe cut	92-1406	1.27E-01	3	16.5
006-03-23	05/15/92	Pipe joint	92-1394	3.22E-01	3	23.0
007-03-25	05/15/92	Pipe cut	92-1395	< 5.40E-01	3	25.0
008-03-32	05/15/92	Random sample	92-1396	< 3.20E-01	3	32.0
009-03-38	05/15/92	Pipe cut	92-1397	< 3.80E-01	3	38.0
012-03-45	05/15/92	Duplicate split of sample 011-03-45	92-1400	< 3.60E-01	3	45.0
011-03-45	05/15/92	Pipe joint	92-1399	< 3.80E-01	3	45.0
010-03-46.5	05/15/92	Pipe cut	92-1398	< 3.60E-01	3	46.5
013-03-56	05/15/92	Pipe cut	92-1401	1.40E-01	3	56.0
015-03-67	05/15/92	Ending elbow joint	92-1403	< 3.60E-01	3	63.0
014-03-63	05/15/92	Pipe cut	92-1402	< 3.30E-01	3	63.0
054-04-01	05/20/92	Pipe cut	92-1473	< 2.00E-01	4	1.0
055-04-02	05/20/92	Pipe joint	92-1474	< 3.80E-01	4	2.0
056-04-10	05/20/92	Pipe cut	92-1475	< 2.30E-01	4	10.0
057-04-16	05/20/92	Random sample	92-1476	< 1.40E-01	4	16.0
058-04-22	05/20/92	Pipe joint	92-1477	< 2.60E-01	4	22.0
059-04-23	05/20/92	Pipe cut	92-1478	< 1.90E-01	4	23.0
060-04-32	05/20/92	Pipe cut	92-1479	< 3.90E-01	4	32.0
061-04-41.5	05/20/92	Pipe joint	92-1480	< 2.00E-01	4	41.5
062-04-44	05/20/92	Pipe cut	92-1481	< 2.30E-01	4	44.0
063-04-54	05/20/92	Random sample	92-1482	2.15E-01	4	54.0
064-04-62	05/20/92	Pipe cut	92-1483	< 2.50E-01	4	62.0
065-04-64	05/20/92	Ending "Y" joint	92-1484	< 2.50E-01	4	64.0
035-05-01	05/19/92	Pipe cut	92-1429	< 2.00E-01	5	1.0
036-05-03	05/19/92	Pipe cut	92-1430	< 2.70E-01	5	3.0
037-05-05	05/19/92	Pipe joint	92-1431	< 3.10E-01	5	5.0
038-05-09	05/19/92	Pipe cut	92-1432	< 3.40E-01	5	9.0
053-05-10	05/19/92	Joint down comer into storm sewer	92-1472	< 1.70E-01	5	10.0
039-05-10	05/19/92	Pipe joint	92-1433	< 2.40E-01	5	10.0
040-05-12	05/19/92	Pipe cut	92-1434	2.20E-01	5	12.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
041-05-14	05/19/92	Pipe joint	92-1435	< 3.20E-01	5	14.0
042-05-19	05/19/92	Pipe joint	92-1436	< 3.50E-01	5	19.0
043-05-23	05/19/92	Pipe cut	92-1437	2.42E-01	5	23.0
085-05-24	05/27/92	Valve joint	92-1535	1.26E+00	5	24.0
432-05-24	09/15/92	NRC split sample	92-2731	2.78E-01	5	24.0
179-05-24	06/09/92	Flow valve area	92-1672	3.47E-01	5	24.0
180-05-25	06/09/92	"Y" joint	92-1673	5.93E-01	5	25.0
086-05-25	05/27/92	Valve joint	92-1536	4.64E-01	5	25.0
181-05-26	06/09/92	Ending elbow	92-1674	7.89E-01	5	26.0
087-05-26.5	05/27/92	Ending elbow	92-1537	< 5.00E-01	5	26.5
157-5A-01	06/02/92	Pipe joint	92-1631	< 8.00E-01	5A	1.0
158-5A-07	06/02/92	Pipe cut	92-1632	< 4.40E-01	5A	7.0
159-5A-11.5	06/02/92	Pipe joint	92-1633	< 4.90E-01	5A	11.5
160-5A-13.5	06/02/92	Pipe cut	92-1634	< 6.50E-01	5A	13.5
161-5A-18.5	06/02/92	Ending elbow	92-1635	5.30E-01	5A	18.5
162-06-01	06/03/92	Pipe cut	92-1638	2.69E-01	6	1.0
163-06-03	06/03/92	Pipe joint	92-1639	8.20E-02	6	3.0
164-06-04	06/03/92	Pipe joint	92-1640	2.59E-01	6	4.0
165-06-06	06/03/92	Pipe cut	92-1641	3.85E-01	6	6.0
166-06-09	06/03/92	Pipe joint	92-1642	< 3.50E-01	6	9.0
088-07-03	05/27/92	Pipe joint	92-1528	< 2.40E-01	7	3.0
089-07-08	05/27/92	Pipe cut	92-1539	< 4.30E-01	7	8.0
090-07-14	05/27/92	Random sample	92-1540	1.83E-01	7	14.0
091-07-20	05/27/92	Pipe cut	92-1541	< 3.10E-01	7	20.0
092-07-23	05/27/92	Pipe joint	92-1542	< 4.00E-01	7	23.0
093-07-29	05/27/92	Pipe joint	92-1543	< 1.90E-01	7	29.0
094-07-38	05/27/92	Random sample	92-1544	< 2.70E-01	7	38.0
095-07-45.5	05/27/92	Pipe cut	92-1545	1.10E-01	7	45.5
101-07-49	05/28/92	Pipe joint	92-1551	< 2.70E-01	7	49.0
102-07-57	05/28/92	Pipe cut	92-1552	< 2.00E-01	7	57.0
426-8A-10	09/08/92	East tunnel, east to west sample	92-2690	< 3.00E-01	8A	10.0
428-8A-13	09/10/92	Pipe union joint	92-2716	< 2.20E-01	8A	13.0
429-8A-15	09/10/92	Ending elbow to MDL #9	92-2717	< 2.30E-01	8A	15.0
415-8B-9.5	08/24/92	West to east elbow	92-2651	< 3.90E-01	8B	9.5
433-8C-10.5	09/15/92	East to west to seismic union	92-2732	3.01E-01	8C	10.5
430-09-01	09/10/92	North to south joint	92-2718	< 2.20E-01	9	1.0
397-09-10	08/11/92	North to south random sample	92-2497	< 3.70E-01	9	10.0
436-09-12	09/22/92	North to south random sample	92-2801	< 3.40E-01	9	12.0
413-09-13	08/17/92	South to north pipe joint	92-2580	< 2.90E-01	9	13.0
437-09-15	09/22/92	North to south pipe joint	92-2802	3.41E-01	9	15.0
414-09-26	08/19/92	South to north tee to MDL #10	92-2650	6.00E-01	9	26.0
422-09-36	09/01/92	South to north random sample	92-2681	< 3.40E-01	9	36.0
423-09-43	09/02/92	South to north, Tee to MDL #9A	92-2682	< 3.60E-01	9	43.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
427-09-49	09/08/92	South to north random sample	92-2691	< 5.10E-01	9	49.0
424-9A-43	09/02/92	5' up from bottom joint for MDL #8C	92-2683	< 3.80E-01	9A	43.0
425-9A-43	09/02/92	6' up from bottom tee	92-2684	< 5.40E-01	9A	43.0
434-10-03	09/18/92	West to east from tee off of MDL #9	92-2733	2.69E-01	10	3.0
438-10-07	09/22/92	Pipe joint	92-2803	< 3.40E-01	10	7.0
439-10-08	09/22/92	Pipe joint	92-2804	3.81E-01	10	8.0
440-10-09	09/22/92	Pipe joint	92-2805	< 4.10E-01	10	9.0
441-10-10	09/22/92	Pipe joint	92-2806	< 4.00E-01	10	10.0
442-10-11	09/22/92	Pipe joint	92-2807	< 4.80E-01	10	11.0
443-10-13	09/22/92	Pipe joint	92-2808	< 4.70E-01	10	13.0
124-11-5.5	06/02/92	Pipe cut	92-1598	< 3.90E-01	11	5.5
125-11-08	06/02/92	Pipe joint	92-1599	< 5.90E-01	11	8.0
126-11-16	06/02/92	Random sample	92-1600	< 3.50E-01	11	16.0
127-11-22	06/02/92	Random sample	92-1601	6.17E-01	11	22.0
128-11-29.5	06/02/92	Pipe joint	92-1602	5.22E-01	11	29.5
129-11-31.5	06/02/92	Pipe cut	92-1603	< 2.40E-01	11	31.5
130-11-40	06/02/92	Random sample	92-1604	< 4.80E-01	11	40.0
131-11-48	06/02/92	Pipe cut	92-1605	< 4.10E-01	11	48.0
132-11-49	06/02/92	Ending elbow	92-1606	< 4.50E-01	11	49.0
141-12-00	06/02/92	Pipe joint/elbow	92-1615	< 3.80E-01	12	0.0
135-12-01	06/02/92	Pipe joint	92-1609	1.60E-01	12	1.0
136-12-02	06/02/92	Pipe joint	92-1610	< 2.90E-01	12	2.0
137-12-04	06/02/92	Pipe cut	92-1611	< 3.70E-01	12	4.0
138-12-06	06/02/92	Pipe cut	92-1612	< 3.30E-01	12	6.0
139-12-07	06/02/92	Pipe joint/"Y"	92-1613	< 3.50E-01	12	7.0
142-12-08	06/02/92	Pipe joint	92-1616	< 4.70E-01	12	8.0
143-12-10.5	06/02/92	Pipe cut	92-1617	< 2.50E-01	12	10.5
144-12-13.5	06/02/92	Pipe joint	92-1618	< 3.80E-01	12	13.5
145-12-17.5	06/02/92	Pipe cut	92-1619	< 3.50E-01	12	17.5
146-12-19	06/02/92	Pipe joint/elbow	92-1620	< 6.40E-01	12	19.0
147-12-23	06/02/92	Pipe joint	92-1621	< 3.90E-01	12	23.0
148-12-24	06/02/92	Pipe cut	92-1622	< 5.10E-01	12	24.0
149-12-26	06/02/92	Pipe joint	92-1623	< 2.80E-01	12	26.0
150-12-29	06/02/92	Pipe cut	92-1624	< 3.80E-01	12	29.0
151-12-35	06/02/92	End elbow	92-1625	< 3.40E-01	12	35.0
140-12A-02	06/02/92	Pipe joint	92-1614	< 5.00E-01	12A	2.0
133-12B-00	06/02/92	Elbow	92-1607	3.40E-01	12B	0.0
134-12B-03	06/02/92	Ending elbow	92-1608	1.90E-01	12B	3.0
225-13-00	06-22-92	Trough @ north end	92-1877	2.15E-01	13	0.0
219-13-01	06-22-92	Pipe cut	92-1871	< 3.90E-01	13	1.0
220-13-2.5	06-22-92	Pipe joint	92-1872	< 2.70E-01	13	2.5
226-13-08	06-22-92	Trough @ south end	92-1878	< 4.10E-01	13	8.0
221-13-09	06-22-92	Pipe cut	92-1873	< 3.50E-01	13	9.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
222-13-16	06-22-92	Pipe cut	92- 1874	< 4.20E-01	13	16.0
223-13-22	06-22-92	Pipe joint	92- 1875	< 2.30E-01	13	22.0
224-13-23	06-22-92	Joint / Tee	92- 1876	< 4.10E-01	13	23.0
022-14-00	05/18/92	Beginning elbow joint	92- 1416	< 2.50E-01	14	0.0
023-14-10	05/18/92	Pipe cut area	92- 1417	< 2.30E-01	14	10.0
020-14-20	05/15/92	Pipe break area	92- 1408	< 1.60E-01	14	20.0
024-14-21	05/18/92	Broken joint area	92- 1418	< 2.50E-01	14	21.0
025-14-31	05/18/92	Pipe cut area	92- 1419	1.46E-01	14	31.0
026-14-41	05/18/92	Pipe cut and joint	92- 1420	7.98E-02	14	41.0
021-14-50	05/15/92	Degraded pipe. (Hole in pipe)	92- 1409	1.44E-01	14	50.0
027-14-51	05/18/92	Holes in line	92- 1421	< 4.00E-01	14	51.0
028-14-53	05/18/92	Pipe cut	92- 1422	5.17E-01	14	53.0
044-15-06	05/19/92	Random sample	92- 1438	< 2.30E-01	15	6.0
045-15-12	05/19/92	Pipe joint	92- 1439	< 3.00E-01	15	12.0
046-15-18	05/19/92	Random Sample	92- 1440	< 2.20E-01	15	18.0
047-15-24	05/19/92	Pipe cut	92- 1441	< 2.20E-01	15	24.0
048-15-33	05/19/92	Pipe joint	92- 1442	< 2.20E-01	15	33.0
066-15-43.5	05/22/92	Pipe cut	92- 1485	< 1.90E-01	15	43.5
067-15-53.5	05/22/92	Pipe joint	92- 1486	< 1.90E-01	15	53.5
068-15-60	05/22/92	Random sample	92- 1487	< 2.40E-01	15	60.0
167-15-65	06/03/92	Follow up for suspect sample #069	92- 1643	< 2.10E-01	15	65.0
168-15-66	06/03/92	Follow up for suspect sample #069	92- 1644	< 2.50E-01	15	66.0
169-15-66	06/03/92	Follow up for suspect sample #069	92- 1645	2.37E-01	15	66.0
069-15-66	05/22/92	Pipe cut	92- 1488	1.29E+00	15	66.0
170-15-67	06/03/92	Follow up for suspect sample #069	92- 1646	< 2.40E-01	15	67.0
111-15-75	05/30/92	Pipe joint	92- 1585	< 2.40E-01	15	75.0
070-15-81	05/22/92	Pipe cut	92- 1489	< 1.90E-01	15	81.0
071-15-88	05/22/92	Random sample	92- 1490	2.08E-01	15	88.0
072-15-95	05/22/92	Pipe joint	92- 1491	< 2.50E-01	15	95.0
073-15-105	05/22/92	Random sample	92- 1523	< 1.00E-01	15	105.0
074-15-115	05/22/92	Pipe cut	92- 1524	< 3.00E-01	15	115.0
075-15-125	05/26/92	Random sample	92- 1525	< 3.10E-01	15	125.0
076-15-131	05/26/92	Random sample	92- 1526	< 3.40E-01	15	131.0
077-15-137.5	05/26/92	Pipe joint	92- 1527	< 9.57E-02	15	137.5
078-15-139.5	05/26/92	Pipe cut	92- 1528	< 2.80E-01	15	139.5
079-15-149	05/26/92	Random sample	92- 1529	< 2.60E-01	15	149.0
083-15-157.5	05/26/92	Pipe joint	92- 1533	< 2.70E-01	15	157.5
084-15-157.5	05/26/92	Duplicate split of sample 083-15-157.5	92- 1534	1.23E-01	15	157.5
080-15-159	05/26/92	Random sample	92- 1530	< 2.90E-01	15	159.0
081-15-169	05/26/92	Random sample	92- 1531	< 2.90E-01	15	169.0
082-15-175.5	05/26/92	Pipe cut	92- 1532	< 2.70E-01	15	175.5
152-15-178	06/02/92	Pipe joint inside manhole	92- 1626	< 3.30E-01	15	178.0
154-15A-01	06/02/92	Pipe joint inside manhole	92- 1628	< 5.90E-01	15A	1.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
216-15A-3.5	06-19-92	Pipe cut	92-1830	< 2.40E-01	15A	3.5
189-15A-06	06/18/92	Pipe cut	92-1803	< 1.50E-01	15A	6.0
190-15A-13	06/18/92	Random sample	92-1804	< 1.70E-01	15A	13.0
191-15A-20	06/18/92	Pipe joint	92-1805	< 1.90E-01	15A	20.0
192-15A-24	06/18/92	Pipe cut	92-1806	2.10E-01	15A	24.0
193-15A-29	06/18/92	Pipe cut	92-1807	< 2.70E-01	15A	29.0
194-15A-30	06/18/92	Pipe joint	92-1808	< 3.20E-01	15A	30.0
195-15A-32	06/18/92	Pipe cut	92-1809	< 2.90E-01	15A	32.0
196-15A-32.5	06/18/92	Pipe joint	92-1810	< 4.50E-01	15A	32.5
197-15A-33.5	06/18/92	Pipe joint	92-1811	< 3.00E-01	15A	33.5
198-15A-35	06/18/92	Pipe joint	92-1812	2.55E-01	15A	35.0
199-15A-41	06/18/92	Pipe cut	92-1813	< 3.60E-01	15A	41.0
200-15A-44	06/18/92	Pipe joint	92-1814	< 4.00E-01	15A	44.0
201-15A-48	06-18-92	Pipe cut	92-1815	< 3.20E-01	15A	48.0
202-15a-53	06-18-92	Pipe cut	92-1816	< 4.00E-01	15A	53.0
203-15A-53.5	06-18-92	Pipe joint	92-1817	< 2.50E-01	15A	53.5
204-15A-56	06-18-92	Pipe joint	92-1818	< 4.20E-01	15A	56.0
205-15A-59	06-18-92	Pipe joint	92-1819	< 2.60E-01	15A	59.0
206-15A-64	06-18-92	Pipe joint	92-1820	< 3.40E-01	15A	64.0
207-15A-65	06-18-92	Pipe joint	92-1821	< 3.80E-01	15A	65.0
208-15A-66	06-18-92	Pipe cut	92-1822	< 2.10E-01	15A	66.0
209-15A-68	06-18-92	Pipe joint	92-1823	< 3.80E-01	15A	68.0
210-15A-71	06-18-92	Pipe joint	92-1824	2.78E-01	15A	71.0
211-15A-73	06-18-92	Pipe cut	92-1825	< 4.60E-01	15A	73.0
212-15A-74	06-18-92	Pipe cut	92-1826	< 3.90E-01	15A	74.0
330-15A-75	07/15/92	Flow valve	92-2191	< 3.80E-01	15A	75.0
331-15A-80	07/15/92	Pipe cut	92-2192	< 2.40E-01	15A	80.0
217-15B-3.5	06-19-92	Pipe joint	92-1831	< 3.80E-01	15B	3.5
218-15B-9.5	06-19-92	Ending elbow	92-1832	4.11E-01	15B	9.5
332-15C-02	07/15/92	Flow valve	92-2193	< 2.60E-01	15C	2.0
334-15C-03	07/15/92	Duplicate split of sample #333	92-2195	< 7.00E-01	15C	3.0
333-15C-03	07/15/92	Pipe cut/joint	92-2194	3.88E-01	15C	3.0
323-15D-00	07/15/92	Ending elbow/cleanout	92-2184	4.01E-01	15D	0.0
324-15D-02	07/15/92	"Y" joint	92-2185	< 5.10E-01	15D	2.0
325-15D-03	07/15/92	"Y" joint	92-2186	1.46E+00	15D	3.0
326-15D-04	07/15/92	Pipe joint	92-2187	< 5.70E-01	15D	4.0
327-15D-05	07/15/92	Pipe joint	92-2188	3.98E-01	15D	5.0
328-15D-08	07/15/92	Pipe cut	92-2189	< 3.90E-01	15D	8.0
329-15D-8.5	07/15/92	Ending "Y"	92-2190	< 3.80E-01	15D	8.5
320-15E-01	07/15/92	"Y" joint	92-2181	< 5.20E-01	15E	1.0
321-15E-3.5	07/15/92	Pipe joint	92-2182	< 4.20E-01	15E	3.5
322-15E-07	07/15/92	Ending elbow	92-2183	< 5.50E-01	15E	7.0
153-16-01	06/02/92	Pipe joint inside manhole	92-1627	< 3.30E-01	16	1.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
096-16-3.5	05/28/92	Pipe cut	92-1546	< 1.70E-01	16	3.5
097-16-10	05/28/92	Random sample	92-1547	< 3.00E-01	16	10.0
098-16-19	05/28/92	Pipe joint	92-1548	< 2.30E-01	16	19.0
099-16-29.5	05/28/92	Pipe cut	92-1549	< 2.30E-01	16	29.5
100-16-39.5	05/28/92	Pipe joint	92-1550	1.60E-01	16	39.5
105-16-46	05/30/92	Random sample	92-1579	< 2.30E-01	16	46.0
106-16-56	05/30/92	Pipe cut	92-1580	< 1.90E-01	16	56.0
107-16-61	05/30/92	Pipe joint	92-1581	< 1.10E-01	16	61.0
108-16-71	05/30/92	Random sample	92-1582	< 1.60E-01	16	71.0
109-16-081	05/30/92	Pipe cut	92-1583	< 2.20E-01	16	81.0
110-16-83	05/30/92	Pipe joint	92-1584	< 2.50E-01	16	83.0
112-16-93	06/01/92	Pipe cut	92-1586	< 2.80E-01	16	93.0
113-16-103	06/01/92	Pipe joint	92-1587	< 2.50E-01	16	103.0
114-16-113	06/01/92	Random sample	92-1588	< 2.90E-01	16	113.0
115-16-119	06/01/92	Random sample	92-1589	< 3.10E-01	16	119.0
116-16-124	06/01/92	Pipe joint	92-1590	< 2.30E-01	16	124.0
117-16-134	06/01/92	Random sample	92-1591	< 3.10E-01	16	134.0
118-16-140	06/01/92	Random sample	92-1592	< 2.40E-01	16	140.0
119-16-145.5	06/01/92	Pipe joint	92-1593	< 1.30E-01	16	145.5
120-16-147.5	06/01/92s	Pipe cut	92-1594	8.19E-02	16	147.5
121-16-155	06/01/92	Random sample	92-1595	< 2.90E-01	16	155.0
122-16-164	06/01/92	Pipe joint	92-1596	< 2.20E-01	16	164.0
123-16-168	06/01/92	Pipe cut	92-1597	< 3.50E-01	16	168.0
244-16-175	06-24-92	"Y" Joint	92-1945	< 2.70E-01	16	175.0
245-16-183	06-24-92	Pipe joint	92-1946	1.93E-01	16	183.0
246-16-184	06-24-92	Pipe cut	92-1947	< 2.50E-01	16	184.0
247-16-190	06-24-92	Random sample	92-1948	< 1.40E-01	16	190.0
248-16-196	06-24-92	Pipe cut	92-1949	< 2.00E-01	16	196.0
227-16-205	06-22-92	Pipe joint	92-1879	< 1.50E-01	16	205.0
228-16-212	06-22-92	Pipe cut	92-1880	< 2.40E-01	16	212.0
229-16-219	06-22-92	Pipe joint	92-1881	< 1.60E-01	16	219.0
230-16-225	06-22-92	Pipe cut	92-1882	< 2.90E-01	16	225.0
231-16-226	06-22-92	Pipe joint	92-1883	4.40E-01	16	226.0
232-16-236	06-22-92	Pipe cut	92-1884	< 2.60E-01	16	236.0
233-16-242	06-22-92	Random sample	92-1885	< 2.00E-01	16	242.0
234-16-247	06-22-92	Pipe joint	92-1886	< 2.40E-01	16	247.0
235-16-248	06-22-92	Pipe cut	92-1887	3.11E-01	16	248.0
236-16-258	06-22-92	Random sample	92-1888	< 1.70E-01	16	258.0
237-16-264	06-22-92	Pipe cut	92-1889	< 1.70E-01	16	264.0
238-16-268	06-22-92	Pipe joint	92-1890	< 1.90E-01	16	268.0
103-16-175	05/28/92	Broken 3" copper line (MDL 16-B)	92-1553	< 2.40E-01	16	475.0
172-16A-06	06/09/92	Random sample	92-1665	< 2.30E-01	16A	6.0
173-16A-15	06/09/92	Pipe joint	92-1666	< 1.50E-01	16A	15.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
174-16A-24	06/09/92	Pipe cut	92-1667	< 2.30E-01	16A	24.0
175-16A-30	06/09/92	Random sample	92-1668	< 2.20E-01	16A	30.0
176-16A-36	06/09/92	Pipe joint	92-1669	< 2.30E-01	16A	36.0
177-16A-42	06/09/92	Random sample	92-1670	< 1.80E-01	16A	42.0
178-16A-50	06/09/92	Pipe cut	92-1671	1.81E-01	16A	50.0
155-16B-03	06/02/92	Pipe cut	92-1629	1.01E-01	16B	3.0
188-16B-06	06/12/92	Pipe cut	92-1729	< 2.70E-01	16B	6.0
156-16B-07	06/02/92	Pipe cut	92-1630	1.11E-01	16B	7.0
187-16B-08	06/12/92	Pipe joint	92-1728	< 1.90E-01	16B	8.0
186-16B-10	06/12/92	Pipe joint	92-1727	< 2.50E-01	16B	10.0
185-16B-12	06/12/92	Pipe joint	92-1726	< 1.60E-01	16B	12.0
184-16B-13	06/12/92	Pipe joint	92-1725	< 2.50E-01	16B	13.0
183-16B-14	06/12/92	Pipe joint	92-1724	< 1.50E-01	16B	14.0
182-16B-16	06/12/92	End of pipe (found as open)	92-1723	< 2.90E-01	16B	16.0
239-16C-08	06-22-92	Random sample	92-1891	< 3.00E-01	16C	8.0
240-16C-16	06-22-92	Random sample	92-1892	< 3.70E-01	16C	16.0
241-16C-21	06-22-92	Random sample	92-1893	< 3.10E-01	16C	21.0
242-16D-00	06-22-92	Beginning	92-1894	< 4.20E-01	16D	0.0
243-16D-08	06-22-92	Ending elbow	92-1895	3.29E-01	16D	8.0
213-17-00	06-17-92	Pipe elbow	92-1827	2.33E-01	17	0.0
214-17-02	06-17-92	Random sample	92-1828	< 1.60E-01	17	2.0
215-17-08	06-17-92	Random sample	92-1829	< 1.60E-01	17	8.0
249-17-15	06-25-92	Pipe cut	92-1950	1.78E-01	17	15.0
250-17-23	06-25-92	Pipe joint	92-1951	< 1.80E-01	17	23.0
251-17-27	06/25/92	Pipe cut	92-1952	< 2.30E-01	17	27.0
252-17-32	06/25/92	Random sample	92-1953	< 2.70E-01	17	32.0
253-17-38	06/25/92	Pipe cut	92-1954	1.53E-01	17	38.0
254-17-43	06/25/92	Pipe joint	92-2002	1.44E-01	17	43.0
255-17-53	06/25/92	Random sample	92-2003	7.24E-01	17	53.0
293-17-53	07/07/92	Repeat of #255 sample	92-2091	1.62E-01	17	53.0
256-18-02	06/29/92	Pipe cut	92-2004	7.68E-01	18	2.0
257-18-9.5	06/29/92	Pipe joint	92-2005	< 2.10E-01	18	9.5
258-18-18	06/29/92	Pipe cut	92-2006	3.13E-01	18	18.0
268-18-23	07/01/92	Pipe joint	92-2062	< 3.10E-01	18	23.0
269-18-24	07/01/92	"Y" joint	92-2063	1.95E-01	18	24.0
270-18-25	07/01/92	Pipe joint	92-2064	< 2.40E-01	18	25.0
271-18-30	07/01/92	Pipe joint	92-2065	1.38E-01	18	30.0
272-18-38.5	07/01/92	Pipe cut	92-2066	< 2.80E-01	18	38.5
273-18-46	07/01/92	Random sample	92-2067	< 1.80E-01	18	46.0
274-18-51.5	07/01/92	Pipe joint	92-2068	< 3.10E-01	18	51.5
275-18-57.5	07/01/92	Pipe cut	92-2069	< 1.70E-01	18	57.5
282-18-68	07/06/92	Pipe cut	92-2076	< 2.70E-01	18	68.0
283-18-73	07/06/92	Pipe joint	92-2077	< 1.10E-01	18	73.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
284-18-80	07/06/92	Random sample	92-2078	< 1.50E-01	18	80.0
285-18-86	07/06/92	Pipe cut	92-2079	< 2.30E-01	18	86.0
294-18-93	07/07/92	Pipe joint	92-2133	< 1.90E-01	18	93.0
295-18-98	07/07/92	Random sample	92-2134	< 2.00E-01	18	98.0
296-18-104	07/07/92	Pipe cut	92-2135	< 1.30E-01	18	104.0
297-18-114	07/08/92	Pipe joint	92-2136	< 1.40E-01	18	114.0
298-18-121	07/08/92	Pipe cut	92-2137	< 2.00E-01	18	121.0
303-18-128	07/09/92	Random sample	92-2160	2.04E-01	18	128.0
304-18-134	07/09/92	Pipe joint	92-2161	< 2.60E-01	18	134.0
305-18-135	07/09/92	Pipe cut	92-2162	< 2.30E-01	18	135.0
306-18-144	07/09/92	Random sample	92-2163	< 2.30E-01	18	144.0
299-18-154	07/09/92	Pipe cut	92-2156	< 2.10E-01	18	154.0
300-18-157	07/09/92	Pipe joint	92-2157	< 2.20E-01	18	157.0
301-18-167.5	07/09/92	End of MDL section in Bldg 8-A	92-2158	< 2.50E-01	18	167.5
276-18A-00	07/02/92	Pipe joint	92-2070	< 3.80E-01	18A	0.0
277-18A-.5	07/02/92	Pipe joint	92-2071	< 2.70E-01	18A	0.5
278-18A-1.5	07/02/92	Pipe joint	92-2072	< 4.00E-01	18A	1.5
279-18A-11	07/02/92	Random sample	92-2073	2.84E-01	18A	11.0
280-18A-21	07/02/92	Ending "Y" joint	92-2074	< 4.30E-01	18A	21.0
307-18B-00	07/10/92	Ending elbow	92-2164	< 3.90E-01	18B	0.0
311-18B-8.5	07/10/92	Pipe joint	92-2168	2.61E-01	18B	5.0
308-18B-6.5	07/10/92	Pipe cut	92-2165	< 2.60E-01	18B	6.5
309-18B-7.5	07/10/92	Pipe joint	92-2166	< 3.50E-01	18B	7.5
310-18B-08	07/10/92	"Y" joint	92-2167	< 3.60E-01	18B	8.0
312-18B-12	07/10/92	Pipe cut	92-2169	< 4.10E-01	18B	12.0
313-18B-12.5	07/10/92	Pipe joint	92-2170	< 2.90E-01	18B	12.5
314-18B-13	07/10/92	"Y" joint	92-2171	2.46E-01	18B	13.0
315-18B-13.5	07/10/92	Pipe joint	92-2172	2.76E-01	18B	13.5
316-18B-18	07/10/92	End of section	92-2173	< 1.90E-01	18B	18.0
281-18C-00	07/02/92	Ending elbow	92-2075	4.08E-01	18C	0.0
302-19-6.5	07/09/92	Pipe cut	92-2159	< 2.00E-01	19	6.5
317-19-09	07/14/92	Pipe joint (inside manhole)	92-2178	6.59E-01	19	19.0
318-20-00	07/14/92	Pipe joint (inside manhole)	92-2179	5.56E-01	20	0.0
319-20-01	07/14/92	Pipe joint (inside manhole)	92-2180	3.12E-01	20	1.0
259-20-05	06/29/92	Pipe cut	92-2007	< 2.40E-01	20	5.0
260-20-11	06/29/92	Random sample	92-2008	< 2.80E-01	20	11.0
261-20-18	06/29/92	Pipe cut	92-2009	< 1.20E-01	20	18.0
262-20-19	06/29/92	Pipe joint	92-2010	5.37E-01	20	19.0
263-20-27	06/29/92	Random sample	92-2011	< 1.60E-01	20	27.0
264-20-33	06/29/92	Pipe cut	92-2012	4.24E-01	20	33.0
265-20-39	06/29/92	Pipe joint	92-2013	2.68E-01	20	39.0
266-20-45	06/29/92	Random sample	92-2014	< 2.60E-01	20	45.0
287-20-51	06/29/92	Pipe cut	92-2015	2.16E-01	20	51.0

SAMPLE ANALYSIS RESULTS FOR SOIL SAMPLES TAKEN BELOW MONITORED DRAIN LINE PIPE

SAMPLE NUMBER	DATE	COMMENTS	LAB ID	U-235 pCi/gm	MDL SECTION	DISTANCE MARK
286-20-59.5	07/07/92	Pipe cut	92-2084	2.34E-01	20	59.5
287-20-60	07/07/92	Pipe joint	92-2085	1.86E-01	20	60.0
288-20-60	07/07/92	Duplicate split of sample #287	92-2086	< 2.70E-01	20	60.0
289-20-68.5	07/07/92	Pipe cut	92-2087	< 2.60E-01	20	68.5
290-20-76	07/07/92	Random sample	92-2088	< 2.40E-01	20	76.0
291-20-81.5	07/07/92	Pipe joint	92-2089	< 2.40E-01	20	81.5
292-20-82	07/07/92	Pipe cut	92-2090	2.07E-01	20	82.0
367-20-92	07/29/92	Random sample	92-2372	1.54E-01	20	92.0
368-20-102	07/29/92	Pipe joint	92-2373	< 1.90E-01	20	102.0
369-20-106	07/29/92	Pipe cut	92-2374	2.27E-01	20	106.0
370-20-116	07/29/92	Random sample	92-2375	< 2.70E-01	20	116.0
371-20-123	07/29/92	Pipe joint	92-2376	7.04E-01	20	123.0
387-20-123	08/07/92	Follow up sample at pipe cut	92-2417	< 6.50E-02	20	123.0
372-20-124	07/29/92	Pipe cut	92-2377	1.50E+00	20	124.0
388-20-124	08/07/92	Follow up sample at pipe cut	92-2418	2.81E-01	20	124.0
373-20-126	07/29/92	Ending elbow	92-2378	4.21E-01	20	126.0
377-21-06	07/29/92	Pipe joint	92-2382	< 2.50E-01	21	6.0
376-21-08	07/29/92	Pipe cut	92-2381	3.69E-01	21	8.0
375-21-10	07/29/92	Pipe joint	92-2380	1.63E-01	21	10.0
374-21-14	07/29/92	Pipe joint	92-2379	5.37E-01	21	14.0
339-23-00	07/16/92	Beginning "Y"	92-2246	< 4.00E-01	23	0.0
338-23-1.5	07/16/92	Pipe joint	92-2245	< 2.60E-01	23	1.5
337-23-6.5	07/16/92	Pipe joint	92-2244	2.83E-01	23	6.5
336-23-07	07/16/92	Pipe joint	92-2243	< 3.60E-01	23	7.0
335-23-11	07/16/92	End in pipe chase	92-2242	7.49E-01	23	11.0
341-23A-00	07/16/92	Elbow	92-2248	5.36E-01	23A	0.0
340-23A-01	07/16/92	Pipe joint	92-2247	< 3.50E-01	23A	1.0
342-23B-01	07/16/92	Pipe joint	92-2249	< 2.30E-01	23B	1.0
343-23B-02	07/16/92	Elbow	92-2250	< 2.40E-01	23B	2.0
344-23C-00	07/16/92	Elbow	92-2251	< 2.30E-01	23C	0.0
345-23C-03	07/16/92	Pipe joint	92-2252	< 2.30E-01	23C	3.0
404-25-00	08/14/92	Pipe elbow	92-2571	2.31E-01	25	0.0
405-25-04	08/14/92	Pipe cut	92-2572	1.07E+00	25	4.0
417-25-04	08/25/92	In trench after dirt was removed	92-2653	< 1.50E-01	25	4.0
406-26-00	08/14/92	Pipe elbow	92-2573	< 2.60E-01	26	0.0
407-27-02	08/14/92	Pipe joint	92-2574	< 3.00E-01	27	2.0
408-27-04	08/14/92	Pipe cut	92-2575	6.68E-01	27	4.0
409-28-00	08/14/92	Pipe elbow	92-2576	< 3.40E-01	28	0.0
410-28-10	08/14/92	Random sample	92-2577	< 2.40E-01	28	10.0
411-28-12	08/14/92	Penetrated pipe area	92-2578	< 3.40E-01	28	12.0
412-29-00	08/14/92	Beginning elbow	92-2579	< 2.10E-01	29	0.0

APPENDIX E

BACKFILL AUTHORIZATION PACKAGES
FOR MONITORED DRAIN LINE SECTIONS

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION 1

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See Attached

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See Attached

- 4) Note any special considerations:

Requested by: Bryant Date: 6-3-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: A. Joseph Verdi Date: 6/3/92

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14682

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/19/92
Reported: 5/28/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 18, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
022	92-1416	<2.5E-01	
023	92-1417	<2.3E-01	
024	92-1418	<2.5E-01	
025	92-1419	1.46E-01	+/- 5.0E-02
026	92-1420	7.98E-02	+/- 4.2E-02
027	92-1421	<4.0E-01	
028	92-1422	5.17E-01	+/- 3.1E-01
029	92-1423	3.67E-01	+/- 2.2E-01
030	92-1424	2.18E-01	+/- 5.6E-02
031	92-1425	3.78E-01	+/- 2.5E-01
032	92-1426	2.32E-01	+/- 2.2E-01
033	92-1427	2.76E-01	+/- 1.7E-01
034	92-1428	2.27E-01	+/- 6.5E-02
035	92-1429	<2.0E-01	
036	92-1430	<2.7E-01	
037	92-1431	<3.1E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14682
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: 

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
001-6-	3/5/92	REPORTED 4/20/92	023-14-10	5/18/92	PIPE CUT	045-15-12	5/19/92	JOINT
002-4-	4/29/92	SMALL ROOM	024-14-21	5/18/92	BROKEN JOINT	046-15-18	5/19/92	
003-4-	5/1/92	LARGE ROOM	025-14-31	5/18/92	PIPE CUT	047-15-24	5/19/92	CUT JOINT
004-4-15	5/5/92	NORTH EAST	026-14-41	5/18/92	JOINT PIPE CUT	048-15-33	5/19/92	JOINT
005-5-3	5/5/92	NORTH WEST	027-14-51	5/18/92	HOLES IN LINE	049-1A-5	5/19/92	JOINT
006-3-23	5/15/92	JOINT	028-14-53	5/18/92	PIPE CUT	050-1A-9	5/19/92	END ELL
007-3-25	5/15/92	CUT	029-1-00	5/19/92	ELBOW	051-2-2	5/19/92	PIPE CUT
008-3-32	5/15/92		030-1-7	5/19/92	PIPE CUT	052-2-4	5/19/92	JOINT
009-3-38	5/15/92	CUT	031-1-12	5/19/92	HOT JOINT AREA	053-5-10	5/19/92	DOWN COMING INTO SEWER
010-3-46.5	5/15/92	CUT	032-1-14	5/18/92	PIPE CUT	054-4-1	5/20/92	PIPE CUT
011-3-45	5/15/92	JOINT	033-1-20	5/19/92	PIPE CUT	055-4-2	5/20/92	JOINT
012-3-45	5/15/92	JOINT	034-1-23	5/18/92	ELBOW	056-4-18	5/20/92	PIPE CUT
013-3-56	5/15/92	CUT	035-5-1	5/19/92	PIPE CUT	057-4-16	5/20/92	
014-3-63	5/15/92	CUT	036-5-3	5/19/92	PIPE CUT	058-4-22	5/20/92	JOINT
015-3-67	5/14/92	ELBOW	037-5-5	5/19/92	JOINT	059-4-23	5/20/92	PIPE CUT
016-3-00	5/15/92	ELBOW	038-5-9	5/19/92	PIPE CUT	060-4-32	5/20/92	PIPE CUT
017-3-10	5/15/92		039-5-10	5/19/92	JOINT	061-4-41.5	5/20/92	JOINT
018-3-16.5	5/15/92	CUT	040-5-12	5/19/92	PIPE CUT	062-4-44	5/20/92	PIPE CUT
019-3-2.5	5/15/92	JOINT/CUT	041-5-14	5/19/92	JOINT	063-4-54	5/20/92	
020-14-20	5/15/92	PIPE BRAN	042-5-19	5/19/92	JOINT	064-4-62	5/20/92	PIPE CUT
021-14-50	5/15/92	HOLES IN PIPE	043-5-23	5/19/92	PIPE CUT	065-4-64	5/20/92	END 4'
022-14-00	5/18/92	ELBOW	044-15-6	5/19/92		066-15-43.5	5/20/92	PIPE CUT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 5-29-92
 LOCATION: File Survey Section # 25-
 Trench Section # 1
 SURVEY TIME: 0915
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>00 FLL</u>	<u>17,064</u>	<u>14 CUT</u>	<u>11,280</u>		
<u>02</u>	<u>14,090</u>	<u>16</u>	<u>11,496</u>		
<u>04</u>	<u>12,620</u>	<u>19</u>	<u>11,888</u>		
<u>06</u>	<u>13,452</u>	<u>20 CUT</u>	<u>11,478</u>		
<u>07 PIPE CUT</u>	<u>13,136</u>	<u>22</u>	<u>12,440</u>		
<u>08</u>	<u>12,708</u>	<u>23 FLL</u>	<u>12,552</u>		
<u>10</u>	<u>12,858</u>				
<u>12 JOINT</u>	<u>12,164</u>				

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 5-29-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION 1A

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See Attached

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See Attached

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 6-3-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A Joseph Vardi* Date: 6/3/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
001-6-	3/5/92	REPORTED 4/20/92	023-14-10	5/18/92	PIPE CUT	045-15-12	5/19/92	JOINT
002-4-	4/29/92	SMALL ROOM	024-14-21	5/18/92	BROKEN JOINT	046-15-18	5/19/92	
003-4-	5/1/92	LARGE ROOM	025-14-31	5/18/92	PIPE CUT	047-15-24	5/19/92	CUT JOINT
004-4-15	5/5/92	NORTH EAST	026-14-41	5/19/92	DIRT PIPE CUT	048-15-33	5/19/92	JOINT
005-5-3	5/5/92	NORTH WEST	027-14-51	5/18/92	HOLES IN LINE	049-1A-5	5/19/92	JOINT
006-3-23	5/15/92	JOINT	028-14-53	5/18/92	PIPE CUT	050-1A-9	5/19/92	END ELL
007-3-25	5/15/92	CUT	029-1-00	5/18/92	ELBOW	051-2-2	5/19/92	PIPE CUT
008-3-32	5/15/92		030-1-7	5/18/92	PIPE CUT	052-2-4	5/19/92	JOINT
009-3-38	5/15/92	CUT	031-1-12	5/18/92	HOT JOINT AREA	053-5-10	5/19/92	DOWN CUMBERING SEWER
010-3-46.5	5/15/92	CUT	032-1-14	5/18/92	PIPE CUT	054-4-1	5/19/92	PIPE CUT
011-3-45	5/15/92	JOINT	033-1-20	5/18/92	PIPE CUT	055-4-2	5/19/92	JOINT
012-3-45	5/15/92	JOINT				056-4-18	5/19/92	PIPE CUT
013-3-56	5/15/92	CUT	034-1-23	5/18/92	ELBOW	057-4-16	5/19/92	
014-3-63	5/15/92	CUT	035-5-1	5/19/92	PIPE CUT	058-4-22	5/19/92	JOINT
015-3-67	5/15/92	ELBOW	036-5-3	5/19/92	PIPE CUT	059-4-23	5/19/92	PIPE CUT
016-3-00	5/15/92	ELBOW	037-5-5	5/19/92	JOINT	060-4-32	5/19/92	PIPE CUT
017-3-10	5/15/92		038-5-9	5/19/92	PIPE CUT	061-4-41.5	5/19/92	JOINT
018-3-16.5	5/15/92	CUT	039-5-10	5/19/92	JOINT	062-4-44	5/19/92	PIPE CUT
019-3-2.5	5/15/92	JOINT/CUT	040-5-12	5/19/92	PIPE CUT	063-4-54	5/19/92	
020-14-20	5/15/92	PIPE BREAK	041-5-14	5/19/92	JOINT	064-4-62	5/19/92	PIPE CUT
021-14-50	5/15/92	HOLES IN PIPE	042-5-19	5/19/92	JOINT	065-4-64	5/19/92	END Y.
022-14-00	5/18/92	ELBOW	043-5-23	5/19/92	PIPE CUT	066-15-43.5	5/22/92	PIPE CUT
			044-15-6	5/19/92				

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)



FORM S/N 25-001

SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> <input checked="" type="checkbox"/> RWP <input type="checkbox"/> (RWP #)		SURVEY DATE: <u>5-19-92</u>
LOCATION: File Survey Section # <u>25-</u> Trench Section # <u>1A</u>		SURVEY TIME: <u>1415</u>
INSTRUMENT: PRS-1	SERIAL # 346	PROBE TYPE: SPA-3
INSTRUMENT:	SERIAL #	PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>2</u>	<u>11,862</u>				
<u>4</u>	<u>10,496</u>				
<u>5 JOINT</u>	<u>11,786</u>				
<u>6</u>	<u>12,410</u>				
<u>8</u>	<u>11,862</u>				
<u>9 ENDING ELL</u>	<u>12,790</u>				

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 5-19-92

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14686

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/22/92
Reported: 6/2/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
049	92-1468	<4.6E-01	
050	92-1469	2.78E-01	+/- 2.3E-01
051	92-1470	<2.8E-01	
052	92-1471	5.8E-01	+/- 3.1E-01
053	92-1472	<1.7E-01	
054	92-1473	<2.0E-01	
055	92-1474	<3.8E-01	
056	92-1475	<2.3E-01	
057	92-1476	<1.4E-01	
058	92-1477	<2.6E-01	
059	92-1478	<1.9E-01	
060	92-1479	<3.9E-01	
061	92-1480	<2.0E-01	
062	92-1481	<2.3E-01	
063	92-1482	2.15E-01	+/- 1.8E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14686
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: Mark Kurubak

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION #2

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *Jerry Smith* Date: 6-3-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A. Joseph [unclear]* Date: 6/3/92



FORM S/N 25-002

SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> <input checked="" type="checkbox"/> RWP <input type="checkbox"/> (RWP # _____)	SURVEY DATE: <u>5-19-92</u>
LOCATION: File Survey Section # <u>25-</u> Trench Section # <u>2</u>	SURVEY TIME: <u>1400</u>
INSTRUMENT: PRS-1 INSTRUMENT: _____	SERIAL # <u>346</u> SERIAL # _____
PROBE TYPE: SPA-3 PROBE TYPE: _____	

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	
<u>2</u> CUT	<u>18,774</u>					
<u>4</u> JOINT	<u>16,904</u>					

SKETCH

REMARKS

H.P. SIGNATURE Larry StH

DATE: 5-19-92

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill site

Request# 14686

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/22/92
Reported: 6/2/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
049	92-1468	<4.6E-01	
050	92-1469	2.78E-01	+/- 2.3E-01
051	92-1470	<2.8E-01	
052	92-1471	5.8E-01	+/- 3.1E-01
053	92-1472	<1.7E-01	
054	92-1473	<2.0E-01	
055	92-1474	<3.8E-01	
056	92-1475	<2.3E-01	
057	92-1476	<1.4E-01	
058	92-1477	<2.6E-01	
059	92-1478	<1.9E-01	
060	92-1479	<3.9E-01	
061	92-1480	<2.0E-01	
062	92-1481	<2.3E-01	
063	92-1482	2.15E-01	+/- 1.8E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14686
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: Mark Kawahara

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
001-6	3/5/92	REPORTED 4/20/92	023-14-10	5/18/92	PIPE CUT	045-15-12	5/19/92	JOINT
002-4	4/29/92	SMALL ROOM	024-14-24	5/18/92	BROKEN JOINT	046-15-18	5/19/92	
003-4	5/1/92	LARGE ROOM	025-14-31	5/18/92	PIPE CUT	047-15-24	5/19/92	CUT JOINT
004-4-15	5/5/92	NORTH EAST	026-14-41	5/18/92	JOINT PIPE CUT	048-15-33	5/19/92	JOINT
005-5-3	5/5/92	NORTH WEST	027-14-57	5/18/92	HOLES IN LINE	049-1A-5	5/19/92	JOINT
006-3-23	5/5/92	JOINT	028-14-53	5/18/92	PIPE CUT	050-1A-9	5/19/92	END ELL
007-3-25	5/5/92	CUT	029-1-00	5/18/92	ELBOW	051-2-2	5/19/92	PIPE CUT
008-3-32	5/15/92		030-1-7	5/18/92	PIPE CUT	052-2-4	5/19/92	JOINT
009-3-38	5/15/92	CUT	031-1-12	5/18/92	HOT JOINT AREA	053-5-10	5/19/92	DOWN CORNER INTO SEWER
010-3-46.5	5/15/92	CUT	032-1-14	5/18/92	PIPE CUT	054-4-1	5/20/92	PIPE CUT
011-3-45	5/15/92	JOINT	033-1-20	5/18/92	PIPE CUT	055-4-2	5/20/92	JOINT
012-3-45	5/17/92	JOINT	034-1-23	5/18/92	ELBOW	056-4-10	5/20/92	PIPE CUT
013-3-56	5/15/92	CUT	035-5-1	5/19/92	PIPE CUT	057-4-16	5/20/92	
014-3-63	5/15/92	CUT	036-5-3	5/19/92	PIPE CUT	058-4-22	5/20/92	JOINT
015-3-67	5/14/92	ELBOW	037-5-5	5/19/92	JOINT	059-4-23	5/20/92	PIPE CUT
016-3-00	5/15/92	ELBOW	038-5-9	5/19/92	PIPE CUT	060-4-32	5/20/92	PIPE CUT
017-3-10	5/15/92		039-5-10	5/19/92	JOINT	061-4-41.5	5/20/92	JOINT
018-3-16.5	5/15/92	CUT	040-5-12	5/19/92	PIPE CUT	062-4-44	5/20/92	PIPE CUT
019-3-2.5	5/15/92	JOINT/CUT	041-5-14	5/19/92	JOINT	063-4-54	5/20/92	
020-14-20	5/15/92	PIPE BRAN	042-5-19	5/19/92	JOINT	064-4-62	5/20/92	PIPE CUT
021-14-50	5/15/92	HOLES IN PIPE	043-5-23	5/19/92	PIPE CUT	065-4-64	5/20/92	END Y
022-14-00	5/18/92	ELBOW	044-15-6	5/19/92		066-15-43.5	5/22/92	PIPE CUT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

Section 3

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See attached forms. All results are background.

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See attached forms. All results are acceptable.

- 4) Note any special considerations:

Requested by: A Joseph Vardi Date: 5/22/92

Authorization:

Authorization to backfill the above described excavation is:



Approved



Not Approved

Comments: _____

Signature: A Joseph Vardi Date: 5/22/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
001-6	3/5/92	REPORTED 4/20/92	023-14-10	5/18/92	PIPE CUT	045-15-12	5/19/92	JOINT
002-4	4/29/92	SMALL ROOM	024-14-24	5/18/92	BROKEN JOINT	046-15-18	5/19/92	
003-4	5/1/92	LARGE ROOM	025-14-31	5/18/92	PIPE CUT	047-15-24	5/19/92	CUT JOINT
004-4-15	5/5/92	NORTH EAST	026-14-41	5/18/92	JOINT PIPE CUT	048-15-33	5/19/92	JOINT
005-5-3	5/5/92	NORTH WEST	027-14-57	5/18/92	HOLES IN LINE	049-1A-5	5/19/92	JOINT
006-3-23	5/15/92	JOINT	028-14-53	5/18/92	PIPE CUT	050-1A-9	5/19/92	END ELL
007-3-25	5/15/92	CUT	029-1-00	5/18/92	ELBOW	051-2-2	5/19/92	PIPE CUT
008-3-32	5/15/92		030-1-7	5/18/92	PIPE CUT	052-2-4	5/19/92	JOINT
009-3-38	5/15/92	CUT	031-1-12	5/18/92	HOT JOINT AREA	053-5-10	5/19/92	DOWN CORNER INTO SEWER
010-3-46.5	5/15/92	CUT	032-1-14	5/18/92	PIPE CUT	054-4-1	5/20/92	PIPE CUT
011-3-45	5/15/92	JOINT	033-1-20	5/18/92	PIPE CUT	055-4-2	5/20/92	JOINT
012-3-45	5/15/92	JOINT	034-1-23	5/18/92	ELBOW	056-4-18	5/20/92	PIPE CUT
013-3-56	5/15/92	CUT	035-5-1	5/19/92	PIPE CUT	057-4-16	5/20/92	
014-3-63	5/15/92	CUT	036-5-3	5/19/92	PIPE CUT	058-4-22	5/20/92	JOINT
015-3-67	5/15/92	ELBOW	037-5-5	5/19/92	JOINT	059-4-23	5/20/92	PIPE CUT
016-3-00	5/15/92	ELBOW	038-5-9	5/19/92	PIPE CUT	060-4-32	5/20/92	PIPE CUT
017-3-10	5/15/92		039-5-10	5/19/92	JOINT	061-4-41.5	5/20/92	JOINT
018-3-16.5	5/15/92	CUT	040-5-12	5/19/92	PIPE CUT	062-4-44	5/20/92	PIPE CUT
019-3-21.5	5/15/92	JOINT/CUT	041-5-14	5/19/92	JOINT	063-4-54	5/20/92	
020-14-20	5/15/92	PIPE BRANCH	042-5-19	5/19/92	JOINT	064-4-62	5/20/92	PIPE CUT
021-14-50	5/15/92	HOLES IN PIPE	043-5-23	5/19/92	PIPE CUT	065-4-64	5/20/92	END "Y"
022-14-00	5/18/92	ELBOW	044-15-6	5/19/92		066-15-	5/22/92	PIPE CUT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Section # 3
Location of Soil Samples Taken.

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

REPORT

Reques # 14679

TO: Larry Smith
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 5/15/92
 Reported: 5/21/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Mn-54		Co-60	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
006	92-1394	3.22E-01	+/- 3.0E-01				
007	92-1395	<5.4E-01					
008	92-1396	<3.2E-01					
5/15/92							
009	92-1397	<3.8E-01					
5/15/92							
010	92-1398	<3.6E-01					
5/15/92							
011	92-1399	<3.8E-01	} Duplicate				
5/15/92							
.12	92-1400	<3.6E-01					
5/15/92							
013	92-1401	1.40E-01	+/- 6.2E-02	8.30E-02	+/- 4.2E-02	1.33E-01	+/- 7.1E-02
5/15/92							
014	92-1402	<3.3E-01					
5/15/92							
015	92-1403	<3.6E-01					
5/15/92							
016	92-1404	<2.4E-01					
5/15/92							
017	92-1405	<2.2E-01					
5/15/92							
018	92-1406	1.27E-01	+/- 6.7E-02			1.07E-01	+/- 3.9E-02
5/15/92							
019	92-1407	<2.2E-01					
5/15/92							
018	92-1408	<1.6E-01					
5/15/92							
019	92-1409	1.44E-01	+/- 1.4E-01				
5/15/92							

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14679
 Procedures: A-524
 Analyst: FRC, DZ, WTF, MRK

Approved: Mark H. ...



FORM S/N

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #) SURVEY DATE: 5-15-92
 LOCATION: File Survey Section # 25 - Trench Section # 3 NORTH TO SOUTH SURVEY TIME: 0930-1200
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00 FT. ELBOW	19010	16.5 FT CUT	17964	28 FT	21068
2.5 FT. JOINT CUT	18764	18 FT	17996	30 FT	21294
4 FT.	17998	20 FT	18160	32 FT	21448
6 FT.	18030	22 FT	19918	34 FT	21962
8 FT.	17610	23 FT JOINT	29138	36 FT	12352
10 FT.	16630	24 FT	19434	38 FT CUT	20124
12 FT.	16708	25 FT CUT	19288	40 FT	20974
14 FT.	16638	26 FT	20926	42 FT	20948

SKETCH

REMARKS

H.P. SIGNATURE

Larry Att

DATE: 5-15-92



FORM S/N

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #) SURVEY DATE: 5-15-92
 LOCATION: File Survey Section # 25- Trench Section # 3 SURVEY TIME: 0930-1200
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
44 FT	20,244	58 FT	20,068		
45 FT JOINT	20,346	60 FT	19,654		
46.5 FT CUT	19,876	62 FT	19,604		
48 FT	19,706	63 FT CUT	19,390		
50 FT	20,138	64 FT	19,292		
52 FT	19,716	66 FT	19,566		
54 FT	19,784	67 FT ELBOW	19,496		
56 FT CUT	20,188				

SKETCH

REMARKS

N.P. SIGNATURE

[Handwritten Signature]

DATE: 5-15-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION #4

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See Attached

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See Attached

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 6-3-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A Joseph Jardi* Date: 6/3/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
001-6-	3/5/92	REPORTED 4/20/92	023-14-10	5/18/92	PIPE CUT	045-15-12	5/19/92	JOINT
002-4-	4/29/92	SMALL ROOM	024-14-21	5/18/92	BROKEN JOINT	046-15-18	5/19/92	
003-4-	5/1/92	LARGE ROOM	025-14-31	5/18/92	PIPE CUT	047-15-24	5/19/92	CUT JOINT
004-4-15	5/5/92	NORTH EAST	026-14-41	5/18/92	JOINT PIPE CUT	048-15-33	5/19/92	JOINT
005-5-3	5/5/92	NORTH WEST	027-14-51	5/18/92	HOLES IN LINE	049-1A-5	5/19/92	JOINT
006-3-23	5/15/92	JOINT	028-14-53	5/18/92	PIPE CUT	050-1A-9	5/19/92	END ELL
007-3-25	5/15/92	CUT	029-1-00	5/18/92	ELBOW	051-2-2	5/19/92	PIPE CUT
008-3-32	5/15/92		030-1-7	5/18/92	PIPE CUT	052-2-4	5/19/92	JOINT
009-3-38	5/15/92	CUT	031-1-12	5/18/92	HOT JOINT AREA	053-5-10	5/19/92	DOWN COMING SEWER
010-3-46.5	5/15/92	CUT	032-1-14	5/18/92	PIPE CUT	054-4-1	5/20/92	PIPE CUT
011-3-45	5/15/92	JOINT	} SAME 033-1-20	5/18/92	PIPE CUT	055-4-2	5/20/92	JOINT
012-3-45	5/15/92	JOINT		034-1-23	5/18/92	ELBOW	056-4-10	5/20/92
013-3-56	5/15/92	CUT	035-5-1	5/19/92	PIPE CUT	057-4-16	5/20/92	
014-3-63	5/15/92	CUT	036-5-3	5/19/92	PIPE CUT	058-4-22	5/20/92	JOINT
015-3-67	5/15/92	ELBOW	037-5-5	5/19/92	JOINT	059-4-23	5/20/92	PIPE CUT
016-3-00	5/15/92	ELBOW	038-5-9	5/19/92	PIPE CUT	060-4-32	5/20/92	PIPE CUT
017-3-10	5/15/92		039-5-10	5/19/92	JOINT	061-4-41.5	5/20/92	JOINT
018-3-16.5	5/15/92	CUT	040-5-12	5/19/92	PIPE CUT	062-4-44	5/20/92	PIPE CUT
019-3-2.5	5/15/92	JOINT/CUT	041-5-14	5/19/92	JOINT	063-4-54	5/20/92	
020-14-20	5/15/92	PIPE BROKEN	042-5-19	5/19/92	JOINT	064-4-62	5/20/92	PIPE CUT
021-14-50	5/15/92	HOLES IN PIPE	043-5-23	5/19/92	PIPE CUT	065-4-64	5/20/92	END Y.
022-14-00	5/18/92	ELBOW	044-15-6	5/19/92		066-15-43.5	5/20/92	PIPE CUT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 25-
Trench Section # 4

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3

INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 5-20-92

SURVEY TIME: 1000-1130

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
1 CUT	18,208	14	17,788	28	16,890
2 JOINT	17,912	16	17,346	30	17,446
3	19,428	18	17,152	32 CUT	16,996
4	19,674	20	17,606	34	17,956
6	20,966	22 JOINT	17,780	36	18,054
8	20,540	23 CUT	17,982	38	18,208
10	18,228	24	17,210	40	17,956
12	18,120	26	17,508	41.5 JOINT	18,208

SKETCH

REMARKS

H.P. SIGNATURE

Jerry Att

DATE:

5-20-92

7/90

RADIATION SURVEY



FORM S/N 25-004

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 25-
Trench Section # 4

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 5-20-92
SURVEY TIME: 1000-1130

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
42	18,410	58	17,092		
44 CUT	18,122	60	16,760		
46	18,408	62 CUT	16,526		
48	18,292	64 JOINT	14,200		
50	18,372				
52	18,436				
54	17,590				
52	17,686				

SKETCH

REMARKS

H.P. SIGNATURE *Jerry Pitt* DATE: 5-20-92

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14686

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/22/92
Reported: 6/2/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
049	92-1468	<4.6E-01	
050	92-1469	2.78E-01	+/- 2.3E-01
051	92-1470	<2.8E-01	
052	92-1471	5.8E-01	+/- 3.1E-01
053	92-1472	<1.7E-01	
054	92-1473	<2.0E-01	
055	92-1474	<3.8E-01	
056	92-1475	<2.3E-01	
057	92-1476	<1.4E-01	
058	92-1477	<2.6E-01	
059	92-1478	<1.9E-01	
060	92-1479	<3.9E-01	
061	92-1480	<2.0E-01	
062	92-1481	<2.3E-01	
063	92-1482	2.15E-01	+/- 1.8E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14686
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: Mark Kunkah

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14686

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 1/22/92
Reported: 1/2/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
064	} sec 4	92-1483	<2.5E-01
065		92-1484	<2.5E-01
066	} 43.5'	92-1485	<1.9E-01
067		92-1486	<1.9E-01
068	} sec 15	92-1487	<2.4E-01
69		92-1488	1.29E+00 +/- 2.8E-01
70		92-1489	<1.9E-01
071	} 95'	92-1490	2.08E-01 +/- 1.5E-01
072		92-1491	<2.5E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14686
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: Mark Kuziak

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION 5
00 FT TO 2.3 FT

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

3 ADDITIONAL SAMPLES TAKEN AT
24, 25, 26 FT LOCATIONS. ANALYTICAL
RESULTS OVER LIMITS AT 24 FOOT.

Requested by: Larychett Date: 6-9-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: Section in closet @ 24' is on hold.

Signature: A Joseph Mardin Date: 6/9/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
001-6-	3/5/92	REPORTED 4/20/92	023-14-10	5/18/92	PIPE CUT	045-15-12	5/19/92	JOINT
002-4-	4/29/92	SMALL ROOM	024-14-21	5/18/92	BROKEN JOINT	046-15-18	5/19/92	
003-4-	5/1/92	LARGE ROOM	025-14-31	5/18/92	PIPE CUT	047-15-24	5/19/92	CUT JOINT
004-4-15	5/5/92	NORTH EAST	026-14-41	5/18/92	JOINT PIPE CUT	048-15-33	5/19/92	JOINT
005-5-3	5/5/92	NORTH WEST	027-14-51	5/18/92	HOLES IN LINE	049-1A-5	5/19/92	JOINT
006-3-23	5/15/92	JOINT	028-14-53	5/18/92	PIPE CUT	050-1A-9	5/19/92	END ELL
007-3-25	5/15/92	CUT	029-1-00	5/18/92	ELBOW	051-2-2	5/19/92	PIPE CUT
008-3-32	5/15/92		030-1-7	5/18/92	PIPE CUT	052-2-4	5/19/92	JOINT
009-3-38	5/15/92	CUT	031-1-12	5/18/92	HOT JOINT AREA	053-5-10	5/19/92	DOWN COVER INTO SEWER
010-3-46.5	5/15/92	CUT	032-1-14	5/18/92	PIPE CUT	054-4-1	5/19/92	PIPE CUT
011-3-45	5/15/92	JOINT	033-1-20	5/18/92	PIPE CUT	055-4-2	5/19/92	JOINT
012-3-45	5/15/92	JOINT	034-1-23	5/18/92	ELBOW	056-4-10	5/19/92	PIPE CUT
013-3-56	5/15/92	CUT	035-5-1	5/19/92	PIPE CUT	057-4-16	5/24/92	
014-3-63	5/15/92	CUT	036-5-3	5/19/92	PIPE CUT	058-4-22	5/20/92	JOINT
015-3-67	5/15/92	ELBOW	037-5-5	5/19/92	JOINT	059-4-23	5/24/92	PIPE CUT
016-3-00	5/15/92	ELBOW	038-5-9	5/19/92	PIPE CUT	060-4-32	5/24/92	PIPE CUT
017-3-10	5/15/92		039-5-10	5/19/92	JOINT	061-4-41.5	5/24/92	JOINT
018-3-16.5	5/15/92	CUT	040-5-12	5/19/92	PIPE CUT	062-4-44	5/20/92	PIPE CUT
019-3-2.5	5/15/92	JOINT/CUT	041-5-14	5/19/92	JOINT	063-4-54	5/24/92	
020-14-20	5/15/92	PIPE BRAN	042-5-19	5/19/92	JOINT	064-4-62	5/20/92	PIPE CUT
021-14-50	5/15/92	HOLES IN PIPE	043-5-23	5/19/92	PIPE CUT	065-4-64	5/20/92	END Y
022-14-00	5/18/92	ELBOW	044-15-6	5/19/92		066-15-43.5	5/22/92	PIPE CUT

Sequence Starting M.D.L. Section Sample Point Distance
 With 001 - Number - (In feet from north or
 east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
067-15-53.5	5/24/92	JOINT	089-7-8	5/27/92	PIPE CUT	111-15-75	5/29/92	JOINT
068-15-60	5/24/92		090-7-14	5/27/92		112-16-93	6/1/92	PIPE CUT
069-15-66	5/24/92	PIPE CUT	091-7-20	5/27/92	PIPE CUT	113-16-103	6/1/92	JOINT
070-15-81	5/24/92	PIPE CUT	092-7-23	5/27/92	JOINT	114-16-113	6/1/92	
071-15-88	5/24/92		093-7-29	5/27/92	JOINT	115-16-119	6/1/92	
072-15-95	5/24/92	JOINT	094-7-38	5/27/92		116-16-124	6/1/92	JOINT
073-15-105	5/24/92		095-7-45.5	5/27/92	PIPE CUT	117-16-134	6/1/92	
074-15-115	5/24/92	PIPE CUT	096-16-3.5	5/28/92	PIPE CUT	118-16-140	6/1/92	
075-15-125	5/24/92		097-16-10	5/28/92		119-16-145.5	6/1/92	JOINT
076-15-131	5/24/92		098-16-19	5/28/92	JOINT	120-16-147.5	6/1/92	PIPE CUT
077-15-137.5	5/24/92	JOINT	099-16-29.5	5/28/92	PIPE CUT	121-16-155	6/1/92	
078-15-139.5	5/24/92	PIPE CUT	100-16-39.5	5/28/92	JOINT	122-16-164	6/1/92	JOINT
079-15-149	5/24/92		101-7-49	5/28/92	JOINT	123-16-168	6/1/92	PIPE CUT
080-15-159	5/24/92		102-7-57	5/28/92	PIPE CUT	124-11-5.5	6/24/92	PIPE CUT
081-15-169	5/24/92		103-16-175	5/29/92	BROKEN 3" COPPER LINE	125-11-8	6/24/92	JOINT
082-15-175.5	5/24/92	PIPE CUT	104-16-175	5/29/92	3" COPPER LINE CONTENTS & DIRT	126-11-16	6/24/92	-
083-15-157.5	5/24/92	JOINT	105-16-46	5/24/92		127-11-22	6/24/92	-
084-15-157.5	5/24/92	↓ DUPLICATE SAMPLE	106-16-56	5/23/92	PIPE CUT	128-11-29.5	6/24/92	JOINT
085-5-24	5/27/92	VALVE JOINT	107-16-61	5/23/92	JOINT	129-11-31.5	6/24/92	PIPE CUT
086-5-25	5/27/92	VALVE JOINT	108-16-71	5/23/92		130-11-40	6/24/92	-
087-5-26.5	5/27/92	END ELL, '4'	109-16-81	5/30/92	PIPE CUT	131-11-48	6/24/92	PIPE CUT
088-7-3	5/27/92	JOINT	110-16-83	5/30/92	JOINT	132-11-49	6/24/92	END ELL

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	177-16A-42	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-50	4/9/92	R2 CUT
135-12-01	6/4/92	JOINT	157-5A-1	6/4/92	JOINT	179-5-24	6/7/92	live
136-12-02	6/4/92	JOINT	158-5A-7	6/4/92	PIPE CUT	180-5-25	6/9/92	4 I.P.A.S
137-12-04	6/4/92	PIPE CUT	159-5A-11.5	6/4/92	JOINT	181-5-26	6/3/92	END CUT
138-12-06	6/4/92	PIPE CUT	160-5A-13.5	6/4/92	PIPE CUT	-	-	
139-12-07	6/4/92	JOINT/'Y'	161-5A-18.5	6/4/92	END ELL	-	-	
140-12A-02	6/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	-	-	
141-12A-00	6/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	-	-	
142-12-8	6/4/92	JOINT/	164-6-4	6/3/92	JOINT	-	-	
143-12-10.5	6/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	-	-	
144-12-13.5	6/4/92	JOINT	166-6-9	6/3/92	JOINT	-	-	
145-12-17.5	6/4/92	PIPE CUT	167-15-65	6/3/92	—	-	-	
146-12-19	6/4/92	JOINT/ELL	168-15-66	6/3/92	PIPE CUT	-	-	
147-12-23	6/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	-	-	
148-12-24	6/4/92	PIPE CUT	170-15-67	6/3/92	—	-	-	
149-12-26	6/4/92	JOINT	171-1-12	6/3/92	M.D.L. TRENCH #1 INSIDE PIPE SAMPLE	-	-	
150-12-29	6/4/92	PIPE CUT	172-16A-6	6/9/92		-	-	
151-12-35	6/4/92	END ELL	173-16A-15	6/9/92	JOINT	-	-	
152-15-17B	6/4/92	INSIDE JOINT MANHOLE	174-16A-24	6/9/92	PIPE CUT	-	-	
153-16-1	6/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/9/92		-	-	
154-16-B-1	6/4/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14664

TO: Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/5/92
Reported: 5/12/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS

Originator ID	Lab.Spl#	U-235 (Wet Basis)		U-235 (Dry Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
002-4 Bldg #5 4/29/92	92-1260	<1.0E-01		<1.3E-01	
003-4 Bldg #5 5/1/92	92-1261	5.26E-02	+/- 4.6E-02	6.53E-02	+/- 5.7E-02
004-4 Bldg #5 5/5/92	92-1262	4.72E-02	+/- 2.9E-02	5.69E-02	+/- 3.5E-02
005-5 Bldg #5 5/5/92	92-1263	<1.3E-01		<1.6E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14664
Procedures: A-524
Analyst: FRC, MRK

Approved: Mark Karcher

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reque: t# 14682

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/19/92
Reported: 5/28/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 18, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
022	92-1416	<2.5E-01	
023	92-1417	<2.3E-01	
024	92-1418	<2.5E-01	
025	92-1419	1.46E-01	+/- 5.0E-02
026	92-1420	7.98E-02	+/- 4.2E-02
027	92-1421	<4.0E-01	
028	92-1422	5.17E-01	+/- 3.1E-01
029	92-1423	3.67E-01	+/- 2.2E-01
030	92-1424	2.18E-01	+/- 5.6E-02
031	92-1425	3.78E-01	+/- 2.5E-01
032	92-1426	2.32E-01	+/- 2.2E-01
033	92-1427	2.76E-01	+/- 1.7E-01
034	92-1428	2.27E-01	+/- 6.5E-02
035	92-1429	<2.0E-01	
036	92-1430	<2.7E-01	
037	92-1431	<3.1E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14682
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: Mark Kawchak

REPORT

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

Request# 14682

TO: Larry Smith
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 5/19/92
 Reported: 5/28/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 18, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137	
		pCi/gram	2 sigma	pCi/gram	2 sigma
038	92-1432	<3.4E-01		3.29E-01 +/-	2.6E-01
039	92-1433	<2.4E-01			
040	92-1434	2.20E-01	+/- 2.1E-01		
041	92-1435	<3.2E-01			
042	92-1436	<3.5E-01			
043	92-1437	2.42E-01	+/- 2.2E-01		
044	92-1438	<2.3E-01			
045	92-1439	<3.0E-01			
046	92-1440	<2.2E-01			
047	92-1441	<2.1E-01			
048	92-1442	<2.8E-01			

SEC #5

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14682
 Procedures: A-524
 Analyst: TRK, DZ, WTF, MRK

Approved: Mark Kowchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14686

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/22/92
Reported: 6/2/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@May 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
049	92-1468	<4.6E-01	
050	92-1469	2.78E-01	+/- 2.3E-01
051	92-1470	<2.8E-01	
052	92-1471	5.8E-01	+/- 3.1E-01
053	92-1472	<1.7E-01	
054	92-1473	<2.0E-01	
055	92-1474	<3.8E-01	
056	92-1475	<2.3E-01	
057	92-1476	<1.4E-01	
058	92-1477	<2.6E-01	
059	92-1478	<1.9E-01	
060	92-1479	<3.9E-01	
061	92-1480	<2.0E-01	
062	92-1481	<2.3E-01	
063	92-1482	2.15E-01	+/- 1.8E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14686
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: Mark Kuvshinov

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reque t# 14693

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/29/92
Reported: 6/9/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
073	92-1523	<1.0E-01	
074	92-1524	<3.0E-01	
075	92-1525	<3.1E-01	
076	92-1526	<3.4E-01	
077	92-1527	9.57E-02	+/- 6.0E-02
078	92-1528	<2.8E-01	
079	92-1529	<2.6E-01	
080	92-1530	<2.9E-01	
081	92-1531	<2.9E-01	
082	92-1532	<2.7E-01	
083	92-1533	<2.7E-01	
084	92-1534	1.23E-01	+/- 1.6E-01
085	92-1535	1.26E+00	+/- 6.0E-01
086	92-1536	4.64E-01	+/- 3.2E-01
087	92-1537	<5.0E-01	
088	92-1538	<2.4E-01	

Duplicates

SEC
5

SUSPECT SAMPLE
AREA. FOLLOW UP
SAMPLES TAKEN
179, #180, #181
ON 6-9-92

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14693
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark K... ..



FORM S/N 25-003

SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> RWP <input checked="" type="checkbox"/> (RWP #)		SURVEY DATE: <u>5-19-92</u>
LOCATION: File Survey Section # <u>25-</u> Trench Section # <u>5</u> <u>North to South</u>		SURVEY TIME: <u>1000</u>
INSTRUMENT: PRS-1	SERIAL # 346	PROBE TYPE: SPA-3
INSTRUMENT:	SERIAL #	PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00	11,696	9 CUT	14,232	22	13,446
1 CUT	11,486	10 JOINT	13,798	24 CUT	15,450
2	12,200	12 CUT	13,866	10 DOWN CUMBER	17,292
3 CUT	13,448	14 JOINT	13,550		
4	13,148	16	13,550		
5 JOINT	13,664	18	13,650		
6	14,308	19 JOINT	13,740		
8	14,610	20	13,864		

SKETCH

REMARKS

H.P. SIGNATURE

Jerry Stt

DATE: 5-19-92



FORM S/N 25-006

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)
 SURVEY DATE: 5-27-92
 LOCATION: File Survey Section # 25 -
 Trench Section # 5
 SURVEY TIME: 0930
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
24 VALVE JOINT	14,288				
25 VALVE JOINT	13,648				
26.5 END ELL	18,498				

SKETCH

REMARKS

H.P. SIGNATURE *[Signature]*

DATE: 5-27-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MDL SECTION # 5
(CLOSE OUT IN CLOSET SINK AREA)

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

24 FT TO 26.5 FT

Requested by: *[Signature]* Date: 6-12-92

Authorization:

Authorization to backfill the above described excavation is:

- Approved
 Not Approved

Addendum:

Sample # 432 was split with NRC inspector for the area @ the 24' mark. @ Results were 0.278 pCi/g U-235.
AJ Hardy
11/4/92

Comments: See comments on average of sample results

Signature: *A Joseph Hardy* Date: 6/15/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	177-16A-12	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-20	6/9/92	R.P. CUT
135-12-01	6/4/92	JOINT	157-5A-1	6/4/92	JOINT	179-5-24	6/7/92	PIPE
136-12-02	6/4/92	JOINT	158-5A-7	6/4/92	PIPE CUT	180-5-25	6/7/92	4 I.P. AS
137-12-04	6/4/92	PIPE CUT	159-5A-11.5	6/4/92	JOINT	181-5-26	6/7/92	LWA CUT
138-12-06	6/4/92	PIPE CUT	160-5A-13.5	6/4/92	PIPE CUT			
139-12-07	6/4/92	JOINT / 'Y'	161-5A-18.5	6/4/92	END ELL	-	-	
140-12A-02	6/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	-	-	
141-12A-00	6/4/92	JOINT / ELL	163-6-3	6/3/92	JOINT	-	-	
142-12-8	6/4/92	JOINT /	164-6-4	6/3/92	JOINT	-	-	
143-12-10.5	6/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	-	-	
144-12-13.5	6/4/92	JOINT	166-6-9	6/3/92	JOINT	-	-	
145-12-17.5	6/4/92	PIPE CUT	167-15-65	6/3/92	---	-	-	
146-12-19	6/4/92	JOINT / ELL	168-15-66	6/3/92	PIPE CUT	-	-	
147-12-23	6/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	-	-	
148-12-24	6/4/92	PIPE CUT	170-15-67	6/3/92	---	-	-	
149-12-26	6/4/92	JOINT	171-1-12	6/3/92	M.D.L. TRENCH #1 INSIDE PIPE SAMPLE	-	-	
150-12-29	6/4/92	PIPE CUT	172-16A-6	6/9/92		-	-	
151-12-35	6/4/92	END ELL	173-16A-10	6/7/92	JOINT	-	-	
152-15-17B	6/4/92	INSIDE JOINT MANHOLE	174-16A-24	6/9/92	P.P. CUT	-	-	
153-16-1	6/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/9/92		-	-	
154-15A-1	6/4/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Reque t# 14710

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/10/92
Reported: 6/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (8 June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
172	92-1665	<2.3E-01	
173	92-1666	<1.5E-01	
174	92-1667	<2.3E-01	
175	92-1668	<2.2E-01	
176	92-1669	<2.3E-01	
177	92-1670	<1.8E-01	
178	92-1671	1.81E-01	+/- 1.3E-01
179	92-1672	3.47E-01	+/- 2.4E-01
180	92-1673	5.93E-01	+/- 3.3E-01
181	92-1674	7.89E-01	+/- 3.9E-01

MDL SECTION #16A

MDL SECTION #5

All these samples were in the same area from the 24' mark to the 21' mark.

85 1.26
 96 .464
 87 <.5
 179 .347
 180 .593
 181 .789
 5 3.953
 .79 pCi/g U²³⁵

Follow up for analytical high indications from sample # 085 @ 24 feet on section # 5

Based on the overall average we meet the criteria.

AGHayden
6/15/92

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14710
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Furchar



FORM S/N 25-006

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 5-27-92
 LOCATION: File Survey Section # 25 -
 Trench Section # 5
 SURVEY TIME: 0930
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>24 VALVE JOINT</u>	<u>14,288</u>				
<u>25 VALVE JOINT</u>	<u>13,648</u>				
<u>26.5 END ELL</u>	<u>18,498</u>				

SKETCH

REMARKS

H.P. SIGNATURE [Signature] DATE: 5-27-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

Section 5 A

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See Attached

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See Attached

- 4) Note any special considerations:

Requested by: A Joseph Verdi Date: 6/16/92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: A Joseph Verdi Date: 6/16/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	177-16A-12	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-20	6/9/92	R.2 CUT
135-12-01	6/4/92	JOINT	157-5A-1	6/4/92	JOINT	179-5-29	6/9/92	live
136-12-02	6/4/92	JOINT	158-5A-7	6/4/92	PIPE CUT	180-5-25	6/9/92	4 L. TABS
137-12-04	6/4/92	PIPE CUT	159-5A-11.5	6/4/92	JOINT	181-5-26	6/9/92	END CUT
138-12-06	6/4/92	PIPE CUT	160-5A-13.5	6/4/92	PIPE CUT	182-16B-00	6/12/92	OPEN END
139-12-07	6/4/92	JOINT/'Y'	161-5A-18.5	6/4/92	END ELL	183-16B-2	6/12/92	JOINT
140-12A-02	6/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	184-16B-2	6/12/92	JOINT
141-12A-00	6/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	185-16B-4	6/12/92	JOINT
142-12-8	6/4/92	JOINT/	164-6-4	6/3/92	JOINT	186-16B-6	6/12/92	JOINT
143-12-10.5	6/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	187-16B-8	6/12/92	JOINT
144-12-13.5	6/4/92	JOINT	166-6-9	6/3/92	JOINT	188-16B-10	6/12/92	CUT
145-12-17.5	6/4/92	PIPE CUT	167-15-65	6/3/92	—	-	-	-
146-12-19	6/4/92	JOINT/ELL	168-15-66	6/3/92	PIPE CUT	-	-	-
147-12-23	6/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	-	-	-
148-12-24	6/4/92	PIPE CUT	170-15-67	6/3/92	—	-	-	-
149-12-26	6/4/92	JOINT	171-1-12	6/3/92	M.D.L. TRENCH #1 INSIDE PIPE SAMPLE	-	-	-
150-12-29	6/4/92	PIPE CUT	172-16A-6	6/9/92		-	-	-
151-12-35	6/4/92	END ELL	173-16A-10	6/9/92	JOINT	-	-	-
152-15-17B	6/4/92	INSIDE JOINT MANHOLE	174-16A-24	6/9/92	P.P. CUT	-	-	-
153-16-1	6/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/9/92		-	-	-
154-15A-1	6/4/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	-	-	-

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/15/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1992)

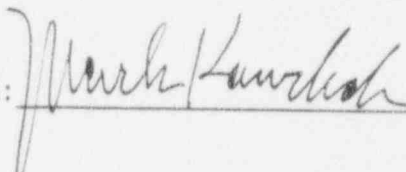
Originator ID	Lab.Spl#	U-235 (Wet Basis)		Co-60 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
155	92-1629	1.01E-01	+/- 3.4E-02		
156	92-1630	1.11E-01	+/- 5.6E-02	7.96E-02	+/- 5.1E-02
157	92-1631	<8.0E-01			
158	92-1632	<4.4E-01			
159	92-1633	<4.9E-01			
160	92-1634	<6.5E-01			
161	92-1635	5.30E-01	+/- 4.6E-01		

Sec 5A

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/ml	2 sigma
162	92-1636	<5.6E-02	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: 



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 25-
Trench Section # 5-A

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3

INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-4-92

SURVEY TIME: 1300

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
1 JOINT	11,986	12	11,084		
2	12,942	13.5 PIPE CUT	11,922		
4	12,682	14	13,170		
6	12,276	16	11,692		
7 PIPE CUT	11,742	18	11,778		
8	12,514	18.5 JOINT	11,578		
10	12,648				
11.5 JOINT	12,338				

SKETCH

REMARKS

THIS TRENCH SECTION IS ONLY 18" TO 12" DEEP.

H.P. SIGNATURE

Jerry St

DATE: 6-4-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION # 6

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: [Signature] Date: 6-9-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: [Signature]

Signature: [Signature] Date: 6/9/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	177-16A-12	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-20	6/9/92	R.I. CUT
135-12-01	6/4/92	JOINT	157-5A-1	6/4/92	JOINT	179-5-24	6/4/92	IVE
136-12-02	6/4/92	JOINT	158-5A-7	6/4/92	PIPE CUT	180-5-25	6/9/92	Y I.F. 45
137-12-04	6/4/92	PIPE CUT	159-5A-11.5	6/4/92	JOINT	181-5-26	6/9/92	END CUT
138-12-06	6/4/92	PIPE CUT	160-5A-13.5	6/4/92	PIPE CUT	-	-	
139-12-07	6/4/92	JOINT/'Y'	161-5A-18.5	6/4/92	END ELL	-	-	
140-12A-02	6/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	-	-	
141-12A-00	6/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	-	-	
142-12-8	6/4/92	JOINT/	164-6-4	6/3/92	JOINT	-	-	
143-12-10.5	6/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	-	-	
144-12-13.5	6/4/92	JOINT	166-6-9	6/3/92	JOINT	-	-	
145-12-17.5	6/4/92	PIPE CUT	167-15-65	4/3/92	—	-	-	
146-12-19	6/4/92	JOINT/ELL	168-15-66	6/3/92	PIPE CUT	-	-	
147-12-23	6/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	-	-	
148-12-24	6/4/92	PIPE CUT	170-15-67	6/3/92	—	-	-	
149-12-26	6/4/92	JOINT	171-1-12	6/3/92	M.D.L. TRENCH #1 INSIDE PIPE SAMPLE	-	-	
150-12-24	6/4/92	PIPE CUT	172-16A-6	6/9/92		-	-	
151-12-35	6/4/92	END ELL	173-16A-15	6/4/92	JOINT	-	-	
152-15-17B	6/4/92	INSIDE JOINT MANHOLE	174-16A-24	6/9/92	P.P. CUT	-	-	
153-16-1	6/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/9/92		-	-	
154-16-B-1	6/4/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

PRELIMINARY
REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14702

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/5/92
Reported: 5/8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 5, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Co-60 (Wet Basis)		Ru-106 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
162	92-1638	2.69E-01	+/- 2.0E-01	5.27E-01	+/- 3.4E-01		
163	92-1639	8.20E-02	+/- 4.2E-02				
164	92-1640	2.59E-01	+/- 4.5E-02	1.29E+00	+/- 9.8E-02		
165	92-1641	3.85E-01	+/- 1.9E-01	7.20E-01	+/- 3.0E-01	2.85E+00	+/- 2.0E+00
166	92-1642	<3.5E-01					
167	92-1643	<2.1E-01		4.86E-01	+/- 4.6E-01		
168	92-1644	<2.5E-01					
169	92-1645	2.37E-01	+/- 2.2E-01	5.93E-01	+/- 3.9E-01		
170	92-1646	<2.4E-01					

SEC
#6

Remarks: Gamma Spectrometry Analysis for U-235
92-1647 Results pending

References: Request# 14702
Procedures: A-524
Analyst: TRK, DZ, WTF, MRK

Approved: Mark Kawich



FORM S/N 20-003

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 20-
Trench Section # 6

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 5-20-92
SURVEY TIME: 1100-1115

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00	12466				
1 CUT	14472				
2	14194				
3 JOINT	15254				
4 JOINT	15508				
6 CUT	15772				
8	14566				
9 ELL JOINT	14004				

SKETCH

REMARKS

H.P. SIGNATURE *Larry St*

DATE: 5-20-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION # 7
00 FT TO 45.5 FT

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

2 OUTSTANDING SAMPLE RESULTS
AT 49 AND 57 FOOT

Requested by: [Signature] Date: 6-9-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments:

Section of trench under the N₂ sphere
is on hold pending analytical results.

Signature:

[Signature] Date: 6/9/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
067-15-53.5	5/24/92	JOINT	089-7-8	5/27/92	PIPE CUT	111-15-75	5/24/92	JOINT
068-15-60	5/24/92		090-7-14	5/27/92		112-16-93	4/1/92	PIPE CUT
069-15-66	5/24/92	PIPE CUT	091-7-20	5/27/92	PIPE CUT	113-16-103	4/1/92	JOINT
070-15-81	5/24/92	PIPE CUT	094-7-23	5/27/92	JOINT	114-16-113	4/1/92	
071-15-88	5/24/92		093-7-29	5/27/92	JOINT	115-16-119	4/1/92	
072-15-95	5/24/92	JOINT	094-7-38	5/27/92		116-16-124	4/1/92	JOINT
073-15-105	5/24/92		095-7-45.5	5/27/92	PIPE CUT	117-16-134	4/1/92	
074-15-115	5/24/92	PIPE CUT	096-16-3.5	5/28/92	PIPE CUT	118-16-140	4/1/92	
075-15-125	5/24/92		097-16-10	5/28/92		119-16-145.5	4/1/92	JOINT
076-15-131	5/24/92		098-16-19	5/28/92	JOINT	120-16-147.5	4/1/92	PIPE CUT
077-15-137.5	5/24/92	JOINT	099-16-29.5	5/28/92	PIPE CUT	121-16-155	4/1/92	
078-15-139.5	5/24/92	PIPE CUT	100-16-39.5	5/28/92	JOINT	122-16-164	4/1/92	JOINT
079-15-149	5/24/92		101-7-49	5/28/92	JOINT	123-16-168	4/1/92	PIPE CUT
080-15-159	5/24/92		102-7-57	5/28/92	PIPE CUT	124-11-5.5	4/2/92	PIPE CUT
081-15-169	5/24/92		103-16-175	5/29/92	BROKEN 3" COPPER LINE	125-11-8	4/2/92	JOINT
082-15-175.5	5/24/92	PIPE CUT	104-16-175	5/29/92	3" COPPER LINE CONTENTS & DIRT	126-11-16	4/2/92	
083-15-157.5	5/24/92	JOINT	105-16-46	5/31/92		127-11-22	4/2/92	
084-15-157.5	5/24/92	↓ DUPLICATE SAMPLE	106-16-56	5/31/92	PIPE CUT	128-11-29.5	4/2/92	JOINT
085-5-24	5/27/92	VALVE JOINT	107-16-61	5/31/92	JOINT	129-11-31.5	4/2/92	PIPE CUT
086-5-25	5/27/92	VALVE JOINT	108-16-71	5/31/92		130-11-40	4/2/92	
087-5-26.5	5/27/92	END ELL, 4'	109-16-81	5/30/92	PIPE CUT	131-11-48	4/2/92	PIPE CUT
088-7-3	5/27/92	JOINT	110-16-83	5/30/92	JOINT	132-11-49	4/2/92	END ELL

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
067-15-53.5	5/24/92	JOINT	089-7-8	5/27/92	PIPE CUT	111-15-75	5/30/92	JOINT
068-15-60	5/24/92		090-7-14	5/27/92		112-16-93	6/1/92	PIPE CUT
069-15-66	5/24/92	PIPE CUT	091-7-20	5/27/92	PIPE CUT	113-16-103	6/1/92	JOINT
070-15-81	5/24/92	PIPE CUT	092-7-23	5/27/92	JOINT	114-16-113	6/1/92	
071-15-88	5/24/92		093-7-29	5/27/92	JOINT	115-16-119	6/1/92	
072-15-95	5/24/92	JOINT	094-7-38	5/27/92		116-16-124	6/1/92	JOINT
073-15-105	5/24/92		095-7-45.5	5/27/92	PIPE CUT	117-16-134	6/1/92	
074-15-115	5/24/92	PIPE CUT	096-16-3.5	5/28/92	PIPE CUT	118-16-140	6/1/92	
075-15-125	5/24/92		097-16-10	5/28/92		119-16-145.5	6/1/92	JOINT
076-15-131	5/24/92		098-16-19	5/28/92	JOINT	120-16-147.5	6/1/92	PIPE CUT
077-15-137.5	5/24/92	JOINT	099-16-29.5	5/28/92	PIPE CUT	121-16-155	6/1/92	
078-15-139.5	5/24/92	PIPE CUT	100-16-39.5	5/28/92	JOINT	122-16-164	6/1/92	JOINT
079-15-149	5/24/92		101-7-49	5/28/92	JOINT	123-16-168	6/1/92	PIPE CUT
080-15-159	5/24/92		102-7-57	5/28/92	PIPE CUT	124-11-5.5	6/4/92	PIPE CUT
081-15-169	5/24/92		103-16-175	5/29/92	BROKEN 3" COPPER LINE	125-11-B	6/4/92	JOINT
082-15-175.5	5/24/92	PIPE CUT	104-16-175	5/29/92	3" COPPER LINE CONTENTS & DIRT	126-11-16	6/4/92	-
083-15-157.5	5/24/92	JOINT	105-16-46	5/31/92		127-11-22	6/4/92	-
084-15-157.5	5/24/92	↓ DUPLICATE SAMPLE	106-16-56	5/31/92	PIPE CUT	128-11-29.5	6/4/92	JOINT
085-5-24	5/27/92	VALVE JOINT	107-16-61	5/30/92	JOINT	129-11-31.5	6/4/92	PIPE CUT
086-5-25	5/27/92	VALVE JOINT	108-16-71	5/30/92		130-11-40	6/4/92	-
087-5-26.5	5/27/92	END ELL, 4'	109-16-81	5/30/92	PIPE CUT	131-11-48	6/4/92	PIPE CUT
088-7-3	5/27/92	JOINT	110-16-83	5/30/92	JOINT	132-11-49	6/4/92	END ELL

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14693

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/29/92
Reported: 6/9/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
073	92-1523	<1.0E-01	
074	92-1524	<3.0E-01	
075	92-1525	<3.1E-01	
076	92-1526	<3.4E-01	
077	92-1527	9.57E-02	+/- 6.0E-02
078	92-1528	<2.8E-01	
079	92-1529	<2.6E-01	
080	92-1530	<2.9E-01	
081	92-1531	<2.9E-01	
082	92-1532	<2.7E-01	
083	} Duplicates 92-1533	<2.7E-01	
084		92-1534	1.23E-01 +/- 1.6E-01
085	92-1535	1.26E+00 +/- 6.0E-01	
086	92-1536	4.64E-01 +/- 3.2E-01	
087	92-1537	<5.0E-01	
088	92-1538	<2.4E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14693
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kowalski

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14693

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/29/92
Reported: 6/9/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Ce-141 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
089	92-1539	<4.3E-01			
090	92-1540	1.83E-01	+/- 1.6E-01		
091	92-1541	<3.1E-01			
092	92-1542	<4.0E-01			
093	92-1543	<1.9E-01		3.1E-01	+/- 3.0E-01
094	92-1544	<2.7E-01			
095	92-1545	1.10E-01	+/- 4.0E-02		

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14693
Procedures: A-524
Analyst: WTF, MRK

Approved: John R. Kuntz



FORM S/N 20-005

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 20-
Trench Section # 7

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 5-27-92
SURVEY TIME: 1000-1130

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
2	14,714	16	17,958	29 JOINT	19,434
3 JOINT	14,884	18	18,592	30	19,146
4	15,596	20 PIPE CUT	17,066	32	19,116
6	16,894	22	17,804	34	18,832
8 PIPE CUT	17,330	23 JOINT	18,642	36	17,942
10	17,372	24	18,994	38	18,382
12	17,784	26	19,044	40	19,032
14	17,424	28	17,932	42	19,108

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 5-27-92



FORM S/N 20-005

SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> <input checked="" type="checkbox"/> RWP <input type="checkbox"/> (RWP #)	SURVEY DATE: <u>5-27-92</u>
LOCATION: File Survey Section # <u>20</u> - Trench Section # <u>7</u>	SURVEY TIME: <u>1000-1130</u>
INSTRUMENT: PRS-1 INSTRUMENT:	SERIAL # 346 SERIAL #
	PROBE TYPE: SPA-3 PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>44</u>	<u>18,556</u>				
<u>45.5 Pipe Cut</u>	<u>16,810</u>				

SKETCH

REMARKS

H.P. SIGNATURE Jerry L.H. DATE: 5-27-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MOL SEC 7
CLOSE OUT APPENDUM

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED
ON INITIAL PORTION

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 6-12-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: This completes all results for
Section 7

Signature: *[Signature]* Date: 6/15/92

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request# 14694

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/9/92
Reported: 6/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 1, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
096	92-1546	<1.7E-01	
097	92-1547	<3.0E-01	
098	92-1548	<2.3E-01	
099	92-1549	<2.3E-01	
100	92-1550	1.60E-01	+/- 1.4E-01
101	92-1551	<2.7E-01	
102	92-1552	<2.0E-01	
103	92-1553	<2.4E-01	
104	92-1554	7.38E-01	+/- 2.5E-01

MDL SECTION #16

MDL SECTION #7

MDL SECTION #16

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14694
Procedures: A-524
Analyst: WTF, MRK, DZ

Approved: *Waltz*

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MDL # 8A
EAST FACE TUNNEL SECTION

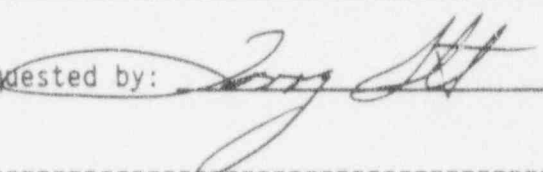
- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: 

Date: 9-24-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: 

Date: 10/1/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397 - 9 - 10	8/11/92	SOUTH TO NORTH RANDOM	419 - DRUM	8/28/92	MDL-TRE PIT SLUDGE	441 - 10 - 10'	9/24/92	PIPE JOINT
BLOG #9 398 - PIT	8/12/92	FOLLOW UP OF FLOOR DRAIN @ 26'	420 - DRUM	8/28/92	REMOVED IN DRUMS	442 - 10 - 11'	9/22/92	PIPE JOINT
399 - T - 40'	8/12/92	CORE BORING SEE APPROPRIATE	421 - DRUM	8/28/92	↓	443 - 10 - 13'	9/24/92	PIPE JOINT
400 - B - 39'	8/12/92	SURVEY MAP OF LOCATIONS	422 - 9 - 36'	9/1/92	RANDOM 10' SAMPLE	444 - CORE BORE	9/23/92	TR-S PIT N.W. CORNER
401 - T - 24'	8/12/92	↓	423 - 9 - 43'	9/2/92	TRE TO 9A VERTICLE CLEAN	445 - CORE BORE	9/23/92	TR-S PIT N.E. CORNER
402 - T - 7'	8/12/92	↓	424 - 9A - 43'	9/2/92	5' UP VERTICLE TO JOINT	446 - CORE BORE	9/23/92	TR-S PIT CENTRE
403 - K - 2'	8/12/92	↓	425 - 9A - 43'	9/2/92	6' UP VERTICLE TO TRE	447 - CORE BORE	9/23/92	TR-S PIT S.W. CORNER
404 - 25 - 00'	8/14/92	ELBOW	426 - 8A 10'	9/8/92	E. FACE TURNED EAST TO WEST	448 - CORE BORE	9/23/92	TR-S PIT S.E. CORNER
405 - 25 - 04'	8/14/92	PIPE CUT	427 - 9 - 49'	9/8/92	SOUTH TO NORTH RANDOM SAMPLE	449 - INCINERATOR ASHES		INCINERATOR ASHES
406 - 26 - 00'	8/14/92	ELBOW	428 - 8A 13'	9/10/92	PIPE UNION	450 -		
407 - 27 - 02'	8/14/92	PIPE JOINT	429 - 8A 15'	9/10/92	END ELBOW	451 -		
408 - 27 - 04'	8/14/92	PIPE CUT	430 - 9 - 1'	9/10/92	NORTH TO SOUTH JOINT	452 -		
409 - 28 - 00'	8/14/92	ELBOW	431 - TRE TO 9A 4" PIPE	9/14/92	WEST TOP WALL MOLTS TILE TO CATCH BASIN	453 - 10 - 14.5'	9/24/92	JOINT
410 - 28 - 10'	8/14/92	RANDOM	432 - 5 - 24'	9/15/92	NRC SPLIT SAMPLE	454 - INCINERATOR ASHES	9/24/92	INCINERATOR ASHES
411 - 28 - 12'	8/14/92	PENETRATED PIPE AREA	433 - 8E - 10.5'	9/15/92	EAST TO WEST TO SIZEMIC 8" UNION JOINT	455 -		
412 - 29 - 00'	8/14/92	BEGINNING ELBOW	434 - 11 - 3'	9/18/92	FROM TRE ORF MDL 9 WEST TO EAST	456 -		
413 - 9 - 13'	8/17/92	SOUTH TO NORTH JOINT	435 - 8 -	9/21/92	WEST FACE PIPE CLEANOUT DIRT IN LINE	457 -		
414 - 9 - 26'	8/19/92	SOUTH TO NORTH TRE TO MDL #10	436 - 9 - 12'	9/22/92	RANDOM SAMPLE	458 -		
415 - 8 - 9.5'	8/24/92	WEST TO EAST	437 - 9 - 15'	9/22/92	PIPE JOINT	459 -		
416 - 25 - 4'	8/25/92	DIRT REMOVED INTO DRUM FOR S.E.	438 - 10 - 7'	9/22/92	PIPE JOINT	460 -		
417 - 25 - 4'	8/25/92	TRENCH AFTER DIRT REMOVAL	439 - 10 - 8'	9/22/92	PIPE JOINT	461 -		
418 - 8 -	8/26/92	INSIDE MDL 8 REMOVED PIPE UNDER SIZEMIC TABLE	440 - 10 - 9'	9/24/92	PIPE JOINT	462 - 10 - 16'	9/24/92	JOINT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14856

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/8/92
Reported: 9/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Sep 8, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
426	92-2690	<3.1E-01	} TRENCH # 8A @ 10' EAST TO WEST
427	92-2691	<5.1E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14856
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kowalski

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14865

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/14/92
Reported: 9/16/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@Sep 14, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
428	} MOLD # 8A	92-2716	<2.2E-01		
429		92-2717	<2.3E-01		
430		92-2718	<2.2E-01		
431		92-2719	7.7E-01 +/- 2.7E-01	1.8E+00 +/- 4.1E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14865
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kowchak



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 24
Trench Section # 8A

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 9-24-92
SURVEY TIME: 08:00

DESCRIPTION OF SURVEY

Contact count rate of trenches after MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT
00'	16278	14'	17042				
02'	16384	15'	17086				
04'	16490						
06'	17164						
08'	17290						
10'	16320						
11'	16866						
12'	16640						

SKETCH

REMARKS

H.P. SIGNATURE *J. D. Sullivan*

DATE: 9-24-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MDL # 8-B (WESTFACE TUNNEL)

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: [Signature] Date: 10-1-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: [Signature] Date: 10/1/92

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397 - 9 - 10	8/11/92	SOUTH TO NORTH RANDOM	419 - DRUM	8/28/92	MDL-TKS PIT SLUDGE	441 - 10 - 10'	9/22/92	PIPE JOINT
398 - BLOG #9 PIT	8/12/92	FOLLOW UP OF FLOOR DRAIN @ 26'	420 - DRUM	8/28/92	REMOVED IN DRUMS	442 - 10 - 11'	9/22/92	PIPE JOINT
399 - T - 40'	8/12/92	CORE BORING SEE APPROPRIATE	421 - DRUM	8/28/92	↓	443 - 10 - 13'	9/24/92	PIPE JOINT
400 - B - 39'	8/12/92	SURVEY MAP OF LOCATIONS	422 - 9 - 36'	9/1/92	RANDOM 10' SOUTH TO NORTH SAMPLE	444 - CORE BORE	9/23/92	TR-S PIT N.W. CORNER
401 - T - 24'	8/12/92	↓	423 - 9 - 43'	9/2/92	TEE TO 9A SOUTH TO NORTH VERTICLE CLEAN	445 - CORE BORE	9/23/92	TR-S PIT N.E. CORNER
402 - T - 7'	8/12/92	↓	424 - 9A - 43'	9/2/92	5' UP VERTICLE TO JOINT	446 - CORE BORE	9/23/92	TR-S AT CENTER
403 - K - 2'	8/12/92	↓	425 - 9A - 43'	9/2/92	6' UP VERTICLE TO TREE	447 - CORE BORE	9/23/92	TR-S AT S.W. CORNER
404 - 25 - 00'	8/14/92	ELBOW	426 - 8A - 10'	9/8/92	E. FACE TUNNEL EAST TO WEST	448 - CORE BORE	9/23/92	TR-S AT S.E. CORNER
405 - 25 - 04'	8/14/92	PIPE CUT	427 - 9 - 49'	9/8/92	SOUTH TO NORTH RANDOM SAMPLE	449 - INCUBATOR ASHES		INCUBATOR ASHES
406 - 26 - 00'	8/14/92	ELBOW	428 - 8A - 13'	9/10/92	PIPE UNION	450 -		↓
407 - 27 - 02'	8/14/92	PIPE JOINT	429 - 8A - 15'	9/10/92	END ELBOW	451 -		↓
408 - 27 - 04'	8/14/92	PIPE CUT	430 - 9 - 1'	9/10/92	NORTH TO SOUTH JOINT	452 -		↓
409 - 28 - 00'	8/14/92	ELBOW	431 - TRICOMA 4" PIPE	9/14/92	WEST TOP WALL MOLTS TILE TO CATCH BASIN	453 - 10 - 14.5'	9/23/92	JOINT
410 - 28 - 10'	8/14/92	RANDOM	432 - 5 - 24'	9/15/92	NRC SPLIT SAMPLE	454 -	9/28/92	CHIMNEY ASHES
411 - 28 - 11'	8/14/92	PENETRATED PIPE AREA	433 - 8C - 10.5'	9/15/92	EAST TO WEST TO SEISMIC 8" UNION JOINT	455 -		↓
412 - 29 - 00'	8/14/92	BEGINNING ELBOW	434 - 10 - 3'	9/18/92	FROM TEE OFF MOL 9 WEST TO EAST	456 -		↓
413 - 9 - 13'	8/17/92	SOUTH TO NORTH JOINT	435 - 8 -	9/21/92	WEST FACE PIPE CLEANOUT DIRT IN WALL	457 -		↓
414 - 9 - 26'	8/19/92	SOUTH TO NORTH TEE TO MOL @ 10' WEST TO EAST	436 - 9 - 12'	9/22/92	RANDOM SAMPLE	458 -		↓
415 - 8 - 9.5'	8/24/92		437 - 9 - 15'	9/24/92	NORTH TO SOUTH PIPE JOINT	459 -		↓
416 - 25 - 4'	8/25/92	DIRT REMOVED INTO DRUM FOR SEE	438 - 10 - 7'	9/24/92	PIPE JOINT	460 -		↓
417 - 25 - 4'	8/25/92	TRENCH AFTER DIRT REMOVAL	439 - 10 - 8'	9/24/92	PIPE JOINT	461 -		↓
418 - 8 -	8/26/92	INSIDE MDL B REMOVED PIPE UNDER SEISMIC TABLE	440 - 10 - 9'	9/24/92	PIPE JOINT	462 - 10 - 16'	9/24/92	JOINT

Sequence Starting M.D.L. Section Sample Point Distance
 With 001 - Number - (In feet from north or
 east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reque t# 14840

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/26/92
Reported: 8/31/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 26, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
414	} MOL #8-B	92-2650	6.00E-01 +/- 3.4E-01		
415		92-2651	<3.9E-01 +/- 2.3E-01		
416		92-2652	<2.4E-01	3.19E-01 +/- 1.7E-01	
417		92-2653	<1.5E-01		
418		92-2654	<4.4E-01		

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14840
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Hutchins

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 14875

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /22/92
Reported: /29/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
435	} mol e-B	92-2800	4.46E-01 +/- 2.3E-01
436		92-2801	<3.4E-01
437		92-2802	3.41E-01 +/- 3.0E-01
438		92-2803	<3.4E-01
439		92-2804	3.81E-01 +/- 2.2E-01
440		92-2805	<4.1E-01
441		92-2806	<4.0E-01
442		92-2807	<4.8E-01

INSIDE PIPE SAMPLE,
FROM CLEANOUT WITH
WIRE WHEEL AND VACUUM

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14875
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: _____

Mark Kowalski

SURVEY TYPE: ROUTINE	SPECIAL	DECOMMISSION	X	SURVEY DATE: 9/30/92	SURVEY TIME: 0830
LOCATION: WEST FACE TUNNEL FOR MDL B-B			FILE SURVEY SECTION #: 24	MDL PIPE SECTION #: B-B	
INSTRUMENT: PRS-1	S/N: 346	PROBE TYPE: SPA-3			
INSTRUMENT:	S/N:	PROBE TYPE:			

DESCRIPTION OF SURVEY									
SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM
00 FT.	17252	09 FT.	11836						
01 FT.	17162	09.5 FT.	11614						
02 FT.	14712								
03 FT.	15336								
04 FT.	12764								
05 FT.	12242								
06 FT.	12098								
07 FT.	11920								
08 FT.	12024								

SKETCH

REMARKS

Readings are on concrete subfloor surface that is approximately 12 inches under pipe that was removed. At 9.5 ft. the pipe removal was terminated at an elbow that is embedded in concrete. The remaining 17 feet of pipe is to be left behind. Pipe has been cleaned out and all appropriate surveys have been completed.

H. P. SIGNATURE: Larry Smith *[Signature]* DATE: 9/30/92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MOL # 8-C

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

A SEPARATE BACK FILL REQUEST IS COMPLETED FOR MOL SECTION 8-C PORTION THAT IS BEING LEFT IN PLACE

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SAMPLE # 491 IS REMOVED DEPOSITES FROM PIPE CLEAN OUT. ABOUT 2 FT OF THIS LINE TO BE LEFT IN PLACE DUE TO DIFFICULTY OF BEING IN SOLID CONCRETE.

- 4) Note any special considerations:

AN ELBOW AT 14' IS THE LOCATION WHERE PIPE REMOVAL STOPPED. NO SAMPLE OUTSIDE LINE TAKEN DUE TO BEING SURROUNDED BY CONCRETE.

Requested by:  Date: 10-1-92

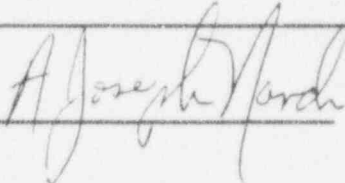
Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature:  Date: 10/1/92

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397 - 9 - 10	8/11/92	SOUTH TO NORTH RANDOM	419 - DRUM	8/28/92	MDL-TK'S PIT SLUDGE	441 - 10 - 10'	9/24/92	PIPE JOINT
398 - BLOG #9 PIT	8/12/92	FOLLOW UP OF FLOOR DRAIN @ 26'	420 - DRUM	8/28/92	REMOVED IN DRUMS	442 - 10 - 11'	9/24/92	PIPE JOINT
399 - T - 40'	8/12/92	CORE BORING SEE APPROPRIATE	421 - DRUM	8/28/92	↓	443 - 10 - 13'	9/24/92	PIPE JOINT
400 - B - 39'	8/12/92	SURVEY MAP OF LOCATIONS	422 - 9 - 36'	9/1/92	RANDOM 10' SOUTH TO NORTH SAMPLE	444 - CORE	9/23/92	TR-S PIT N.W. CORNER
401 - T - 24'	8/12/92	↓	423 - 9 - 43'	9/2/92	TEE TO 9A SOUTH TO NORTH VERTICLE (LEAN)	445 - CORE	9/23/92	TR-S PIT N.E. CORNER
402 - T - 7'	8/14/92	↓	424 - 9A - 43'	9/2/92	5' UP VERTICLE TO JOINT	446 - CORE	9/23/92	TR-S PIT CENTER
403 - K - 2'	8/14/92	↓	425 - 9A - 43'	9/2/92	6' UP VERTICLE TO TREE	447 - CORE	9/23/92	TR-S PIT S.W. CORNER
404 - 25 - 00'	8/14/92	ELBOW	426 - 8A - 10'	9/8/92	E. FACE TUNNEL EAST TO WEST	448 - CORE	9/23/92	TR-S PIT S.E. CORNER
405 - 25 - 04'	8/14/92	PIPE CUT	427 - 9 - 49'	9/8/92	SOUTH TO NORTH RANDOM SAMPLE	449 - INCUBATOR ASHES		INCUBATOR ASHES
406 - 26 - 00'	8/14/92	ELBOW	428 - 8A - 13'	9/10/92	PIPE UNION	450 -		
407 - 27 - 02'	8/14/92	PIPE JOINT	429 - 8A - 15'	9/10/92	END ELBOW	451 -		
408 - 27 - 04'	8/14/92	PIPE CUT	430 - 9 - 1'	9/10/92	NORTH TO SOUTH JOINT	452 -		
409 - 28 - 00'	8/14/92	ELBOW	431 - TRICOMA 4" PIPE	9/14/92	WEST TOP WALL MOLTA'S TILE TO CATCH BASIN	453 - 10 - 14.5'	9/23/92	JOINT
410 - 28 - 10'	8/14/92	RANDOM	432 - 5 - 24'	9/15/92	NRC SPLIT SAMPLE	454 -	9/23/92	CHIMNEY
411 - 28 - 12'	8/14/92	PENETRATED PIPE AREA	433 - 8C - 10.5'	9/15/92	EAST TO WEST TO SEISMIC 8" UNION JOINT	455 -		ASHES
412 - 29 - 00'	8/14/92	BEGINNING ELBOW	434 - 14 - 3'	9/18/92	FROM TREE TOP MOI 9 WEST TO EAST	456 -		
413 - 9 - 13'	8/17/92	SOUTH TO NORTH JOINT	435 - 8 -	9/21/92	WEST FACE PIPE CLEANOUT DIRT IN LINE	457 -		
414 - 9 - 16'	8/19/92	SOUTH TO NORTH TEE TO MDL #10	436 - 9 - 12'	9/22/92	RANDOM SAMPLE	458 -		
415 - 8 - B 9.5'	8/24/92	WEST TO EAST	437 - 9 - 15'	9/22/92	NORTH TO SOUTH PIPE JOINT	459 -		
416 - 25 - 4'	8/25/92	DIRT REMOVED INTO DRUM FOR SEE	438 - 10 - 7'	9/22/92	PIPE JOINT	460 -		
417 - 25 - 4'	8/25/92	TRENCH AFTER DIRT REMOVAL	439 - 10 - 8'	9/22/92	PIPE JOINT	461 -		
418 - 8 -	8/24/92	INSIDE MDL 8 REMOVED PIPE UNDER SEISMIC TABLE	440 - 10 - 9'	9/24/92	PIPE JOINT	462 - 10 - 16'	9/24/92	JOINT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
463 - 10 - 18	9/24/92	END ELBOW	485 - -	9/28/92	ASHES	- -		
464 - -	9/24/92	CHIMNEY ASHES	486 - -			- -		
465 - -	9/24/92	CHIMNEY ASHES	487 - -			- -		
466 - -	9/24/92	CHIMNEY ASHES	488 - -			- -		
467 - -	9/24/92	CHIMNEY ASHES	489 - -			- -		
468 - -	9/25/92	TRENCH OF 4" CLAY PIPE NEAR MOULTRES	490 - -			- -		
469 - -	9/25/92		491 - 8-C 14	9/30/92	INSIDE PIPE CLEANOUT	- -		
470 - -	9/25/92		- -			- -		
471 - -	9/27/92		- -			- -		
472 - -	9/27/92	CHIMNEY ASHES	- -			- -		
473 - -	9/27/92	CHIMNEY ASHES	- -			- -		
474 - -	9/27/92	CHIMNEY ASHES	- -			- -		
475 - -	9/27/92	CHIMNEY ASHES	- -			- -		
476 - -	9/28/92	ASHES	- -			- -		
477 - -			- -			- -		
478 - -			- -			- -		
479 - -			- -			- -		
480 - -			- -			- -		
481 - -			- -			- -		
482 - -			- -			- -		
483 - -	9/28/92	ASHES	- -			- -		
484 - -	9/28/92		- -			- -		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Reques # 14859

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /19/92
Reported: /21/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@Sep 18, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
432	92-2731	2.78E-01	+/- 1.1E-01
433	3 TRENCH 8	92-2732	3.01E-01 +/- 2.0E-01
434	92-2733	2.69E-01	+/- 1.6E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14869
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14884

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/30/92
Reported: 10/1/92

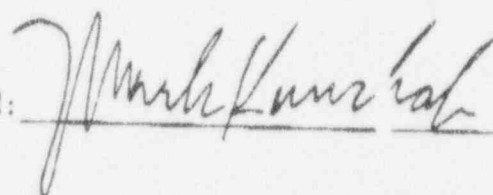
[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 30, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis) pCi/gram	2 sigma
491	92-2883	<2.4E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14884
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

IH & S FORM
 #1002
 LARGE 9/92

 * RADIATION SURVEY *

DISK FILE CODE: RAD-3
 FORM S/N: 24-006

SURVEY TYPE: ROUTINE	SPECIAL	DECOMMISSION	X	SURVEY DATE: 9/30/92	SURVEY TIME: 0915
LOCATION: ABOVE MDL 9 AND OFF MDL 9-A CLEANOUT			FILE SURVEY SECTION #: 24	MDL PIPE SECTION #: B-C	
INSTRUMENT: PRS-1	S/N: 346	PROBE TYPE: SPA-3			
INSTRUMENT:	S/N:	PROBE TYPE:			

DESCRIPTION OF SURVEY

SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM
02 FT.	10584	11 FT.	10910						
03 FT.	11436	12 FT.	10974						
04 FT.	11634	13 FT.	11066						
05 FT.	11272	14 FT.	9454						
06 FT.	11230								
07 FT.	10682								
08 FT.	11330								
09 FT.	11130								
10 FT.	11260								

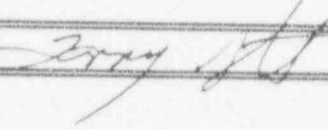
SKETCH

Blank area for sketch.

REMARKS

All readings are on concrete surface that is approximately 12 inches below where the pipe was. At 14 foot the pipe removal was terminated due to solid concrete wall of seismic area. Approximately 2 feet of pipe will be left in place and filled with concrete after clean of pipe is complete.

H. P. SIGNATURE: Larry Smith



DATE: 9/30/92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MDL # 9 TUNNEL

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

SOIL SAMPLE LOCATIONS ARE REFERENCED FROM BOTH NORTH & SOUTH DIRECTION. SEE SOIL LOG SHEET NOTES

Requested by: *[Signature]*

Date: 9-30-92

Authorization:

Authorization to backfill the above described excavation is:



Approved



Not Approved

Comments: _____

Signature: *A. Joseph [Signature]*

Date: 10/1/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397 - 9 - 10	8/11/92	SOUTH TO NORTH RANDOM	419 - DRUM	8/20/92	MDL-TRE PIT SLUDGE	441 - 10 - 10'	9/24/92	PIPE JOINT
398 - Pit	8/12/92	FOLLOW UP OF FLOOR DRAIN @ 36'	420 - DRUM	8/20/92	REMOVED IN DRUMS	442 - 10 - 11'	9/24/92	PIPE JOINT
399 - T - 40'	8/14/92	CORE BORING SEE APPROPRIATE	421 - DRUM	8/26/92		443 - 10 - 13'	9/24/92	PIPE JOINT
400 - B - 39'	8/12/92	SURVEY MAP OF LOCATIONS	422 - 9 - 36'	9/1/92	RANDOM 10' S-N SAMPLE	444 - CORE BORE	9/23/92	TR-S PIT N.W. CORNER
401 - T - 24'	8/14/92		423 - 9 - 43'	9/2/92	TEE TO 9A SOUTH TO NORTH VERTICLE CLEAN	445 - CORE BORE	9/23/92	TR-S PIT N.E. CORNER
402 - T - 7'	8/14/92		424 - 9A - 43'	9/2/92	5' UP VERTICLE TO JOINT	446 - CORE BORE	9/23/92	TR-S PIT CENTER
403 - K - 2'	8/14/92		425 - 9A - 43'	9/2/92	1' UP VERTICLE TO TEE	447 - CORE BORE	9/23/92	TR-S PIT S.W. CORNER
404 - 25 - 00'	8/14/92	ELBOW	426 - 8A 10'	9/8/92	E. FACE TURNED EAST TO WEST	448 - CORE BORE	9/23/92	TR-S PIT S.E. CORNER
405 - 25 - 04'	8/14/92	PIPE CUT	427 - 9 - 49'	9/8/92	SOUTH TO NORTH RANDOM SAMPLE	449 - INCUBATOR ASHES		INCUBATOR ASHES
406 - 26 - 00'	8/14/92	ELBOW	428 - 8A 13'	9/10/92	PIPE UNION	450 - -		
407 - 27 - 02'	8/14/92	PIPE JOINT	429 - 8A 15'	9/10/92	END ELBOW	451 - -		
408 - 27 - 04'	8/14/92	PIPE CUT	430 - 9 - 1'	9/10/92	NORTH TO SOUTH JOINT	452 - -		
409 - 28 - 00'	8/14/92	ELBOW	431 - TRICHA 4" PIPE	9/14/92	WEST TOP WALL MOLTS TIE TO CATCH AGAIN	453 - 10 - 14.5'	9/23/92	JOINT
410 - 28 - 10'	8/14/92	RANDOM	432 - 5 - 24'	9/15/92	NRC SPLIT SAMPLE	454 - INCUBATOR ASHES	9/24/92	INCUBATOR ASHES
411 - 28 - 12'	8/14/92	PENETRATED PIPE AREA	433 - 8 - 10.5'	9/15/92	EAST TO WEST TO SEISMIC 8" UNION JOINT	455 - -		
412 - 29 - 00'	8/14/92	BEGINNING ELBOW	434 - 10 - 3'	9/16/92	FROM TEE ORF MOL 9 WEST TO EAST	456 - -		
413 - 9 - 13'	8/17/92	SOUTH TO NORTH JOINT	435 - 8 -	9/21/92	WEST FACE PIPE CLEANOUT DIRT IN LINE	457 - -		
414 - 9 - 26'	8/19/92	SOUTH TO NORTH TEE TO MOL #10	436 - 9 - 12'	9/22/92	NORTH TO SOUTH RANDOM SAMPLE	458 - -		
415 - 8 - 9.5'	8/24/92	WEST TO EAST	437 - 9 - 15'	9/24/92	NORTH TO SOUTH PIPE JOINT	459 - -		
416 - 25 - 4'	8/25/92	DIRT REMOVED INTO DRUM FOR SE 2	438 - 10 - 7'	9/24/92	PIPE JOINT	460 - -		
417 - 25 - 4'	8/25/92	TRENCH AFTER DIRT REMOVAL	439 - 10 - 8'	9/24/92	PIPE JOINT	461 - -		
418 - 8 -	8/24/92	INSIDE MDL 8 REMOVED PIPE UNDER SEISMIC TABLE	440 - 10 - 9'	9/24/92	PIPE JOINT	462 - 10 - 16'	9/24/92	JOINT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14812

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/11/92
Reported: 3/18/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 11, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
389	92-2489	<3.6E-01	
390	92-2490	2.20E-01	+/- 1.6E-01
391	92-2491	2.52E-01	+/- 8.9E-02
392	92-2492	<2.6E-01	
393	92-2493	<3.5E-01	
394	92-2494	2.18E-01	+/- 1.9E-01
395	92-2495	<3.4E-01	
396	92-2496	<3.0E-01	
397	92-2497	<3.7E-01	

} TRENCH #9
@ 10'
SO WITH TO
NORTH

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14812
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved:

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Reques.# 14828

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/17/92
Reported: 3/25/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
404	92-2571	2.31E-01	+/- 1.5E-01
405	92-2572	1.07E+00	+/- 2.4E-01
406	92-2573	<2.6E-01	
407	92-2574	<3.0E-01	
408	92-2575	6.68E-01	+/- 2.4E-01
409	92-2576	<3.4E-01	
410	92-2577	<2.4E-01	
411	92-2578	<3.4E-01	
412	92-2579	<2.1E-01	
413 } TRENCH 9	92-2580	<2.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14828
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Walt Kuvshinov

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14840

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/26/92
Reported: 8/31/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 26, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
414	} TRENCH # 9	92-2650	6.00E-01 +/- 3.4E-01		
415		92-2651	<3.9E-01 +/- 2.3E-01		
416		92-2652	<2.4E-01	3.19E-01 +/- 1.7E-01	
417		92-2653	<1.5E-01		
418		92-2654	<4.4E-01		

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14840
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Furthas

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Reque t# 14851

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/2/92
Reported: 9/8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Sep 2, 1992)

Originator ID	Lab.Sp1#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
422	} TRENCH #9	92-2681	<3.4E-01
423		92-2682	<3.6E-01
424		92-2683	<3.8E-01
425		92-2684	<5.4E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14851
Procedures: A-524
Analyst: WTF, MRX, TRX

Approved: Mark Kurohata

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14856

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/8/92
Reported: 9/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Sep 8, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
426	92-2690	<3.0E-01	
427	92-2691	<5.1E-01	} TRENCH #9 @ 49' SOUTH TO NORTH

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14856
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kowalski

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 14865

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/14/92
Reported: 9/16/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@Sep 14, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
428	92-2716	<2.2E-01			
429	92-2717	<2.3E-01			
430	92-2718	<2.2E-01			
431	92-2719	7.7E-01	+/- 2.7E-01	1.8E+00	+/- 4.1E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14865
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kurcha

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 14875

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /22/92
Reported: /29/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 22, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
435	92-2800	4.46E-01	+/- 2.3E-01
436	} MDL #9	92-2801	<3.4E-01
437		92-2802	3.41E-01 +/- 3.0E-01
438	92-2803	<3.4E-01	
439	92-2804	3.81E-01	+/- 2.2E-01
440	92-2805	<4.1E-01	
441	92-2806	<4.0E-01	
442	92-2807	<4.8E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14875
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: _____

Mark K...ist



SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 241
Trench Section # 9

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 9-24-92
SURVEY TIME: 08:00

DESCRIPTION OF SURVEY

Contact count rate of trenches after MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT
0'	16736	14' Joint	16722	29'	14632	43'	15124
1' JOINT	14330	15'	16270	31'	14922	45'	14210
3'	16592	17'	15800	33'	15220	47'	14800
5'	16352	19' Tee	16308	34' Tee	14800	49' JOINT	14822
7'	14824	21'	14966	35'	14874	51'	15096
9'	15562	23'	15588	37'	13808	53'	14994
11'	16312	25'	16040	39'	14718	55'	15330
13'	16224	27'	15146	41'	13842	57'	15218

SKETCH

REMARKS

19' is vertical Tee TO 94

34' is Tee FOR section 10

H.P. SIGNATURE *L.H. Sullivan*

DATE: 9-24-92



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #) SURVEY DATE: 9-24-92

LOCATION: File Survey Section # 24 Trench Section # 9 SURVEY TIME: 08:00

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3

INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of trenches after MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT
59'	15494						
61'	15976						

SKETCH

REMARKS

H. P. SIGNATURE *S. H. Sullivan* DATE: 9-24-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MDL # 9A
CLEAN OUT RISER TO FLOOR OF BLOC 6A

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

THE ONLY SURFACES TO SURVEY AFTER MDL
REMOVAL ARE THE BASE TEE AND THE ABOVE
HOLE PENETRATION THROUGH FLOOR

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 10-1-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *[Signature]* Date: 10/1/92

M.D.L. TRENCH SOIL SAMPLE LOG

PAGE 7

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397 - 9 - 10	8/11/92	SOUTH TO NORTH RANDOM	419 - DRUM	8/28/92	MDL-TKS PIT SLUDGE	441 - 10 - 10'	9/24/92	PIPE JOINT
398 - BLOC #9 PIT	8/12/92	FOLLOW UP OF FLOOR DRAIN @ 36'	420 - DRUM	8/28/92	REMOVED IN DRUMS	442 - 10 - 11'	9/24/92	PIPE JOINT
399 - T - 40'	8/12/92	CORE BORING SEE APPROPRIATE	421 - DRUM	8/28/92		443 - 10 - 13'	9/24/92	PIPE JOINT
400 - B - 39'	8/12/92	SURVEY MAP OF LOCATIONS	422 - 9 - 36'	9/1/92	RANDOM 10' SOUTH TO NORTH SAMPLE	444 - CORE	9/23/92	TR-S PIT N.W. CORNER
401 - T - 24'	8/12/92		423 - 9 - 43'	9/2/92	TEE TO 9A SOUTH TO NORTH VERTICLE (LEAN)	445 - CORE	9/23/92	TR-S PIT N.E. CORNER
402 - T - 7'	8/14/92		424 - 9A - 43'	9/2/92	5' UP VERTICLE TO JOINT	446 - CORE	9/23/92	TR-S PIT CENTER
403 - K - 2'	8/14/92		425 - 9A - 43'	9/2/92	6' UP VERTICLE TO TEE	447 - CORE	9/23/92	TR-S PIT S.W. CORNER
404 - 25 - 00'	8/14/92	ELBOW	426 - 8A - 10'	9/8/92	E. FACE TURNED EAST TO WEST	448 - CORE	9/23/92	TR-S PIT S.E. CORNER
405 - 25 - 04'	8/14/92	PIPE CUT	427 - 9 - 49'	9/8/92	SOUTH TO NORTH RANDOM SAMPLE	449 - INCINERATOR ASHES		INCINERATOR ASHES
406 - 26 - 00'	8/14/92	ELBOW	428 - 8A - 13'	9/10/92	PIPE UNION	450 -		
407 - 27 - 02'	8/14/92	PIPE JOINT	429 - 8A - 15'	9/10/92	END ELBOW	451 -		
408 - 27 - 04'	8/14/92	PIPE CUT	430 - 9 - 1'	9/10/92	NORTH TO SOUTH JOINT	452 -		
409 - 28 - 00'	8/14/92	ELBOW	431 - TEE TO 4" PIPE	9/14/92	WEST TOP WALL MOLTS TILE TO CATCH BASIN	453 - 10 - 14.5'	9/23/92	JOINT CHIMNEY
410 - 28 - 10'	8/14/92	RANDOM	432 - 5 - 24'	9/15/92	NRC SPLIT SAMPLE	454 -	9/24/92	ASHES
411 - 28 - 12'	8/14/92	PENETRATED PIPE AREA	433 - 8C - 10.5'	9/15/92	EAST TO WEST TO SEISMIC 2" UNION JOINT	455 -		
412 - 29 - 00'	8/14/92	BEGINNING ELBOW	434 - 10 - 3'	9/18/92	FROM TEE OFF MDL 9 WEST TO EAST	456 -		
413 - 9 - 13'	8/17/92	SOUTH TO NORTH JOINT	435 - 8 -	9/21/92	WEST FACE PIPE CLEAROUT DIRT IN LINE	457 -		
414 - 9 - 26'	8/19/92	SOUTH TO NORTH TEE TO MDL #10 WEST TO EAST	436 - 9 - 12'	9/22/92	RANDOM SAMPLE	458 -		
415 - 8-B-9.5'	8/24/92		437 - 9 - 15'	9/22/92	MULTI TO SOUTH PIPE JOINT	459 -		
416 - 25 - 4'	8/25/92	DIRT REMOVED INTO DRUM FOR SE	438 - 10 - 7'	9/24/92	PIPE JOINT	460 -		
417 - 25 - 4'	8/25/92	TRENCH AFTER DIRT REMOVAL	439 - 10 - 8'	9/24/92	PIPE JOINT	461 -		
418 - 8 -	8/24/92	INSIDE MDL 8 REMOVED PIPE. UNDER SEISMIC TABLE	440 - 10 - 9'	9/24/92	PIPE JOINT	462 - 10 - 16'	9/24/92	JOINT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

REPORT

Request# 14851

TO: Larry Smith/Joe Nardi
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 9/2/92
 Reported: 9/8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (9 Sep 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
422	92-2681	<3.4E-01	
423 } TRENCH #9	92-2682	<3.6E-01	— TEE JOINT FOR #9A ANO#9
424 } TRENCH #9A	92-2683	<3.8E-01	
425 }	92-2684	<5.4E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14851
 Procedures: A-524
 Analyst: WTF, MRK, TRK

Approved: Mark Kurohata

IH & S FORM
#1002
LARGE 9/92

* RADIATION SURVEY *

DISK FILE CODE: RAD-5
FORM S/N: 24-008

SURVEY TYPE: ROUTINE	SPECIAL	DECOMMISSION	X	SURVEY DATE: 9/30/92	SURVEY TIME: 0910
LOCATION: CLEAN OUT PIPE FROM MDL-9 TO BLDG 6A FLOOR				FILE SURVEY SECTION #: 24	MDL PIPE SECTION #: 9-A
INSTRUMENT: PRS-1		S/N: 346		PROBE TYPE: SPA-3	
INSTRUMENT:		S/N:		PROBE TYPE:	

DESCRIPTION OF SURVEY									
SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM
00 FT.	16032								
8.5 FT.	9290								

SKETCH

REMARKS

Difference in CPM is due to depth of base tee verses the floor penetration level. Normal CPM levels are reflected both counts stated above.

H. P. SIGNATURE: Larry Smith *Larry Smith* DATE: 9/30/92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MOL #10

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *Larry [Signature]* Date: 10-9-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A Joseph Ford* Date: 10/13/92

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397 - 9 - 10	8/11/92	SOUTH TO NORTH RANDOM	419 - DRUM	8/28/92	MDL-TKS PIT SLUDGE	441 - 10 - 10'	9/24/92	PIPE JOINT
398 - Pit	8/12/92	FOLLOW UP OF FLOOR DRAIN @ 26'	420 - DRUM	8/28/92	REMOVED IN DRAINS	442 - 10 - 11'	9/24/92	PIPE JOINT
399 - T - 40'	8/12/92	CORE BORING SEE APPROPRIATE	421 - DRUM	8/28/92	↓	443 - 10 - 13'	9/24/92	PIPE JOINT
400 - B - 39'	8/12/92	SURVEY MAP OF LOCATIONS	422 - 9 - 36'	9/1/92	RANDOM 10' SOUTH TO NORTH SAMPLE	444 - CORE BORE	9/23/92	TK-S PIT N.W. CORNER
401 - T - 24'	8/12/92	↓	423 - 9 - 43'	9/2/92	TEE TO 9A SOUTH TO NORTH VERTICLE CLEAN	445 - CORE BORE	9/23/92	TK-S PIT N.E. CORNER
402 - T - 7'	8/12/92	↓	424 - 9A - 43'	9/2/92	5' UP VERTICLE TO JOINT	446 - CORE BORE	9/23/92	TK-S PIT CENTER
403 - K - 2'	8/12/92	↓	425 - 9A - 43'	9/2/92	6' UP VERTICLE TO TREE	447 - CORE BORE	9/23/92	TK-S PIT S.W. CORNER
404 - 25 - 00'	8/14/92	ELBOW	426 - 8A - 10'	9/8/92	E. FACE TUNNEL EAST TO WEST	448 - CORE BORE	9/23/92	TK-S PIT S.E. CORNER
405 - 25 - 04'	8/14/92	PIPE CUT	427 - 9 - 49'	9/8/92	SOUTH TO NORTH RANDOM SAMPLE	449 - INCUBATOR ASHES		INCUBATOR ASHES
406 - 26 - 00'	8/14/92	ELBOW	428 - 8A - 13'	9/10/92	PIPE UNION	450 -		
407 - 27 - 02'	8/14/92	PIPE JOINT	429 - 8A - 15'	9/10/92	END ELBOW	451 -		
408 - 27 - 04'	8/14/92	PIPE CUT	430 - 9 - 1'	9/10/92	NORTH TO SOUTH JOINT	452 -		
409 - 28 - 00'	8/14/92	ELBOW	431 - TRICOR 4" PIPE	9/14/92	WEST TOP WALL MOLTS TIME TO CATCH DRAIN	453 - 10 - 14.5'	9/23/92	JOINT
410 - 28 - 10'	8/14/92	RANDOM	432 - 5 - 24'	9/15/92	NRC SPLIT SAMPLE	454 -	9/24/92	CHIMNEY ASHES
411 - 28 - 12'	8/14/92	PENETRATED PIPE AREA	433 - 8C - 10.5'	9/15/92	EAST TO WEST TO SIEVIC 8" UNION JOINT	455 -		
412 - 29 - 00'	8/14/92	BEGINNING ELBOW	434 - 18 - 3'	9/18/92	FROM TREE OFF MOL 9 WEST TO EAST	456 -		
413 - 9 - 13'	8/17/92	SOUTH TO NORTH JOINT	435 - 8 -	9/21/92	WEST FACE PIPE CLEANOUT DIRT IN WALL	457 -		
414 - 9 - 26'	8/19/92	SOUTH TO NORTH TEE TO MOL #10	436 - 9 - 12'	9/22/92	RANDOM SAMPLE	458 -		
415 - 8-B 9.5'	8/24/92	WEST TO EAST	437 - 9 - 15'	9/24/92	NORTH TO SOUTH PIPE JOINT	459 -		
416 - 25 - 4'	8/25/92	DIRT REMOVED INTO DRUM FOR SE 2	438 - 10 - 7'	9/24/92	PIPE JOINT	460 -		
417 - 25 - 4'	8/25/92	TRENCH AFTER DIRT REMOVAL	439 - 10 - 8'	9/24/92	PIPE JOINT	461 -		
418 - 8 -	8/26/92	INSIDE MDL 8 REMOVED PIPE UNDER SIEVIC TABLE	440 - 10 - 9'	9/24/92	PIPE JOINT	462 - 10 - 16'	9/24/92	JOINT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
463 - 10 - 18	9/24/92	END ELBOW	485 - -	9/28/92	ASHES	- -		
464 - -	9/24/92	CHIMNEY ASHES	486 - -			- -		
465 - -	9/24/92	CHIMNEY ASHES	487 - -			- -		
466 - -	9/24/92	CHIMNEY ASHES	488 - -			- -		
467 - -	9/24/92	CHIMNEY ASHES	489 - -			- -		
468 - -	9/25/92	TRENCH OF 4" CLAY PIPE NEAR ASHES	490 - -			- -		
469 - -	9/25/92		491 - 8-C 14	9/30/92	INSIDE PIPE CLEANOUT	- -		
470 - -	9/25/92		- -			- -		
471 - -	9/25/92		- -			- -		
472 - -	9/25/92	CHIMNEY ASHES	- -			- -		
473 - -	9/25/92	CHIMNEY ASHES	- -			- -		
474 - -	9/25/92	CHIMNEY ASHES	- -			- -		
475 - -	9/25/92	CHIMNEY ASHES	- -			- -		
476 - -	9/25/92	ASHES	- -			- -		
477 - -			- -			- -		
478 - -			- -			- -		
479 - -			- -			- -		
480 - -			- -			- -		
481 - -			- -			- -		
482 - -			- -			- -		
483 - -	9/28/92	ASHES	- -			- -		
484 - -	9/28/92	ASHES	- -			- -		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 14875

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /22/92
Reported: /29/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 22, 1992)

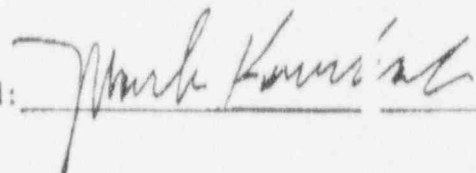
Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
435	92-2800	4.46E-01	+/- 2.3E-01
436	92-2801	<3.4E-01	
437	92-2802	3.41E-01	+/- 3.0E-01
438	92-2803	<3.4E-01	
439	92-2804	3.81E-01	+/- 2.2E-01
440	92-2805	<4.1E-01	
441	92-2806	<4.0E-01	
442	92-2807	<4.8E-01	

MOL
#10

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14875
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: _____



REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14876

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/23/92
Reported: 10/8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 23, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
443 } TRENCH #10	92-2808	<4.7E-01	
444	92-2809	1.48E+00	+/- 2.4E-01
445	92-2810	<1.7E-01	
446	92-2811	4.55E-01	+/- 3.0E-01
447	92-2812	5.86E-01	+/- 1.8E-01
448	92-2813	<3.2E-01	
449	92-2814	<8.7E-01	
450	92-2815	<9.9E-01	
451	92-2816	<9.6E-01	
452	92-2817	<7.9E-01	
453 } TRENCH #10	92-2818	<4.6E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14876
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14878

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 9/24/92
Reported: 10/1/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@September 30, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
454	92-2822	1.76E-01	+/- 1.7E-01
455	92-2823	<3.8E-01	
456	92-2824	<8.3E-01	
457	92-2825	<6.8E-01	
458	92-2826	<3.2E-01	
459	92-2827	<7.1E-01	
460	92-2828	<7.7E-01	
461	92-2829	<6.8E-01	
462	} MOL #10	92-2830	2.82E-01 +/- 2.6E-01
463		92-2831	2.87E-01 +/- 2.6E-01
464	92-2832	<4.3E-01	
465	92-2833	3.83E-01	+/- 1.9E-01
466	92-2834	<3.8E-01	
467	92-2835	<3.5E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14878
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: 

IH & S FORM
 #1002
 LARGE 9/92

 * RADIATION SURVEY *

DISK FILE CODE: RAD-6
 FORM S/N: 24-009

SURVEY TYPE: ROUTINE	SPECIAL	DECOMMISSION	X	SURVEY DATE: 5/30/92	SURVEY TIME:
LOCATION: TUNNEL FOR MDL-10 GOING TOWARDS BLDG. 5.				FILE SURVEY SECTION #: 24	MDL PIPE SECTION #: 10
INSTRUMENT: PRS-1		S/N: 346		PROBE TYPE: SPA-3	
INSTRUMENT:		S/N:		PROBE TYPE:	

DESCRIPTION OF SURVEY									
SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM	SURVEY POINT	CPM
00 FT.	15318	12.5 FT.	15230						
02 FT.	14478	14.5 FT.	13984						
04 FT.	14316	16 FT.	13142						
06 FT.	14746	18 FT.	11804						
07 FT.	14554								
08 FT.	12794								
09 FT.	12992								
10.5 FT.	13618								
11.5 FT.	16974								

SKETCH

REMARKS

Pipe extended into Bldg. 5 about 1 foot past wall to floor level but was capped. All of pipe was removed.

H. P. SIGNATURE: *[Handwritten Signature]* DATE: 9 30 92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

Trench Sections 11, 12, 12A, & 12B

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See Attached

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See Attached

- 4) Note any special considerations:

Requested by: A J Nardi Date: 6/15/92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: A Joseph Nardi Date: 6/15/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
067-15-53.5	5/24/92	JOINT	089-7-8	5/27/92	PIPE CUT	111-15-75	5/30/92	JOINT
068-15-60	5/24/92		090-7-14	5/27/92		112-16-93	6/1/92	PIPE CUT
069-15-66	5/24/92	PIPE CUT	091-7-20	5/27/92	PIPE CUT	113-16-103	6/1/92	JOINT
070-15-81	5/24/92	PIPE CUT	092-7-23	5/27/92	JOINT	114-16-113	6/1/92	
071-15-88	5/24/92		093-7-29	5/27/92	JOINT	115-16-119	6/1/92	
072-15-95	5/24/92	JOINT	094-7-38	5/27/92		116-16-124	6/1/92	JOINT
073-15-105	5/24/92		095-7-45.5	5/27/92	PIPE CUT	117-16-134	6/1/92	
074-15-115	5/24/92	PIPE CUT	096-16-3.5	5/28/92	PIPE CUT	118-16-140	6/1/92	
075-15-125	5/24/92		097-16-10	5/28/92		119-16-45.5	6/1/92	JOINT
076-15-131	5/24/92		098-16-19	5/28/92	JOINT	120-16-147.5	6/1/92	PIPE CUT
077-15-137.5	5/24/92	JOINT	099-16-29.5	5/28/92	PIPE CUT	121-16-155	6/1/92	
078-15-139.5	5/24/92	PIPE CUT	100-16-39.5	5/28/92	JOINT	122-16-164	6/1/92	JOINT
079-15-149	5/24/92		101-7-49	5/28/92	JOINT	123-16-168	6/1/92	PIPE CUT
080-15-159	5/24/92		102-7-57	5/28/92	PIPE CUT	124-11-5.5	6/4/92	PIPE CUT
081-15-169	5/24/92		103-16-175	5/28/92	BROKEN 3" COPPER LINE	125-11-8	6/4/92	JOINT
082-15-175.5	5/24/92	PIPE CUT	104-16-175	5/28/92	3" COPPER LINE CONTENTS DIRTY	126-11-10	6/4/92	
083-15-157.5	5/24/92	JOINT	105-16-46	5/31/92		127-11-22	6/4/92	
084-15-157.5	5/24/92	↓ DUPLICATE SAMPLE	106-16-56	5/31/92	PIPE CUT	128-11-29.5	6/4/92	JOINT
085-5-24	5/27/92	VALVE JOINT	107-16-61	5/30/92	JOINT	129-11-31.5	6/4/92	PIPE CUT
086-5-25	5/27/92	VALVE JOINT	108-16-71	5/30/92		130-11-40	6/4/92	
087-5-26.5	5/27/92	END ELL, "Y"	109-16-81	5/30/92	PIPE CUT	131-11-48	6/4/92	PIPE CUT
088-7-3	5/27/92	JOINT	110-16-83	5/30/92	JOINT	132-11-49	6/4/92	END ELL

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOTI. SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	177-16A-12	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-20	6/9/92	P.R. CUT
135-12-01	6/4/92	JOINT	157-5A-1	6/4/92	JOINT	179-5-24	6/7/92	IVE
136-12-02	6/4/92	JOINT	158-5A-7	6/4/92	PIPE CUT	180-5-25	6/9/92	Y I.F. AS
137-12-04	6/4/92	PIPE CUT	159-5A-11.5	6/4/92	JOINT	181-5-26	6/9/92	END CUT
138-12-06	6/4/92	PIPE CUT	160-5A-13.5	6/4/92	PIPE CUT	182-16B-00	6/10/92	OPEN END
139-12-07	6/4/92	JOINT/'Y'	161-5A-18.5	6/4/92	END ELL	183-16B-2	6/12/92	JOINT
140-12A-02	6/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	184-16B-2	6/12/92	JOINT
141-12A-00	6/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	185-16B-4	6/12/92	JOINT
142-12-8	6/4/92	JOINT/	164-6-4	6/3/92	JOINT	186-16B-6	6/12/92	JOINT
143-12-10.5	6/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	187-16B-8	6/12/92	JOINT
144-12-13.5	6/4/92	JOINT	166-6-9	6/3/92	JOINT	188-16B-10	6/12/92	CUT
145-12-17.5	6/4/92	PIPE CUT	167-15-65	4/3/92	—	-	-	-
146-12-19	6/4/92	JOINT/ELL	168-15-66	6/3/92	PIPE CUT	-	-	-
147-12-23	6/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	-	-	-
148-12-24	6/4/92	PIPE CUT	170-15-67	4/3/92	—	-	-	-
149-12-26	6/4/92	JOINT	171-1-12	6/3/92	MOL TRENCH #1 INSIDE PIPE SAMPLE	-	-	-
150-12-24	6/4/92	PIPE CUT	172-16A-6	6/9/92		-	-	-
151-12-35	6/4/92	END ELL	173-16A-10	6/9/92	JOINT	-	-	-
152-15-178	6/4/92	INSIDE JOINT MANHOLE	174-16A-24	6/9/92	P.R. CUT	-	-	-
153-16-1	6/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/9/92		-	-	-
154-16A-1	6/4/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	-	-	-

Sequence Starting With 001 - M.D.L. Station Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/2/92
Reported: 5/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
120	92-1594	8.19E-02	+/- 4.1E-02		
121	92-1595	<2.9E-01			
122	92-1596	<2.2E-01			
123	92-1597	<3.5E-01			
124	92-1598	<3.9E-01			
125	92-1599	<5.9E-01			
26	92-1600	<3.5E-01			
127	92-1601	6.17E-01	+/- 4.7E-01		
128	92-1602	5.22E-01	+/- 4.0E-01	5.17E-01	+/- 2.7E-01
129	92-1603	<2.4E-01			

Sec 16

Sec 11

AG March
6/15/92

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: [Signature]

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/12/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis) pCi/gram	2 sigma	
130	92-1604	<4.8E-01		} Sec 11
131	92-1605	<4.1E-01		
132	92-1606	<4.5E-01		
33	92-1607	3.4E-01	+/- 2.7E-01	} Sec 12 B
34	92-1608	1.9E-01	+/- 8.4E-02	
35	92-1609	1.6E-01	+/- 6.2E-02	} Sec 12
	92-1610	<2.9E-01		
37	92-1611	<3.7E-01		
38	92-1612	<3.3E-01		
39	92-1613	<3.5E-01		} Sec 12 A
40	92-1614	<5.0E-01		
41	92-1615	<3.8E-01		} Sec 12
42	92-1616	<4.7E-01		
3	92-1617	<2.5E-01		
4	92-1618	<3.8E-01		

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kowalski

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/12/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
145	92-1619	<3.5E-01			
146	92-1620	<6.4E-01			
147	92-1621	<3.9E-01			
148	92-1622	<5.1E-01			
149	92-1623	<2.8E-01			
150	92-1624	<3.8E-01			
151	92-1625	<3.4E-01			
152	92-1626	<3.3E-01	Sec 15	2.94E-01 +/- 2.5E-01	
153	92-1627	<3.3E-01	Sec 16		
154	92-1628	<5.9E-01	Sec 15A		

Sec 12 (bracketed next to rows 145-151)

OK (above row 152)

Agg 6/11/92 (next to row 152)

Inside Man hole (bracketed next to rows 152-154)

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kuzbas



FORM S/N 20-008

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 20-
Trench Section # 11

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3

INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-2-92

SURVEY TIME: 0900

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
5.5 FT PIPE CUT	17,910	20'	16,236	34'	16,270
6'	17,228	22'	16,764	36'	15,680
8' JOINT	18,976	24'	15,742	38'	15,138
10'	18,084	26'	15,810	40'	16,652
12'	16,196	28'	16,290	42'	14,866
14'	16,834	29.5' JOINT	16,136	44'	14,906
16'	15,316	31.5' PIPE CUT	18,128	46'	14,966
18'	16,206	32	16,992	48'	15,362
		SKETCH		49'	16,000

REMARKS

H.P. SIGNATURE *Jerry St*

DATE: 6-2-92



FORM S/N 20-009

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 6-2-92
 LOCATION: File Survey Section # 20 -
 Trench Section # 12
 SURVEY TIME: 1000
 INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
23' JOINT	14,702	35 ENDING ELL	16,341		
24' PIPE CUT	14,888				
26' JOINT	13,784				
28'	14,424				
29' PIPE CUT	14,154				
30	13,980				
32	14,466				
34	16,053				

SKETCH

REMARKS

OUT SIDE REMAINDER OF LINE FROM INSIDE
 BLOG 5

H.P. SIGNATURE *Larry Sts*

DATE: 6-2-92



FORM S/N 25-008

SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> <input checked="" type="checkbox"/> RWP <input type="checkbox"/> (RWP #)		SURVEY DATE: <u>6-2-91</u>
LOCATION: File Survey Section # <u>25-</u> Trench Section # <u>12</u>		SURVEY TIME: <u>1000</u>
INSTRUMENT: PRS-1	SERIAL # 346	PROBE TYPE: SPA-3
INSTRUMENT:	SERIAL #	PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
1' JOINT	11,282	11'	10,778		
2' JOINT	12,284	14'	10,576		
4' ^{PIPE} CUT	11,344	16'	11,516		
6' JOINT PIPE CUT	10,440	17.5' ^{PIPE} CUT	10,368		
7' JOINT	10,430	19' JOINT	12,540		
7.5' JOINT	10,294	20.5' END IN BLOC	14,720		
9	10,542				
10' ^{PIPE} CUT	10,484				

SKETCH

REMARKS

ONLY 6" - 12" DEEP

H. P. SIGNATURE [Signature]

DATE: 6-2-91



FORM S/N 25-009

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 25-
Trench Section # 12-A

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3

INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-2-92

SURVEY TIME: 1015

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' Ell	12,076				
2' ^{ELL} JOINT	10,668				

SKETCH

REMARKS

ONLY 1 FT DEEP

H.P. SIGNATURE *Larry Stitt*

DATE: 6-2-92



FORM S/N 25-010

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 25-
Trench Section # 12-B

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-2-92
SURVEY TIME: 1020

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' Ell JOINT	9970				
2'	9376				
3' Ell JOINT	11602				

SKETCH

REMARKS

PIPE 6" DEEP ONLY

H.P. SIGNATURE

[Handwritten Signature]

DATE:

6-2-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION 13

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: [Signature] Date: 6.16.92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: See comments enclosed about anomalous gamma survey readings

Signature: [Signature] Date: 6/26/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
199 -15A-41'	6/18/92	CUT	221 -13-9	6/22/92	CUT	243 -16-8'	6/24/92	
200 -15A-44'		JOINT	222 -13-16	6/22/92	CUT	244 -16-775	6/24/92	Y
201 -15A-48'		CUT	223 -13-22	6/22/92	JOINT	245 -16-183	6/24/92	JOINT
202 -15A-53'		CUT	224 -13-23	6/22/92	JOINT/TCC	246 -16-184	6/24/92	CUT
203 -15A-53.5'		JOINT	225 -13-00	6/22/92	TROUGH END NORTH	247 -16-190	6/24/92	
204 -15A-56'		JOINT	226 -13-08	6/22/92	TROUGH END SOUTH	248 -16-196	6/24/92	CUT
205 -15A-59'		JOINT	227 -16-205	6/22/92	JOINT	249 -17-15	6/25/92	CUT
206 -15A-64'		JOINT	228 -16-212	6/22/92	CUT	250 -17-23	6/25/92	JOINT
207 -15A-65'		JOINT	229 -16-219	6/22/92	JOINT	251 -17-27	6/25/92	CUT
208 -15A-66'		CUT	230 -16-225	6/22/92	CUT	252 -17-32	6/25/92	
209 -15A-68'		JOINT	231 -16-226	6/22/92	JOINT	253 -17-38	6/25/92	CUT
210 -15A-71'		JOINT	232 -16-236	6/22/92	CUT	254 -17-43	6/25/92	JOINT
211 -15A-73'	✓	CUT	233 -16-242	6/22/92		255 -17-53	6/25/92	
212 -15A-74'	6/18/92	CUT	234 -16-247	6/22/92	JOINT	-	-	
213 -17-00'	6/19/92	ELL	235 -16-248	6/22/92	CUT	-	-	
214 -17-02'	6/19/92		236 -16-258	6/22/92		-	-	
215 -17-08'	6/19/92		237 -16-264	6/22/92	CUT	-	-	
216 -15-A-3.5	6/19/92	CUT	238 -16-268	6/22/92	JOINT	-	-	
217 -15-B-3.5	6/19/92	JOINT	239 -16-8	6/24/92		-	-	
218 -15-B-9.5	6/19/92	END ELL	240 -16-16	6/24/92		-	-	
219 -13-1	6/22/92	CUT	241 -16-21	6/24/92		-	-	
220 -13-2.5	6/22/92	JOINT	242 -16-00	6/24/92		-	-	

Sequence Starting M.D.L. Section Sample Point Distance
 With 001 - Number - (In feet from north or
 east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 14735

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/23/92
Reported: 5/26/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (June 23, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
219	92-1871	<3.9E-01	
220	92-1872	<2.7E-01	
221	92-1873	<3.5E-01	
222	92-1874	<4.2E-01	
223	92-1875	<2.3E-01	
224	92-1876	<4.1E-01	
225	92-1877	2.15E-01	+/- 2.0E-01
226	92-1878	<4.1E-01	
227	92-1879	<1.5E-01	
228	92-1880	<2.4E-01	
229	92-1881	<1.6E-01	
230	92-1882	<2.9E-01	
231	92-1883	4.40E-01	+/- 2.2E-01
232	92-1884	<2.6E-01	
233	92-1885	<2.0E-01	
234	92-1886	<2.4E-01	

TRENCH
13

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14735
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kowalski



FORM S/N 23-002

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 23-
Trench Section # 13

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3

INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-19-92

SURVEY TIME: 1500

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
1' CUT	22312	10'	10934	00' (NORTH TO SOUTH) TRENCH	2908
2'	21528	12'	13154	02'	11048
2.5' JOINT	20436	14'	18598	06'	10950
3'	19442	16' CUT	19904	08'	10852
4'	16544	18'	19884		
6'	11466	20'	20414		
8'	10816	22' JOINT	19160		
9' CUT	11022	22' END	18190		

SKETCH

Note:
See attached writing regarding variation in gamma survey readings.
A.J. Harde
June 26, 1992

REMARKS

H.P. SIGNATURE *[Signature]*

DATE 6-22-92

JOE: HIGH ENERGY K-40
 PROBABLY WHAT THE SODIUM
 IODIDE
 SAMPLE DATA FROM MARK

22,312	1	219	-	12 pCi	K40
20436	25	220	-	6.7 pCi	K40
11022	9	221	-	14.6 pCi	K40
19904	16	222	-	12.9 pCi	K40
19160	42	223	-	4.9 pCi	K40
18190	23	224	-	8.2 pCi	K40
08 3/rough	0	225	-	6.1 pCi	K40
28	0	226	-	6.2 pCi	K40

TRENCH
 (13)

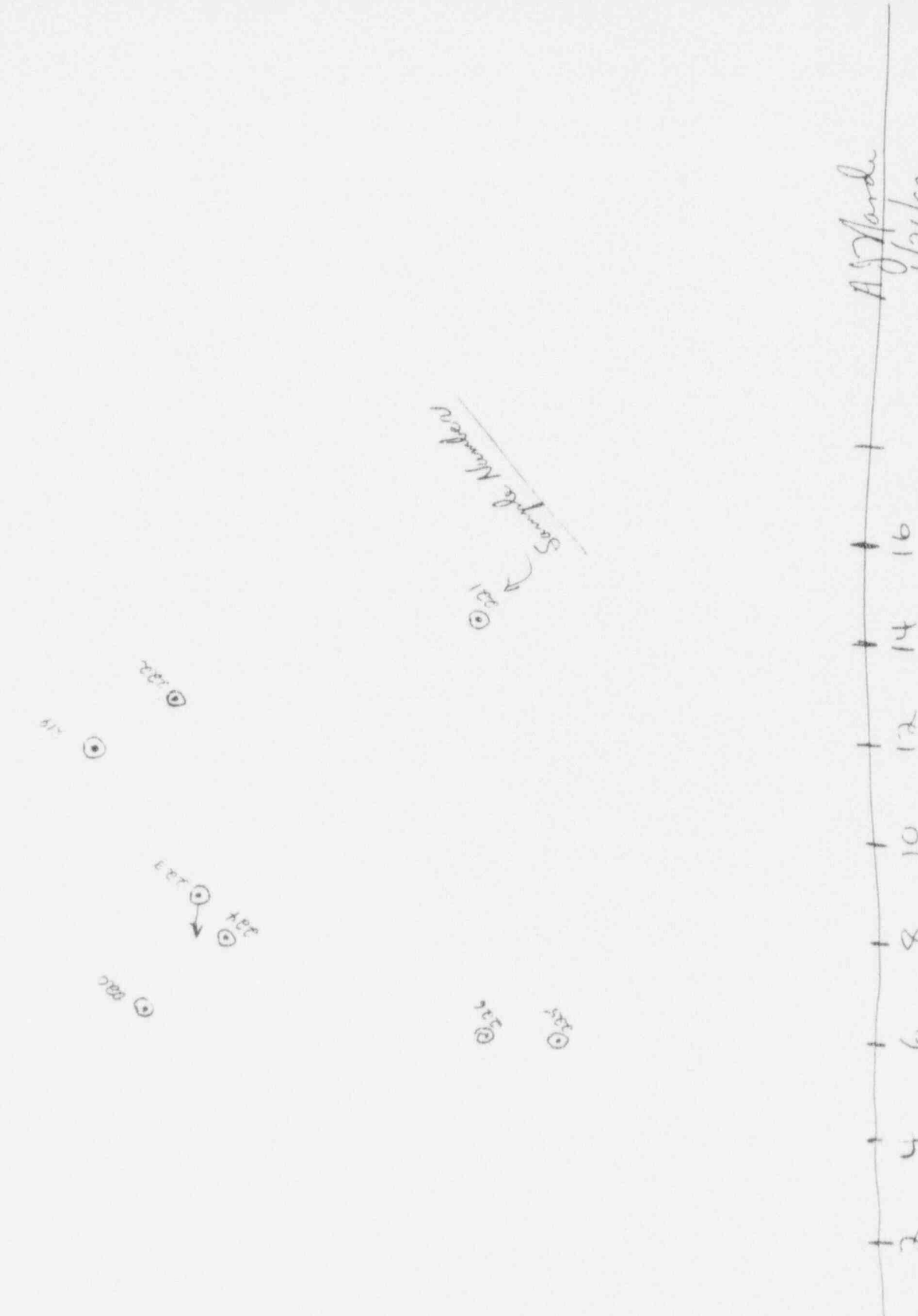
6/26/92

There are anomolous results for the radiation survey readings in this trench. The two ends show soil count rates about twice as high as the middle. The analytical results do not show any indication of uranium contamination. I spoke with Mark Kawchak (Analytical Lab) and requested that he review the gamma scans to determine if there is any explanation. He suggested that it may be due to K⁴⁰ but I don't agree (see graph). The preliminary survey prior to pipe removal did not indicate any differential from ends to middle. Additional hold samples will be taken from the walls of the trench but I have authorized backfill.
 A J Wade

Rascal Results $\text{CPM} \times 10^{-3}$

Ajmer
6/26/92

Sample Numbers





SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 23
MOL TRENCH # 15A

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6.15.92
SURVEY TIME: 1200

DESCRIPTION OF SURVEY

Contact Count Rate Average of dirt removed from trench or in trench at bottom areas near M.D.L.

SURVEY POINT	CPM AVG.	SURVEY POINT	CPM AVG.
#1 26'	14684	#8 47'	14024
#2 29'	13082	#9 50'	11796
#3 32'	14560	#10 60'	13982
#4 35'	13842	#11 63'	14004
#5 38'	10874	#12 66'	14328
#6 41'	14002	#13 69'	13940
#7 44'	14030	#14 72'	13682
		#15 74'	13876

SKETCH

REMARKS

SEE ATTACHED MAP FOR SURVEY POINT LOCATIONS

H.P. SIGNATURE

[Handwritten Signature]

DATE:

6.18.92



PAGE 2 OF 3

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 23
MOL TRENCH # 13

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-15-92
SURVEY TIME: 1300

DESCRIPTION OF SURVEY

Contact Count Rate Average of dirt removed from trench or in trench at bottom areas near M.D.L.

SURVEY POINT	CPM AVG.	SURVEY POINT	CPM AVG.
#16 @ 1'	14902	#23 @ 25'	14026
#17 @ 4'	14012		
#18 @ 7'	14162		
#19 @ 10'	15907		
#20 @ 12'	13584		
#21 @ 17'	13582		
#22 @ 20'	13996		

SKETCH

SEE ATTACHED MAP FOR SURVEY LOCATIONS

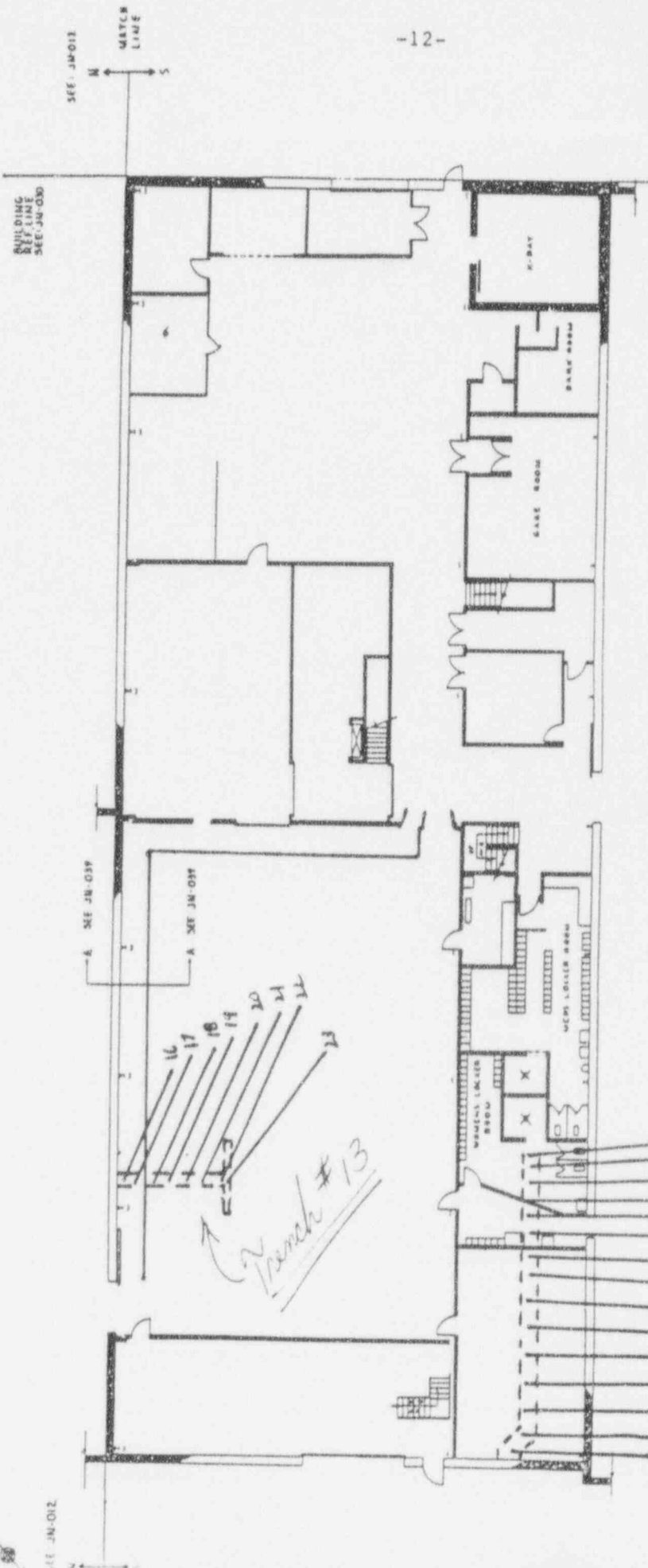
REMARKS

REMARKS

N.P. SIGNATURE *[Signature]*

DATE: 6-15-92

PAGE 3 OF 3



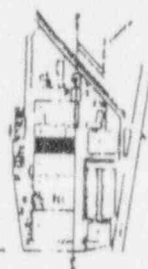
NO.	DESCRIPTION	QTY	UNIT	AMOUNT	REMARKS
PARTS LIST					
1	WOOD WORKING EXPANDED				
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100	WOOD WORKING EXPANDED				

LEGEND

BRICK
 CONCRETE BLOCK EXT
 CONCRETE BLOCK INT
 DRYWALL & PANELING

SCALE: FEET

0 5 10 15 20 25



BUILDING
REF. LINE
SEE JN-030

SEE JN-012

SEE JN-011

MATCH LINE

A SEE JB-039

A SEE JN-038

Trench #13

PROJECT NO. **JN-011**
 DRAWING NO. **D 14683**
 SHEET NO. **3** OF **3**
 DATE **JUN 1963**
 PROJECT TITLE **Washington Memorial Energy Systems Division**
FIRST FLOOR
BUILDING N° 6
WAESD LARGE, PA

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

Section 14

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See Attached

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See Attached

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 6-3-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A Joseph Vardi* Date: 6/3/92

M.D.L. TRENCH SOIL SAMPLE LOG

#14

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
001-6-	3/5/92	REPORTED 4/20/92	023-14-10	5/18/92	PIPE CUT	045-15-12	5/19/92	JOINT
002-4-	4/29/92	SMALL ROOM	024-14-21	5/18/92	BROKEN JOINT	046-15-18	5/19/92	
003-4-	5/1/92	LARGE ROOM	025-14-31	5/18/92	PIPE CUT	047-15-24	5/19/92	CUT JOINT
004-4-15	5/5/92	NORTH EAST	026-14-41	5/18/92	JOINT PIPE CUT	048-15-33	5/19/92	JOINT
005-5-3	5/5/92	NORTH WEST	027-14-51	5/18/92	HOLES IN LINE	049-1A-5	5/19/92	JOINT
006-3-23	5/15/92	JOINT	028-14-53	5/18/92	PIPE CUT	050-1A-9	5/19/92	END ELL
007-3-25	5/15/92	CUT	029-1-00	5/18/92	ELBOW	051-2-2	5/19/92	PIPE CUT
008-3-32	5/15/92		030-1-7	5/18/92	PIPE CUT	052-2-4	5/19/92	JOINT
009-3-38	5/15/92	CUT	031-1-12	5/18/92	HOT JOINT AREA	053-5-10	5/19/92	DOWN COMING SEWER
010-3-46.5	5/15/92	CUT	032-1-14	5/18/92	PIPE CUT	054-4-1	5/20/92	PIPE CUT
011-3-45	5/15/92	JOINT	033-1-20	5/18/92	PIPE CUT	055-4-2	5/20/92	JOINT
012-3-45	5/15/92	JOINT				056-4-16	5/20/92	PIPE CUT
013-3-56	5/15/92	CUT	034-1-23	5/18/92	ELBOW	057-4-16	5/20/92	
014-3-63	5/15/92	CUT	035-5-1	5/19/92	PIPE CUT	058-4-22	5/20/92	JOINT
015-3-67	5/15/92	ELBOW	036-5-3	5/19/92	PIPE CUT	059-4-23	5/20/92	PIPE CUT
016-3-00	5/15/92	ELBOW	037-5-5	5/19/92	JOINT	060-4-32	5/20/92	PIPE CUT
017-3-10	5/15/92		038-5-9	5/19/92	PIPE CUT	061-4-41.5	5/20/92	JOINT
018-3-16.5	5/15/92	CUT	039-5-10	5/19/92	JOINT	062-4-44	5/20/92	PIPE CUT
019-3-2.5	5/15/92	JOINT/CUT	040-5-12	5/19/92	PIPE CUT	063-4-54	5/20/92	
020-14-20	5/15/92	PIPE BREAK	041-5-14	5/19/92	JOINT	064-4-62	5/20/92	PIPE CUT
021-14-50	5/15/92	HOLES IN PIPE	042-5-19	5/19/92	JOINT	065-4-64	5/20/92	END "Y"
022-14-00	5/18/92	ELBOW	043-5-23	5/19/92	PIPE CUT	066-15-43.5	5/24/92	PIPE CUT
			044-15-6	5/19/92				

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)



FORM S/N 20-004

SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> RWP <input checked="" type="checkbox"/> (RWP #)		SURVEY DATE: <u>5-22-92</u>
LOCATION: File Survey Section # <u>19 - #20</u> Trench Section # <u>15</u>		SURVEY TIME: <u>1000 - 1130</u>
INSTRUMENT: PRS-J	SERIAL # 346	PROBE TYPE: SPA-3
INSTRUMENT:	SERIAL #	PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>95 JUNT</u>	<u>18,724</u>	<u>110</u>	<u>18,592</u>		
<u>96</u>	<u>18,996</u>	<u>112</u>	<u>17,572</u>		
<u>98</u>	<u>18,782</u>	<u>114</u>	<u>17,040</u>		
<u>100</u>	<u>18,806</u>	<u>115 CUT</u>	<u>18,902</u>		
<u>102</u>	<u>19,818</u>				
<u>104</u>	<u>18,802</u>				
<u>106</u>	<u>17,408</u>				
<u>108</u>	<u>18,000</u>				

SKETCH

REMARKS

H.P. SIGNATURE

Jerry StA

DATE: 5-22-92



FORM S/N 19-001

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 5-26-92
 LOCATION: File Survey Section # 19 -
 Trench Section # 15
 SURVEY TIME: 1000-1100
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
116	18,592	132	16,574	148	15,346
118	17,606	134	16,822	150	15,562
120	17,102	136	16,630	152	15,642
122	17,304	137.5 JOINT	17,018	154	15,938
124	17,632	139.5 PIPE CUT	16,450	156	15,966
126	18,258	142	15,710	157.5	16,118
128	17,708	144	15,316	158	14,936
130	16,984	146	15,902	160	15,770

SKETCH

REMARKS

H.P. SIGNATURE *[Signature]*

DATE: 5-26-92



FORM S/N 19-001

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 5-26-92
 LOCATION: File Survey Section # 19 -
 Trench Section # 15
 SURVEY TIME: 1000-1100
 INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
162	15,298				
164	14,236				
166	14,046				
168	16,386				
170	15,646				
172	16,199				
174	16,029				
175.5 PIPE CUT	15,976				

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 5-16-92



FORM S/N 20-007

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 5-30-92
 LOCATION: File Survey Section # 20 -
 Trench Section # 15
 SURVEY TIME: 0930-1000
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>67</u>	<u>22,890</u>	<u>80</u>	<u>20770</u>		
<u>68</u>	<u>21,608</u>				
<u>70</u>	<u>20,408</u>				
<u>72</u>	<u>23,554</u>				
<u>74</u>	<u>17,616</u>				
<u>75 Joint</u>	<u>20,582</u>				
<u>76</u>	<u>29,252</u>				
<u>78</u>	<u>19,276</u>				

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 5-30-92



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 20-
Trench Section # 15

INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-4-92
SURVEY TIME: 0900

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
61	21,972	65	21,246	68	20,394
61	21,998	65	21,366	69	20,388
62	22,280	66	21,006	69	20,352
62	22,178	66	21,204	70	21,188
63	21,888	66	20,934	71	20,744
63	21,544	67	21,834	71	22,184
64	21,468	67	22,254	71	21,870
64	21,048	68	20,670		

SKETCH

These results are surveys around the 66 mark which showed a high analytical result on the initial sample. There is no indication of any anomalies survey readings.

*Affongh Wardi
6/4/92*

REMARKS

Follow up survey of suspected trench area from analytical results showing above release criteria

H.P. SIGNATURE *Sony Stt*

DATE: 6-4-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

End of Sec 15 & Beginning of Sec 16
- Inside the manhole -

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See Attached

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See attached

- 4) Note any special considerations:

Requested by: A Joseph Nardi Date: 6/15/92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: A Joseph Nardi Date: 6/15/92

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/12/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (June 3, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	sigma
145	92-1619	<3.5E-01			
146	92-1620	<6.4E-01			
147	92-1621	<3.9E-01			
148	92-1622	<5.1E-01			
149	92-1623	<2.8E-01			
150	92-1624	<3.8E-01			
51	92-1625	<3.4E-01			
152	92-1626	<3.3E-01	Sec 15	2.94E-01 +/- 2.6E-01	
153	92-1627	<3.3E-01	Sec 16		
154	92-1628	<5.9E-01	Sec 15 A		

OK
f/g
6/15/92

} Inside man hole

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kucipac

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	135-16-B-3	6/4/92	PIPE CUT	177-16A-12	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-20	4/9/92	R.R. CUT
135-12-01	4/4/92	JOINT	157-5A-1	4/4/92	JOINT	179-5-24	6/4/92	PIPE
136-12-02	4/4/92	JOINT	158-5A-7	4/4/92	PIPE CUT	180-5-25	6/9/92	4 I.P. 25
137-12-04	6/2/92	PIPE CUT	159-5A-11.5	4/4/92	JOINT	181-5-26	6/3/92	END CUT
138-12-06	4/4/92	PIPE CUT	160-5A-13.5	6/2/92	PIPE CUT	182-16B-00	6/12/92	PIPE CUT
139-12-07	4/4/92	JOINT/'Y'	161-5A-18.5	4/4/92	END ELL	183-16B-2	6/12/92	PIPE
140-12A-02	4/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	184-16B-2	6/12/92	PIPE
141-12A-00	4/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	185-16B-4	6/12/92	PIPE
142-12-8	6/4/92	JOINT/	164-6-4	4/3/92	JOINT	186-16B-6	6/12/92	PIPE
143-12-10.5	4/4/92	PIPE CUT	165-6-6	4/3/92	PIPE CUT	187-16B-8	6/12/92	PIPE
144-12-13.5	4/4/92	JOINT	166-6-9	4/3/92	JOINT	188-16B-10	6/12/92	CUT
145-12-17.5	4/4/92	PIPE CUT	167-15-6.5	4/3/92	—	-	-	-
146-12-19	4/4/92	JOINT/ELL	168-15-66	4/3/92	PIPE CUT	-	-	-
147-12-23	4/4/92	JOINT	169-15-66	4/3/92	PIPE CUT	-	-	-
148-12-24	4/4/92	PIPE CUT	170-15-67	4/3/92	—	-	-	-
149-12-26	4/4/92	JOINT	171-1-12	4/3/92	M.D.L. TRENCH #1 INSIDE PIPE SAMPLES	-	-	-
150-12-24	4/4/92	PIPE CUT	172-16A-6	6/9/92		-	-	-
151-12-35	4/4/92	END ELL	173-16A-10	4/4/92	JOINT	-	-	-
152-15-178	6/4/92	INSIDE JOINT MANHOLE	174-16A-24	4/9/92	P.P. CUT	-	-	-
153-16-1	4/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/4/92		-	-	-
154-15A-1	4/4/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	-	-	-

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)



FORM S/N 19-006

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 LOCATION: File Survey Section # A -
 Trench Section # 15
 INSTRUMENT: PRS-1
 INSTRUMENT: SERIAL # 346
 SERIAL # PROBE TYPE: SPA-3
 PROBE TYPE:

SURVEY DATE: 6-10-92
 SURVEY TIME: 1300

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
178' manhole Trench	17626				

SKETCH

REMARKS

H. P. SIGNATURE *J. M. Walker / Jerry H*

DATE: 6-10-92



FORM S/N 19-008

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 6-10-92
 LOCATION: File Survey Section # 19 -
 Trench Section # 10
 SURVEY TIME: 1300
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>00' Manhole Tee</u>	<u>18,344</u>				

SKETCH

REMARKS

H.P. SIGNATURE [Signature]

DATE: 6-10-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION 15-A

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHES

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHES

- 4) Note any special considerations:

Requested by: [Signature] Date: 6-24-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: [Signature] Date: 6/25/92

157

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	177-16A-12	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-20	6/9/92	R2 CUT
135-12-01	6/4/92	JOINT	157-5A-1	6/4/92	JOINT	179-5-24	6/9/92	IVE
136-12-02	6/4/92	JOINT	158-5A-7	6/4/92	PIPE CUT	180-5-25	6/9/92	Y 1.5' 25
137-12-04	6/4/92	PIPE CUT	159-5A-11.5	6/4/92	JOINT	181-5-26	6/9/92	END CUT
138-12-06	6/4/92	PIPE CUT	160-5A-13.5	6/4/92	PIPE CUT	182-16B-16	6/12/92	OPEN CUT
139-12-07	6/4/92	JOINT/'Y'	161-5A-18.5	6/4/92	END ELL	183-16B-14	6/12/92	JOINT
140-12A-02	6/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	184-16B-13	6/12/92	JOINT
141-12A-00	6/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	185-16B-16	6/12/92	JOINT
142-12-8	6/4/92	JOINT/	164-6-4	6/3/92	JOINT	186-16B-10	6/12/92	JOINT
143-12-10.5	6/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	187-16B-8	6/12/92	JOINT
144-12-13.5	6/4/92	JOINT	166-6-9	6/3/92	JOINT	188-16B-6	6/12/92	CUT
145-12-17.5	6/4/92	PIPE CUT	167-15-65	6/3/92	—	189-15A-6	6/12/92	CUT
146-12-19	6/4/92	JOINT/ELL	168-15-66	6/3/92	PIPE CUT	190-15A-13		
147-12-23	6/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	191-15A-20		JOINT
148-12-24	6/4/92	PIPE CUT	170-15-67	6/3/92	—	192-15A-24		CUT
149-12-26	6/4/92	JOINT	171-1-12	6/3/92	MOL TRENCH #1 INSIDE PIPE SAMPLE	193-15A-29		CUT
150-12-29	6/4/92	PIPE CUT	172-16A-6	6/9/92		194-15A-30		JOINT
151-12-35	6/4/92	END ELL	173-16A-10	6/9/92	JOINT	195-15A-32		CUT
152-15-178	6/4/92	INSIDE JOINT MANHOLE	174-16A-24	6/9/92	P.P. CUT	196-15A-32.5		JOINT
153-16-1	6/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/9/92		197-15A-33		JOINT
154-15A-1	6/4/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	198-15A-35	6/9/92	JOINT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
199 -15A-41	6/18/92	CUT	221 -13-9	6/22/92	CUT	243 -16B-8	6/24/92	
200 -15A-44		JOINT	222 -13-16	6/22/92	CUT	-		
201 -15A-48		CUT	223 -13-22	6/22/92	JOINT	-		
202 -15A-53		CUT	224 -13-23	6/22/92	JOINT/FEC	-		
203 -15A-53.5		JOINT	225 -13-00	6/22/92	TROUGH END NORTH	-		
204 -15A-56		JOINT	226 -13-08	6/22/92	TROUGH END SOUTH	-		
205 -15A-59		JOINT	227 -16-205	6/22/92	JOINT	-		
206 -15A-64		JOINT	228 -16-212	6/22/92	CUT	-		
207 -15A-65		JOINT	229 -16-219	6/22/92	JOINT	-		
208 -15A-66		CUT	230 -16-225	6/22/92	CUT	-		
209 -15A-68		JOINT	231 -16-226	6/22/92	JOINT	-		
210 -15A-71		JOINT	232 -16-236	6/22/92	CUT	-		
211 -15A-73	✓	CUT	233 -16-242	6/22/92		-		
212 -15A-74	6/18/92	CUT	234 -16-247	6/22/92	JOINT	-		
213 -17-00	6/17/92	ELL	235 -16-248	6/22/92	CUT	-		
214 -17-02	6/17/92		236 -16-258	6/22/92		-		
215 -17-08	6/17/92		237 -16-264	6/22/92	CUT	-		
216 -15-A-3.5	6/19/92	CUT	238 -16-268	6/22/92	JOINT	-		
217 -15-B-3.5	6/19/92	JOINT	239 -16C-8	6/24/92		-		
218 -15-B-9.5	6/19/92	END ELL	240 -16C-16	6/24/92		-		
219 -13-1	6/22/92	CUT	241 -16C-21	6/24/92		-		
220 -13-2.5	6/22/92	JOINT	242 -16B-00	6/24/92		-		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14729

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/19/92
Reported: 6/24/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 19, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
189	92-1803	<1.6E-01	
190	92-1804	<1.7E-01	
191	92-1805	<1.9E-01	
192	92-1806	2.10E-01	+/- 2.0E-01
193	92-1807	<2.7E-01	
194	92-1808	<3.2E-01	
195	92-1809	<2.9E-01	
196	92-1810	<4.5E-01	
197	92-1811	<3.0E-01	
198	92-1812	2.55E-01	+/- 2.5E-01
199	92-1813	<3.6E-01	
200	92-1814	<4.0E-01	
201	92-1815	<3.2E-01	
202	92-1816	<4.0E-01	
203	92-1817	<2.5E-01	
204	92-1818	<4.2E-01	

TRENCH
ISA

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14729
Procedures: A-524
Analyst: WTF, MRK

Approved: *Mark Kouchak*

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14729

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/19/92
Reported: 5/24/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 19, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Pa-233 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
205	92-1819	<2.6E-01			
206	92-1820	<3.4E-01			
207	92-1821	<3.8E-01			
208	92-1822	<2.1E-01			
209	92-1823	<3.8E-01			
210	92-1824	2.78E-01	+/- 2.6E-01		
211	92-1825	<4.6E-01			
212	92-1826	<3.9E-01			
213	92-1827	2.33E-01	+/- 2.3E-01		
214	92-1828	<1.6E-01		2.17E-01	+/- 2.1E-01
215	92-1829	<1.6E-01			
216	92-1830	<2.4E-01			
217	92-1831	<3.8E-01			
218	92-1832	4.11E-01	+/- 2.9E-01		

TRENCH
ISA

TRENCH
ISA

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14729
Procedures: A-524
Analyst: WTF, MRK

Approved: *Mark Kouchak*



FORM S/N 19-007

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 19 -
Trench Section # 15A

SURVEY DATE: 6-10-92

SURVEY TIME: 1300

INSTRUMENT: PRS-1

SERIAL # 346

PROBE TYPE: SPA-3

INSTRUMENT:

SERIAL #

PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' MANHOLE Tee	18760				

SKETCH

REMARKS

H.P. SIGNATURE

J. M. Hens

DATE: 6-10-92



FORM S/N 19-010

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 19-
Trench Section # 15A

INSTRUMENT: PRS-1, SERIAL # 346
INSTRUMENT: SERIAL #

SURVEY DATE: 6-19-92
SURVEY TIME: 0830

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
2	16510				
3.5 cut	15610				
4	14852				
6 cut	14898				

SKETCH

REMARKS

N.P. SIGNATURE *[Handwritten Signature]*

DATE: 6-19-92



FORM S/N 18-009

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 19 -
Trench Section # 15A

INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-18-92
SURVEY TIME: 13:30

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
6 CUT	15738	20 Joint	16344	32.5 Joint	19894
8	16828	22	17938	33.5 Joint	18542
10	17674	24	19564	35 Joint	18730
12	18376	26	18394	36	18386
13	18528	28	18316	38	18402
14	17622	29 CUT	18286	40	19236
16	16614	30 Joint	18810	41 CUT	20638
18	16308	32 CUT	18178	42	18970

SKETCH

REMARKS

H.P. SIGNATURE

Scott H. Sullivan

DATE: 6-19-92



FORM S/N 19-009

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 LOCATION: File Survey Section # 19 -
 Trench Section # 15A
 INSTRUMENT: PRS-1
 INSTRUMENT: SERIAL # 346
 SERIAL # PROBE TYPE: SPA-3
 PROBE TYPE:

SURVEY DATE: 6-18-92
 SURVEY TIME: 13:30

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
44 Joint	18930	56 Joint	20660	68 Joint	19480
46	20194	58	21334	70	20296
48 CUT	21736	59 Joint	21092	71 Joint	19696
50	20244	60 CUT	21870	72 Floor Drain	19382
52	20234	62	20306	73 CUT	21302
53 CUT	21950	64 Joint	20710	74 Floor Drain	19946
53.5 Joint	21012	65 Joint	20918		
55	20660	66 CUT	21498		

SKETCH

REMARKS

H.P. SIGNATURE *Scott H. Hillman* DATE: 6-19-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH IS A
(SHOWER ROOM SECTION)

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: Jerry St

Date: 7-23-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: James P. Thompson

Date: 7-23-92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	7/29/92		287-20-60	7/7/92	JOINT	309-18-B-7.5	7/14/92	JOINT
266-20-45	7/29/92		288-20-60	7/7/92	Duplicate of 287	310-18-B-8	7/14/92	Y
267-20-91	7/29/92		289-20-68.5	7/7/92	CUT	311-18-B-8.5	7/14/92	JOINT
268-18-23	7/11/92	JOINT	290-20-76	7/7/92	RANDOM	312-18-B-12	7/14/92	CUT
269-18-24		Y	291-20-81.5	7/7/92	JOINT	313-18-B-12.5	7/14/92	JOINT
270-18-25		JOINT	292-20-82	7/7/92	CUT	314-18-B-13	7/14/92	Y
271-18-30		JOINT	293-17-53	7/7/92	REPEAT	315-18-B-13.5	7/14/92	JOINT
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	316-18-B-18	7/14/92	END
273-18-46			295-18-98	7/7/92	RANDOM	317-19-9'	7/14/92	JOINT
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	318-20-00	7/14/92	JOINT
275-18-57.5	7/11/92	CUT	297-18-114	7/7/92	JOINT	319-20-1	7/14/92	CUT
276-18A-00	7/2/92	JOINT	298-18-121	7/7/92	CUT	320-15E-01	7/15/92	JOINT
277-18A-0.5		JOINT	299-18-134	7/9/92	CUT	321-15E-3.0		JOINT
278-18A-1.0		JOINT	300-18-137	7/9/92	JOINT	322-15E-7'		END cell
279-18A-1.1		RANDOM	301-18-142.5	7/9/92	END of Pipe	323-15D-00		END cell clean cut
280-18A-2.1		END Y'	302-19-6.5	7/9/92	CUT	324-15D-02		Y
281-18C-00	7/2/92		303-18-128	7/9/92	RANDOM	325-15D-03		Y
282-18-68	7/6/92	CUT	304-18-134	7/9/92	JOINT	326-15D-04		JOINT
283-18-73	7/6/92	JOINT	305-18-135	7/9/92	CUT	327-15D-05		JOINT
284-18-80	7/6/92	RANDOM	306-18-144	7/9/92	RANDOM	328-15D-8'		CUT
285-18-86	7/6/92	CUT	307-18-B-00	7/9/92	END CELL	329-15D-8.5		END Y
286-20-59.5	7/7/92	CUT	308-18-B-6.5	7/10/92	CUT	330-5A-7.5	7/15/92	flow valve

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331-15A-80	7/15/92	CUT	-	-		-	-	
332-15C-02	7/15/92	Flow Valve	-	-		-	-	
333-15E-03	7/15/92	CUT JOINT	-	-		-	-	
334-15C-03	7/15/92	DUPLICATE SAMPLE of 333	-	-		-	-	
335-23-11	7/14/92	END	-	-		-	-	
336-23-7	7/14/92	JOINT	-	-		-	-	
337-23-6.5	7/14/92	JOINT	-	-		-	-	
338-23-1.5	7/14/92	JOINT	-	-		-	-	
339-23-00	7/14/92	BEGINNING	-	-		-	-	
340-23-A-01	7/14/92	JOINT	-	-		-	-	
341-23A-00	7/14/92	ELL	-	-		-	-	
342-23-B-01	7/14/92	JOINT	-	-		-	-	
343-23-B-02	7/14/92	ELL	-	-		-	-	
344-23-C-00	7/14/92	ELL	-	-		-	-	
345-23-C-03	7/14/92	JOINT	-	-		-	-	
346-24-	7/20/92	CONCRETE PIT PIPE CURVE AREA	-	-		-	-	
347-	7/22/92	PIT SCOOP IN DRAIN	-	-		-	-	
348-16-	7/22/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	-	-		-	-	
-	-		-	-		-	-	
-	-		-	-		-	-	
-	-		-	-		-	-	
-	-		-	-		-	-	
-	-		-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14764

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/15/92
Reported: 7/22/92

[RESULTS OF ANALYSIS]

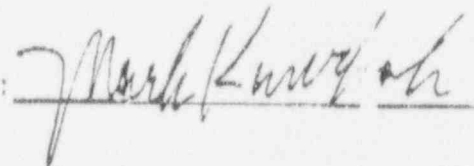
GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
317	92-2178	6.59E-01	+/- 2.6E-01		
318	92-2179	5.56E-01	+/- 2.3E-01	2.63E-01	+/- 2.0E-01
319	92-2180	3.12E-01	+/- 1.7E-01	3.21E-01	+/- 2.2E-01
320	92-2181	<5.2E-01			
321	92-2182	<4.2E-01			
322	92-2183	<5.5E-01			
323	92-2184	4.01E-01	+/- 3.2E-01		
324	92-2185	<5.1E-01			
325	92-2186	1.46E+00	+/- 3.8E-01		
326	92-2187	<5.7E-01			
327	92-2188	3.98E-01	+/- 3.5E-01		
328	92-2189	<3.9E-01			
329	92-2190	<3.8E-01			
330	92-2191	<3.8E-01			
331	92-2192	<2.4E-01		2.59E-01	+/- 2.3E-01
332	92-2193	<2.6E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14764
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved:





FORM S/N 19-011

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP # _____)
 LOCATION: File Survey Section # 19-
 Trench Section # MDL 15A
 INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # _____ PROBE TYPE: _____
 SURVEY DATE: 7-15-92
 SURVEY TIME: 0900

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>75' Flow Valve</u>	<u>18512</u>				
<u>76'</u>	<u>19310</u>				
<u>78'</u>	<u>18248</u>				
<u>80' CUT</u>	<u>19074</u>				
<u>82' END V</u>	<u>18228</u>				

SKETCH

REMARKS

Soil sample # 329 ON MDL #15D IS SAME POINT AS 82'
SURVEY POINT ON MDL #15-A

N.P. SIGNATURE

J. W. Sullivan, Larry Stet

DATE: 7-15-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION 15-B

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: [Signature] Date: 6-14-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: [Signature] Date: 6/25/92

15-B

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
199 -15A-41'	6/18/92	CUT	221 -13-9	6/22/92	CUT	243 -16D-8'	6/24/92	
200 -15A-44'		JOINT	222 -13-16	6/22/92	CUT	-		
201 -15A-48'		CUT	223 -13-22	6/22/92	JOINT	-		
202 -15A-53'		CUT	224 -13-23	6/22/92	JOINT/TCC	-		
203 -15A-53.5'		JOINT	225 -13-00	6/22/92	TROUGH END NORTH	-		
204 -15A-56'		JOINT	226 -13-08	6/22/92	TROUGH END SOUTH	-		
205 -15A-59'		JOINT	227 -16-205	6/22/92	JOINT	-		
206 -15A-64'		JOINT	228 -16-212	6/22/92	CUT	-		
207 -15A-65'		JOINT	229 -16-219	6/22/92	JOINT	-		
208 -15A-66'		CUT	230 -16-225	6/22/92	CUT	-		
209 -15A-68'		JOINT	231 -16-226	6/22/92	JOINT	-		
210 -15A-71'		JOINT	232 -16-236	6/22/92	CUT	-		
211 -15A-73'	✓	CUT	233 -16-242	6/22/92		-		
212 -15A-74'	6/19/92	CUT	234 -16-247	6/22/92	JOINT	-		
213 -17-00'	6/19/92	ELL	235 -16-248	6/22/92	CUT	-		
214 -17-02'	6/19/92		236 -16-258	6/22/92		-		
215 -17-08'	6/19/92		237 -16-264	6/22/92	CUT	-		
216 -15-A-3.5'	6/19/92	CUT	238 -16-268	6/22/92	JOINT	-		
217 -15-B-3.5'	6/19/92	JOINT	239 -16C-8	6/24/92		-		
218 -15-B-9.5'	6/19/92	END ELL	240 -16C-16	6/24/92		-		
219 -13-1	6/22/92	CUT	241 -16C-21	6/24/92		-		
220 -13-2.5	6/22/92	JOINT	242 -16D-00'	6/24/92		-		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14729

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/19/92
Reported: 5/24/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 19, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Pa-233 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
205	92-1819	<2.6E-01			
206	92-1820	<3.4E-01			
207	92-1821	<3.8E-01			
208	92-1822	<2.1E-01			
209	92-1823	<3.8E-01			
210	92-1824	2.78E-01	+/- 2.6E-01		
211	92-1825	<4.6E-01			
212	92-1826	<3.9E-01			
213	92-1827	2.33E-01	+/- 2.3E-01		
214	92-1828	<1.6E-01		2.17E-01	+/- 2.1E-01
215	92-1829	<1.6E-01			
216	92-1830	<2.4E-01			
217	} TRENCH 15-B	92-1831	<3.8E-01		
218		92-1832	4.11E-01	+/- 2.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14729
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kunchak



FORM S/N 23-001

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 23-
Trench Section # 15-13

SURVEY DATE: 6-19-92

SURVEY TIME: 0845

INSTRUMENT: PRS-1 SERIAL # 346

INSTRUMENT: SERIAL #

PROBE TYPE: SPA-3

PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
2	17382				
3.5 JOINT	15360				
4	15220				
6	14406				
8	18382				
9.5 END ELL	15966				

SKETCH

REMARKS

H.P. SIGNATURE

Jerry [Signature]

DATE: 6-19-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 15-C

2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHES

3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHES

4) Note any special considerations:

Requested by: *[Signature]*

Date: 7-23-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *[Signature]*

Date: 7-23-92

[Signature]

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331-15A-80	7/15/92	CUT	-	-		-	-	
332-15C-02	7/15/92	Flow Valve	-	-		-	-	
333-15E-03	7/15/92	CUT JOINT	-	-		-	-	
334-15C-03	7/15/92	DUPLICATE SAMPLE of 333	-	-		-	-	
335-23-11	7/14/92	END	-	-		-	-	
336-23-7	7/14/92	JOINT	-	-		-	-	
337-23-6.5	7/14/92	JOINT	-	-		-	-	
338-23-1.5	7/14/92	JOINT	-	-		-	-	
339-23-00	7/14/92	BEGINNING 'Y'	-	-		-	-	
340-23-A-01	7/14/92	JOINT	-	-		-	-	
341-23A-00	7/14/92	ELL	-	-		-	-	
342-23-B-01	7/14/92	JOINT	-	-		-	-	
343-23-B-02	7/14/92	ELL	-	-		-	-	
344-23-C-00	7/14/92	ELL	-	-		-	-	
345-23-C-03	7/14/92	JOINT	-	-		-	-	
346-24-	7/29/92	CONCRETE PIT PIPE AND MAN	-	-		-	-	
347-	7/22/92	PIT SCOOP IN DRUM	-	-		-	-	
348-16-	7/22/92	TERRAIN DIRT OIL CONTAMINATED IN DRUM	-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	

Sequence Starting M.D.L. Section Sample Point Distance
 With 001 - Number - (In feet from north or
 east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14764

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/15/92
Reported: 7/22/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
317	92-2178	6.59E-01	+/- 2.6E-01		
318	92-2179	5.56E-01	+/- 2.3E-01	2.63E-01	+/- 2.0E-01
319	92-2180	3.12E-01	+/- 1.7E-01	3.21E-01	+/- 2.2E-01
320	92-2181	<5.2E-01			
321	92-2182	<4.2E-01			
322	92-2183	<5.5E-01			
323	92-2184	4.01E-01	+/- 3.2E-01		
324	92-2185	<5.1E-01			
325	92-2186	1.46E+00	+/- 3.8E-01		
326	92-2187	<5.7E-01			
327	92-2188	3.98E-01	+/- 3.5E-01		
328	92-2189	<3.9E-01			
329	92-2190	<3.8E-01			
330	92-2191	<3.8E-01			
331	92-2192	<2.4E-01		2.59E-01	+/- 2.3E-01
332 } Trench 15-C	92-2193	<2.6E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14764
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kurzysh

Westinghouse Electric Corporation

REPORT

Waltz Mill Site

Request # 14764

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/15/92
Reported: 7/22/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
333	} TRENCH 15C	92-2194	3.88E-01 +/- 2.4E-01
334		92-2195	<7.0E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14764
Procedures: A-524
Analyst: WIF, MRK, TRK, DZ

Approved: Mark Kowalski



FORM S/N 3-003

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)
 LOCATION: File Survey Section # 23
 Trench Section # MDL 15C
 INSTRUMENT: PRS-1
 INSTRUMENT: SERIAL # 346
 SERIAL # PROBE TYPE: SPA-3
 PROBE TYPE:

SURVEY DATE: 7-15-92
 SURVEY TIME: 0900

DESCRIPTION OF SURVEY

Contact co: Site of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>00 END Y</u>	<u>18228</u>				
<u>01</u>	<u>17696</u>				
<u>2 FLOW VALVE</u>	<u>18780</u>				
<u>3 cut-joint</u>	<u>17920</u>				

SKETCH

REMARKS

Soil sample 329 is shared with 00 END Y MDL 15C
MEASURED EAST TO WEST

N.P. SIGNATURE H. Williams / Tracy DA

DATE: 7-15-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 15-D

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]*

Date: 7-23-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *[Signature]*

Date: 7-23-92

[Signature]
A. J. Mardi

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	4/29/92		287-20-60	7/7/92	JOINT	309-18-B-7.5	7/10/92	JOINT
266-20-45	9/29/92		288-20-60	7/7/92	DUPLICATE OF 287	310-18-B-8	7/10/92	Y
267-20-51	9/29/92		289-20-68.5	7/7/92	CUT	311-18-B-8.5	7/10/92	JOINT
268-18-23	9/11/92	JOINT	290-20-76	7/7/92	RANDOM	312-18-B-12	7/10/92	CUT
269-18-24		Y	291-20-81.5	7/7/92	JOINT	313-18-B-12.5	7/10/92	JOINT
270-18-25		JOINT	292-20-82	7/7/92	CUT	314-18-B-13	7/10/92	Y
271-18-30		JOINT	293-17-53	7/7/92	REPEAT	315-18-B-13.5	7/10/92	JOINT
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	316-18-B-18	7/10/92	END
273-18-46			295-18-98	7/7/92	RANDOM	317-19-9'	7/10/92	JOINT
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	318-20-00	7/10/92	JOINT
275-18-57.5	7/1/92	CUT	297-18-114	7/8/92	JOINT	319-20-1	7/10/92	CUT
276-18A-00	7/2/92	JOINT	298-18-121	7/8/92	CUT	320-15B-01	7/15/92	Y-JOINT
277-18A-0.5		JOINT	299-18-154	7/9/92	CUT	321-15B-3.0		JOINT
278-18A-1.0		JOINT	300-18-157	7/9/92	JOINT	322-15B-7'		END ell
279-18A-1.1		RANDOM	301-18-162.5	7/9/92	END of Pipe	323-15D-00		END ell CLEAN CUT
280-18A-2.1		END 'Y'	302-19-6.5	7/9/92	CUT	324-15D-02		Y
281-18C-00	7/2/92		303-18-128	7/9/92	RANDOM	325-15D-03		Y
282-18-68	7/6/92	CUT	304-18-134	7/9/92	JOINT	326-15D-04		JOINT
283-18-73	7/6/92	JOINT	305-18-135	7/9/92	CUT	327-15D-05		JOINT
284-18-80	7/6/92	RANDOM	306-18-144	7/9/92	RANDOM	328-15D-8'		CUT
285-18-86	7/6/92	CUT	307-18-B-00	7/10/92	END ELL	329-15D-8.5		END Y
286-20-59.5	7/7/92	CUT	308-18-B-6.5	7/10/92	CUT	330-15A-7.5	7/15/92	FLOW VAULT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

Request # 14764

TO: Larry Smith/Joe Nardi
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 1/15/92
 Reported: 1/22/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
317	92-2178	6.59E-01	2.6E-01		
318	92-2179	5.56E-01	+/- 2.3E-01	2.63E-01	+/- 2.0E-01
319	92-2180	3.12E-01	+/- 1.7E-01	3.21E-01	+/- 2.2E-01
320	92-2181	<5.2E-01			
321	92-2182	<4.2E-01			
322	92-2183	<5.5E-01			
323	92-2184	4.01E-01	+/- 3.2E-01		
324	92-2185	<5.1E-01			
325	92-2186	1.46E+00	+/- 3.8E-01		
326	92-2187	<5.7E-01			
327	92-2188	3.98E-01	+/- 3.5E-01		
328	92-2189	<3.9E-01			
329	92-2190	<3.8E-01			
330	92-2191	<3.8E-01			
331	92-2192	<2.4E-01		2.59E-01	+/- 2.3E-01
332	92-2193	<2.6E-01			

TRENCH
15-D

The average of all these 7 samples is 0.6 pCi/g U-235. The total area of trench involved is about 8.5' length by about 1-2' width. No further action is required.
 A. Joseph Nardi
 1/4/92

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14764
 Procedures: A-524
 Analyst: WTF, MRK, TRK, DZ

Approved: *Mark Kurzysh*



FORM S/N 23-004

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 23 -
Trench Section # MDL 15-D

INSTRUMENT: PRS-1. SERIAL # 346
INSTRUMENT: SERIAL #

SURVEY DATE: 7-15-92
SURVEY TIME: 0900

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00 End ell clean at	17876				
02 Y	18070				
03 Y	18560				
04 Joint	19682				
05 Joint	19736				
06	20420				
08 cut	19432				
09 END V	18228				

SKETCH

REMARKS

MEASURED EAST TO WEST

N.P. SIGNATURE

[Handwritten Signature]

DATE: 7-15-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 15-E

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: Jerry St Date: 7-23-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: James P. Hanger Date: 7-23-92

A. Hander

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	7/29/92		287-20-60	7/7/92	JOINT	309-18-B-7.5	7/19/92	JOINT
266-20-45	7/29/92		288-20-60	7/7/92	Duplicate of 287	310-18-B-8	7/19/92	Y
267-20-51	7/29/92		289-20-68.5	7/7/92	CUT	311-18-B-8.5	7/19/92	JOINT
268-18-20	7/11/92	JOINT	290-20-76	7/7/92	RANDOM	312-18-B-12	7/19/92	CUT
269-18-24		Y	291-20-81.5	7/7/92	JOINT	313-18-B-12.5	7/19/92	JOINT
270-18-25		JOINT	292-20-82	7/7/92	CUT	314-18-B-13	7/19/92	Y
271-18-30		JOINT	293-17-53	7/7/92	REPEAT	315-18-B-13.5	7/19/92	JOINT
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	316-18-B-18	7/19/92	END
273-18-46			295-18-98	7/7/92	RANDOM	317-19-9'	7/14/92	JOINT
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	318-20-00	7/14/92	JOINT
275-18-57.5	7/1/92	CUT	297-18-114	7/8/92	JOINT	319-20-1'	7/14/92	CUT
276-18A-00	7/2/92	JOINT	298-18-121	7/8/92	CUT	320-15E-01	7/15/92	Y-JOINT
277-18A-0.5		JOINT	299-18-154	7/9/92	CUT	321-15E-3.0		JOINT
278-18A-1.0		JOINT	300-18-157	7/9/92	JOINT	322-15E-7'		END cell cut clear cut
279-18A-1.1		RANDOM	301-18-162.5	7/9/92	END of P. 24	323-15D-00		
280-18A-2.1		END 'Y'	302-19-6.5	7/9/92	CUT	324-15D-02		Y
281-18C-00	7/2/92		303-18-128	7/9/92	RANDOM	325-15D-03		Y
282-18-68	7/6/92	CUT	304-18-134	7/9/92	JOINT	326-15D-04		JOINT
283-18-73	7/6/92	JOINT	305-18-135	7/9/92	CUT	327-15D-06		JOINT
284-18-80	7/6/92	RANDOM	306-18-144	7/9/92	RANDOM	328-15D-8'		CUT
285-18-86	7/6/92	CUT	307-18-B-00	7/10/92	END CELL	329-15D-8.5		END Y
286-20-59.5	7/7/92	CUT	308-18-B-6.5	7/10/92	CUT	330-5A-7.5	7/15/92	flow value

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request #: 14764

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/15/92
Reported: 7/22/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
317	92-2178	6.59E-01	+/- 2.6E-01		
318	92-2179	5.56E-01	+/- 2.3E-01	2.63E-01	+/- 2.0E-01
319	92-2180	3.12E-01	+/- 1.7E-01	3.21E-01	+/- 2.2E-01
320	92-2181	<5.2E-01			
321	92-2182	<4.2E-01			
322	92-2183	<5.5E-01			
323	92-2184	4.01E-01	+/- 3.2E-01		
324	92-2185	<5.1E-01			
325	92-2186	1.46E+00	+/- 3.8E-01		
326	92-2187	<5.7E-01			
327	92-2188	3.98E-01	+/- 3.5E-01		
328	92-2189	<3.9E-01			
329	92-2190	<3.8E-01			
330	92-2191	<3.8E-01			
331	92-2192	<2.4E-01		2.59E-01	+/- 2.3E-01
332	92-2193	<2.6E-01			

TRENCH
ISE

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14764
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: *Mark Kurzylo*



FORM S/N 23-005

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 23 -
Trench Section # 00L N E

INSTRUMENT: PRS-1
INSTRUMENT: SERIAL # 346
SERIAL #

SURVEY DATE: 7-15-92
SURVEY TIME: 0900
PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00	18816				
01 Y-Joint	18204				
02	17814				
03.5 Joint	17680				
04	17440				
06	17820				
07 END CIL	15488				

SKETCH

REMARKS

N.P. SIGNATURE

[Handwritten Signature]

DATE: 7-15-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MOL PIPE SECTION # 16
(PARTIAL)

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED
00' TO 168'

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

NO ANALYTICAL RESULTS
AT 00' FT IN MAN HOLE
DO NOT BACKFILL PAST 168 FT.

Requested by: [Signature] Date: 6-11-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: Analytical results for manhole were received
and are covered by a separate authorization.

Signature: A. Joseph Verde Date: 6/15/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
067-15-53.5	5/27/92	JOINT	089-7-8	5/27/92	PIPE CUT	111-15-75	5/30/92	JOINT
068-15-60	5/27/92		090-7-14	5/27/92		112-16-93	6/1/92	PIPE CUT
069-15-66	5/27/92	PIPE CUT	091-7-20	5/27/92	PIPE CUT	113-16-103	6/1/92	JOINT
070-15-81	5/27/92	PIPE CUT	092-7-23	5/27/92	JOINT	114-16-113	6/1/92	
071-15-88	5/27/92		093-7-29	5/27/92	JOINT	115-16-119	6/1/92	
072-15-95	5/27/92	JOINT	094-7-38	5/27/92		116-16-124	6/1/92	JOINT
073-15-105	5/27/92		095-7-45.5	5/27/92	PIPE CUT	117-16-134	6/1/92	
074-15-115	5/27/92	PIPE CUT	096-16-3.5	5/28/92	PIPE CUT	118-16-140	6/1/92	
075-15-125	5/27/92		097-16-10	5/27/92		119-16-45.5	6/1/92	JOINT
076-15-131	5/27/92		098-16-19	5/27/92	JOINT	120-16-147.5	6/1/92	PIPE CUT
077-15-137.5	5/27/92	JOINT	099-16-29.5	5/27/92	PIPE CUT	121-16-155	6/1/92	
078-15-139.5	5/27/92	PIPE CUT	100-16-39.5	5/27/92	JOINT	124-16-164	6/1/92	JOINT
079-15-149	5/27/92		101-7-49	5/27/92	JOINT	123-16-168	6/1/92	PIPE CUT
080-15-159	5/27/92		102-7-57	5/27/92	PIPE CUT	124-11-5.5	6/2/92	PIPE CUT
081-15-169	5/27/92		103-16-175	5/25/92	BROKEN 3" COPPER LINE	125-11-8	6/2/92	JOINT
082-15-175.5	5/27/92	PIPE CUT	104-16-175	5/27/92	3" COPPER LINE CONTENTS & DIRT	126-11-16	6/2/92	
083-15-157.5	5/27/92	JOINT	105-16-46	5/27/92		127-11-22	6/2/92	
084-15-157.5	5/27/92	↓ DUPLICATE SAMPLE	106-16-56	5/27/92	PIPE CUT	128-11-29.5	6/2/92	JOINT
085-5-24	5/27/92	VALVE JOINT	107-16-61	5/30/92	JOINT	129-11-31.5	6/2/92	PIPE CUT
086-5-25	5/27/92	VALVE JOINT	108-16-71	5/30/92		130-11-40	6/2/92	
087-5-26.5	5/27/92	END ELL, "Y"	109-16-81	5/30/92	PIPE CUT	131-11-48	6/2/92	PIPE CUT
088-7-3	5/27/92	JOINT	110-16-83	5/30/92	JOINT	132-11-49	6/2/92	END ELL

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

REPORT

Request# 14694

TO: Larry Smith
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 6/9/92
 Reported: 6/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 1, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
096	92-1546	<1.7E-01	
097	92-1547	<3.0E-01	
098	92-1548	<2.3E-01	
099	92-1549	<2.3E-01	
100	92-1550	1.60E-01	+/- 1.4E-01
101	92-1551	<2.7E-01	
102	92-1552	<2.0E-01	
103	92-1553	<2.4E-01	
104	92-1554	7.38E-01	+/- 2.5E-01

SECTION
16

SECTION
16

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14694
 Procedures: A-524
 Analyst: WTF, MRK, DZ

Approved: Mark Kumbha

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

REPORT

Request# 14700

TO: Larry Smith
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 5/2/92
 Reported: 5/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Np-239 (Wet Basis)		Eu-155 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
105	92-1579	<2.3E-01					
106	92-1580	<1.9E-01					
107	92-1581	<1.1E-01					
108	92-1582	<1.6E-01					
109	92-1583	<2.2E-01					
110	92-1584	<2.5E-01					
111	92-1585	<2.4E-01					
112	92-1586	<2.8E-01					
113	92-1587	<2.5E-01					
114	92-1588	<2.9E-01					
115	92-1589	<3.1E-01					
116	92-1590	<2.3E-01					
117	92-1591	<3.1E-01					
118	92-1592	<2.4E-01					
119	92-1593	1.30E-01	+/- 4.1E-02	1.77E+00	+/- 1.5E+00	1.53E-01	+/- 9.4E-02

MDL SECTION #16

MDL SECTION #15

MDL SECTION #16

COPY

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
 Procedures: A-524
 Analyst: WTF, MRK

Approved: Mark Kurban

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/2/92
Reported: 5/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
120	92-1594	8.19E-02	+/- 4.1E-02		
121	92-1595	<2.9E-01			
122	92-1596	<2.2E-01			
123	92-1597	<3.5E-01			
124	92-1598	<3.9E-01			
125	92-1599	<5.9E-01			
26	92-1600	<3.5E-01			
127	92-1601	6.17E-01	+/- 4.7E-01		
128	92-1602	5.22E-01	+/- 4.0E-01	5.17E-01	+/- 2.7E-01
129	92-1603	<2.4E-01			

COE

MDL SECTION 16 UP TO 160

MDL SECTION #11

UP TO 31.5 FT.

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: *Mark K. ...*



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 19 -
Trench Section # 16

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-10-92
SURVEY TIME: 1300

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' ^{MANHOLE} Tce	18344				

SKETCH

REMARKS

H.P. SIGNATURE

A. D. Sullivan / Tony Alt

DATE: 6-10-92



FORM S/N 19-002

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 5-28-92
 LOCATION: File Survey Section # 19-
 Trench Section # 16
 SURVEY TIME: 0830-0900
 INSTRUMENT: PRS-1
 SERIAL # 346
 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
3.5' CUT	16,564	18	19,290	30	17,900
4	17,912	19 JOINT	18,116	32	18,212
6	18,322	20	18,030	34	18,980
8	17,928	22	17,652	36	19,954
10	17,482	24	18,798	38	18,248
12	19,186	26	18,460	39.5 JOINT	18,170
14	17,366	28	18,294	42	17,568
16	17,346	29.5 CUT	18,014	44	18,054

SKETCH

REMARKS

H.P. SIGNATURE *Jerry D. H.*

DATE: 5-28-92



FORM S/N 19-003

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 19 - Trench Section # 16

INSTRUMENT: PRS-1, SERIAL # 346 PROBE TYPE: SPA-3

INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 5-30-92

SURVEY TIME: 0830-0930

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
46	18,404	61 JOINT	17,964	76	20,610
48	18,390	62	16,986	78	18,516
50	20,112	64	18,046	80	19,148
52	20,862	66	17,690	81 PIPE CUT	18,776
54	19,210	68	18,738	82	19,944
56 PIPE CUT	18,440	70	18,030	83 JOINT	19,330
58	18,564	72	18,442	84	19,570
60	18,236	74	18,696	86	19,428

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 5-30-92



FORM S/N 18-001

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 LOCATION: File Survey Section # 18-
 Trench Section # 16
 SURVEY DATE: 6-1-92
 SURVEY TIME: 1300-1400
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
136	21,632	149	19,396	163	18,644
138	20,800	150	19,640	164 JOINT	18,742
140	20,460	152	18,906	166	19,248
142	19,962	154	19,016	168 PIPE CUT	17,868
144	19,248	156	19,116		
145.5 JOINT	19,876	158	19,924		
146	20,676	160	18,656		
147.5 PIPE CUT	18,570	162	18,914		

SKETCH

REMARKS

H.P. SIGNATURE Larry D. H.

DATE: 6-1-92



FORM S/N 19-004

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 5-30-92
 LOCATION: File Survey Section # 19-
 Trench Section # 16
 SURVEY TIME: 1300-1430
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>130</u>	<u>19640</u>				
<u>132</u>	<u>21,344</u>				
<u>134</u>	<u>21,634</u>				

SKETCH

REMARKS

H.P. SIGNATURE Jerry StA DATE: 5-30-92



FORM S/N 19-004

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 LOCATION: File Survey Section # 19 -
 Trench Section # 16
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 5-30-92
 SURVEY TIME: 1300-1430

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
88	18,468	102	19,207	116	19,724
90	18,802	102.5 JOINT	19,344	118	19,544
92	18,722	104	18,386	119 PIPE CUT	19,558
93 PIPE CUT	18,300	106	17,856	120	19,538
94	18,520	108	18,796	122	18,622
96	19,312	110	17,346	124 JOINT	19,034
98	19,224	112	17,784	126	20,030
100	19,556	114	18,992	128	19,602

SKETCH

REMARKS

H.P. SIGNATURE *[Signature]*

DATE: 5-30-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

MOL SECTION #16

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *Joseph Nardi* Date: 6-26-92

Authorization:

Authorization to backfill the above described excavation is:

Approved except for section from 175' to 196'.

Not Approved

Comments: This is a complete package. A prior authorization had been issued for up to the 175' mark. The area affected by oil seepage is excluded from this approval because all analytical results have not been received.

Signature: *A Joseph Nardi* Date: 6/26/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
067-15-53.5	5/24/92	JOINT	089-7-8	5/27/92	PIPE CUT	111-15-75	5/24/92	JOINT
068-15-60	5/24/92		090-7-14	5/27/92		112-16-93	4/1/92	PIPE CUT
069-15-66	5/24/92	PIPE CUT	091-7-20	5/24/92	PIPE CUT	113-16-103	4/1/92	JOINT
070-15-81	5/24/92	PIPE CUT	092-7-23	5/27/92	JOINT	114-16-113	4/1/92	
071-15-88	5/24/92		093-7-29	5/27/92	JOINT	115-16-119	4/1/92	
072-15-95	5/24/92	JOINT	094-7-38	5/27/92		116-16-124	4/1/92	JOINT
073-15-105	5/24/92		095-7-45.5	5/27/92	PIPE CUT	117-16-134	4/1/92	
074-15-115	5/24/92	PIPE CUT	096-16-3.5	5/28/92	PIPE CUT	118-16-140	4/1/92	
075-15-125	5/24/92		097-16-10	5/28/92		119-16-145.5	4/1/92	JOINT
076-15-131	5/24/92		098-16-19	5/28/92	JOINT	120-16-147.5	4/1/92	PIPE CUT
077-15-137.5	5/24/92	JOINT	099-16-29.5	5/28/92	PIPE CUT	121-16-155	4/1/92	
078-15-139.5	5/24/92	PIPE CUT	100-16-39.5	5/28/92	JOINT	122-16-164	4/1/92	JOINT
079-15-149	5/24/92		101-7-49	5/24/92	JOINT	123-16-168	4/1/92	PIPE CUT
080-15-159	5/24/92		102-7-57	5/24/92	PIPE CUT	124-11-5.5	4/4/92	PIPE CUT
081-15-169	5/24/92		103-16-175	5/28/92	BROKEN 3" COPPER LINE	125-11-8	4/4/92	JOINT
082-15-175.5	5/24/92	PIPE CUT	104-16-175	5/24/92	3" COPPER LINE CONTAINS DIRT	126-11-16	4/4/92	-
083-15-157.5	5/24/92	JOINT	105-16-46	5/24/92		127-11-22	4/4/92	-
084-15-157.5	5/24/92	↓ DUPLICATE SAMPLE	106-16-56	5/24/92	PIPE CUT	128-11-29.5	4/4/92	JOINT
085-5-24	5/27/92	VALVE JOINT	107-16-61	5/30/92	JOINT	129-11-31.5	4/4/92	PIPE CUT
086-5-25	5/27/92	VALVE JOINT	108-16-71	5/30/92		130-11-40	4/4/92	-
087-5-26.5	5/27/92	END ELL, "4"	109-16-81	5/30/92	PIPE CUT	131-11-48	4/4/92	PIPE CUT
088-7-3	5/27/92	JOINT	110-16-83	5/30/92	JOINT	132-11-49	4/4/92	END ELL

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

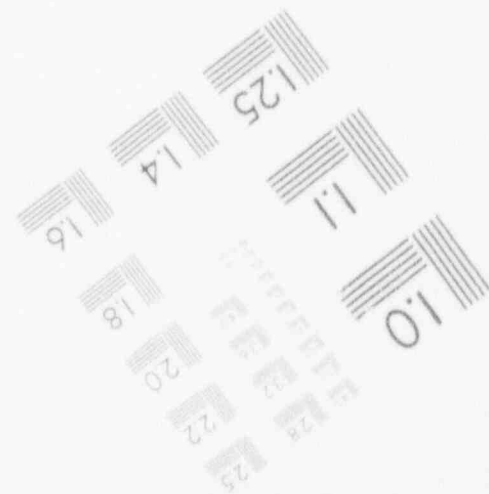
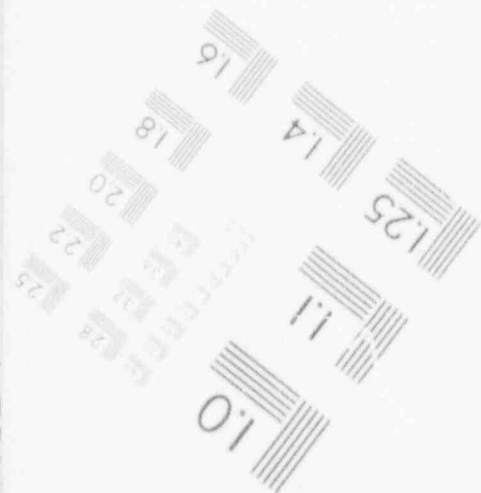
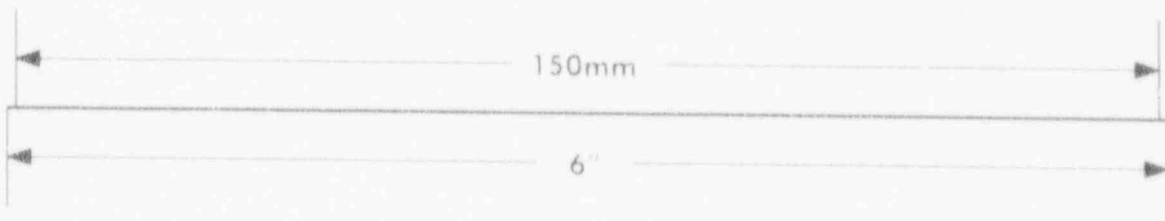
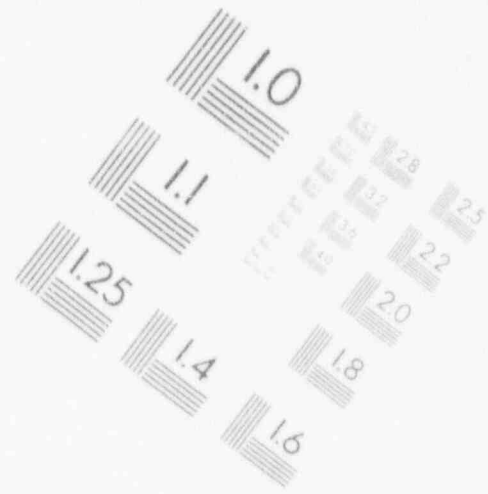
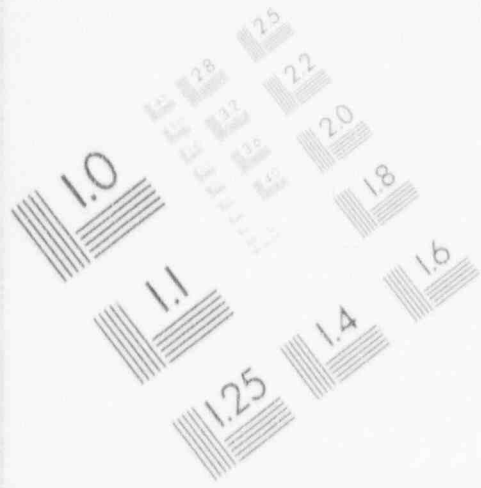
Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	177-16A-12	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-20	4/9/92	R.R. CUT
135-12-01	6/4/92	JOINT	157-5A-1	6/4/92	JOINT	179-5-24	6/4/92	JOINT
136-12-02	6/4/92	JOINT	158-5A-7	6/4/92	PIPE CUT	180-5-25	4/9/92	Y.I.P. AS
137-12-04	6/4/92	PIPE CUT	159-5A-11.5	6/4/92	JOINT	181-5-26	4/9/92	END CUT
138-12-06	6/4/92	PIPE CUT	160-5A-13.5	6/4/92	PIPE CUT	182-16B-16	6/12/92	OPEN CUT
139-12-07	6/4/92	JOINT/'Y'	161-5A-18.5	6/4/92	END ELL	183-16B-14	6/12/92	JOINT
140-12A-02	6/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	184-16B-13	6/12/92	JOINT
141-12A-00	6/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	185-16B-16	6/12/92	JOINT
142-12-8	6/4/92	JOINT/	164-6-4	6/3/92	JOINT	186-16B-10	6/12/92	JOINT
143-12-10.5	6/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	187-16B-8	6/12/92	JOINT
144-12-13.5	6/4/92	JOINT	166-6-9	6/3/92	JOINT	188-16B-6	6/12/92	CUT
145-12-17.5	6/4/92	PIPE CUT	167-15-65	4/3/92	—	189-15A-6	4/18/92	CUT
146-12-19	6/4/92	JOINT/ELL	168-15-66	6/3/92	PIPE CUT	190-15A-13'		
147-12-23	6/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	191-15A-20'		JOINT
148-12-24	6/4/92	PIPE CUT	170-15-67	4/3/92	—	192-15A-24'		CUT
149-12-26	6/4/92	JOINT	171-1-12	6/3/92	MOL TRENCH #1 INSIDE PIPE SAMPLE	193-15A-29'		CUT
150-12-24	6/4/92	PIPE CUT	172-16A-6	6/9/92		194-15A-20'		JOINT
151-12-35	6/4/92	END ELL	173-16A-10	6/9/92	JOINT	195-15A-22'		CUT
152-15-178	6/4/92	INSIDE JOINT MANHOLE	174-16A-24	6/9/92	P.P. CUT	196-15A-22.5'		JOINT
153-16-1	6/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/9/92		197-15A-33.5'		JOINT
154-15A-1	6/4/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	198-15A-35'	6/18/92	JOINT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

2

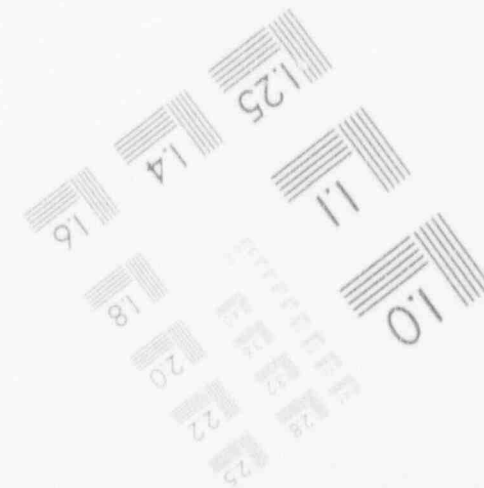
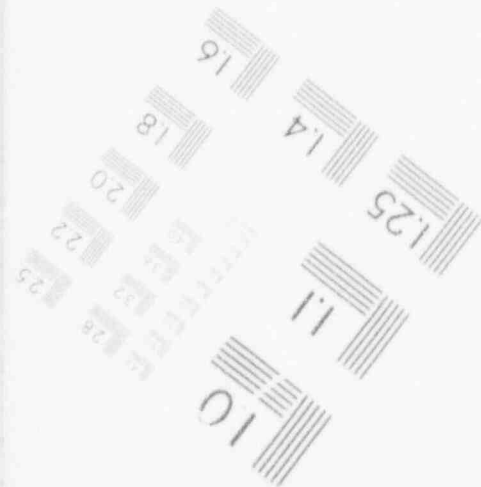
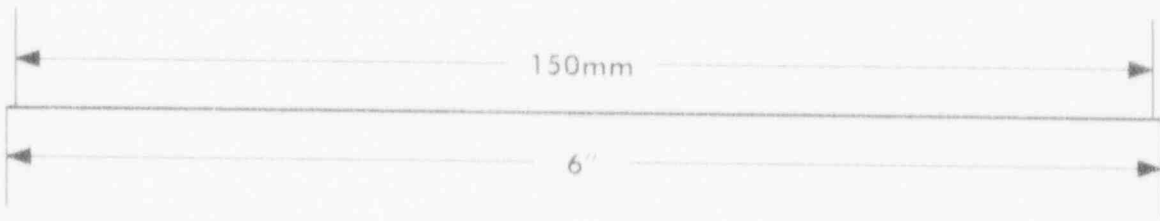
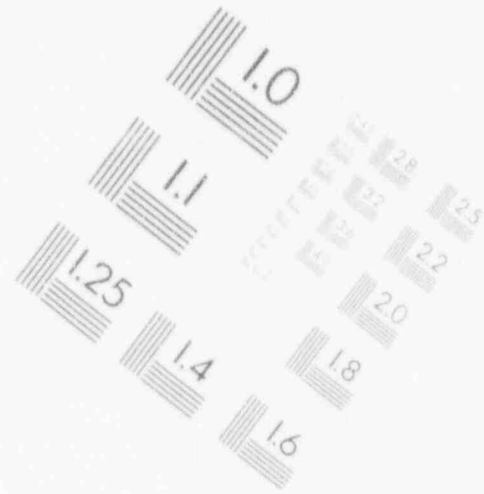
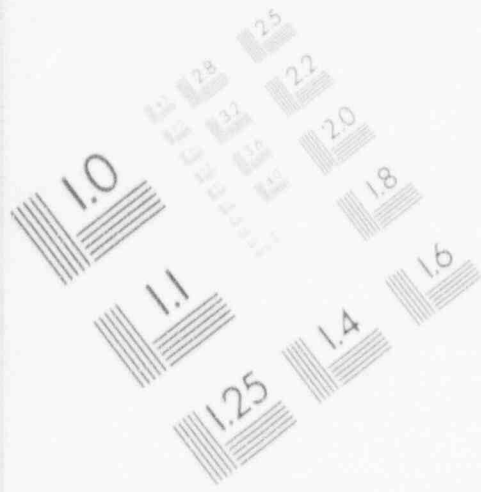
IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

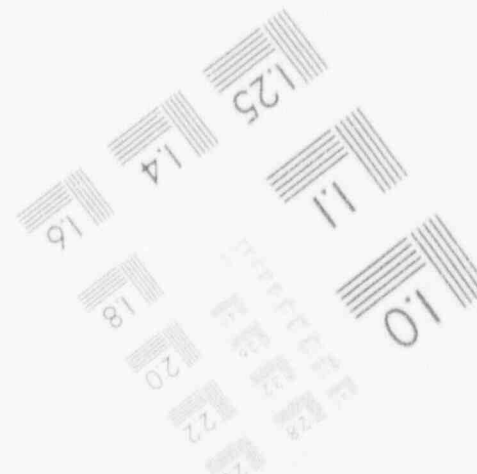
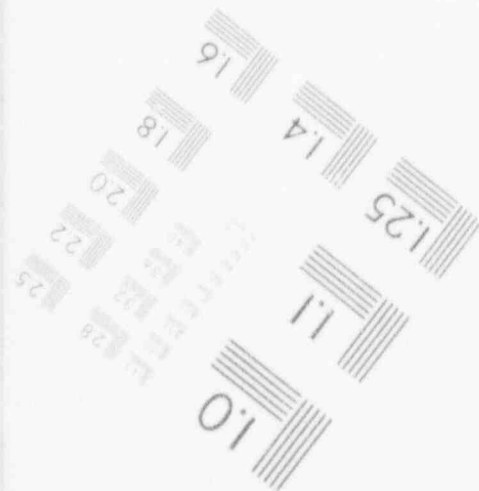
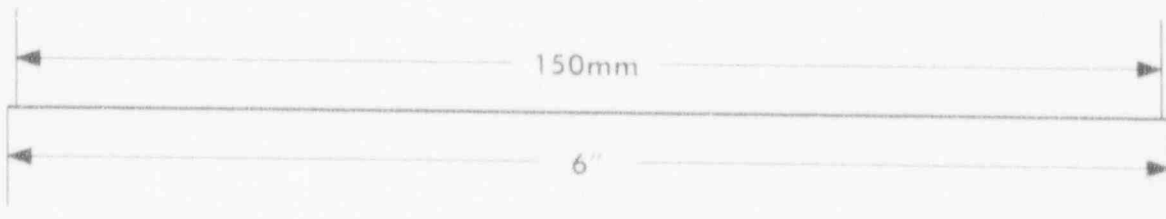
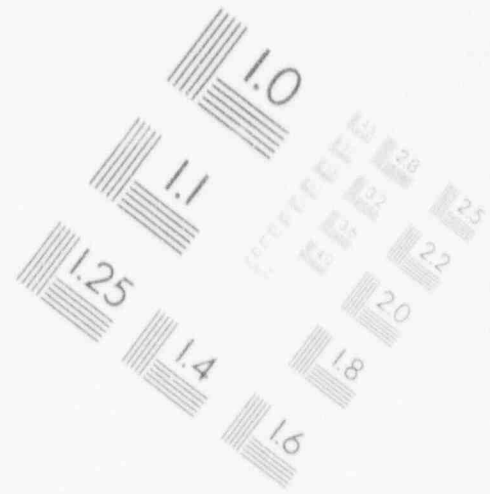
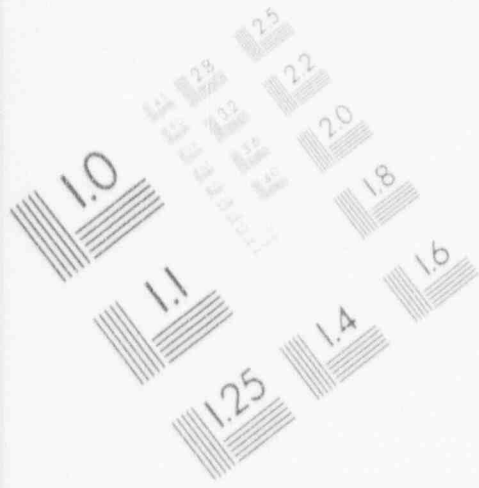
IMAGE EVALUATION TEST TARGET (MT-3)



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770 BASKET ROAD
P. O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

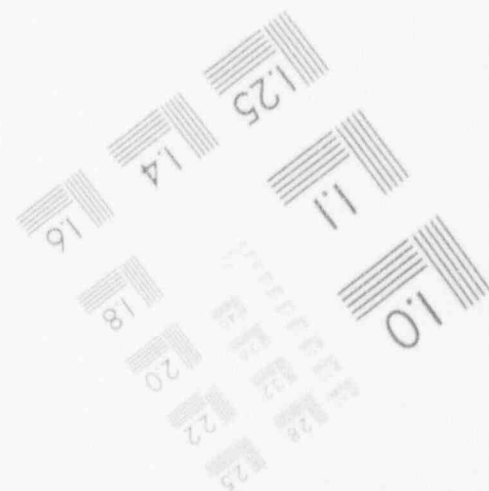
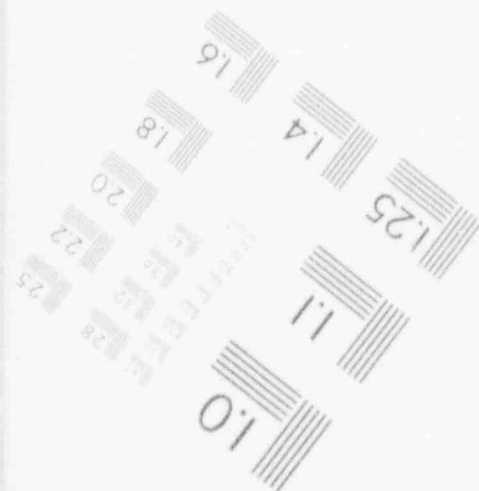
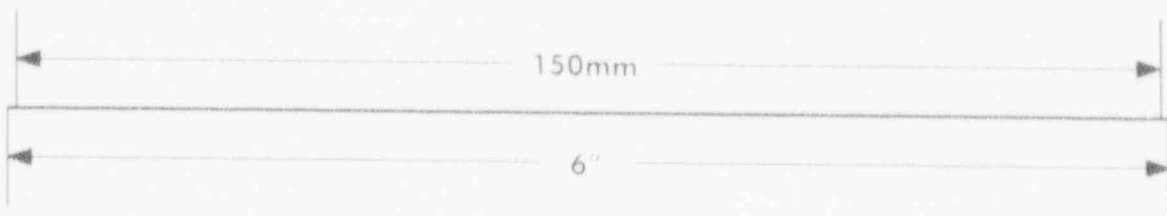
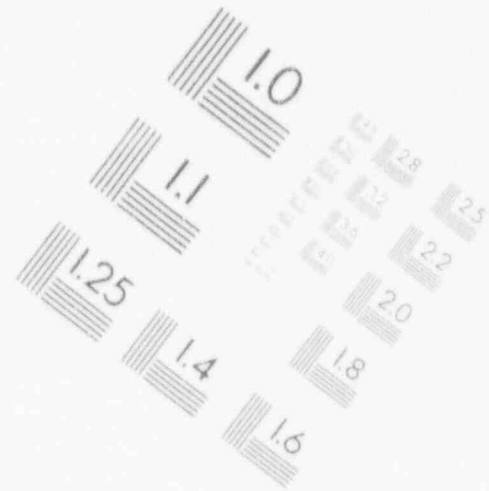
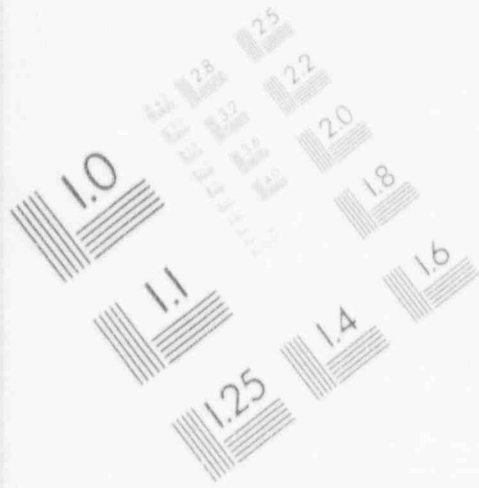
IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
199 -15A-41'	6/18/92	CUT	221 -13-9	6/22/92	CUT	243 -16D-8'	6/24/92	
200 -15A-44'		JOINT	222 -13-16	6/22/92	CUT	244 -16-170	6/24/92	Y
201 -15A-48'		CUT	223 -13-22	6/22/92	JOINT	245 -16-183	6/24/92	JOINT
202 -15A-53'		CUT	224 -13-23	6/22/92	JOINT/TCC	246 -16-184	6/24/92	CUT
203 -15A-53.5'		JOINT	225 -13-00	6/22/92	TROUGH END NORTH	247 -16-190	6/24/92	
204 -15A-56'		JOINT	226 -13-08	6/22/92	TROUGH END SOUTH	248 -16-196	6/24/92	CUT
205 -15A-55'		JOINT	227 -16-205	6/22/92	JOINT	249 -17-15	6/25/92	CUT
206 -15A-64'		JOINT	228 -16-212	6/22/92	CUT	250 -17-23	6/25/92	JOINT
207 -15A-65'		JOINT	229 -16-219	6/22/92	JOINT	251 -17-27	6/25/92	CUT
208 -15A-66'		CUT	230 -16-225	6/22/92	CUT	252 -17-32	6/25/92	
209 -15A-68'		JOINT	231 -16-226	6/22/92	JOINT	253 -17-38	6/25/92	CUT
210 -15A-71'		JOINT	232 -16-236	6/22/92	CUT	254 -17-43	6/25/92	JOINT
211 -15A-73'		CUT	233 -16-242	6/22/92		255 -17-53	6/29/92	
212 -15A-74'	6/18/92	CUT	234 -16-247	6/22/92	JOINT	-		
213 -17-00'	6/17/92	ELL	235 -16-248	6/22/92	CUT	-		
214 -17-02'	6/17/92		236 -16-258	6/22/92		-		
215 -17-03'	6/17/92		237 -16-264	6/22/92	CUT	-		
216 -15-A-3.5	6/19/92	CUT	238 -16-268	6/22/92	JOINT	-		
217 -15-B-3.5	6/19/92	JOINT	239 -16C-8	6/22/92		-		
218 -15-B-9.5	6/19/92	END ELL	240 -16C-16	6/22/92		-		
219 -13-1	6/22/92	CUT	241 -16C-21	6/22/92		-		
220 -13-2.5	6/22/92	JOINT	242 -16D-00'	6/22/92		-		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14694

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/9/92
Reported: 6/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 1, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
096	92-1546	<1.7E-01	
097	92-1547	<3.0E-01	
098	92-1548	<2.3E-01	
099	92-1549	<2.3E-01	
100	92-1550	1.60E-01	+/- 1.4E-01
101	92-1551	<2.7E-01	
102	92-1552	<2.0E-01	
103	92-1553	<2.4E-01	
104	92-1554	7.38E-01	+/- 2.5E-01

TRENCH
16

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14694
Procedures: A-524
Analyst: WTF, MRK, DZ

Approved:

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/2/92
Reported: 5/11/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Np-239 (Wet Basis)		Eu-155 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
105	92-1579	<2.3E-01					
106	92-1580	<1.9E-01					
107	92-1581	<1.1E-01					
108	92-1582	<1.6E-01					
109	92-1583	<2.2E-01					
110	92-1584	<2.5E-01					
111	92-1585	<2.4E-01					
112	92-1586	<2.8E-01					
113	92-1587	<2.5E-01					
114	92-1588	<2.9E-01					
115	92-1589	<3.1E-01					
116	92-1590	<2.3E-01					
117	92-1591	<3.1E-01					
118	92-1592	<2.4E-01					
119	92-1593	1.30E-01 +/- 4.1E-02		1.77E+00 +/- 1.5E+00		1.53E-01 +/- 9.4E-02	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kurchaj

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/2/92
Reported: 5/11/92

[RESULTS OF ANALYSIS]

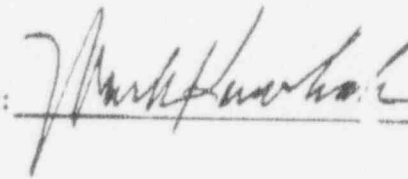
GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
120	92-1594	8.19E-02	+/- 4.1E-02		
121	92-1595	<2.9E-01			
122	92-1596	<2.2E-01			
123	92-1597	<3.5E-01			
124	92-1598	<3.9E-01			
125	92-1599	<5.9E-01			
126	92-1600	<3.5E-01			
127	92-1601	6.17E-01	+/- 4.7E-01		
128	92-1602	5.22E-01	+/- 4.0E-01	5.17E-01	+/- 2.7E-01
129	92-1603	<2.4E-01			

TRENCH
16

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/12/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
145	92-1619	<3.5E-01			
146	92-1620	<6.4E-01			
147	92-1621	<3.9E-01			
148	92-1622	<5.1E-01			
149	92-1623	<2.8E-01			
150	92-1624	<3.8E-01			
151	92-1625	<3.4E-01			
152	92-1626	<3.3E-01		2.94E-01 +/-	2.6E-01
153	92-1627	<3.3E-01			
154	92-1628	<5.9E-01			

TRENCH
16

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kurban

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14735

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/23/92
Reported: 5/26/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 23, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
219	92-1871	<3.9E-01	
220	92-1872	<2.7E-01	
221	92-1873	<3.5E-01	
222	92-1874	<4.2E-01	
223	92-1875	<2.3E-01	
224	92-1876	<4.1E-01	
225	92-1877	2.15E-01	+/- 2.0E-01
226	92-1878	<4.1E-01	
227	92-1879	<1.5E-01	
228	92-1880	<2.4E-01	
229	92-1881	<1.6E-01	
230	92-1882	<2.9E-01	
231	92-1883	4.40E-01	+/- 2.2E-01
232	92-1884	<2.6E-01	
233	92-1885	<2.0E-01	
234	92-1886	<2.4E-01	

TRENCH
16

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14735
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kowalski

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14735

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/23/92
Reported: 6/26/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 23, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
235	92-1887	3.11E-01	+/- 2.3E-01
236	92-1888	<1.7E-01	
237	92-1889	<1.7E-01	
238	92-1890	<1.9E-01	
239	92-1891	<3.0E-01	
240	92-1892	<3.7E-01	
241	92-1893	<3.1E-01	
242	92-1894	<4.2E-01	
243	92-1895	3.29E-01	+/- 2.9E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14735
Procedures: A-524
Analyst: WTF, MRK

Approved: Madh Karbasi

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14742

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/26/92
Reported: 5/29/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 26, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
244	92-1945	<2.7E-01	
245	92-1946	1.93E-01	+/- 1.5E-01
246	92-1947	<2.5E-01	
247	92-1948	<1.4E-01	
248	92-1949	<2.0E-01	
249	92-1950	1.78E-01	+/- 1.3E-01
250	92-1951	<1.8E-01	
251	92-1952	<2.3E-01	
252	92-1953	<2.7E-01	
253	92-1954	1.53E-01	+/- 1.4E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14742
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kurbat



FORM S/N 19-008

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 19 -
Trench Section # 16

INSTRUMENT: PRS-1, SERIAL # 346
INSTRUMENT: SERIAL #

SURVEY DATE: 6-10-92
SURVEY TIME: 1300

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' Tcc	18344				

SKETCH

REMARKS

H.P. SIGNATURE *[Signature]*

DATE: 6-10-92



FORM S/N 19-002

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)
 SURVEY DATE: 5-28-92
 LOCATION: File Survey Section # 19-
 Trench Section # 16
 SURVEY TIME: 0830-0900
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
3.5' CUT	16,564	18	19,290	30	17,900
4	17,912	19 JOINT	18,116	32	18,212
6	18,322	20	19,030	24	18,980
8	17,928	22	17,652	36	19,954
10	17,482	24	18,798	38	18,248
12	18,186	26	18,460	39.5 JOINT	18,170
14	17,366	28	18,294	42	17,568
16	17,346	29.5 CUT	18,014	44	18,054

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 5-28-92



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 5-30-92
 LOCATION: File Survey Section # 19-
 Trench Section # 16
 SURVEY TIME: 0830-0930
 INSTRUMENT: PRS-1
 SERIAL # 346
 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL #
 PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>46</u>	<u>18,404</u>	<u>61</u>	<u>JOINT</u> <u>17,964</u>	<u>76</u>	<u>20,610</u>
<u>48</u>	<u>18,390</u>	<u>62</u>	<u>16,986</u>	<u>78</u>	<u>18,516</u>
<u>50</u>	<u>20,112</u>	<u>64</u>	<u>18,046</u>	<u>80</u>	<u>19,198</u>
<u>52</u>	<u>20,062</u>	<u>66</u>	<u>17,690</u>	<u>81</u>	<u>PIPE CUT</u> <u>18,776</u>
<u>54</u>	<u>19,210</u>	<u>68</u>	<u>18,738</u>	<u>82</u>	<u>19,944</u>
<u>56</u>	<u>PIPE CUT</u> <u>18,440</u>	<u>70</u>	<u>18,030</u>	<u>83</u>	<u>JOINT</u> <u>19,330</u>
<u>58</u>	<u>18,564</u>	<u>72</u>	<u>18,442</u>	<u>84</u>	<u>19,570</u>
<u>60</u>	<u>18,236</u>	<u>74</u>	<u>18,696</u>	<u>86</u>	<u>19,420</u>

SKETCH

REMARKS

H. P. SIGNATURE

[Handwritten Signature]

DATE: 5-30-92



FORM S/N 19-004

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 5-30-92
 LOCATION: File Survey Section # 19 -
 Trench Section # 16
 SURVEY TIME: 1300-1430
 INSTRUMENT: PRS-1
 SERIAL # 346
 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL #
 PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
88	18,468	102	19,208	116	19,724
90	18,802	102.5 JOINT	19,344	118	19,544
92	18,722	104	18,386	119 PIPE CUT	19,558
93 PIPE CUT	18,300	106	17,856	120	19,538
94	18,520	108	18,796	122	18,622
96	19,312	110	17,346	124 JOINT	19,034
98	19,224	112	17,784	126	20,030
100	19,556	114	18,992	128	19,602

SKETCH

REMARKS

H.P. SIGNATURE *Larry Holt*

DATE: 5-30-92



FORM S/N 19-004

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 19-
Trench Section # 16

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 5-30-92
SURVEY TIME: 1300-1430

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
130	19640				
132	21,344				
134	21,634				

SKETCH

REMARKS

H.P. SIGNATURE

Jerry SA

DATE: 5-30-92



FORM S/N 18-001

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 LOCATION: File Survey Section # 18-
 Trench Section # 16
 INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-1-92
 SURVEY TIME: 1300-1400

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>136</u>	<u>21,632</u>	<u>149</u>	<u>19,396</u>	<u>163</u>	<u>19,644</u>
<u>138</u>	<u>20,800</u>	<u>150</u>	<u>19,640</u>	<u>164 JOINT</u>	<u>19,742</u>
<u>140</u>	<u>20,460</u>	<u>152</u>	<u>18,906</u>	<u>166</u>	<u>19,248</u>
<u>142</u>	<u>19,962</u>	<u>154</u>	<u>19,016</u>	<u>168 PIPE CUT</u>	<u>17,868</u>
<u>144</u>	<u>19,248</u>	<u>156</u>	<u>19,110</u>		
<u>145.5 JOINT</u>	<u>19,876</u>	<u>158</u>	<u>19,924</u>		
<u>146</u>	<u>20,670</u>	<u>160</u>	<u>18,666</u>		
<u>147.5 PIPE CUT</u>	<u>18,570</u>	<u>162</u>	<u>18,814</u>		

SKETCH

REMARKS

H.P. SIGNATURE

Larry D. H.

DATE: 6-1-92



FORM S/N 18-008

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)
 LOCATION: File Survey Section # 18-
 Trench Section # 16
 INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-24-92
 SURVEY TIME: 1800

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
170	11436	183 Joint	18572	198	20380
172	18858	184 Cut	20456	200	19758
174	18296	186	19282	202	19988
175 Y	18466	188	18160	203	19596
176	18466	190	19296		
178	17412	192	19730		
180	16876	194	20822		
182	17926	196 Cut	20848		

SKETCH

REMARKS

This survey finishes MDL-16

H.P. SIGNATURE

Scott H. Sullivan *Jerry B...*

DATE: 6-28-92



FORM S/N 18-007

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 18 -
Trench Section # 16

INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-22-92
SURVEY TIME: 1900

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
205 Joint	17908	219 Joint	19494	232	20592
206	18352	220	19254	234	20106
208	18098	222	19672	236 CWT	20246
210	17628	224	20624	238	19598
212 CWT	19098	225 CWT	20288	240	20194
214	17834	226 Joint	20476	242	19826
216	20216	228	19836	244	20663
218	20144	230	20306	246	20274

SKETCH

REMARKS

H.P. SIGNATURE

Scott H. Gillespie | *James [Signature]*

DATE: 6-22-92



FORM S/N 18-007

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 18 -
 Trench Section # 16

INSTRUMENT: PRS-1
 INSTRUMENT: SERIAL # 346
 SERIAL #

SURVEY DATE: 6-22-92
 SURVEY TIME: 1900
 PROBE TYPE: SPA-3
 PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
247 Joint	18708	262	19296		
248 cvt	20188	264	20400		
250	20546	266	19408		
252	20844	268 Joint	18902		
254	20508	270 END ell	18836		
256	20232				
258	20312				
260	19376				

SKETCH

REMARKS

N.P. SIGNATURE

Scott D. Sullivan / Tracy Ditt

DATE: 6-22-92

FORM S/N 18-001

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 LOCATION: File Survey Section # 18-
 Trench Section # 16
 INSTRUMENT: PRS-1
 INSTRUMENT: SERIAL # 346
 SERIAL # PROBE TYPE: SPA-3
 PROBE TYPE:

SURVEY DATE: 6-1-92

SURVEY TIME: 1300-1400

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
136	21,632	149	19,396	163	18,644
138	20,800	150	19,640	164 JOINT	18,742
140	20,460	152	18,906	166	19,248
142	19,962	154	19,016	168 PIPE CUT	17,868
144	19,248	156	19,116		
145.5 JOINT	19,876	158	19,924		
146	20,670	160	19,666		
147.5 PIPE CUT	18,570	162	18,814		

SKETCH

REMARKS

H. P. SIGNATURE Larry DA

DATE: 6-1-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

Section 16A
(From 6' mark towards the main trench)

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See Attached

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See Attached

- 4) Note any special considerations:

Requested by: A Joseph Verdi Date: 6/16/92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: Section of this trench under the High Voltage
line is not released.

Signature: A Joseph Verdi Date: 6/16/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	(177)-16A-12	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	(178)-16A-20	4/9/92	P.P. CUT
135-12-01	6/4/92	JOINT	157-5A-1	6/4/92	JOINT	179-5-24	6/9/92	valve
136-12-02	6/4/92	JOINT	158-5A-7	6/4/92	PIPE CUT	180-5-25	6/9/92	4 1/2" AB
137-12-04	6/4/92	PIPE CUT	159-5A-11.5	6/4/92	JOINT	181-5-26	4/9/92	END CUT
138-12-06	6/4/92	PIPE CUT	160-5A-13.5	6/4/92	PIPE CUT	182-16B-00	6/12/92	OPEN CUT
139-12-07	6/4/92	JOINT/'Y'	161-5A-18.5	6/4/92	END ELL	183-16B-2	6/12/92	JOINT
140-12A-02	6/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	184-16B-2	6/12/92	JOINT
141-12A-00	6/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	185-16B-4	6/12/92	JOINT
142-12-8	6/4/92	JOINT/	164-6-4	6/3/92	JOINT	186-16B-6	6/12/92	JOINT
143-12-10.5	6/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	187-16B-8	6/12/92	JOINT
144-12-13.5	6/4/92	JOINT	166-6-9	6/3/92	JOINT	188-16B-10	6/12/92	CUT
145-12-17.5	6/4/92	PIPE CUT	167-15-65	4/3/92	—	-	-	
146-12-19	6/4/92	JOINT/ELL	168-15-66	6/3/92	PIPE CUT	-	-	
147-12-23	6/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	-	-	
148-12-24	6/4/92	PIPE CUT	170-15-67	4/3/92	—	-	-	
149-12-26	6/4/92	JOINT	171-1-12	6/3/92	M.D.L. TRENCH AT INSIDE PIPE SAMPLE	-	-	
150-12-24	6/4/92	PIPE CUT	(172)-16A-6	6/9/92		-	-	
151-12-35	6/4/92	END ELL	(173)-16A-10	6/9/92	JOINT	-	-	
152-15-178	6/4/92	INSIDE JOINT MANHOLE	(174)-16A-24	6/9/92	P.P. CUT	-	-	
153-16-1	6/4/92	INSIDE JOINT MANHOLE	(175)-16A-30	6/9/92		-	-	
154-15A-1	6/4/92	INSIDE JOINT MANHOLE	(176)-16A-36	6/9/92	JOINT	-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14710

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/10/92
Reported: 6/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 2, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
172	92-1665	<2.3E-01	
173	92-1666	<1.5E-01	
174	92-1667	<2.3E-01	
175	92-1668	<2.2E-01	
176	92-1669	<2.3E-01	
177	92-1670	<1.8E-01	
78	92-1671	1.81E-01	+/- 1.3E-01
179	92-1672	3.47E-01	+/- 2.4E-01
180	92-1673	5.93E-01	+/- 3.3E-01
181	92-1674	7.89E-01	+/- 3.9E-01

Section 16A

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14710
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kowalski



FORM S/N 19-005

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 LOCATION: File Survey Section # 29 -
 Trench Section # Trench 16A
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-9-92
 SURVEY TIME: 07:30

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
6	19422	20'	16922	36' Joint	17332
8'	18106	22'	15426	38'	18044
10'	17868	24' Pipe cut	15148	40'	17266
12'	17034	26'	15216	42'	19408
14'	16324	28'	15376	44'	17888
15' Joint	16902	30'	16372	46'	17824
16'	16064	32'	16430	48'	17372
18'	20776	34'	16736	50' Pipe cut	16332

SKETCH

REMARKS

H.P. SIGNATURE Scott H. Gillen

DATE: 6-9-92



FORM S/N

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 49 -
Trench Section # Trench 16A

INSTRUMENT: PRS-1, SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-9-92
SURVEY TIME: 07:30

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
52'	17168				
54'	16800				
56'	17060				

SKETCH

REMARKS

H. P. SIGNATURE *Scott H. Gallucci* DATE: 6-8-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION 16 - B

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 6-16-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A Joseph [Signature]* Date: 6/29/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	177-16A-42	6/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-20	4/9/92	P.R. CUT
135-12-01	4/4/92	JOINT	157-5A-1	4/4/92	JOINT	179-5-24	6/7/92	WAVE
136-12-02	4/4/92	JOINT	158-5A-7	4/4/92	PIPE CUT	180-5-25	6/9/92	4 I.P.A.S
137-12-04	4/4/92	PIPE CUT	159-5A-11.5	4/4/92	JOINT	181-5-26	4/9/92	END CUT
138-12-06	4/4/92	PIPE CUT	160-5A-13.5	4/4/92	PIPE CUT	182-16B-16	6/12/92	OPEN CUT
139-12-07	4/4/92	JOINT/'Y'	161-5A-18.5	4/4/92	END ELL	183-16B-14	6/12/92	JOINT
140-12A-02	4/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	184-16B-13	6/12/92	JOINT
141-12A-00	4/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	185-16B-16	6/12/92	JOINT
142-12-8	4/4/92	JOINT/	164-6-4	6/3/92	JOINT	186-16B-10	6/12/92	JOINT
143-12-10.5	4/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	187-16B-8	6/12/92	JOINT
144-12-13.5	4/4/92	JOINT	166-6-9	6/3/92	JOINT	188-16B-6	6/12/92	CUT
145-12-17.5	4/4/92	PIPE CUT	167-15-65	4/3/92	—	189-15A-6	6/18/92	CUT
146-12-19	4/4/92	JOINT/ELL	168-15-66	4/3/92	PIPE CUT	190-15A-13		
147-12-23	4/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	191-15A-20		JOINT
148-12-24	4/4/92	PIPE CUT	170-15-67	4/3/92	—	192-15A-24		CUT
149-12-26	4/4/92	JOINT	171-1-12	4/3/92	MOL TRENCH #1 INSIDE PIPE SAMPLE	193-15A-29		CUT
150-12-24	4/4/92	PIPE CUT	172-16A-6	6/9/92		194-15A-30		JOINT
151-12-35	4/4/92	END ELL	173-16A-10	6/9/92	JOINT	195-15A-32		CUT
152-15-17B	6/2/92	INSIDE JOINT MANHOLE	174-16A-24	6/9/92	P.R. CUT	196-15A-32.5		JOINT
153-16-1	4/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/9/92		197-15A-33.5		JOINT
154-15A-1	4/4/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	198-15A-35	6/18/92	JOINT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14719

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/15/92
Reported: 6/16/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
182	92-1723	<2.9E-01	
183	92-1724	<1.5E-01	
184	92-1725	<2.5E-01	
185	92-1726	<1.6E-01	
186	92-1727	<2.5E-01	
187	92-1728	<1.9E-01	
188	92-1729	<2.7E-01	

TRENCH
16-B

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14719
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kaurich

REVISED
REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/2/92
Reported: 3/17/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Co-60 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
155	} TRENCH 16-B	92-1629	1.01E-01 +/- 3.4E-02		
156		92-1630	1.11E-01 +/- 5.6E-02	7.96E-02 +/- 5.1E-02	
157		92-1631	<8.0E-01		
158		92-1632	<4.4E-01		
159		92-1633	<4.9E-01		
160		92-1634	<6.5E-01		
161		92-1635	5.30E-01 +/- 4.6E-01		

Originator ID	Lab.Spl#	U-235	
		pCi/ml	2 sigma
W-05-92	92-1636	<5.6E-02	

WATER SAMPLE
FILED IN WATER
LOG BOOK

Remarks: Gamma Spectrometry Analysis for U-235
Sample ID for W-05-92 corrected

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kanchar



FORM S/N 18-006

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 18-
Trench Section # 16-B

INSTRUMENT: PRS-1
INSTRUMENT: SERIAL # 346
SERIAL #

SURVEY DATE: 6-22-92
SURVEY TIME: 2:00

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
02'	14099				
04'	13514				

SKETCH

REMARKS

N.P. SIGNATURE *[Signature]*

DATE: 6-22-92



FORM S/N 18-002

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 18-
Trench Section # 16-B

INSTRUMENT: PRS-1
INSTRUMENT: SERIAL # 346
SERIAL #

SURVEY DATE: 6-12-92
SURVEY TIME: 1230

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
6' CUT	14250				
8' JOINT	12174				
10' JOINT	11406				
12' JOINT	10522				
13' JOINT	11106				
14' JOINT	11088				
16' OPEN END	12972				

SKETCH

REMARKS

H.P. SIGNATURE *Scott D. Miller Jerry D. H.* DATE: 6-12-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

Section 15 B

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

See Attached

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

See Attached

- 4) Note any special considerations:

Requested by: *[Signature]*

Date: 6-25-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A Joseph Verdi*

Date: 6/25/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
133-12-B-00	6/4/92	ELL	155-16-B-3	6/4/92	PIPE CUT	177-16A-12	4/9/92	
134-12-B-03	6/4/92	ELL	156-16-B-7	6/4/92	PIPE CUT	178-16A-20	4/9/92	R2 CUT
135-12-01	6/4/92	JOINT	157-5A-1	6/4/92	JOINT	179-5-24	6/9/92	PIPE
136-12-02	6/4/92	JOINT	158-5A-7	6/4/92	PIPE CUT	180-5-25	6/9/92	Y 1.5' AS
137-12-04	6/2/92	PIPE CUT	159-5A-11.5	6/4/92	JOINT	181-5-26	4/3/92	END CUT
138-12-06	6/4/92	PIPE CUT	160-5A-13.5	6/4/92	PIPE CUT	182-16B-20	6/12/92	OPEN CUT
139-12-07	6/4/92	JOINT/'Y'	161-5A-18.5	6/4/92	END ELL	183-16B-2	6/12/92	JOINT
140-12.5-02	6/4/92	JOINT	162-6-1	6/3/92	PIPE CUT	184-16B-3	6/12/92	JOINT
141-12A-00	6/4/92	JOINT/ELL	163-6-3	6/3/92	JOINT	185-16B-4	6/12/92	JOINT
142-12-8	6/4/92	JOINT/	164-6-4	6/3/92	JOINT	186-16B-6	6/12/92	JOINT
143-12-10.5	6/4/92	PIPE CUT	165-6-6	6/3/92	PIPE CUT	187-16B-8	6/12/92	JOINT
144-12-13.5	6/4/92	JOINT	166-6-9	6/3/92	JOINT	188-16B-10	6/12/92	CUT
145-12-17.5	6/2/92	PIPE CUT	167-15-65	4/3/92	—	-	-	-
146-12-19	6/4/92	JOINT/ELL	168-15-66	6/3/92	PIPE CUT	-	-	-
147-12-23	6/4/92	JOINT	169-15-66	6/3/92	PIPE CUT	-	-	-
148-12-24	6/2/92	PIPE CUT	170-15-67	4/3/92	—	-	-	-
149-12-26	6/4/92	JOINT	171-1-12	4/3/92	MOL TRENCH #1 INSIDE PIPE SAMPLES	-	-	-
150-12-24	6/4/92	PIPE CUT	172-16A-6	6/9/92		-	-	-
151-12-35	6/4/92	END ELL	173-16A-15	6/9/92	JOINT	-	-	-
152-15-178	6/2/92	INSIDE JOINT MANHOLE	174-16A-24	6/9/92	P.2 CUT	-	-	-
153-16-1	6/4/92	INSIDE JOINT MANHOLE	175-16A-30	6/9/92		-	-	-
154-15A-1	6/2/92	INSIDE JOINT MANHOLE	176-16A-36	6/9/92	JOINT	-	-	-

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14700

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/2/92
Reported: 6/15/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 3, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Co-60 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
155	92-1629	1.01E-01	+/- 3.4E-02		
156	92-1630	1.11E-01	+/- 5.6E-02	7.96E-02	+/- 5.1E-02
157	92-1631	<8.0E-01			
158	92-1632	<4.4E-01			
159	92-1633	<4.9E-01			
160	92-1634	<6.5E-01			
161	92-1635	5.30E-01	+/- 4.6E-01		

} Sec 16 B

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/ml	2 sigma
162	92-1636	<5.6E-02	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14700
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kunkel

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Request # 14719

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 1/15/92
Reported: 1/16/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
182	92-1723	<2.9E-01	} Sec 16 B
183	92-1724	<1.5E-01	
184	92-1725	<2.5E-01	
185	92-1726	<1.6E-01	
186	92-1727	<2.5E-01	
187	92-1728	<1.9E-01	
188	92-1729	<2.7E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14719
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kowalski



FORM S/N 18-006

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

SURVEY DATE: 6-22-92

LOCATION: File Survey Section # 18-
Trench Section # 16-B

SURVEY TIME: 2/00

INSTRUMENT: PRS-1

SERIAL # 346

PROBE TYPE: SPA-3

INSTRUMENT:

SERIAL #

PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
02'	14098				
04'	13514				

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 6-22-92



FORM S/N 18-002

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 18-
Trench Section # 16-B

INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-12-96
SURVEY TIME: 1230

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
6' cur	14250				
8' Joint	12174				
10' Joint	11406				
12' JOINT	10522				
13' JOINT	11106				
14' JOINT	11088				
16' OPEN END	12932				

SKETCH

REMARKS

H.P. SIGNATURE *Scott D. Sullivan*

DATE: 6-12-96

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION 16-C
SECTION 16-D

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 6-26-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A. Joseph Nardi* Date: 6/29/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
199 -15A-41'	6/18/92	CUT	221 -13-9	6/22/92	CUT	243 -160-8'	6/24/92	JOINT
200 -15A-44'		JOINT	222 -13-16	6/22/92	CUT	244 -16-175	6/24/92	Y
201 -15A-48'		CUT	223 -13-22	6/22/92	JOINT	245 -16-183	6/24/92	JOINT
202 -15A-53'		CUT	224 -13-23	6/22/92	JOINT/FCC	246 -16-184	6/24/92	CUT
203 -15A-53.5'		JOINT	225 -13-00	6/22/92	TROUGH END NORTH	247 -16-190	6/24/92	
204 -15A-56'		JOINT	226 -13-08	6/22/92	TROUGH END SOUTH	248 -16-196	6/24/92	CUT
205 -15A-59'		JOINT	227 -16-205	6/22/92	JOINT	249 -17-15	6/25/92	CUT
206 -15A-64'		JOINT	228 -16-212	6/22/92	CUT	250 -17-23	6/25/92	JOINT
207 -15A-65'		JOINT	229 -16-219	6/22/92	JOINT	251 -17-27	6/25/92	CUT
208 -15A-66'		CUT	230 -16-225	6/22/92	CUT	252 -17-32	6/25/92	
209 -15A-68'		JOINT	231 -16-226	6/22/92	JOINT	253 -17-38	6/25/92	CUT
210 -15A-71'		JOINT	232 -16-236	6/22/92	CUT	254 -17-43	6/25/92	JOINT
211 -15A-73'		CUT	233 -16-242	6/22/92		255 -17-53	6/29/92	
212 -15A-74'	6/18/92	CUT	234 -16-247	6/22/92	JOINT	-		
213 -17-00'	6/17/92	ELL	235 -16-248	6/22/92	CUT	-		
214 -17-02'	6/17/92		236 -16-258	6/22/92		-		
215 -17-08'	6/17/92		237 -16-264	6/22/92	CUT	-		
216 -15-A-3.5'	6/19/92	CUT	238 -16-268	6/22/92	JOINT	-		
217 -15-B-3.5'	6/19/92	JOINT	239 -16C-8	6/24/92		-		
218 -15-B-9.5'	6/19/92	END ELL	240 -16C-16	6/24/92		-		
219 -13-1	6/22/92	CUT	241 -16C-21	6/24/92		-		
220 -13-2.5	6/22/92	JOINT	242 -16D-00	6/24/92		-		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14735

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/23/92
Reported: 6/26/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 23, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
235	92-1887	3.11E-01	+/- 2.3E-01
236	92-1888	<1.7E-01	
237	92-1889	<1.7E-01	
238	92-1890	<1.9E-01	
239	92-1891	<3.0E-01	
240	92-1892	<3.7E-01	
241	92-1893	<3.1E-01	
242	92-1894	<4.2E-01	
243	92-1895	3.29E-01	+/- 2.9E-01

TRENCH
16-C

TRENCH
16-D

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14735
Procedures: A-524
Analyst: WTF, MRK

Approved: Walt Kowalski



FORM S/N 18-005

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 LOCATION: File Survey Section # 18 -
 Trench Section # 16C
 INSTRUMENT: PRS-1
 INSTRUMENT: SERIAL # 346
 SERIAL # PROBE TYPE: SPA-3
 PROBE TYPE:

SURVEY DATE: 6-22-92

SURVEY TIME: 2115

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>2</u>	<u>15030</u>	<u>18</u>	<u>12920</u>		
<u>4</u>	<u>15092</u>	<u>20</u>	<u>10604</u>		
<u>6</u>	<u>13568</u>	<u>21 ELL</u>	<u>10330</u>		
<u>8</u>	<u>16210</u>				
<u>10</u>	<u>15450</u>				
<u>12</u>	<u>15622</u>				
<u>14</u>	<u>16398</u>				
<u>16</u>	<u>14530</u>				

SKETCH

REMARKS

N.P. SIGNATURE

Scott St. Ballerini Barry St

DATE: 6-22-92



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 18 -
Trench Section # 16-D

INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-22-92
SURVEY TIME: 2:15

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00	14114				
2	12472				
4	12108				
6	11592				
8 Joint	10896				
10	10330				

SKETCH

REMARKS

Runs EAST TO WEST 00' END

H.P. SIGNATURE

Scott H. Hillier/Terry Hill

DATE: 6-22-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

SECTION # 17

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 6-29-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments:

Oil affected portion of trench is still on hold pending resolution of that issue.

Signature: *[Signature]* Date: July 7, 1992

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
199 - 15A - 41'	6/18/92	CUT	221 - 13 - 9	6/22/92	CUT	243 - 16D - 9'	6/24/92	
200 - 15A - 44'		JOINT	222 - 13 - 16	6/22/92	CUT	244 - 16 - 175	6/24/92	Y
201 - 15A - 48'		CUT	223 - 13 - 22	6/22/92	JOINT	245 - 16 - 183	6/24/92	JOINT
202 - 15A - 53'		CUT	224 - 13 - 23	6/22/92	JOINT/FCC	246 - 16 - 184	6/24/92	CUT
203 - 15A - 53.5'		JOINT	225 - 13 - 00	6/22/92	TROUGH END NORTH	247 - 16 - 190	6/24/92	
204 - 15A - 56'		JOINT	226 - 13 - 08	6/22/92	TROUGH END SOUTH	248 - 16 - 196	6/24/92	CUT
205 - 15A - 59'		JOINT	227 - 16 - 205	6/22/92	JOINT	249 - 17 - 15	6/25/92	CUT
206 - 15A - 64'		JOINT	228 - 16 - 212	6/22/92	CUT	250 - 17 - 23	6/25/92	JOINT
207 - 15A - 65'		JOINT	229 - 16 - 219	6/22/92	JOINT	251 - 17 - 27	6/25/92	CUT
208 - 15A - 66'		CUT	230 - 16 - 225	6/22/92	CUT	252 - 17 - 32	6/25/92	
209 - 15A - 68'		JOINT	231 - 16 - 226	6/22/92	JOINT	253 - 17 - 38	6/25/92	CUT
210 - 15A - 71'		JOINT	232 - 16 - 236	6/22/92	CUT	254 - 17 - 43	6/25/92	JOINT
211 - 15A - 73'	✓	CUT	233 - 16 - 242	6/22/92		255 - 17 - 53	6/25/92	
212 - 15A - 74'	6/18/92	CUT	234 - 16 - 247	6/22/92	JOINT	256 - 18 - 02	6/29/92	CUT
213 - 17 - 00	6/19/92	ELL	235 - 16 - 248	6/22/92	CUT	257 - 18 - 9.5'	6/29/92	JOINT
214 - 17 - 02'	6/17/92		236 - 16 - 258	6/22/92		258 - 18 - 18'	6/29/92	CUT
215 - 17 - 08'	6/17/92		237 - 16 - 264	6/22/92	CUT	- -		
216 - 15-A-3.5	6/19/92	CUT	238 - 16 - 268	6/22/92	JOINT	- -		
217 - 15-B-3.5	6/19/92	JOINT	239 - 16C - 8	6/22/92		- -		
218 - 15-B-9.5	6/19/92	END ELL	240 - 16C - 16	6/24/92		- -		
219 - 13 - 1	6/22/92	CUT	241 - 16C - 21	6/24/92		- -		
220 - 13 - 2.5	6/22/92	JOINT	242 - 16D - 00'	6/24/92		- -		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14729

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/19/92
Reported: 5/24/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 19, 1992)

Originator ID	Lab. Sp1#	U-235 (Wet Basis)		Pa-233 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
205	92-1819	<2.6E-01			
206	92-1820	<3.4E-01			
207	92-1821	<3.8E-01			
208	92-1822	<2.1E-01			
209	92-1823	<3.8E-01			
210	92-1824	2.78E-01	+/- 2.6E-01		
211	92-1825	<4.6E-01			
212	92-1826	<3.9E-01			
213	92-1827	2.33E-01	+/- 2.3E-01		
214	92-1828	<1.6E-01		2.17E-01 +/- 2.1E-01	
215	92-1829	<1.6E-01		27 day $T_{1/2}$	
216	92-1830	<2.4E-01			
217	92-1831	<3.8E-01			
218	92-1832	4.11E-01	+/- 2.9E-01		

Sec 17
Under
Dike

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14729
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kanchak

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14742

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 5/26/92
Reported: 5/29/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 26, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
244	92-1945	<2.7E-01	
245	92-1946	1.93E-01	+/- 1.5E-01
246	92-1947	<2.5E-01	
247	92-1948	<1.4E-01	
248	92-1949	<2.0E-01	
249	92-1950	1.78E-01	+/- 1.3E-01
250	92-1951	<1.8E-01	
251	92-1952	<2.3E-01	
252	92-1953	<2.7E-01	
253	92-1954	1.53E-01	+/- 1.4E-01

TRENCH
17

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14742
Procedures: A-524
Analyst: WTF, MRK

Approved: Mark Kurbat

PRELIMINARY
REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14748

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 6/19/92
Reported: 7/7/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (3 June 30, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
254	} TRENCH 17	92-2002	1.44E-01 +/- 1.3E-01
255		92-2003	7.24E-01 +/- 2.5E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14748
Procedures: A-524
Analyst: WTF, MRK

Approved: *Mark Kowchak*



FORM S/N 18-003

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 18 -
Trench Section # 17

INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-17-92
SURVEY TIME: 1700

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00 Joint	18836				
02 Joint	19022				
04	18772				
06	19668				
08	19437				
10	20246				

SKETCH

REMARKS

N.P. SIGNATURE *Scott D. Walker* DATE: 6-19-92



FORM S/N 18-009

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 18 -
Trench Section # 17

INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 6-25-92
SURVEY TIME: 18:30

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
12	18420	24	20184	38 CUT	18618
14	18130	26	19430		
15 CUT	17844	27 CUT	20142		
16	17304	28	19924		
18	17080	30	20718		
20	18524	32	20488		
22	18290	34	19798		
23 Joint	19372	36	19446		

SKETCH

REMARKS

H.P. SIGNATURE *Scott H. Walker* DATE: 6-25-92



FORM S/N 18-010

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 LOCATION: File Survey Section # 18-
 Trench Section # 17
 INSTRUMENT: PRS-1. SERIAL # 346
 INSTRUMENT: SERIAL # PROBE TYPE: SPA-3
 PROBE TYPE:

SURVEY DATE: 6-25-92
 SURVEY TIME: 2130

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
40'	19748	53'	20000		
42'	17118				
43' Joint	18264				
44'	19489				
46'	18496				
48'	18844				
50'	19654				
52'	20230				

SKETCH

REMARKS

H.P. SIGNATURE

Jerry Ditt

DATE: 6-25-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH SECTION 18
PARTIAL 00' TO 86'

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHES

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHES

- 4) Note any special considerations:

PARTIAL

Requested by: Jerry Jett Date: 7-13-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: A Joseph Vardi Date: 7/13/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
199 -15A-41'	6/18/92	CUT	221 -13-9	6/22/92	CUT	243 -160-8'	6/24/92	
200 -15A-44'		JOINT	222 -13-16	6/22/92	CUT	244 -16-175	6/24/92	Y
201 -15A-48'		CUT	223 -13-22	6/22/92	JOINT	245 -16-183	6/24/92	JOINT
202 -15A-53'		CUT	224 -13-23	6/22/92	JOINT/FCC	246 -16-184	6/24/92	CUT
203 -15A-53.5'		JOINT	225 -13-00	6/22/92	TROUGH END NORTH	247 -16-190	6/24/92	
204 -15A-56		JOINT	226 -13-08	6/22/92	TROUGH END SOUTH	248 -16-196	6/24/92	CUT
205 -15A-59'		JOINT	227 -16-205	6/22/92	JOINT	249 -17-15	6/25/92	CUT
206 -15A-64'		JOINT	228 -16-212	6/22/92	CUT	250 -17-23	6/25/92	JOINT
207 -15A-65'		JOINT	229 -16-219	6/22/92	JOINT	251 -17-27	6/25/92	CUT
208 -15A-66'		CUT	230 -16-225	6/22/92	CUT	252 -17-32	6/25/92	
209 -15A-68'		JOINT	231 -16-226	6/22/92	JOINT	253 -17-38	6/25/92	CUT
210 -15A-71'		JOINT	232 -16-236	6/22/92	CUT	254 -17-43	6/25/92	JOINT
211 -15A-73'	✓	CUT	233 -16-242	6/22/92		255 -17-53	6/27/92	
212 -15A-74'	6/18/92	CUT	234 -16-247	6/22/92	JOINT	256 -18-02	6/29/92	CUT
213 -17-00'	6/17/92	ELL	235 -16-248	6/22/92	CUT	257 -18-9.5'	6/29/92	JOINT
214 -17-02'	6/17/92		236 -16-258	6/22/92		258 -18-18'	6/29/92	CUT
215 -17-08'	6/17/92		237 -16-264	6/22/92	CUT	259 -20-5'	6/29/92	CUT
216 -15-A-3.5	6/19/92	CUT	238 -16-268	6/22/92	JOINT	260 -20-11'	6/29/92	
217 -15-B-3.5	6/19/92	JOINT	239 -16C-8	6/22/92		261 -20-18'	6/29/92	CUT
218 -15-B-9.5	6/19/92	END ELL	240 -16C-16	6/22/92		262 -20-19	6/29/92	JOINT
219 -13-1	6/22/92	CUT	241 -16C-21	6/22/92		263 -20-27	6/29/92	
220 -13-2.5	6/22/92	JOINT	242 -16D-00'	6/22/92		264 -20-33	6/29/92	CUT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	4/29/92		287-20-60	7/7/92	JOINT	-	-	
266-20-45	9/29/92		288-20-60	7/7/92	DUPLICATE OF 287	-	-	
267-20-91	9/29/92		289-20-68.5	7/7/92	CUT	-	-	
268-18-23	9/1/92	JOINT	290-20-76	7/7/92	RANDOM	-	-	
269-18-24		Y	291-20-81.5	7/7/92	JOINT	-	-	
270-18-25		JOINT	292-20-82	7/7/92	CUT	-	-	
271-18-30		JOINT	293-17-53	7/7/92	DUPLICATE OF	-	-	
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	-	-	
273-18-46			295-18-98	7/7/92	RANDOM	-	-	
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	-	-	
275-18-57.5	7/1/92	CUT	297-18-114	7/8/92	JOINT	-	-	
276-18A-00	7/2/92	JOINT	298-18-121	7/8/92	CUT	-	-	
277-18A-0.5		JOINT	-	-		-	-	
278-18A-1.0		JOINT	-	-		-	-	
279-18A-1.1		RANDOM	-	-		-	-	
280-18A-2.1		END 'Y'	-	-		-	-	
281-18C-00	7/2/92		-	-		-	-	
282-18-68	7/6/92	CUT	-	-		-	-	
283-18-73	7/6/92	JOINT	-	-		-	-	
284-18-80	7/6/92	RANDOM	-	-		-	-	
285-18-86	7/6/92	CUT	-	-		-	-	
286-20-59.5	7/7/92	CUT	-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14748

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /30/92
Reported: /8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 30, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
254	92-2002	1.44E-01	+/- 1.3E-01
255	92-2003	7.24E-01	+/- 2.5E-01
256	92-2004	7.68E-01	+/- 2.3E-01
257	92-2005	<2.1E-01	
258	92-2006	3.13E-01	+/- 2.3E-01
259	92-2007	<2.4E-01	
260	92-2008	<2.8E-01	
261	92-2009	<1.2E-01	
262	92-2010	5.37E-01	+/- 2.5E-01
263	92-2011	<1.6E-01	
264	92-2012	4.24E-01	+/- 2.4E-01
265	92-2013	2.68E-01	+/- 1.0E-01
266	92-2014	<2.6E-01	
267	92-2015	2.16E-01	+/- 1.8E-01

TRENCH
18

2 FT TO 18 FT

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14748
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kowalski

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Reques # 14750

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/6/92
Reported: 7/9/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 6, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
268	92-2062	<3.1E-01	
269	92-2063	1.95E-01	
270	92-2064	<2.4E-01	
271	92-2065	1.38E-01	+/- 6.2E-02
272	92-2066	<2.8E-01	
273	92-2067	<1.8E-01	
274	92-2068	<3.1E-01	
275	92-2069	<1.7E-01	

TRENCH #18

23 FT TO 57.5 FT

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14750
Procedures: A-524
Analyst: WTF, MRK, TRK, OZ

Approved: Mark Lovvick

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14751

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/7/92
Reported: 7/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 7, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
276	92-2070	<3.8E-01			
277	92-2071	<2.7E-01			
278	92-2072	<4.0E-01			
279	92-2073	2.84E-01	+/- 2.4E-01		
280	92-2074	<4.3E-01			
281	92-2075	4.08E-01	+/- 2.7E-01		
282	92-2076	<2.7E-01			
283	92-2077	<1.1E-01			
284	92-2078	<1.5E-01			
285	92-2079	<2.3E-01		2.3E-01 +/- 1.5E-01	

68 FT TO 86 FT

TRENCH
18

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14751
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kaurish



FORM S/N 22-001

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 22-
Trench Section # 18

INSTRUMENT: PRS-1. SERIAL # 346
INSTRUMENT: SERIAL # PROBE TYPE: SPA-3
PROBE TYPE:

SURVEY DATE: 6-29-92
SURVEY TIME: 1730

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
2' CUT	18948	16	18480		
4	19932	18 CUT	18382		
6	18454				
8	19276				
9.5' Joint	20002				
10	19950				
12	19866				
14	18652				

SKETCH

REMARKS

N.P. SIGNATURE

S. H. Baker / Tony [Signature]

DATE: 6-29-92



FORM S/N 22-002

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP V)

LOCATION: File Survey Section # 22-
Trench Section # 18

INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 7-1-92
SURVEY TIME: 18:00

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
20	18488	32	18270	46	19142
22	14942	34	18874	48	1876
23 Joint	15382	36	18802	50	19062
24 Y	14598	38	18831	51.5 Joint	18474
25 Joint	15532	38.5 cut	18881	52	18932
26	16970	40	19430	54	12784
28	18084	42	18984	56	20922
30 Joint	18108	44	18370	57.5 cut	20724

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 7-1-92



FORM S/N 22-005

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 22-
Trench Section # 18

INSTRUMENT: PRS-1
INSTRUMENT: SERIAL # 346
SERIAL #

SURVEY DATE: 7-6-92
SURVEY TIME: 20:30

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
58	16370	73 Joint	17460		
60	16472	74	19562		
62	16088	76	15066		
64	16968	78	15770		
66	16884	80 RANDOM	15318		
68 CUT	14586	82	15382		
70	16866	84	14606		
72	18086	86-CUT	15784		

SKETCH

REMARKS

N.P. SIGNATURE

H. Sullivan / Zoroy

DATE: 7-6-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 18
ADDITION FROM 86 FT TO 121 FT

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: LARRY LIND Date: 7-15-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: J. Flanagan for Date: 7-20-92
Al Nardi

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	7/29/92		287-20-60	7/7/92	JOINT	309-18-B-7.5	7/19/92	JOINT
266-20-45	9/29/92		288-20-60	7/7/92	DUPLICATE OF 287	310-18-B-8	7/19/92	Y
267-20-51	9/29/92		289-20-68.5	7/7/92	CUT	311-18-B-8.5	7/19/92	JOINT
268-18-23	9/11/92	JOINT	290-20-76	7/7/92	RANDOM	312-18-B-12	7/19/92	CUT
269-18-24		Y	291-20-81.5	7/7/92	JOINT	313-18-B-12.5	7/19/92	JOINT
270-18-25		JOINT	292-20-82	7/7/92	CUT	314-18-B-13	7/19/92	Y
271-18-30		JOINT	293-17-53	7/7/92	REPEAT	315-18-B-13.5	7/19/92	JOINT
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	316-18-B-18	7/19/92	END
273-18-46			295-18-98	7/7/92	RANDOM	317-19-9'	7/19/92	JOINT
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	318-20-00	7/19/92	JOINT
275-18-57.5	7/1/92	CUT	297-18-114	7/8/92	JOINT	319-20-1	9/4/92	CUT
276-18A-00	7/2/92	JOINT	298-18-121	7/8/92	CUT	320-15E-01	7/15/92	Y-JOINT
277-18A-0.5		JOINT	299-18-127	7/9/92	CUT	321-15E-3.0		JOINT
278-18A-1.0		JOINT	300-18-137	7/9/92	JOINT	322-15E-7		END cell
279-18A-1.1		RANDOM	301-18-142.5	7/9/92	END of pipe	323-15D-00		END cell clean cut
280-18A-2.1		END 'Y'	302-19-6.5	7/9/92	CUT	324-15D-02		Y
281-18C-00	7/2/92		303-18-128	7/9/92	RANDOM	325-15D-03		Y
282-18-68	7/6/92	CUT	304-18-134	7/9/92	JOINT	326-15D-04		JOINT
283-18-73	7/6/92	JOINT	305-18-135	7/9/92	CUT	327-15D-05		JOINT
284-18-80	7/6/92	RANDOM	306-18-144	7/9/92	RANDOM	328-15D-8'		CUT
285-18-86	7/6/92	CUT	307-18-B-00	7/10/92	END CELL	329-15D-8.5		END Y
286-20-59.5	7/7/92	CUT	308-18-B-6.5	7/10/92	CUT	330-15A-7.5	7/15/92	FLOW VALUE

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Walter Mill Site

REPORT

Reques # 14758

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /10/92
Reported: /15/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 10, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
294	92-2133	<1.9E-01	
295	92-2134	<2.0E-01	
296	92-2135	<1.3E-01	
297	92-2136	<1.4E-01	
298	92-2137	<2.0E-01	

TRENCH
18

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14758
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 



FORM S/N 22-006

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 22 -
Trench Section # 18

INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 7-7-92
SURVEY TIME: 2:30

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
88'	17570	102'	17434		
90'	17688	104' CUT	16924		
92'	17426				
93' JOINT	17166				
94'	16920				
96'	17590				
98'	17254				
100'	17150				

SKETCH

REMARKS

N.P. SIGNATURE *Jerry A. H.* DATE: 7-7-92



FORM S/N 22-007

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)
 SURVEY DATE: 7-8-9L
 LOCATION: File Survey Section # 22-
 Trench Section # 18
 SURVEY TIME: 1700
 INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>106</u>	<u>16,924</u>	<u>121' cut</u>	<u>16,502</u>		
<u>108</u>	<u>17,234</u>				
<u>110</u>	<u>17,388</u>				
<u>112</u>	<u>17,268</u>				
<u>114 JOINT</u>	<u>17,650</u>				
<u>116</u>	<u>17,746</u>				
<u>118</u>	<u>17,102</u>				
<u>120</u>	<u>16,016</u>				

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 7-8-9L

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH SECTION # 18
PARTIAL 122 FT TO 167.5 FT (END)

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 7-17-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *[Signature]* Date: 7-20-92
[Signature]

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	4/29/92		287-20-60	7/7/92	JOINT	309-18-B-7.5	7/19/92	JOINT
266-20-45	9/29/92		288-20-60	7/7/92	DUPLICATE OF 287	310-18-B-8	7/19/92	Y
267-20-51	9/29/92		289-20-68.5	7/7/92	CUT	311-18-B-8.5	7/19/92	JOINT
268-18-23	9/1/92	JOINT	290-20-76	7/7/92	RANDOM	312-18-B-12	7/19/92	CUT
269-18-24		Y	291-20-81.5	7/7/92	JOINT	313-18-B-12.5	7/19/92	JOINT
270-18-25		JOINT	292-20-82	7/7/92	CUT	314-18-B-13	7/19/92	Y
271-18-30		JOINT	293-17-53	7/7/92	REPEAT	315-18-B-13.5	7/19/92	JOINT
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	316-18-B-18	7/19/92	END
273-18-46			295-18-98	7/7/92	RANDOM	317-19-9'	7/19/92	JOINT
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	318-20-05'	7/19/92	JOINT
275-18-57.5	7/1/92	CUT	297-18-114	7/8/92	JOINT	319-20-1'	7/19/92	CUT
276-18A-00	7/2/92	JOINT	298-18-121	7/8/92	CUT	320-18E-01'	7/15/92	Y-JOINT
277-18A-0.5		JOINT	299-18-134	7/9/92	CUT	321-18E-3.5'		JOINT
278-18A-1.5		JOINT	300-18-157	7/9/92	JOINT	322-18E-7'		END all ENHANCE clean OUT
279-18A-11		RANDOM	301-18-162.5	7/9/92	END of P. 10	323-15D-00		
280-18A-21		END 'Y'	302-19-6.5	7/9/92	CUT	324-15D-02		Y
281-18C-00	7/2/92		303-18-128	7/9/92	RANDOM	325-15D-03		Y
282-18-68	7/6/92	CUT	304-18-134	7/9/92	JOINT	326-15D-04		
283-18-73	7/6/92	JOINT	305-18-135	7/9/92	CUT	327-15D-06		JOINT
284-18-80	7/6/92	RANDOM	306-18-144	7/9/92	RANDOM	328-15D-8'		CUT
285-18-86	7/6/92	CUT	307-18-B-20	7/10/92	END ALL	329-15D-8.5		END Y
286-20-59.5	7/7/92	CUT	308-18-B-6.5	7/10/92	CUT	330-15H-7.5	7/15/92	FLOW VALVE

Sequence Starting M.D.L. Section Sample Point Distance
 With 001 - Number - (In feet from north or
 east Reference Zero Feet)

PRELIMINARY
REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14762

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/13/92
Reported: 7/17/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
299	92-2156	<2.1E-01	
300	92-2157	<2.2E-01	
301	92-2158	<2.5E-01	
302	92-2159	<2.0E-01	
303	92-2160	2.04E-01	+/- 1.7E-01
304	92-2161	<2.6E-01	
305	92-2162	<2.3E-01	
306	92-2163	<2.3E-01	
307	92-2164	<3.9E-01	

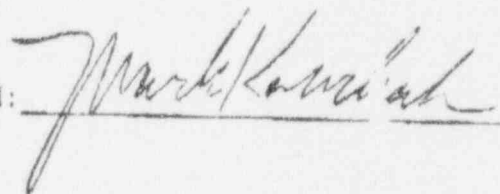
TRENCH
18

TRENCH
18

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14762
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved:





FORM S/N 22-008

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 22 -
Trench Section # 22/18

INSTRUMENT: PRS-1
INSTRUMENT: SERIAL # 346

SURVEY DATE: 7/10/92

SURVEY TIME: 1900

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
122	17184	136	17492	152	15884
124	18198	138	17276	154 CUT	16026
126	18502	140	16934		
128 Random	18258	142	16944		
130	17974	144 Random	17380		
132	17796	146	12000		
134 Joint	15008	148	16498		
135 CUT	18510	150	17604		

SKETCH

REMARKS

H.P. SIGNATURE

L. D. Gillespie / Jerry D. H.

DATE: 7/10/92



FORM S/N 22-009

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 22 -
Trench Section # MDL 18

INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 7-9-92
SURVEY TIME: 1830

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
154 cut	16950	167.5 Random	17664		
156	16822				
157 Joint	15654				
158	16298				
160	16738				
162	16124				
164	17924				
166	17834				

SKETCH

REMARKS

N.P. SIGNATURE *L.H. Williams / Terry Ott* DATE: 7-9-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 18-A

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 7-10-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A Joseph Vardi* Date: 7/10/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	4/29/92		287-20-60	7/7/92	JOINT	-	-	
266-20-45	4/29/92		288-20-60	7/7/92	DUPLICATE OF 287	-	-	
267-20-91	4/29/92		289-20-68.5	7/7/92	CUT	-	-	
268-18-23	7/1/92	JOINT	290-20-76	7/7/92	RANDOM	-	-	
269-18-24		Y	291-20-81.5	7/7/92	JOINT	-	-	
270-18-25		JOINT	292-20-82	7/7/92	CUT	-	-	
271-18-30		JOINT	293-17-53	7/7/92	DUPLICATE OF	-	-	
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	-	-	
273-18-46			295-18-98	7/7/92	RANDOM	-	-	
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	-	-	
275-18-57.5	7/1/92	CUT	297-18-114	7/7/92	JOINT	-	-	
276-18A-00	7/2/92	JOINT	298-18-121	7/7/92	CUT	-	-	
277-18A-0.5		JOINT	-	-	-	-	-	
278-18A-1.0		JOINT	-	-	-	-	-	
279-18A-1.1		RANDOM	-	-	-	-	-	
280-18A-2.1		END 'Y'	-	-	-	-	-	
281-18C-00	7/2/92		-	-	-	-	-	
282-18-68	7/6/92	CUT	-	-	-	-	-	
283-18-73	7/6/92	JOINT	-	-	-	-	-	
284-18-80	7/6/92	RANDOM	-	-	-	-	-	
285-18-86	7/6/92	CUT	-	-	-	-	-	
286-20-59.5	7/7/92	CUT	-	-	-	-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14751

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/7/92
Reported: 7/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 7, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
276	92-2070	<3.8E-01			
277	92-2071	<2.7E-01			
278	92-2072	<4.0E-01			
279	92-2073	2.84E-01	+/- 2.4E-01		
280	92-2074	<4.3E-01			
281	92-2075	4.08E-01	+/- 2.7E-01		
282	92-2076	<2.7E-01			
283	92-2077	<1.1E-01			
284	92-2078	<1.5E-01			
285	92-2079	<2.3E-01		2.3E-01	+/- 1.5E-01

TRENCH
18A

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14751
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kowalski



FORM S/N 22-003

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 22-
Trench Section # 18-A

INSTRUMENT: PRS-1, SERIAL # 346
INSTRUMENT: SERIAL #

SURVEY DATE: 7-2-92
SURVEY TIME: 1900

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' Joint	13708	11 Random	12578		
0.5' Joint	14342	12	17338		
1.5' Joint	16064	14	17358		
2'	17010	16	17168		
4'	16270	18	16236		
6'	17458	20	13004		
8'	17320	21 Elbow	12716		
10'	17966				

SKETCH

Note:
At the two ends of this trench, the depth is shallow and the readings are low. At the center section, the pipe was actually taken out of the wall of the trench so the readings are higher because the instrument is "looking" at more soil around it.

REMARKS

AJ Ward
7/10/92

H.P. SIGNATURE

J. D. Miller Harry Stk

DATE: 7-2-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 18-B

2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

4) Note any special considerations:

Requested by: *[Signature]*

Date: 7-23-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *James P. Flougen*

Date: _____

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	4/29/92		287-20-60	7/7/92	JOINT	309-18-B-7.5	7/10/92	JOINT
266-20-45	4/29/92		288-20-60	7/7/92	DUPLICATE OF 287	310-18-B-8	7/10/92	Y
267-20-91	4/29/92		289-20-68.5	7/7/92	CUT	311-18-B-8.5	7/10/92	JOINT
268-18-23	7/1/92	JOINT	290-20-76	7/7/92	RANDOM	312-18-B-12	7/10/92	CUT
269-18-24		Y	291-20-81.5	7/7/92	JOINT	313-18-B-12.5	7/10/92	JOINT
270-18-25		JOINT	292-20-82	7/7/92	CUT	314-18-B-13	7/10/92	Y
271-18-30		JOINT	293-17-53	7/7/92	REPEAT	315-18-B-13.5	7/10/92	JOINT
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	316-18-B-18	7/10/92	END
273-18-96			295-18-98	7/7/92	RANDOM	317-19-9'	7/14/92	JOINT
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	318-20-00	7/14/92	JOINT
275-18-57.5	7/1/92	CUT	297-18-114	7/7/92	JOINT	319-20-1	7/14/92	CUT
276-18A-00	7/2/92	JOINT	298-18-121	7/7/92	CUT	320-15E-01	7/15/92	V-JOINT
277-18A-0.5		JOINT	299-18-154	7/9/92	CUT	321-15E-3.0		JOINT
278-18A-1.0		JOINT	300-18-157	7/9/92	JOINT	322-15E-7		END ell
279-18A-11		RANDOM	301-18-162.5	7/9/92	END of Pipe	323-15D-00		END ell clean cut
280-18A-21		END Y	302-19-6.5	7/9/92	CUT	324-15D-02		Y
281-18C-00	7/2/92		303-18-128	7/9/92	RANDOM	325-15D-03		Y
282-18-68	7/6/92	CUT	304-18-134	7/9/92	JOINT	326-15D-04		JOINT
283-18-73	7/6/92	JOINT	305-18-135	7/9/92	CUT	327-15D-05		JOINT
284-18-80	7/6/92	RANDOM	306-18-144	7/9/92	RANDOM	328-15D-8'		CUT
285-18-86	7/6/92	CUT	307-18-B-00	7/10/92	END ELL	329-15D-8.5		END Y
286-20-59.5	7/7/92	CUT	308-18-B-6.5	7/10/92	CUT	330-5A-75	7/15/92	flow valve

Sequence Starting M.D.L. Section Sample Point Distance
 With 001 - Number - (In feet from north or
 east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14762

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/13/92
Reported: 7/17/92

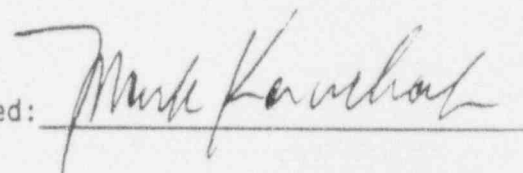
[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Mn-54 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
299	92-2156	<2.1E-01					
300	92-2157	<2.2E-01					
301	92-2158	<2.5E-01					
302	92-2159	<2.0E-01					
303	92-2160	2.04E-01	+/- 1.7E-01				
304	92-2161	<2.6E-01					
305	92-2162	<2.3E-01					
306	92-2163	<2.3E-01					
307	92-2164	<3.9E-01					
308	92-2165	<2.6E-01					
309	92-2166	<3.5E-01					
310	92-2167	<3.6E-01					
311	92-2168	2.61E-01	+/- 2.4E-01				
312	92-2169	<4.1E-01		1.37E-01	+/- 1.1E-01	2.89E-01	+/- 1.6E-01
313	92-2170	<2.9E-01					
314	92-2171	2.46E-01	+/- 2.1E-01				

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14762
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14762

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/13/92
Reported: 7/17/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
315	92-2172	2.76E-01 +/-	2.7E-01
316	92-2173	<1.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14762
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kurchak



FORM S/N 22-010

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 22-
Trench Section # MDL 18B

INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 7-10-92
SURVEY TIME: 18:40

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' ALL	9756	10	12338		
2	10484	12 CUT	12574		
4	11560	12.5 JOINT	12474		
6	11582	13 Y	12686		
6.5 CUT	11658	13.5 JOINT	13212		
7.5 JOINT	11604	14	13554		
8 Y	11812	16	13738		
8.5 JOINT	12068	18	13612		

SKETCH

REMARKS

Trench is 6" TO 12" DEEP

H.P. SIGNATURE

J. H. Williams

DATE: 7-10-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 18-B

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: Jerry St

Date: 7-20-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: J. Flanagan for

Date: 7-20-92

A. J. Mardi

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	7/29/92		287-20-60	7/7/92	JOINT	309-18-B-7.5	7/14/92	JOINT
266-20-45	9/29/92		288-20-60	7/7/92	DUPLICATE OF #287	310-18-B-8	7/19/92	Y
267-20-51	9/29/92		289-20-68.5	7/7/92	CUT	311-18-B-8.5	7/10/92	JOINT
268-18-23	9/11/92	JOINT	290-20-76	7/7/92	RANDOM	312-18-B-12	7/10/92	CUT
269-18-24		Y	291-20-81.5	7/7/92	JOINT	313-18-B-12.5	7/10/92	JOINT
270-18-25		JOINT	292-20-82	7/7/92	CUT	314-18-B-13	7/10/92	Y
271-18-30		JOINT	293-17-53	7/7/92	REPEAT	315-18-B-13.5	7/19/92	JOINT
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	316-18-B-18	7/10/92	END
272-18-46			295-18-98	7/7/92	RANDOM	317-19-9'	7/14/92	JOINT
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	318-20-00	7/14/92	JOINT
275-18-57.5	7/1/92	CUT	297-18-114	7/9/92	JOINT	319-20-1	7/14/92	CUT
276-18A-00	7/2/92	JOINT	298-18-121	7/8/92	CUT	320-15E-01	7/15/92	Y-JOINT
277-18A-0.5		JOINT	299-18-134	7/9/92	CUT	321-15E-3.0		JOINT
278-18A-1.0		JOINT	300-18-157	7/4/92	JOINT	322-15E-7'		END ell
279-18A-11		RANDOM	301-18-162.5	7/9/92	END of Pipe	323-15D-00		END ell clean OUT
280-18A-2.1		END 'Y'	302-19-6.5	7/9/92	CUT	324-15D-02		Y
281-18C-00	7/2/92		303-18-128	7/9/92	RANDOM	325-15D-03		Y
282-18-68	7/6/92	CUT	304-18-134	7/9/92	JOINT	326-15D-04		
283-18-73	7/6/92	JOINT	305-18-135	7/9/92	CUT	327-15D-06		JOINT
284-18-80	7/6/92	RANDOM	306-18-144	7/9/92	RANDOM	328-15D-8'		CUT
285-18-86	7/6/92	CUT	307-18-B-00	7/10/92	END ELL	329-15D-8.5		END Y
286-20-59.5	7/7/92	CUT	308-18-B-6.5	7/10/92	CUT	330-15A-75	7/15/92	Flow valve

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14762

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/13/92
Reported: 7/17/92

[RESULTS OF ANALYSIS]

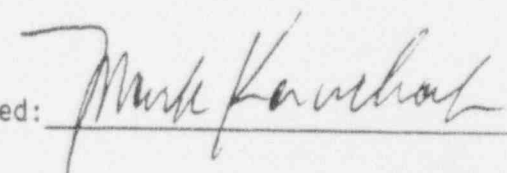
GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Mn-54 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma	pCi/gram	2 sigma
299	92-2156	<2.1E-01					
300	92-2157	<2.2E-01					
301	92-2158	<2.5E-01					
302	92-2159	<2.0E-01					
303	92-2160	2.04E-01	+/- 1.7E-01				
304	92-2161	<2.6E-01					
305	92-2162	<2.3E-01					
306	92-2163	<2.3E-01					
307	92-2164	<3.9E-01					
308	92-2165	<2.6E-01					
309	92-2166	<3.5E-01					
310	92-2167	<3.6E-01					
311	92-2168	2.61E-01	+/- 2.4E-01				
312	92-2169	<4.1E-01		1.37E-01	+/- 1.1E-01	2.89E-01	+/- 1.6E-0
313	92-2170	<2.9E-01					
314	92-2171	2.46E-01	+/- 2.1E-01				

TRENCH
19-B

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14762
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14762

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/13/92
Reported: 7/17/92

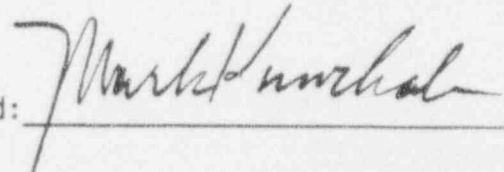
[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
315	} TRENCH 19-B	92-2172	2.76E-01 +/- 2.7E-01
316		92-2173	<1.9E-01

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14762
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 



FORM S/N 22-016

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 22-
Trench Section # MDL 18B

INSTRUMENT: PRS-1
INSTRUMENT: SERIAL # 346
SERIAL #

SURVEY DATE: 7-10-92

SURVEY TIME: 18:40

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' ALL	9756	10	12338		
2	10484	12 CUT	12514		
4	11560	12.5' Joint	12474		
6	11582	13 Y	12686		
6.5' CUT	11658	13.5' Joint	13212		
7.5' Joint	11604	14	13554		
8 Y	11812	16	13738		
8.5' Joint	12068	18	13612		

SKETCH

REMARKS

Trench is 6" TO 12" Deep

N.P. SIGNATURE *J. H. Williams / Jerry*

DATE: 7-10-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 18-C

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *Larry Stet* Date: 7-10-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *Al Joseph Jardi* Date: 7/10/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	4/29/92		287-20-60	7/7/92	JOINT	-	-	
266-20-45	9/29/92		288-20-60	7/7/92	DUPLICATE OF 287	-	-	
267-20-51	9/29/92		289-20-68.5	7/7/92	CUT	-	-	
268-18-23	7/11/92	JOINT	290-20-76	7/7/92	RANDOM	-	-	
269-18-24		Y	291-20-81.5	7/7/92	JOINT	-	-	
270-18-25		JOINT	292-20-82	7/7/92	CUT	-	-	
271-18-30		JOINT	293-17-53	7/7/92	DUPLICATE OF	-	-	
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	-	-	
273-18-46			295-18-98	7/7/92	RANDOM	-	-	
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	-	-	
275-18-57.5	7/11/92	CUT	297-18-114	7/8/92	JOINT	-	-	
276-18A-00	7/2/92	JOINT	298-18-121	7/8/92	CUT	-	-	
277-18A-0.5		JOINT	-	-	-	-	-	
278-18A-1.0		JOINT	-	-	-	-	-	
279-18A-1.1		RANDOM	-	-	-	-	-	
280-18A-2.1		END 'Y'	-	-	-	-	-	
281-18C-00	7/2/92		-	-	-	-	-	
282-18-68	7/6/92	CUT	-	-	-	-	-	
283-18-73	7/6/92	JOINT	-	-	-	-	-	
284-18-80	7/6/92	RANDOM	-	-	-	-	-	
285-18-86	7/6/92	CUT	-	-	-	-	-	
286-20-59.5	7/7/92	CUT	-	-	-	-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14751

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /7/92
Reported: /10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 7, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
276	92-2070	<3.8E-01			
277	92-2071	<2.7E-01			
278	92-2072	<4.0E-01			
279	92-2073	2.84E-01	+/- 2.4E-01		
280	92-2074	<4.3E-01			
281	} TRENCH 18-C	92-2075	4.08E-01 +/- 2.7E-01		
282		92-2076	<2.7E-01		
283	92-2077	<1.1E-01			
284	92-2078	<1.5E-01			
285	92-2079	<2.3E-01		2.3E-01 +/- 1.5E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14751
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Lawrence



FORM S/N 22-004

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 22-
Trench Section # 18-C

INSTRUMENT: PRS-1, SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 7-2-92
SURVEY TIME: 1800

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' ELL	15760				
01'	13908				

SKETCH

REMARKS

H.P. SIGNATURE

L. D. Balliere

DATE: 7-22-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH #19

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

BEGINNING OF #19 IS SAME
POINT AS END OF #18. END OF
TRENCH #18 @ 1675' WAS SOIL SAMPLED

Requested by: _____ Date: _____

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: James P. Thompson Date: 7-23-92

1157

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	7/21/92		287-20-60	7/7/92	JOINT	309-18-B-7.5	7/10/92	JOINT
266-20-45	7/29/92		288-20-60	7/7/92	DUPLICATE OF #287	310-18-B-8	7/10/92	Y
267-20-51	7/29/92		289-20-68.5	7/7/92	CUT	311-18-B-8.5	7/10/92	JOINT
268-18-23	7/11/92	JOINT	290-20-76	7/7/92	RANDOM	312-18-B-12	7/10/92	CUT
269-18-24		Y	291-20-81.5	7/7/92	JOINT	313-18-B-12.5	7/10/92	JOINT
270-18-25		JOINT	292-20-82	7/7/92	CUT	314-18-B-13	7/10/92	Y
271-18-30		JOINT	293-17-53	7/7/92	REPEAT	315-18-B-13.5	7/10/92	JOINT
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	316-18-B-18	7/10/92	END
273-18-46			295-18-98	7/7/92	RANDOM	317-19-9'	7/14/92	JOINT
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	318-20-00	7/14/92	JOINT
275-18-57.5	7/11/92	CUT	297-18-114	7/8/92	JOINT	319-20-1	7/14/92	CUT
276-18A-00	7/2/92	JOINT	298-18-121	7/8/92	CUT	320-15E-01	7/15/92	Y-JOINT
277-18A-0.5		JOINT	299-18-127	7/9/92	CUT	321-15E-3.0		JOINT
278-18A-1.0		JOINT	300-18-137	7/9/92	JOINT	322-15E-7		END ell
279-18A-11		RANDOM	301-18-142.5	7/9/92	END of Pipe	323-15D-00		END ell clean CUT
280-18A-21		END 'Y'	302-19-6.5	7/9/92	CUT	324-15D-02		Y
281-18C-00	7/2/92		303-18-128	7/9/92	RANDOM	325-15D-03		Y
282-18-68	7/6/92	CUT	304-18-134	7/9/92	JOINT	326-15D-04		JOINT
283-18-73	7/6/92	JOINT	305-18-135	7/9/92	CUT	327-15D-06		JOINT
284-18-80	7/6/92	RANDOM	306-18-144	7/9/92	RANDOM	328-15D-8'		CUT
285-18-86	7/6/92	CUT	307-18-B-00	7/10/92	END ELL	329-15D-8.5		END Y
286-20-59.5	7/7/92	CUT	308-18-B-6.5	7/10/92	CUT	330-15A-7.5	7/15/92	Flow value

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

PRELIMINARY
REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14762

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/13/92
Reported: 7/17/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
299	92-2156	<2.1E-01	
300	92-2157	<2.2E-01	
301	92-2158	<2.5E-01	
302 } TRENCH 19	92-2159	<2.0E-01	
303	92-2160	2.04E-01	+/- 1.7E-01
304	92-2161	<2.6E-01	
305	92-2162	<2.3E-01	
306	92-2163	<2.3E-01	
307	92-2164	<3.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14762
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request #: 14764

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/15/92
Reported: 7/22/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
317	3 TREM 14 92-2178	6.59E-01	+/- 2.6E-01		
318	92-2179	5.56E-01	+/- 2.3E-01	2.63E-01	+/- 2.0E-01
319	92-2180	3.12E-01	+/- 1.7E-01	3.21E-01	+/- 2.2E-01
320	92-2181	<5.2E-01			
321	92-2182	<4.2E-01			
322	92-2183	<5.5E-01			
323	92-2184	4.01E-01	+/- 3.2E-01		
324	92-2185	<5.1E-01			
325	92-2186	1.46E+00	+/- 3.8E-01		
326	92-2187	<5.7E-01			
327	92-2188	3.98E-01	+/- 3.5E-01		
328	92-2189	<3.9E-01			
329	92-2190	<3.8E-01			
330	92-2191	<3.8E-01			
331	92-2192	<2.4E-01		2.59E-01	+/- 2.3E-01
332	92-2193	<2.6E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14764
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 



FORM S/N 17-003

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 17 -
Trench Section # MDL 19

INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 7-9-92
SURVEY TIME: 1900

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00	17204				
02	16960				
04	16710				
06	16594				
6.5 CUT	16046				

SKETCH

REMARKS

N.P. SIGNATURE

J. D. Sutherland

DATE: 7-8-92



FORM S/N 17-004

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 17-
Trench Section # 19

INSTRUMENT: PRS-1, SERIAL # 346

INSTRUMENT: SERIAL #

SURVEY DATE: 7-14-92

SURVEY TIME: 1330

PROBE TYPE: SPA-3

PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
8 FT	21,100				
9 FT EL. JOINT	17,122				
9.5 FT END	16,556				

SKETCH

REMARKS

END OF SECTION IS IN MANHOLE

H.P. SIGNATURE *Jerry St*

DATE: 7-14-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 20 (BEGINNING)
IN MANHOLE AREA

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: Jerry St Date: _____

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: James P. Flanigan Date: 7-23-92

P. M. S.

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	7/29/92		287-20-60	7/7/92	JOINT	309-18-B-7.5	7/14/92	JOINT
266-20-45	9/29/92		288-20-60	7/7/92	DUPLICATE OF 287	310-18-B-8	7/14/92	Y
267-20-51	9/29/92		289-20-68.5	7/7/92	CUT	311-18-B-8.5	7/14/92	JOINT
268-18-23	7/11/92	JOINT	290-20-76	7/7/92	RANDOM	312-18-B-12	7/14/92	CUT
269-18-24		Y	291-20-81.5	7/7/92	JOINT	313-18-B-12.5	7/14/92	JOINT
270-18-25		JOINT	292-20-82	7/7/92	CUT	314-18-B-13	7/14/92	Y
271-18-30		JOINT	293-17-53	7/7/92	REPEAT	315-18-B-13.5	7/14/92	JOINT
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	316-18-B-18	7/14/92	END
273-18-46			295-18-98	7/7/92	RANDOM	317-19-9'	7/14/92	JOINT
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	318-20-00	7/14/92	JOINT
275-18-57.5	7/11/92	CUT	297-18-114	7/7/92	JOINT	319-20-1	7/14/92	CUT
276-18A-00	7/2/92	JOINT	298-18-121	7/8/92	CUT	320-15E-01	7/15/92	Y-JOINT
277-18A-0.5		JOINT	299-18-134	7/9/92	CUT	321-15E-3.0		JOINT
278-18A-1.0		JOINT	300-18-157	7/9/92	JOINT	322-15E-7		END cell
279-18A-11		RANDOM	301-18-162.5	7/9/92	END of Pipe	323-15D-00		END cell
280-18A-21		END Y	302-19-6.5	7/9/92	CUT	324-15D-02		Y
281-18C-00	7/2/92		303-18-128	7/9/92	RANDOM	325-15D-03		Y
282-18-68	7/6/92	CUT	304-18-134	7/9/92	JOINT	326-15D-04		
283-18-73	7/6/92	JOINT	305-18-135	7/9/92	CUT	327-15D-05		JOINT
284-18-80	7/6/92	RANDOM	306-18-144	7/9/92	RANDOM	328-15D-8'		CUT
285-18-86	7/6/92	CUT	307-18-B-00	7/10/92	END CELL	329-15D-8.5		END Y
286-20-59.5	7/7/92	CUT	308-18-B-6.5	7/10/92	CUT	330-15A-7.5	7/15/92	FLOW VALVE

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14764

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/15/92
Reported: 7/22/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 15, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
317	92-2178	6.59E-01	+/- 2.6E-01		
318	} TRAVCA 20	92-2179	5.56E-01 +/- 2.3E-01	2.63E-01 +/- 2.0E-01	
319		92-2180	3.12E-01 +/- 1.7E-01	3.21E-01 +/- 2.2E-01	
320	92-2181	<5.2E-01			
321	92-2182	<4.2E-01			
322	92-2183	<5.5E-01			
323	92-2184	4.01E-01 +/- 3.2E-01			
324	92-2185	<5.1E-01			
325	92-2186	1.46E+00 +/- 3.8E-01			
326	92-2187	<5.7E-01			
327	92-2188	3.98E-01 +/- 3.5E-01			
328	92-2189	<3.9E-01			
329	92-2190	<3.8E-01			
330	92-2191	<3.8E-01			
331	92-2192	<2.4E-01		2.59E-01 +/- 2.3E-01	
332	92-2193	<2.6E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14764
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 17
Trench Section # 20

INSTRUMENT: PRS-1
INSTRUMENT: SERIAL # 346
SERIAL #

SURVEY DATE: 7-14-92

SURVEY TIME: 1330

PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
0.5 FT ELL JOINT	17924				
1 FT CUT	17434				
2 FT	19184				
3 FT	17458				

SKETCH

REMARKS

N.P. SIGNATURE *[Signature]*

DATE: 7-14-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH SECTION #20
PARTIAL 5 FT TO 51 FT
AND 51 FT TO 81.5 FT

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 7-8-91

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *[Signature]* Date: 7/9/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
199 -15A-41'	6/18/92	CUT	221 -13-9	6/22/92	CUT	243 -160-8'	6/24/92	
200 -15A-44'		JOINT	222 -13-16	6/22/92	CUT	244 -16-175	6/24/92	Y
201 -15A-48'		CUT	223 -13-22	6/22/92	JOINT	245 -16-183	6/24/92	JOINT
202 -15A-53'		CUT	224 -13-23	6/22/92	JOINT/FCC	246 -16-184	6/24/92	CUT
203 -15A-53.5'		JOINT	225 -13-00	6/22/92	TROUGH END NORTH	247 -16-190	6/24/92	
204 -15A-56		JOINT	226 -13-08	6/22/92	TROUGH END SOUTH	248 -16-196	6/24/92	CUT
205 -15A-59'		JOINT	227 -16-205	6/22/92	JOINT	249 -17-15	6/25/92	CUT
206 -15A-64'		JOINT	228 -16-212	6/22/92	CUT	250 -17-23	6/25/92	JOINT
207 -15A-65'		JOINT	229 -16-219	6/22/92	JOINT	251 -17-27	6/25/92	CUT
208 -15A-66'		CUT	230 -16-225	6/22/92	CUT	252 -17-32	6/25/92	
209 -15A-68'		JOINT	231 -16-226	6/22/92	JOINT	253 -17-38	6/25/92	CUT
210 -15A-71'		JOINT	232 -16-236	6/22/92	CUT	254 -17-43	6/25/92	JOINT
211 -15A-73'		CUT	233 -16-242	6/22/92		255 -17-53	6/25/92	
212 -15A-74'	6/18/92	CUT	234 -16-247	6/22/92	JOINT	256 -18-02	6/29/92	CUT
213 -17-00'	6/17/92	ELL	235 -16-248	6/22/92	CUT	257 -18-9.5'	6/29/92	JOINT
214 -17-02'	6/17/92		236 -16-258	6/22/92		258 -18-18'	6/29/92	CUT
215 -17-08'	6/17/92		237 -16-264	6/22/92	CUT	259 -20-5'	6/29/92	CUT
216 -15A-3.5	6/19/92	CUT	238 -16-268	6/22/92	JOINT	260 -20-11'	6/29/92	
217 -15B-3.5	6/19/92	JOINT	239 -16C-8	6/24/92		261 -20-18'	6/29/92	CUT
218 -15B-9.5	6/19/92	END ELL	240 -16C-16	6/24/92		262 -20-19'	6/29/92	JOINT
219 -13-1	6/22/92	CUT	241 -16C-21	6/24/92		263 -20-27'	6/29/92	
220 -13-2.5	6/22/92	JOINT	242 -160-00'	6/24/92		264 -20-33'	6/29/92	CUT

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
265-20-39	7/29/92		287-20-60	7/7/92	JOINT	-	-	
266-20-45	9/29/92		288-20-60	7/7/92	DUPLICATE OF #287	-	-	
267-20-51	7/29/92		289-20-68.5	7/7/92	CUT	-	-	
268-18-23	7/1/92	JOINT	290-20-76	7/7/92	RANDOM	-	-	
269-18-24		Y	291-20-81.5	7/7/92	JOINT	-	-	
270-18-25		JOINT	292-20-82	7/7/92	CUT	-	-	
271-18-30		JOINT	293-17-53	7/7/92	DUPLICATE OF	-	-	
272-18-38.5		CUT	294-18-93	7/7/92	JOINT	-	-	
273-18-46			295-18-98	7/7/92	RANDOM	-	-	
274-18-51.5		JOINT	296-18-104	7/7/92	CUT	-	-	
275-18-57.5	7/1/92	CUT	297-18-114	7/7/92	JOINT	-	-	
276-18A-00	7/2/92	JOINT	298-18-121	7/7/92	CUT	-	-	
277-18A-0.5		JOINT	-	-		-	-	
278-18A-1.0		JOINT	-	-		-	-	
279-18A-1.1		RANDOM	-	-		-	-	
280-18A-2.1		ENO 'Y'	-	-		-	-	
281-18C-00	7/2/92		-	-		-	-	
282-18-68	7/6/92	CUT	-	-		-	-	
283-18-73	7/6/92	JOINT	-	-		-	-	
284-18-80	7/6/92	RANDOM	-	-		-	-	
285-18-86	7/6/92	CUT	-	-		-	-	
286-20-59.5	7/7/92	CUT	-	-		-	-	

Sequence Starting M.D.L. Section Sample Point Distance
 With 001 - Number - (In feet from north or
 east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14748

TO: Larry Smith
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: /30/92
Reported: /8/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ June 30, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
254	92-2002	1.44E-01	+/- 1.3E-01
255	92-2003	7.24E-01	+/- 2.5E-01
256	92-2004	7.68E-01	+/- 2.3E-01
257	92-2005	<2.1E-01	
258	92-2006	3.13E-01	+/- 2.3E-01
259	92-2007	<2.4E-01	
260	92-2008	<2.8E-01	
261	92-2009	<1.7E-01	
262	92-2010	5.37E-01	+/- 2.5E-01
263	92-2011	<1.6E-01	
264	92-2012	4.24E-01	+/- 2.4E-01
265	92-2013	2.68E-01	+/- 1.0E-01
266	92-2014	<2.6E-01	
267	92-2015	2.16E-01	+/- 1.8E-01

TRENCH
20

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14748
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 



FORM S/N 17-001

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 17 -
Trench Section # 20

INSTRUMENT: PRS-1. SERIAL # 346
INSTRUMENT: SERIAL # PROBE TYPE: SPA-3
PROBE TYPE:

SURVEY DATE: 6-30-92
SURVEY TIME: 1600

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
5 CUT	15546	18 CUT	16786	30	16594
6	16194	19 JOINT	17094	32	16912
8	16430	20	16720	33 CUT	17328
10	16230	22	16868	34	17146
11	16830	24	17048	36	17524
12	16720	26	17130	38	17118
14	16708	27	17626	39 JOINT	17176
16	16202	28	16826	40	17394

SKETCH

REMARKS

H.P. SIGNATURE

J. V. Ballou, Jerry Pt

DATE: 6-30-92



* * * * *
 * RADIATION SURVEY *
 * * * * *

FORM S/N 17-001

SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> RVP <input checked="" type="checkbox"/> (RVP #)	SURVEY DATE: <u>6-30-92</u>
LOCATION: File Survey Section # <u>17</u> - Trench Section # <u>20</u>	SURVEY TIME: <u>1600</u>
INSTRUMENT: PRS-1. INSTRUMENT:	SERIAL # <u>346</u> SERIAL #
	PROBE TYPE: SPA-3 PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
<u>42</u>	<u>17394</u>				
<u>44</u>	<u>17258</u>				
<u>45</u>	<u>17286</u>				
<u>46</u>	<u>17390</u>				
<u>48</u>	<u>17624</u>				
<u>50</u>	<u>16788</u>				
<u>51 CUT</u>	<u>17236</u>				

SKETCH

REMARKS

H.P. SIGNATURE

H. Williams / Larry Bell

DATE: 6-30-92



FORM S/N 17-002

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 17 -
Trench Section # MDL 20

INSTRUMENT: PRS-1
INSTRUMENT: SERIAL # 346
SERIAL #

SURVEY DATE: 7-7
SURVEY TIME: 1900
PROBE TYPE: SPA-3
PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
52	16632	66	18934	80	18660
54	17232	68	18630	81.5 Joint	17716
56	16924	68.5 CUT	18430	82 CUT	18056
58	17456	70	18018		
59.5 CUT	17734	72	16982		
60 Joint	17632	74	16980		
62	16754	76 RAPSON	16756		
64	18004	78	16220		

SKETCH

REMARKS

H.P. SIGNATURE *J. N. Williams / Tony St* DATE: 7-7-92

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request 14753

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7 8/92
Reported: 7 13/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 8, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
286	92-2084	2.34E-01	+/- 1.7E-01
287	92-2085	1.86E-01	+/- 1.6E-01
288	92-2086	<2.7E-01	
289	92-2087	<2.6E-01	
290	92-2088	<2.4E-01	
291	92-2089	<2.4E-01	
?	92-2090	2.07E-01	+/- 2.0E-01
93	92-2091	1.62E-01	+/- 1.3E-01

TRENCH
#2a

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14753
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Handak

FOR OTHER UTILITIES

- A. MAKE COMMERCIAL INFORMATION AVAILABLE ON NETWORK TO THE TECHNICAL LEADS (eg. UTILITY SORTS OF ESBU RFQ's, ESBU ACTIVE G.O.'s, OUTSTANDING PROPOSALS)
- B. MAKE OPL/RI THE TECHNICAL SUPPORT CONTACT FOR CUSTOMER LEAD GROUP
- C. PERIODICALLY REVIEW NEED FOR TEAM

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH # 21

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]*

Date: 8-12-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *[Signature]*

Date: 8/14/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331-15A-80	7/15/92	CUT	353 - - C	7/20/92	DEBRIS IN PARKING LOT	375 - 21 - 10	7/29/92	JOINT
332-15C-02	7/15/92	Flow Valve	354 - - D	7/29/92	DEBRIS IN PARKING LOT	376 - 21 - 8		CUT
333-15E-03	7/15/92	CUT JOINT	355 - - E	7/29/92	DEBRIS IN PARKING LOT	377 - 21 - 6	8/09/92	JOINT
334-15C-03	7/15/92	DUPLICATE SAMPLE of 333	356 - - F	7/29/92	DEBRIS IN PARKING LOT	378 - 21 - 9	8/13/92	FLOOR DRAIN END
335-23 - 11	7/14/92	END	357 - - G	7/29/92	DEBRIS IN PARKING LOT	379 - - 06	8/3/92	RANDOM
336-23 - 7	7/14/92	JOINT	358 - - H			380 - - 14		JOINT
337-23 - 6.5	7/14/92	JOINT	359 - - I			381 - - 22		RANDOM
338-23 - 1.5	7/14/92	JOINT	360 - - J			382 - - 26		DRAIN CAP
339-23 - 00	7/14/92	BEGINNING 'Y'	361 - - K			383 - - 00		END
340-23-A-01	7/14/92	JOINT	362 - - L			384 - - 06		JOINT
341-23A-00	7/14/92	ELL	363 - - M			385 - - 08		JOINT
342-23-B 01	7/14/92	JOINT	364 - - N			386 - - 10	8-3-92	DRAIN CAP
343-23-B 02	7/14/92	ELL	365 - - O			387 - 20 - 123	8-7-92	FOLLOW UP JOINT
344-23-C 00	7/14/92	ELL	366 - - P			388 - 20 - 121	8-7-92	FOLLOW UP CUT
345-23C-03	7/14/92	JOINT	367 - 20 - 92	7/29/92	RANDOM	389 - L - 39	8-11-92	CURE JOINTS
346 - 24 -	7/24/92	CONCRETE PIT PIPE SHAFT MIN	368 - 20 - 102		JOINT	390 - M - 31		
347 - -	7/24/92	PIT SEAOGE IN DRAIN	369 - 20 - 106		CUT	391 - E - 31		
348 - 16 -	7/24/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	370 - 20 - 114		RANDOM	392 - A - 22		
349 - -	7/24/92	PIT SEAOGE IN DRAIN	371 - 20 - 123		JOINT	393 - J - 21		
350 - -	7/24/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	372 - 20 - 124		CUT	394 - M - 13		
351 - - A	7/29/92	DEBRIS IN PARKING LOT	373 - 20 - 126		END E11	395 - E - 12		
352 - - B	7/29/92	DEBRIS IN PARKING LOT	374 - 21 - 14	7/29/92	JOINT	396 - B - 2		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

Request # 14789

TO: Larry Smith/Joe Nardi
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 7/29/92
 Reported: 8/6/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 29, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
365	} <u>PARKING LOT</u> <u>DEBRIS</u>	92-2370	<2.6E-01		
366		92-2371	<3.3E-01		
367		92-2372	1.54E-01 +/- 1.9E-02		
368		92-2373	<1.9E-01		
369		92-2374	2.27E-01 +/- 1.8E-02		
370		92-2375	<2.7E-01		
371		92-2376	7.04E-01 +/- 3.3E-01		
372		92-2377	1.60E+00 +/- 1.8E-01	1.4E-01 +/- 5.0E-02	
373		92-2378	4.21E-01 +/- 2.8E-01		
374	} <u>TRENCH</u> <u>#21</u>	92-2379	5.37E-01 +/- 2.1E-01		
375		92-2380	1.63E-01 +/- 1.4E-01		
376		92-2381	3.69E-01 +/- 2.3E-01		
377		92-2382	<2.5E-03		

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14789
 Procedures: A-524
 Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kuscha



FORM S/N 17-007

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 17 -
Trench Section # 21

INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 7-29-92
SURVEY TIME: 11:00

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
2	13008				
4	13996				
6 Joint	13496				
8 CUT	16212				
10 Joint	16972				
12	17810				
14 Joint	16064				

SKETCH

REMARKS

Remarks section with three horizontal lines for text entry.

H.P. SIGNATURE *S. D. Sullivan / Ferry St* DATE: 7-29-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 23

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

END OF 23 COMES OUT INTO
PIPE CHASE SAMPLE # 335

IS 23 PCI/GM U-234 APPROXIMATELY

Requested by: Jerry St Date: 7-23-92

Authorization:

Authorization to backfill the above described excavation is:



Approved



Not Approved

Comments: _____

Signature: James P. Flanagan

Date: 7-23-92

A. J. Terdi

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331-15A-80	7/15/92	CUT	-	-		-	-	
332-15C-02	7/15/92	Flow Valve	-	-		-	-	
333-15E-03	7/15/92	CUT JOINT	-	-		-	-	
334-15C-03	7/15/92	DUPLICATE SAMPLE of 333	-	-		-	-	
335-23-11	7/14/92	END	-	-		-	-	
336-23-7	7/14/92	JOINT	-	-		-	-	
337-23-6.5	7/14/92	JOINT	-	-		-	-	
338-23-1.5	7/14/92	JOINT	-	-		-	-	
339-23-00	7/14/92	BEGINNING '4'	-	-		-	-	
340-23-A-01	7/14/92	JOINT	-	-		-	-	
341-23A-00	7/14/92	ELL	-	-		-	-	
342-23-B-01	7/14/92	JOINT	-	-		-	-	
343-23-B-02	7/14/92	ELL	-	-		-	-	
344-23-C-00	7/14/92	ELL	-	-		-	-	
345-23-C-03	7/14/92	JOINT	-	-		-	-	
346-24-	7/20/92	CONCRETE JOINT PIPE CHANGE AREA	-	-		-	-	
347-	7/22/92	PIT SPACE IN DRAIN	-	-		-	-	
348-16-	7/22/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Reques # 14773

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/17/92
Reported: 7/23/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
335	92-2242	7.49E-01	+/- 3.9E-01	5.03E-01	+/- 2.9E-01
336	92-2243	<3.6E-01			
337	92-2244	2.83E-01	+/- 2.6E-01		
338	92-2245	<2.6E-01			
339	92-2246	<4.0E-01			
340	92-2247	<3.5E-01			
341	92-2248	5.36E-01	+/- 2.4E-01		
342	92-2249	<2.3E-01			
343	92-2250	<2.4E-01			
344	92-2251	<2.3E-01			
345	92-2252	<2.3E-01			

TRENCH
23

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14773
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved:

Mark Kanchar



FORM S/N 21-001

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 21 -
Trench Section # MDL 23

INSTRUMENT: PRS-1. SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 7-16-92
SURVEY TIME: 1200

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00 Reservoir Y	13212				
1.5 Joint	11202				
3.0	10150				
5.0	13470				
6.5 Joint	13678				
7.0 Joint	13638				
9.0	14140				
11.0 END	10494				

SKETCH

REMARKS

N.P. SIGNATURE

J. D. Williams / Tony [Signature]

DATE: 7-16-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 23-A

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 7-23-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *James B. Flanagan* Date: 7-23-92
for
at Nade

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331-15A-80	7/15/92	CUT	-	-		-	-	
332-15C-02	7/15/92	Flow valve	-	-		-	-	
333-15E-03	7/15/92	CUT JOINT	-	-		-	-	
334-15C-03	7/15/92	DUPLICATE SAMPLE of 333	-	-		-	-	
335-23-11	7/14/92	END	-	-		-	-	
336-23-7	7/14/92	JOINT	-	-		-	-	
337-23-6.5	7/14/92	JOINT	-	-		-	-	
338-23-1.5	7/14/92	JOINT	-	-		-	-	
339-23-00	7/14/92	BEGINNING 'Y'	-	-		-	-	
340-23-A-01	7/14/92	JOINT	-	-		-	-	
341-23A-00	7/14/92	ELL	-	-		-	-	
342-23-B-01	7/14/92	JOINT	-	-		-	-	
343-23-B-02	7/14/92	ELL	-	-		-	-	
344-23-C-00	7/14/92	ELL	-	-		-	-	
345-23-C-03	7/14/92	JOINT	-	-		-	-	
346-24-	7/20/92	CONCRETE PIT PIPE CROSS OVER	-	-		-	-	
347-	7/24/92	PIT SLOPE IN DRAIN	-	-		-	-	
348-16-	7/24/92	TRENCH AIR OIL CONTAMINATED IN DRAIN	-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT

Reques # 14773

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 1/17/92
Reported: 1/23/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
335	92-2242	7.49E-01	+/- 3.9E-01	5.03E-01	+/- 2.9E-01
336	92-2243	<3.6E-01			
337	92-2244	2.83E-01	+/- 2.6E-01		
338	92-2245	<2.6E-01			
339	92-2246	<4.0E-01			
340	} TRENCH 23-A	92-2247	<3.5E-01		
341		92-2248	5.36E-01	+/- 2.4E-01	
342	92-2249	<2.3E-01			
343	92-2250	<2.4E-01			
344	92-2251	<2.3E-01			
345	92-2252	<2.3E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14773
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: 



FORM S/N 21-002

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)
 LOCATION: File Survey Section # 21
 Trench Section # MDL 27 A
 INSTRUMENT: PRS-1
 INSTRUMENT: SERIAL # 346
 SERIAL #
 SURVEY DATE: 7-16-92
 SURVEY TIME: 1200
 PROBE TYPE: SPA-3
 PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00 Residual	13804				
01 Joint	12240				
03 Y	12132				

SKETCH

REMARKS

H.P. SIGNATURE

[Handwritten Signature]

DATE: 7-16-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 23-11

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 7-23-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *James P. Mangin* Date: 7-23-92

[Signature]
W. J. Hardie

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331-15A-80	7/15/92	CUT	-	-		-	-	
332-15C-02	7/15/92	Flow valve	-	-		-	-	
333-15C-03	7/15/92	CUT JOINT	-	-		-	-	
334-15C-03	7/15/92	DUPLICATE SAMPLE of 333	-	-		-	-	
335-23-11	7/14/92	END	-	-		-	-	
336-23-7	7/14/92	JOINT	-	-		-	-	
337-23-6.5	7/14/92	JOINT	-	-		-	-	
338-23-1.5	7/14/92	JOINT	-	-		-	-	
339-23-00	7/14/92	BEGINNING 'Y'	-	-		-	-	
340-23-A-01	7/14/92	JOINT	-	-		-	-	
341-23-A-00	7/14/92	ELL	-	-		-	-	
342-23-B-01	7/14/92	JOINT	-	-		-	-	
343-23-B-02	7/14/92	ELL	-	-		-	-	
344-23-C-00	7/14/92	ELL	-	-		-	-	
345-23-C-03	7/14/92	JOINT	-	-		-	-	
346-24-	7/20/92	CONCRETE NOT PIPE AND MEN	-	-		-	-	
347-	7/22/92	PIT SCOOP IN DRUM	-	-		-	-	
348-16-	7/22/92	TRENCH DIRT ON CONTAINER IN DRUM	-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request # 14773

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/17/92
Reported: 7/23/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 17, 1992)

Originator ID	Lab. Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
335	92-2242	7.49E-01	+/- 3.9E-01	5.03E-01	+/- 2.9E-01
336	92-2243	<3.6E-01			
337	92-2244	2.83E-01	+/- 2.6E-01		
338	92-2245	<2.6E-01			
339	92-2246	<4.0E-01			
340	92-2247	<3.5E-01			
341	92-2248	5.36E-01	+/- 2.4E-01		
342	} TRUNK 23-B	92-2249	<2.3E-01		
343		92-2250	<2.4E-01		
344	92-2251	<2.3E-01			
345	92-2252	<2.3E-01			

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14773
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Karchak



FORM S/N 21-003

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

SURVEY DATE: 7-16-92

LOCATION: File Survey Section # 21
 Trench Section # MDL 23 17

SURVEY TIME: 1200

INSTRUMENT: PRS-1

SERIAL # 346

PROBE TYPE: SPA-3

INSTRUMENT:

SERIAL #

PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00	12192				
01 JOINT	12122				
02 END ELL	12208				

SKETCH

REMARKS

N.P. SIGNATURE

[Handwritten Signature]

DATE: 7-16-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 23-C

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHES

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHES

- 4) Note any special considerations:

Requested by: [Signature] Date: 7-23-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: [Signature] Date: 7-23-92

[Signature]

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331-15A-80	7/15/92	CUT	-	-		-	-	
332-15C-02	7/15/92	Flow Valve	-	-		-	-	
333-15E-03	7/15/92	CUT JOINT	-	-		-	-	
334-15C-03	7/15/92	DUPLICATE SAMPLE of 333	-	-		-	-	
335-23-11	7/16/92	END	-	-		-	-	
336-23-7	7/16/92	JOINT	-	-		-	-	
337-23-6.5	7/16/92	JOINT	-	-		-	-	
338-23-1.5	7/16/92	JOINT	-	-		-	-	
339-23-00	7/16/92	BEGINNING 'Y'	-	-		-	-	
340-23-A-01	7/16/92	JOINT	-	-		-	-	
341-23A-00	7/16/92	ELL	-	-		-	-	
342-23-B-01	7/16/92	JOINT	-	-		-	-	
343-23-B-02	7/16/92	ELL	-	-		-	-	
344-23-C-00	7/16/92	ELL	-	-		-	-	
345-23-C-03	7/16/92	JOINT	-	-		-	-	
346-24-	7/20/92	COMBINED PIT PIPE EXPOSE AREA	-	-		-	-	
347-	7/22/92	PIT SCOOP IN DRAIN	-	-		-	-	
348-16-	7/22/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waitz Mill Site

REPORT

Reques # 14773

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/17/92
Reported: 7/23/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ July 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
335	92-2242	7.49E-01	+/- 3.9E-01	5.03E-01	+/- 2.9E-01
336	92-2243	<3.6E-01			
337	92-2244	2.83E-01	+/- 2.6E-01		
338	92-2245	<2.6E-01			
339	92-2246	<4.0E-01			
340	92-2247	<3.5E-01			
341	92-2248	5.36E-01	+/- 2.4E-01		
342	92-2249	<2.3E-01			
343	92-2250	<2.4E-01			
344	} TRENCH 23-C	92-2251	<2.3E-01		
345		92-2252	<2.3E-01		

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14773
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: _____

Mark Kanchar



FORM S/N 21-0041

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 21 -
 Trench Section # MDL 23C

INSTRUMENT: PRS-1, SERIAL # 346
 INSTRUMENT: SERIAL # PROBE TYPE: SPA-3
 PROBE TYPE:

SURVEY DATE: 7-16-92
 SURVEY TIME: 1200

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00 E11	12578				
02	13164				
03 Joint	13220				
04	13678				

SKETCH

REMARKS

N.P. SIGNATURE

L. H. Sullivan, Jerry

DATE: 7-16-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH / PIPE CHASE
24

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED NOTE: ALL DIRT WAS
REMOVED FOR CONTROLLED DISPOSAL

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 7-26-91

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A Joseph Nardi* Date: 9/2/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331-15A-80	7/15/92	CUT	353 - - C	7/20/92	DEBRIS IN PARKING LOT	375 - 21 - 10	7/29/92	JOINT
332-15C-02	7/15/92	Flow valve	354 - - D	7/29/92	DEBRIS IN PARKING LOT	376 - 21 - 8		CUT
333-15E-03	7/15/92	CUT JOINT	355 - - E	7/29/92	DEBRIS IN PARKING LOT	377 - 21 - 6	7/29/92	JOINT
334-15C-03	7/15/92	DUPLICATE SAMPLE of 333	356 - - F	7/29/92	DEBRIS IN PARKING LOT	378 - 21 - 9 00	8/5/92	FLOOR DRAIN END
335-23 - 11	7/16/92	END	357 - - G	7/29/92	DEBRIS IN PARKING LOT	379 - - 06	8/3/92	RANDOM
336-23 - 7	7/16/92	JOINT	358 - - H			380 - - 14		JOINT
337-23 - 6.5	7/16/92	JOINT	359 - - I			381 - - 22		RANDOM
338-23 - 1.5	7/16/92	JOINT	360 - - J			382 - - 26		DRAIN CAP
339-23 - 00	7/16/92	BEGINNING 'Y'	361 - - K			383 - - 00		END
340-23-A-01	7/16/92	JOINT	362 - - L			384 - - 06		JOINT
341-23A-00	7/16/92	ELL	363 - - M			385 - - 08		JOINT
342-23-B 01	7/16/92	JOINT	364 - - N			386 - - 10	8-3-92	DRAIN CAP
343-23-B 02	7/16/92	ELL	365 - - O			387 - 20 - 123	8-7-92	FOLLOW UP JOINT
344-23-C 00	7/16/92	ELL	366 - - P			388 - 20 - 121	8-7-92	FOLLOW UP CUT
345-23C-03	7/16/92	JOINT	367 - 20 - 92	7/29/92	RANDOM	389 - L - 39	8-11-92	CURE PORTALS
346-24 -	7/20/92	SHOULDER WITH PIPE CHANGE AREA	368 - 20 - 102		JOINT	390 - M - 31		
347 - -	7/22/92	PIT SOUNDS IN DRAIN	369 - 20 - 106		CUT	391 - E - 31		
348 - 16 - -	7/24/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	370 - 20 - 116		RANDOM	392 - A - 22		
349 - -	7/24/92	PIT SOUNDS IN DRAIN	371 - 20 - 123		JOINT	393 - J - 21		
350 - -	7/24/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	372 - 20 - 124		CUT	394 - M - 13		
351 - - A	7/28/92	DEBRIS IN PARKING LOT	373 - 20 - 126		END E11	395 - E - 12		
352 - - B	7/29/92	DEBRIS IN PARKING LOT	374 - 21 - 14	7/29/92	JOINT	396 - B - 2		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14776

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 7/20/92
Reported: 7/21/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (G July 20, 1992)

NUCLIDE	pCi/gram	2 sigma
U-235	1.07E+02 +/-	4.4E-01
U-238	4.00E+01 +/-	1.5E+01
Mn-54	8.66E-02 +/-	7.9E-02
Co-60	7.55E-01 +/-	1.2E-01
Cs-137	9.84E-01 +/-	9.8E-02
Hg-203	7.07E-02 +/-	3.5E-02

THIS SAMPLE IS OF
THE DIRT REMOVED
FOR CONTROLLED DISPOSAL.
TOTAL AMOUNT REMOVED
WAS 3/4 OF 55 GALLON
DRUM.

NOTE: ALL DIRT & DEBRIS IN THIS
PIPE CHASE WAS REMOVED
FOR CONTROLLED DISPOSAL
TO S.E.6.

KE
COWB...

THERE WAS NO FURTHER
MATERIALS TO SAMPLE AFTER
MOL #24 WAS REMOVED
AND THE TRENCH ^{CHASE} WAS
CLEANED OUT.

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14776
Procedures: A-524
Analyst: WTF, MRK, TRK, DZ

Approved: Mark Kawachi



SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> RWP <input checked="" type="checkbox"/> (RWP #)		SURVEY DATE: <u>7-23-92</u>
LOCATION: File Survey Section # <u>21</u> Trench Section # <u>24</u>		SURVEY TIME: <u>1450</u>
INSTRUMENT: PRS-1	SERIAL # 346	PROBE TYPE: SPA-3
INSTRUMENT:	SERIAL #	PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of trenches after MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT
<u>EAST TO WEST</u> <u>00</u>	<u>10720</u>	<u>09'</u>	<u>11572</u>				
<u>01'</u>	<u>10744</u>	<u>10'</u>	<u>10464</u>				
<u>02'</u>	<u>12984</u>	<u>12'</u>	<u>9246</u>				
<u>03'</u>	<u>10988</u>						
<u>04'</u>	<u>10816</u>						
<u>05'</u>	<u>11308</u>						
<u>06'</u>	<u>11124</u>						
<u>07'</u>	<u>11228</u>						

SKETCH

REMARKS

00 FT TO 12 FT IS EAST TO WEST END.

00 FT TO 8 FT READINGS ABOVE ARE OF EXISTING CONCRETE PIPE CHASE CONTACT LEVELS UNDER WHERE PIPE WAS SUSPENDED.

H.P. SIGNATURE

[Handwritten Signature]

DATE: 7-23-92



FORM S/N 21-005

SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 21 -
 Trench Section # 24

INSTRUMENT: PRS-1
 INSTRUMENT: SERIAL # 346

SURVEY DATE: 7-23-92
 SURVEY TIME: 13:00

PROBE TYPE: SPA-3
 PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
A1	11228	B4	15630	D2	12790
A2	14918	B5	14838	D3	14098
A3	10792	C1	11308	D4	14260
A4	13474	C2	14570	D5	13410
A5	13288	C3	14734		
B1	11124	C4	15084		
B2	14380	C5	14764		
B3	15630	D1	10816		

SKETCH

NOTE FOR BACKFILL AUTHORIZATIONS:

THIS SURVEY DATA CONCERNS POST DECAN CONDITIONS OF PIPE CHASE AND SUPPORTS OTHER DATA TO RE CONCRETE FLOOR PORTIONS TO AND FROM PIPE CHASE AREA WHERE MDL #24 TRAVELED.

REMARKS

GRIDS A1 TO F5 is in PIPE CHASE AREA
 THIS SURVEY IS AFTER ALL DIRT WAS REMOVED FROM PIPE CHASE. REMOVED DIRT WAS DRUMMED FOR CONTROLLED DISPOSAL

H.P. SIGNATURE *A. J. Williams*

DATE: 7-23-92



FORM S/N 21-005

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 21 - Trench Section # 24

INSTRUMENT: PRS-1, SERIAL # 346

INSTRUMENT: SERIAL #

SURVEY DATE: 7-23-92

SURVEY TIME: 1300

PROBE TYPE: SPA-3

PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
E1	10988	F4	13046	H2	11844
E2	12860	F5	13388	H3	11458
E3	13284	G1	10744	H4	12698
E4	13856	G2	12238	H5	11974
E5	13244	G3	13124	I1	10190
F1	12984	G4	13582	I2	11098
F2	12876	G5	13618	I3	11786
F3	13144	H1	10720	I4	12640
				SKETCH I5	11656

REMARKS

GRID ROW (I) IS ONLY A 1/2 GRID 12" X 6"

N.P. SIGNATURE

J. D. Miller

DATE: 7-23-92



FORM S/N 21-000

SURVEY TYPE: ROUTINE SPECIAL RVP (RVP #)

LOCATION: File Survey Section # 21 -
Trench Section # 24

INSTRUMENT: PRS-] SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 7-23-92
SURVEY TIME: 1300

DESCRIPTION OF SURVEY

Contact count rate of Trenches After MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT	SURVEY POINT AT FOOT MARK#	CPM COUNT
00' CUT	12462	C1	11308		
01' ELL	12634	B1	11124		
02' CUT	10928	A1	11228		
H 1	10720	09'	20134		
G 1	10744	10'	17231		
F 1	12984	11'	11960		
E 1	10988	12'	11874		
D 1	10816	13' END	10432		

SKETCH

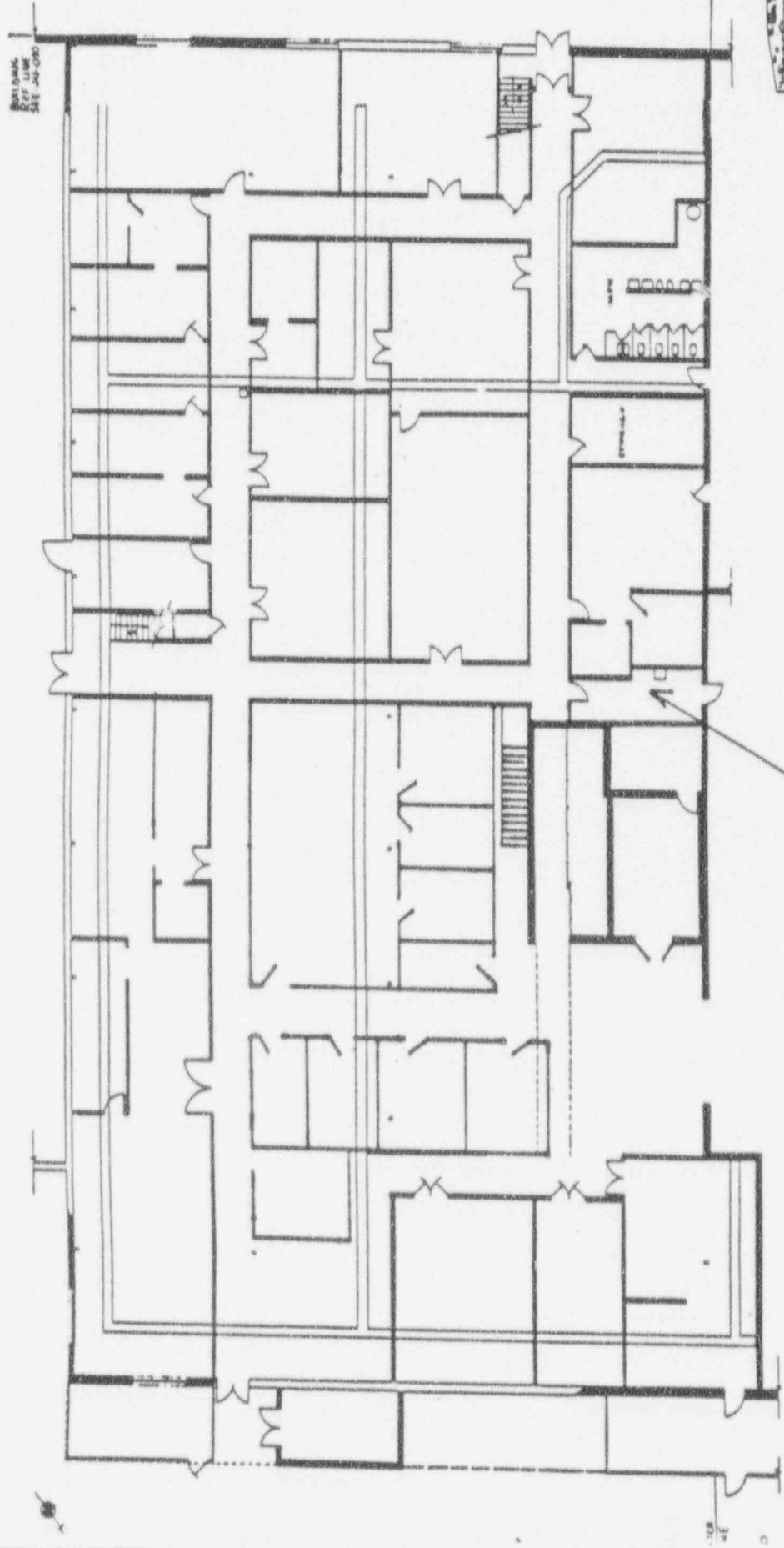
REMARKS

H1 TO A1 is Grid Readings.

N.P. SIGNATURE

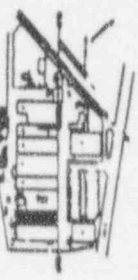
J. D. Silveira

DATE: 7-23-92



SEE JN-021
SEE JN-020

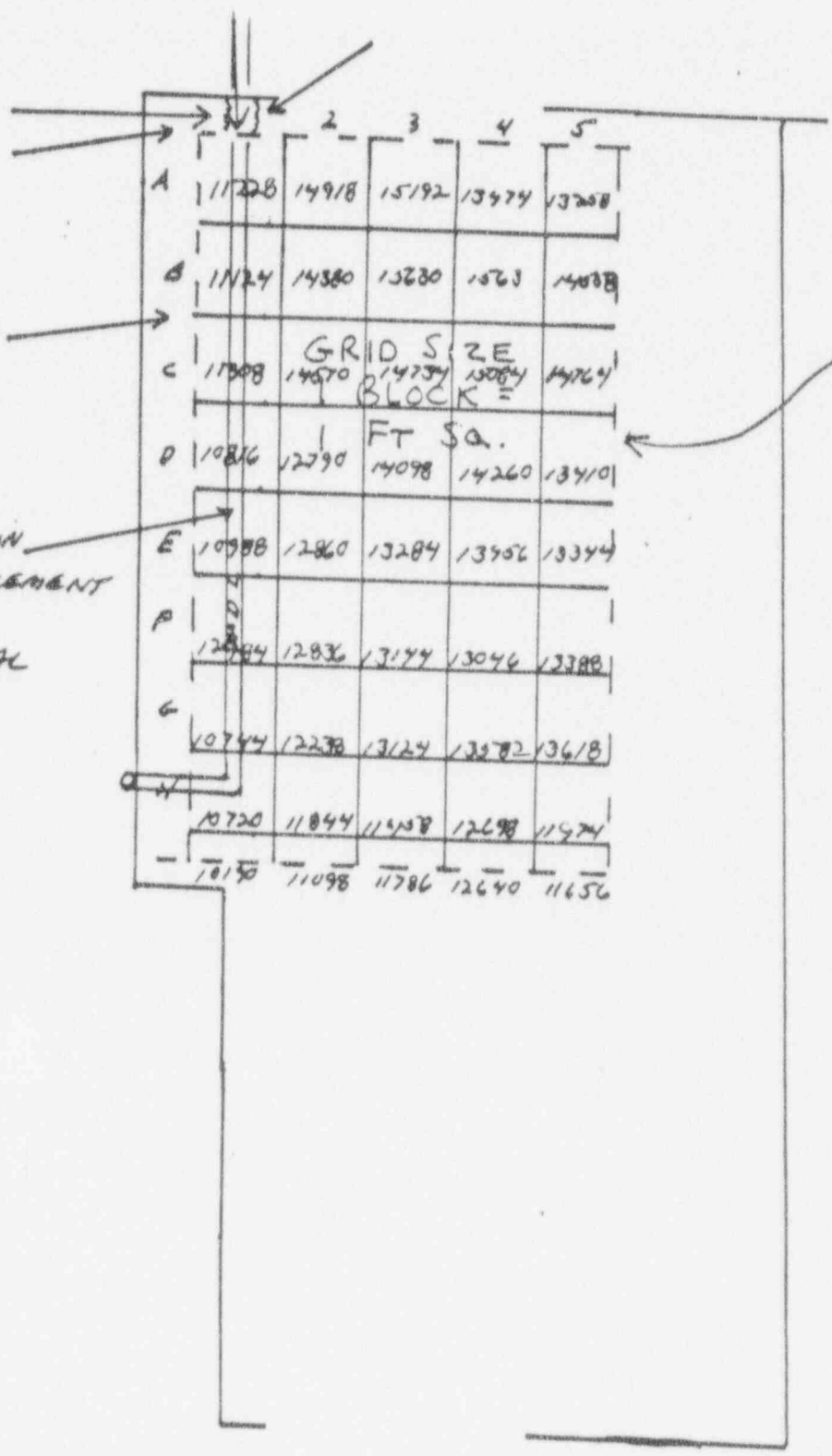
SEE JN-021
SEE JN-020



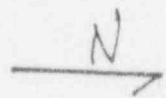
See
ENLARGED
MAP FOR
DETAILS

LEGEND
 SOLID BLACK LINE - WALLS
 DASHED BLACK LINE - WALLS TO BE REMOVED
 DOTTED BLACK LINE - WALLS TO BE ADDED
 DOTTED BLACK LINE - PARTITION & FURNITURE
 SCALE: FEET
 0 5 10 15 20 25

NO.	DESCRIPTION	QTY.	UNIT	REMARKS
PARTS LIST				
BUILDING MATERIALS FIRST FLOOR BUILDING # 9 W.A.E.S.P. LARGE, PA				
DRAWING NO. JN-021 REV. NO. 1 DATE 11-1-58			PROJECT NO. 146003 SHEET NO. 11	



PIPE CHASE



1 1/2" DRAIN LINE PLACEMENT PRIOR TO REMOVAL

GRID SIZE BLOCK = 1 FT SQ.



 I H&S FORM I
 #1006 I
 LRD 3/88 I

 ROUTINE AREA
 SMEAR & RADIATION SURVEY

LOCATION <i>FLOOR AREA 24</i>	SURVEYOR <i>S. Gillespie</i>	SURVEY DATE <i>7-23-92</i>
<i>Pipe chase</i>	COUNTED BY <i>S. Gillespie</i>	COUNT DATE <i>7-24-92</i>

COUNTER NO.	BETA/GAMMA				ALPHA			
	GM-2	DEK	CPM	CPM	CPM	CPM	CPM	CPM
	<i>26.5</i>	<i>17.3</i>			<i>5AC 4</i>	<i>.25</i>		
BKG. (CPM)	<i>26.5</i>	<i>17.3</i>			<i>.25</i>			
EFF. (%)	<i>17.3</i>	<i>17.3</i>			<i>33.3</i>			

ACTIVITY IN : <input type="checkbox"/> UCI <input checked="" type="checkbox"/> DPM <input type="checkbox"/> CPM	REMARKS : <i>< 200 DPM / 100 cm² BT</i> <i>< 10 DPM / 100cm² α</i>
	SURVEY INSTRU. MODEL <i>NA</i> SN. NO. <i>NA</i> PROBE TYPE <i>NA</i>

	α	β		α	β		α	β		α	β		α	β
1	<i>≤ BKS</i>	<i>≤ BKS</i>	16	<i>≤ BKS</i>	<i>≤ BKS</i>	31	<i>≤ BKS</i>	<i>≤ BKS</i>	46			61		
2			17			32			47			62		
3			18			33			48			63		
4			19			34			49			64		
5			20			35			50			65		
6			21			36			51			66		
7			22			37			52			67		
8			23			38			53			68		
9			24			39			54			69		
10			25			40			55			70		
11			26			41			56			71		
12			27			42			57			72		
13			28			43			58			73		
14			29			44			59			74		
15	↓	↓	30	↓	↓	45	↓	↓	60			75		

SMEAR NOS.	SMEAR LOCATION
<i>1-45</i>	<i>See ATE MAP for location</i>

ACTION ITEMS OR COMMENTS	DATE CORRECTED	HP INIT.
<i>FLOOR AREA of MAX 24 PIPE CHASE AFTER DECON of 4/23/92</i>		

(SEE BACK FOR AREA DIAGRAM, SMEAR LOCATIONS, AND RADIATION LEVELS)

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH # 25

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

INITIAL RESULTS REQUIRED FOLLOW UP SAMPLING.

- 4) Note any special considerations:

Requested by: [Signature] Date: 9/1/92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: A. Joseph Yardi Date: 9/2/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397-9-10'	8/1/92	S-A RANDOM	-	-		-	-	
398-209-26'	8/12/92	FOLLOW UP SURVEY DRAIN CAP	-	-		-	-	
399-T-40'		CORE BORINGS	-	-		-	-	
400-B-39'			-	-		-	-	
401-T-24'			-	-		-	-	
402-T-7'			-	-		-	-	
403-X-2'			-	-		-	-	
404-25-00'	8/14/92	ELL	-	-		-	-	
405-25-04'		CUT	-	-		-	-	
406-26-00'		ELL	-	-		-	-	
407-27-02'		JOINT	-	-		-	-	
408-27-04'		CUT	-	-		-	-	
409-28-00'		ELL	-	-		-	-	
410-28-10'			-	-		-	-	
411-28-12'		PENETRATED PIPE AREA	-	-		-	-	
412-29-0'	8/14/92	BEGINNING ELL	-	-		-	-	
413-9-13'	8/17/92	SOUTH TO NORTH JOINT	-	-		-	-	
414-9-26'	8/19/92	SOUTH TO NORTH TEE	-	-		-	-	
415-8-4.5'	8/24/92	WEST TO EAST JOINT	-	-		-	-	
416-25-4'	8/25/92	DIRT REMOVED FOR DISPERAL	-	-		-	-	
417-25-4'	8/25/92	TRENCH AFTER DIRT WAS REMOVED	-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
 Advanced Programs - Analytical Laboratory
 Waltz Mill Site

Reques. # 14828

TO: Larry Smith/Joe Nardi
 Environmental & Regulatory Services
 Westinghouse Electric Corporation

Received: 3/17/92
 Reported: 3/25/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
404	92-2571	2.31E-01	+/- 1.5E-01
405	92-2572	1.07E+00	+/- 2.4E-01
406	92-2573	<2.6E-01	
407	92-2574	<3.0E-01	
408	92-2575	6.68E-01	+/- 2.4E-01
409	92-2576	<3.4E-01	
10	92-2577	<2.4E-01	
411	92-2578	<2.4E-01	
412	92-2579	<2.1E-01	
413	92-2580	<2.9E-01	

404 } TRENCH
 405 } 25

SUSPECT SAMPLE. AFFECTED AREA HAD SOIL LAYER REMOVED THEN THE REMOVED DIRT WAS RESAMPLED AND THE TRENCH WAS ALSO RESAMPLED FOLLOW UP SAMPLES AS NOTED BELOW:

#416 - DIRT REMOVED FOR DISPOSAL.

#417 - TRENCH AFTER DIRT WAS REMOVED.

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14828
 Procedures: A-524
 Analyst: WTF, MRK, TRK

Approved: _____

Waltz Mill Site

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14840

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 8/26/92
Reported: 8/31/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 26, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)		Cs-137 (Wet Basis)	
		pCi/gram	2 sigma	pCi/gram	2 sigma
414	92-2650	6.00E-01	+/- 3.4E-01		
415	92-2651	<3.9E-01	+/- 2.3E-01		
416 } TRENCH	92-2652	<2.4E-01		3.19E-01	+/- 1.7E-01
417 } #25	92-2653	<1.5E-01			
418	92-2654	<4.4E-01			

→ # 416 - DIRT REMOVED FOR CONTROLLED DISPOSAL

417 - DIRT BOTTOM OF TRENCH AFTER LAYER WAS REMOVED.

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14840
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kuvshinov



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #) SURVEY DATE: 8.14.92
 LOCATION: File Survey Section # 19 Trench Section # MDL 25 SURVEY TIME: 10:30
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of trenches after MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT
0' CUT	16122						
2'	13446						
4' CUT	14608						
6'	17626						

SKETCH

REMARKS

H.P. SIGNATURE

J. D. Sullivan / Larry St

DATE: 8.17.92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 26

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 8-26-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A. Joseph L. [Signature]* Date: 8/26/92

M.D.L. TRENCH SOIL SAMPLE LOG

PAGE 7

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397-9-10'	8/1/92	S-N RANDOM	-	-		-	-	
398-309-26'	8/12/92	FOLLOW UP SURVEY DRAIN CAP	-	-		-	-	
399-T-40'		CORE BORINGS	-	-		-	-	
400-B-39'			-	-		-	-	
401-T-24'			-	-		-	-	
402-T-7'			-	-		-	-	
403-X-2'			-	-		-	-	
404-25-00'	8/14/92	ELL	-	-		-	-	
405-25-04'		CUT	-	-		-	-	
406-26-00'		ELL	-	-		-	-	
407-27-02'		JOINT	-	-		-	-	
408-27-04'		CUT	-	-		-	-	
409-28-00'		ELL	-	-		-	-	
410-28-10'			-	-		-	-	
411-28-12'		PENETRATED PIPE AREA	-	-		-	-	
412-29-0'	8/14/92	BEGINNING ELL	-	-		-	-	
413-9-13'	8/17/92	SOUTH TO NORTH JOINT	-	-		-	-	
414-9-26'	8/19/92	SOUTH TO NORTH TEE	-	-		-	-	
415-8-25'	8/24/92	WEST TO EAST JOINT	-	-		-	-	
416-25-4'	8/25/92	DIRT REMOVED FOR DISPOSAL	-	-		-	-	
417-25-4'	8/25/92	TRENCH AFTER DIRT WAS REMOVED	-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14828

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/17/92
Reported: 3/25/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Bas pCi/gram	2 sigma
404	92-2571	2.31E-01	+/- 1.5E-01
405	92-2572	1.07E+00	+/- 2.4E-01
406 } TRENCH 26	92-2573	<2.6E-01	
407	92-2574	<3.0E-01	
408	92-2575	6.68E-01	+/- 2.4E-01
409	92-2576	<3.4E-01	
410	92-2577	<2.4E-01	
411	92-2578	<3.4E-01	
412	92-2579	<2.1E-01	
413	92-2580	<2.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14828
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: *[Signature]*



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: File Survey Section # 19
Trench Section # MDL 26

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 8-14-92
SURVEY TIME: 10:30

DESCRIPTION OF SURVEY

Contact count rate of trenches after MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT
0' Random	14470						
2'	13502						
4'	16116						
6'	16122						

SKETCH

REMARKS

H.P. SIGNATURE

S. D. Sullivan / Jerry D.H.

DATE: 8-17-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 27

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: 

Date: 8-16-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: 

Date: 8/26/92

M.D.L. TRENCH SOIL SAMPLE LOG

PAGE 7

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397-9-10'	8/11/92	S-N RANDOM	-	-		-	-	
398-20-20'	8/12/92	FOLLOW UP SURVEY DRAW CAP?	-	-		-	-	
399-T-40'		CORE BORINGS	-	-		-	-	
400-B-39'			-	-		-	-	
401-T-24'			-	-		-	-	
402-T-7'			-	-		-	-	
403-X-2'	↓	↓	-	-		-	-	
404-25-00'	8/14/92	ELL	-	-		-	-	
405-25-04'		CUT	-	-		-	-	
406-26-00'		ELL	-	-		-	-	
407-27-02'		JOINT	-	-		-	-	
408-27-04'		CUT	-	-		-	-	
409-28-00'		ELL	-	-		-	-	
410-28-10'			-	-		-	-	
411-28-12'	↓	PENETRATED PIPE AREA	-	-		-	-	
412-29-0'	8/14/92	BEGINNING ELL	-	-		-	-	
413-9-13'	8/17/92	SOUTH TO NORTH JOINT	-	-		-	-	
414-9-26'	8/19/92	SOUTH TO NORTH TEE	-	-		-	-	
415-8-25'	8/24/92	WEST TO EAST JOINT	-	-		-	-	
416-25-4'	8/25/92	DIRT REMOVED FOR DISPOSAL	-	-		-	-	
417-25-4'	8/25/92	TRENCH AFTER DIRT WAS REMOVED	-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14828

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/17/92
Reported: 3/25/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
404	92-2571	2.31E-01	+/- 1.5E-01
405	92-2572	1.07E+00	+/- 2.4E-01
406	92-2573	<2.6E-01	
407	} TRENCH 27	92-2574	<3.0E-01
408		92-2575	6.68E-01 +/- 2.4E-01
409	92-2576	<3.4E-01	
410	92-2577	<2.4E-01	
411	92-2578	<3.4E-01	
412	92-2579	<2.1E-01	
413	92-2580	<2.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14828
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Walt Kowalski



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 8.14.92
 LOCATION: File Survey Section # 19
 Trench Section # MDL 27
 SURVEY TIME: 10:30
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of trenches after MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT
0'	14468						
02'	8810						
03' CVT	8772						
04' CVT	8974						

SKETCH

REMARKS

H.P. SIGNATURE

L.H. Sullivan / Jerry Ste

DATE: 8.17.92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 28

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]*

Date: 8-26-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: *A. Joseph Verdi*

Date: 8/26/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397-9-16'	8/1/92	S-U RANDOM	-	-		-	-	
398-309-26'	8/12/92	FOLLOW UP SURVEY DRAIN CAP?	-	-		-	-	
399-T-40'		CORE BORINGS	-	-		-	-	
400-B-39'			-	-		-	-	
401-T-24'			-	-		-	-	
402-T-7'			-	-		-	-	
403-X-2'	↓	↓	-	-		-	-	
404-25-00'	8/14/92	ELL	-	-		-	-	
405-25-04'		CUT	-	-		-	-	
406-26-00'		ELL	-	-		-	-	
407-27-02'		JOINT	-	-		-	-	
408-27-04'		CUT	-	-		-	-	
409-28-00'		ELL	-	-		-	-	
410-28-10'			-	-		-	-	
411-28-12'	↓	PENETRATED PIPE AREA	-	-		-	-	
412-29-0'	8/14/92	BEGINNING ELL	-	-		-	-	
413-9-13'	8/17/92	SOUTH TO NORTH JOINT	-	-		-	-	
414-9-26'	8/19/92	SOUTH TO NORTH TEE	-	-		-	-	
415-8-4.5'	8/24/92	WEST TO EAST JOINT	-	-		-	-	
416-25-4'	8/25/92	DIRT REMOVED FOR DISPOSAL	-	-		-	-	
417-25-4'	8/25/92	TRENCH AFTER DIRT WAS REMOVED	-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT :

Reques :# 14828

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/17/92
Reported: 3/25/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
404	92-2571	2.31E-01	+/- 1.5E-01
405	92-2572	1.07E+00	+/- 2.4E-01
406	92-2573	<2.6E-01	
407	92-2574	<3.0E-01	
408	92-2575	6.68E-01	+/- 2.4E-01
409	} TRENCH 28	92-2576	<3.4E-01
410		92-2577	<2.4E-01
411		92-2578	<3.4E-01
412	92-2579	<2.1E-01	
413	92-2580	<2.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14828
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Walt Kowalski



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 8.14.92
 LOCATION: File Survey Section # 19
 Trench Section # MDL 28
 SURVEY TIME: 10:30
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of trenches after MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT
0' Random	7818	16'	8148				
02'	8878	18'	7716				
04'	8276	20'	810				
06'	8338						
08'	8570						
10' Random	8478						
12' Random	8618						
14'	8394						

SKETCH

REMARKS

H. P. SIGNATURE

J. H. Sullivan

DATE: 8.17.92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

TRENCH 29

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: [Signature]

Date: 8-16-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: [Signature]

Date: 5/26/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397-9-10'	8/11/92	S-N RANDOM	-	-		-	-	
398-409-26'	8/12/92	FOLLOW UP SURVEY DRAIN CAP	-	-		-	-	
399-T-40'		CORE BORINGS	-	-		-	-	
400-B-39'			-	-		-	-	
401-T-24'			-	-		-	-	
402-T-7'			-	-		-	-	
403-X-2'		↓	-	-		-	-	
404-25-00'	8/14/92	ELL	-	-		-	-	
405-25-04'		CUT	-	-		-	-	
406-26-00'		ELL	-	-		-	-	
407-27-02'		JOINT	-	-		-	-	
408-27-04'		CUT	-	-		-	-	
409-28-00'		ELL	-	-		-	-	
410-28-10'			-	-		-	-	
411-28-12'		↓ PENETRATED PIPE AREA	-	-		-	-	
412-29-0'	8/14/92	BEGINNING ELL	-	-		-	-	
413-9-13'	8/17/92	SOUTH TO NORTH JOINT	-	-		-	-	
414-9-26'	8/19/92	SOUTH TO TREE	-	-		-	-	
415-8-65'	8/24/92	WEST TO JOINT	-	-		-	-	
416-25-4'	8/27/92	DIRT REMOVED FOR DISPERAL	-	-		-	-	
417-25-4'	8/25/92	TRENCH AFTER DIRT WAS REMOVED	-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

REPORT :

Reques # 14828

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/17/92
Reported: 3/25/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 17, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
404	92-2571	2.31E-01	+/- 1.5E-01
405	92-2572	1.07E+00	+/- 2.4E-01
406	92-2573	<2.6E-01	
407	92-2574	<3.0E-01	
408	92-2575	6.68E-01	+/- 2.4E-01
409	92-2576	<3.4E-01	
10	92-2577	<2.4E-01	
411	92-2578	<3.4E-01	
412 } TRENCH 29	92-2579	<2.1E-01	
413	92-2580	<2.9E-01	

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14828
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Walt Kowalski



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #) SURVEY DATE: 8 14 92

LOCATION: File Survey Section # 19 SURVEY TIME: 10:30
 Trench Section # MDL 29

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

Contact count rate of trenches after MDL removal at points under where line was.

SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT	SURVEY POINT AT FOOT MARK	CPM COUNT
0'	9598						
2'	9472						
4'	7818						

SKETCH

REMARKS

N.P. SIGNATURE L. D. Sullivan Perry DATE: 8-17-92

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

BLOC 9 FLOOR DRAINS
AND CORE BORING CEMENT WORK

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

SEE ATTACHED

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

SEE ATTACHED

- 4) Note any special considerations:

Requested by: *[Signature]* Date: 8-20-92

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: *[Signature]*

Signature: *A. Joseph Vardi* Date: 8/20/92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331 - 15A - 80	7/15/92	CUT	353 - - C	7/20/92	DEBRIS IN PARKING LOT	375 - 21 - 10	7/20/92	JOINT
332 - 15C - 92	7/15/92	Flow VALVE	354 - - D	7/20/92	DEBRIS IN PARKING LOT	376 - 21 - 8		CUT
333 - 15E - 03	7/15/92	CUT JOINT	355 - - E	7/20/92	DEBRIS IN PARKING LOT	377 - 21 - 6	7/20/92	JOINT
334 - 15C - 03	7/15/92	DUPLICATE SAMPLE of 303	356 - - F	7/20/92	DEBRIS IN PARKING LOT	378 - 3119 00	8/3/92	FLOOR DRAIN END
335 - 23 - 11	7/16/92	END	357 - - G	7/29/92	DEBRIS IN PARKING LOT	379 - - 06	8/3/92	RANDOM
336 - 23 - 7	7/16/92	JOINT	358 - - H			380 - - 14		JOINT
337 - 23 - 6.5	7/16/92	JOINT	359 - - I			381 - - 22		RANDOM
338 - 23 - 1.5	7/16/92	JOINT	360 - - J			382 - - 26		DRAIN CAP
339 - 23 - 00	7/16/92	BEGINNING 'Y'	361 - - K			383 - - 00		END
340 - 23 - A - 01	7/16/92	JOINT	362 - - L			384 - - 06		JOINT
341 - 23 - A - 00	7/16/92	ELL	363 - - M			385 - - 08		JOINT
342 - 23 - B - 01	7/16/92	JOINT	364 - - N			386 - - 10	8-3-92	DRAIN CAP
343 - 23 - B - 02	7/16/92	ELL	365 - - O			387 - 20 - 123	8-7-92	FOLLOW UP JOINT
344 - 23 - C - 00	7/16/92	ELL	366 - - P			388 - 20 - 121	8-7-92	FOLLOW UP CUT
345 - 23 - C - 03	7/16/92	JOINT	367 - 20 - 92	7/27/92	RANDOM	389 - L - 39	8-11-92	CASE FOR ISS
346 - 24 -	7/20/92	CONCRETE 210T PIPE CRACK AREA	368 - 20 - 102		JOINT	390 - M - 31		
347 - -	7/24/92	PIT SCOUR IN DRAIN	369 - 20 - 106		CUT	391 - E - 31		
348 - 16 - -	7/24/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	370 - 20 - 116		RANDOM	392 - A - 22		
349 - -	7/24/92	PIT SCOUR IN DRAIN	371 - 20 - 123		JOINT	393 - J - 21		
350 - -	7/24/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	372 - 20 - 124		CUT	394 - M - 13		
351 - - A	7/20/92	DEBRIS IN PARKING LOT	373 - 20 - 126		END #11	395 - E - 12		
352 - - B	7/20/92	DEBRIS IN PARKING LOT	374 - 21 - 14	7/29/92	JOINT	396 - B - 2		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397-9-10'	8/11/92	S-U PENDING	-	-		-	-	
398-9-26'	8/12/92	FOLLOW UP SAMPLE DRAIN CAP	-	-		-	-	
399-T-40'		CORE BORINGS	-	-		-	-	
400-B-39'			-	-		-	-	
401-T-24'			-	-		-	-	
402-T-7'			-	-		-	-	
403-X-2'	↓	↓	-	-		-	-	
404-25-00'	8/14/92	ELL	-	-		-	-	
405-25-04'		CUT	-	-		-	-	
406-26-00'		ELL	-	-		-	-	
407-27-02'		JOINT	-	-		-	-	
408-27-04'		CUT	-	-		-	-	
409-28-00'		ELL	-	-		-	-	
410-28-10'			-	-		-	-	
411-28-12'	↓	PENETRATED PIPE AREA	-	-		-	-	
412-29-0'	8/14/92	BEGINNING ELL	-	-		-	-	
413-9-13'	8/17/92	SOUTH TO NORTH JOINT	-	-		-	-	
414-9-26'	8/19/92	SOUTH TO NORTH TREE	-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14793

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 1/3/92
Reported: 1/10/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 7, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis) pCi/gram	2 sigma
378	92-2406	<3.1E-01	
379	92-2407	<2.4E-01	
380	92-2408	<3.4E-01	
381	92-2409	3.37E-01	+/- 2.4E-01
382	92-2410	1.50E+00	+/- 3.2E-01
383	92-2411	<2.1E-01	
34	92-2412	<3.6E-01	
385	92-2413	<2.5E-01	
386	92-2414	<3.4E-01	

FLOOR DRAIN NORTH TO SOUTH

FLOOR DRAIN EAST TO WEST

REMOVED CONCRETE AT DRAIN CAP AT 26' MARK.

FOLLOW UP SAMPLING OF MORE CEMENT TO BE CHIPPED AWAY AT SAME LOCATION
SAMPLE # 398

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14793
Procedures: A-524
Analyst: WTF, MRK, TRK

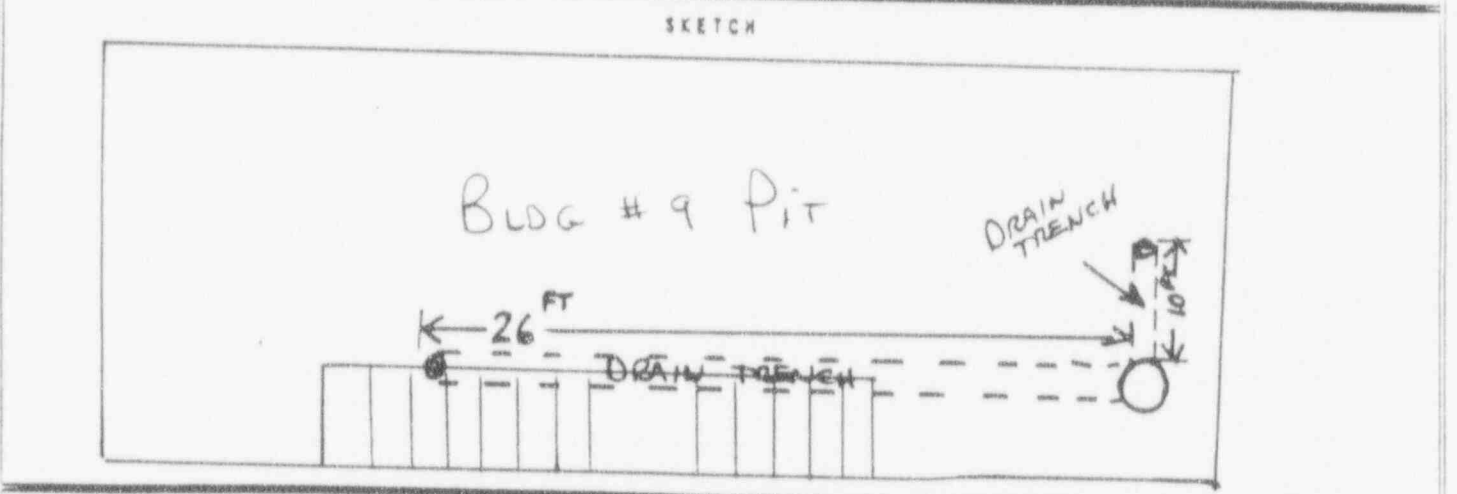
Approved: Mark Kuznetsov



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)
 SURVEY DATE: 8-3-92
 LOCATION: SURVEY SECTION #: 9 BLDG 9 FLOOR DRAIN
 SURVEY TIME: 0800
 INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3
 INSTRUMENT: SERIAL # PROBE TYPE:

DESCRIPTION OF SURVEY

@ Ft. Mark	Count Rate	@ Ft. Mark	Count Rate	@ Ft. Mark	Count Rate
00' END	11360	18	10634		
02'	11530	20	10668		
04' RANDOM	11216	22 joint	10428		
06	11618	24	10634		
08	11222	26 DRAIN CAP	10848		
10	11444				
12	11364				
14 joint	10532				
16	10218				



REMARKS
 This section of floor drain runs N-S
 This is a Post Removal Survey

H.P. SIGNATURE: J. D. Sullivan
 DATE: 8-3-92



SURVEY TYPE: ROUTINE SPECIAL RWP (RWP #)

LOCATION: SURVEY SECTION #: 9 IND. 9 Floor Drain

INSTRUMENT: PRS-1 SERIAL # 346 PROBE TYPE: SPA-3

INSTRUMENT: SERIAL # PROBE TYPE:

SURVEY DATE: 8-3-92

SURVEY TIME: 0800

DESCRIPTION OF SURVEY

@ Ft. Mark	Count Rate	@ Ft. Mark	Count Rate	@ Ft. Mark	Count Rate
00 END	11004				
02	10920				
04	10962				
06 JOINT	10620				
08 JOINT	10774				
10 END Drain	10402				

SKETCH

REMARKS

This section of Floor Drain Runs E-W

This is a Post Removal Survey

N.P. SIGNATURE L. D. Sullivan DATE: 8-3-92



SURVEY TYPE: ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> RWP <input checked="" type="checkbox"/> (RWP #)		SURVEY DATE: 8-18-92
LOCATION: Bldg 9 Pit Survey Section #9 Flood Drain Trench		SURVEY TIME: 1900
INSTRUMENT: E520	SERIAL # 5242	PROBE TYPE: THIN WINDOW
INSTRUMENT:	SERIAL #	PROBE TYPE:

DESCRIPTION OF SURVEY

CONTACT BETA SURVEY WITH THIN WINDOW PROBE.

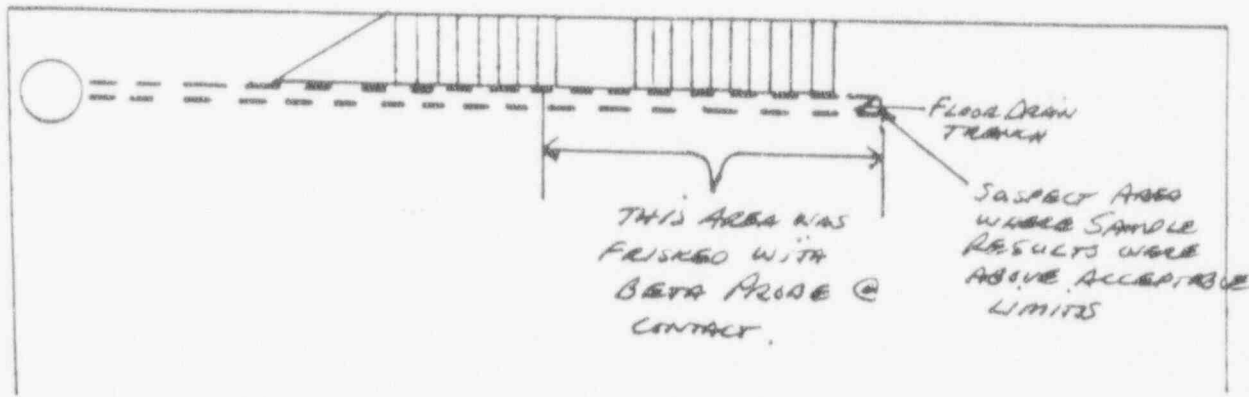
HIGHEST CONTACT LEVELS : 246 DPM NET

CORRELATION FACTOR : 4.93

EFF : 20.3 %

BKG : 148 DPM

SKETCH



REMARKS

Area indicated above frisked to ensure no significant levels did exist. As soon as follow up analytical results are in, the trench can be re cemented.

H.P. SIGNATURE *Jerry A. [Signature]*

DATE: 8-17-92

M.D.L. TRENCH SOIL SAMPLE LOG

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
331-15A-80	7/15/92	CUT	353 - - C	7/20/92	DEBRIS IN PARKING LOT	375-21-10	7/20/92	JOINT
332-15C-02	7/15/92	Flow valve	354 - - D	7/20/92	DEBRIS IN PARKING LOT	376-21-8		CUT
303-15C-03	7/15/92	CUT JOINT	355 - - E	7/20/92	DEBRIS IN PARKING LOT	377-21-6	7/20/92	JOINT
334-15C-03	7/15/92	DUPLICATE sample of 303	356 - - F	7/20/92	DEBRIS IN PARKING LOT	378-3119-00	8/5/92	FLOOR DRAIN END
335-23-11	7/14/92	END	357 - - G	7/29/92	DEBRIS IN PARKING LOT	379 - - 06	8/3/92	RANDOM
336-23-7	7/14/92	JOINT	358 - - H			380 - - 14		JOINT
337-23-6.5	7/14/92	JOINT	359 - - I			381 - - 22		RANDOM
338-23-1.5	7/14/92	JOINT	360 - - J			382 - - 26		DRAIN CAP
339-23-00	7/14/92	BEGINNING 'Y'	361 - - K			383 - - 00		END
340-23-A-01	7/14/92	JOINT	362 - - L			384 - - 06		JOINT
341-23A-00	7/14/92	ELL	363 - - M			385 - - 08		JOINT
342-23-B-01	7/14/92	JOINT	364 - - N			386 - - 10	8-3-92	DRAIN CAP
343-23-B-02	7/14/92	ELL	365 - - O			387-20-123	8-7-92	Follow up joint
344-23-C-00	7/14/92	ELL	366 - - P			388-20-121	8-7-92	Follow up CUT
345-23-C-03	7/14/92	JOINT	367-20-92	7/20/92	RANDOM	389-L-39	8/11/92	CASE STUDY
346-24-	7/20/92	CONCRETE NOT PIPE CHANGE AREA	368-20-102		JOINT	390-M-31		
347-	7/24/92	PIT SCOOP IN DRAIN	369-20-106		CUT	391-E-31		
348-16-	7/24/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	370-20-116		RANDOM	392-A-22		
349-	7/24/92	PIT SCOOP IN DRAIN	371-20-123		JOINT	393-J-21		
350-	7/24/92	TRENCH DIRT OIL CONTAMINATED IN DRAIN	372-20-124		CUT	394-M-13		
351 - - A	7/28/92	DEBRIS IN PARKING LOT	373-20-126		END E11	395-E-12		
352 - - B	7/29/92	DEBRIS IN PARKING LOT	374-21-14	7/29/92	JOINT	396-B-2		

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

M.D.L. TRENCH SOIL SAMPLE LOG

PAGE 7

Sample Number Derived By: (See Bottom of Form)

Sample Number	Date	Notes	Sample Number	Date	Notes	Sample Number	Date	Notes
397-9-10'	8/1/92	S-U RANDOM	-	-		-	-	
398-209-26'	8/12/92	FOLLOW UP SURVEY DRAIN CAP	-	-		-	-	
399-T-40'		CORE BORINGS	-	-		-	-	
400-B-39'			-	-		-	-	
401-T-24'			-	-		-	-	
402-T-7'			-	-		-	-	
403-X-2'	↓	↓	-	-		-	-	
404-25-00'	8/14/92	ELL	-	-		-	-	
405-25-04'		CUT	-	-		-	-	
406-26-00'		ELL	-	-		-	-	
407-27-02'		JOINT	-	-		-	-	
408-27-04'		CUT	-	-		-	-	
409-28-00'		ELL	-	-		-	-	
410-28-10'			-	-		-	-	
411-28-12'	↓	PENETRATED PIPE AREA	-	-		-	-	
412-29-0'	8/14/92	BEGINNING ELL	-	-		-	-	
413-9-13'	8/17/92	SOUTH TO NORTH JOINT	-	-		-	-	
414-9-26'	8/19/92	SOUTH TO NORTH TEE	-	-		-	-	
415-8-25'	8/24/92	WEST TO EAST JOINT	-	-		-	-	
416-25-4'	8/27/92	DIRT REMOVED FOR DISPOSAL	-	-		-	-	
417-25-4'	9/25/92	TRENCH AFTER DIRT WAS REMOVED	-	-		-	-	
-			-	-		-	-	

Sequence Starting With 001 - M.D.L. Section Number - Sample Point Distance (In feet from north or east Reference Zero Feet)

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Request# 14812

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/11/92
Reported: 3/18/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 11, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
389	92-2489	<3.6E-01	
390	92-2490	2.20E-01	+/- 1.6E-01
391	92-2491	2.52E-01	+/- 8.9E-02
392	92-2492	<2.6E-01	
393	92-2493	<3.5E-01	
394	92-2494	2.18E-01	+/- 1.9E-01
5	92-2495	<3.4E-01	
96	92-2496	<3.0E-01	
397	92-2497	<3.7E-01	

*Core
Beam
B.D.C. 9
PIT*

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14812
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Hurd

REPORT

Westinghouse Electric Corporation
Advanced Programs - Analytical Laboratory
Waltz Mill Site

Reques # 14813

TO: Larry Smith/Joe Nardi
Environmental & Regulatory Services
Westinghouse Electric Corporation

Received: 3/12/92
Reported: 3/25/92

[RESULTS OF ANALYSIS]

GAMMA SPECTROMETRY ANALYSIS (@ Aug 12, 1992)

Originator ID	Lab.Spl#	U-235 (Wet Basis)	
		pCi/gram	2 sigma
398	92-2498	<3.0E-01	
399	92-2499	2.56E-01	+/- 2.3E-01
400	92-2500	<3.1E-01	
401	92-2501	<2.6E-01	
402	92-2502	3.76E-01	+/- 2.2E-01
403	92-2503	<2.5E-01	

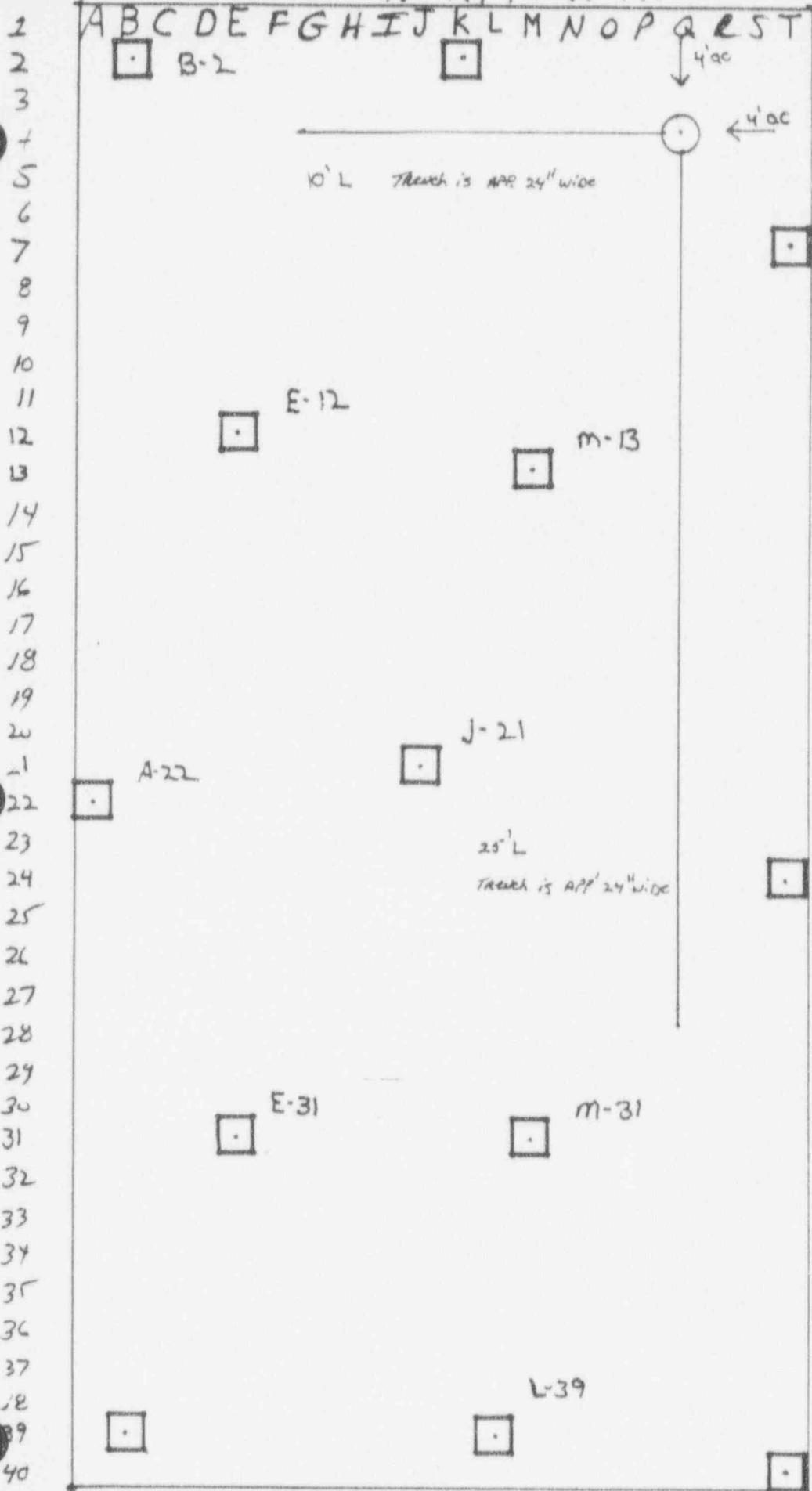
BLOC 9
CORE
BORINGS

Remarks: Gamma Spectrometry Analysis for U-235

References: Request# 14813
Procedures: A-524
Analyst: WTF, MRK, TRK

Approved: Mark Kauter

NORTH WALL



RANDOM CORE
SAMPLES.

BLD #9 TANK PITT

KEY:

1 Block = 1 FT

APPENDIX F

RADIOLOGICAL SURVEY PROCEDURE

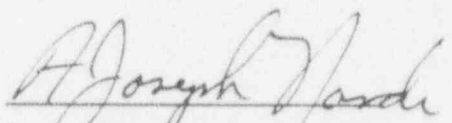
PROCEDURE NUMBER 001

RADIOLOGICAL MONITORING AND SOIL SAMPLING
DURING REMOVAL OF MONITORED DRAIN LINE SYSTEM

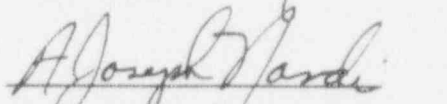
April 16, 1992

Revision 0

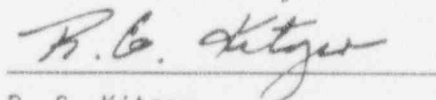
Prepared by:


A. J. Nardi

Approved by:


A. J. Nardi, Project Manager

Approved by:


R. G. Kitzer
Radiation Safety Officer

WESTINGHOUSE ELECTRIC CORPORATION
LARGE, PA

REVISION RECORD

Revision Number	Page or Section Changed	Date	Description of Change
0	All	4/16/92	Initial issue of procedure

I. SCOPE

This procedure covers the radiological surveys and soil sampling necessary to demonstrate that any excavated area is clean prior to backfilling that excavation.

II. REFERENCES

1. Survey Plan for Large Project.

III. PROCEDURE

1. All gamma surveys made under this procedure are to use a NaI probe connected to a suitable integrating instrument.
2. All final survey results are to be recorded either on the attached form or directly into the computer program database.
3. During removal of the Monitored Drain Line (MDL) system, conduct adequate periodic gamma surveys of the work to assure that the soil being removed does not indicate any contamination. (Record general results and any special notes in logbook).
4. Isolate any contaminated soil found and have it placed directly in containers to avoid mixing with other soil.
5. When the MDL has been exposed, mark the excavation (i.e. by flags or paint marks) at any particular point where soil samples should be taken. (See below).
6. After the MDL has been removed from the excavation, conduct a general gamma survey to verify that no contamination is present. (Record general results and any special notes in logbook).

7. Select specific locations where soil samples are to be taken and mark each location. Selection is based on the following criteria in order:
 - a) At any location where contaminated soil had to be removed. For large areas ($>1m^2$) select a minimum of five sample locations per area.
 - b) At any location where the general gamma survey results indicated anomalous results.
 - c) At any location where there was a particular potential for pipe leakage to have occurred, such as pipe joints, severely degraded pipe, or indications which might indicate that field repairs had been made.
 - d) At other locations such that there is not more than 10' between samples along the length of the original MDL location.
8. Conduct and record gamma survey results at a minimum of every 2' of trench length. Include a gamma survey at every location where a soil sample is to be taken. For large areas of excavation where contaminated soil had to be removed, make surveys on a 1' grid system. The integrated count time shall be at least one half minute at each survey location.
9. Take soil samples at all designated locations. Soil samples are to be taken by collecting soil from the surface to a depth of six inches.
10. Place the soil sample in an appropriate container, seal it, mark the container with the next sequential sample number and record the necessary information.

11. Photograph the excavated area.
12. If available, count each container of soil in the shielded counter arrangement for five minutes. Record the results.
13. Upon receipt of all soil analysis data, complete the attached form requesting authorization to backfill the excavation.
14. Obtain the necessary authorization from the Project Manager or his designated alternate.
15. Authorization to backfill any excavated area where contaminated soil had to be removed will require the prior concurrence of the NRC.

BACKFILL REQUEST/AUTHORIZATION

To be completed by requestor:

- 1) Describe the specific section of the excavation to be backfilled under this request (include map where possible):

- 2) Describe results of gamma surveys (attach copies of survey forms as appropriate):

- 3) Describe analysis results of soil samples (attach copies of analysis results as appropriate):

- 4) Note any special considerations:

Requested by: _____ Date: _____

Authorization:

Authorization to backfill the above described excavation is:

Approved

Not Approved

Comments: _____

Signature: _____ Date: _____