



Westinghouse
Electric Corporation

Commercial Nuclear
Fuel Division

RS 93-027

Box 355
Pittsburgh Pennsylvania 15230-0355

April 30, 1993

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

Attention: Mr. C. T. Oberg

Subject: Fifth 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 ten 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 Table 1 which lists the titles of the reports which have been and 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

Enclosures

000100

9403210039 930430
PDR ADOCK 07000997
B PDR



"OFFICIAL RECORD COPY" ML 10

117646

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

LICENSE TERMINATION REPORT

USNRC LICENSE

INDEX

| | <u>Date Submitted</u> |
|--|---------------------------|
| REPORT #001 EVALUATION OF RADIATION DOSIMETERS DISTRIBUTED ON THE SITE, NOVEMBER 2, 1992 | 1/11/93 |
| REPORT #002 REMOVAL OF THE MONITORED DRAIN LINE SYSTEM, NOVEMBER 24, 1992 | 1/11/93 |
| REPORT #003 EVALUATION OF PORTIONS OF MONITORED DRAIN LINE SYSTEM ABANDONED IN PLACE, NOVEMBER 24, 1992 | 1/11/93 |
| REPORT #004 DETERMINATION OF RADIOLOGICAL SURVEY ACCEPTANCE CRITERIA FOR LICENSE TERMINATION SURVEYS, DECEMBER 1, 1992 | 1/11/93 |
| REPORT #005 FINAL RADIOLOGICAL SURVEY OF INCINERATOR BUILDING, DECEMBER 11, 1992 | 1/11/93 |
| REPORT #006 PRELIMINARY SURVEY OF SELECTED SITE BUILDINGS, DECEMBER 7, 1992 | 1/11/93 |
| REPORT #007 DETERMINATION OF SITE BACKGROUND VALUES FOR RADIOLOGICAL MEASUREMENTS, DECEMBER 18, 1992 | 2/12/93 |
| REPORT #008 FINAL RADIOLOGICAL SURVEY OF PIT BEHIND BUILDING 5, JANUARY 6, 1993 | 2/12/93 |
| REPORT #009 GENERAL INFORMATION RELATIVE TO RADIOLOGICAL SURVEYS OF BUILDINGS, JANUARY 6, 1993 | 2/12/93 |
| REPORT #010 FINAL RADIOLOGICAL SURVEY OF PIPE CHASES WITHIN BUILDING NUMBER 9, JANUARY 6, 1993 | 2/12/93 |

| | |
|--|---------|
| REPORT #011 FINAL RADIOLOGICAL SURVEY OF BUILDING NO. 8, (SURVEY SECTION 28E), JANUARY 26, 1993 | 2/24/93 |
| REPORT #012 FINAL RADIOLOGICAL SURVEY OF THE FIRST FLOOR OF BUILDING NO. 7, (SURVEY SECTION 7), JANUARY 29, 1993 | 2/24/93 |
| REPORT #013 FINAL RADIOLOGICAL SURVEY OF BUILDING NO. 7, SECOND FLOOR, (SURVEY SECTION 28D), FEBRUARY 4, 1993 | 2/24/93 |
| REPORT #014 FINAL RADIOLOGICAL SURVEY OF BUILDING NO. 6A, (SURVEY SECTION 6), FEBRUARY 9, 1993 | 2/24/93 |
| REPORT #015 FINAL RADIOLOGICAL SURVEY OF THE BASEMENT OF BUILDING NO. 4, (SURVEY SECTION 14), FEBRUARY 16, 1993 | 2/24/93 |
| REPORT #016 FINAL RADIOLOGICAL SURVEY OF THE PIT IN BUILDING NO. 9, (SURVEY SECTION 9), MARCH 10, 1993 | 4/16/93 |
| REPORT #017 FINAL RADIOLOGICAL SURVEY OF THE FIRST FLOOR OF BUILDING NO. 6, (SURVEY SECTION 4), MARCH 11, 1993 | 4/16/93 |
| REPORT #018 FINAL RADIOLOGICAL SURVEY OF BUILDING NO. 11, (SURVEY SECTION 28I), MARCH 15, 1993 | 4/16/93 |
| REPORT #019 FINAL RADIOLOGICAL SURVEY OF THE SECOND FLOOR OF BUILDING NO. 6, (SURVEY SECTION 5), MARCH 15, 1993 | 4/16/93 |
| REPORT #020 FINAL RADIOLOGICAL SURVEY OF THE FIRST FLOOR OF BUILDING NO. 9, (SURVEY SECTION 10), MARCH 17, 1993 | 4/16/93 |
| REPORT #021 FINAL RADIOLOGICAL SURVEY OF BUILDING NO. 10, (SURVEY SECTION 28H), MARCH 17, 1993 | 4/30/93 |
| REPORT #022 FINAL RADIOLOGICAL SURVEY OF THE SECOND FLOOR OF BUILDING NO. 9, (SURVEY SECTION 28G), MARCH 17, 1993 | 4/16/93 |

| | |
|---|---------|
| REPORT #023 FINAL RADIOLOGICAL SURVEY OF THE SECOND FLOOR OF BUILDING NO. 5, (SURVEY SECTION 2), MARCH 30, 1993 | 4/16/93 |
| REPORT #024 FINAL RADIOLOGICAL SURVEY OF THE THIRD FLOOR OF BUILDING NO. 5, (SURVEY SECTION 3), MARCH 31, 1993 | 4/16/93 |
| REPORT #025 FINAL RADIOLOGICAL SURVEY OF THE FIRST AND SECOND FLOORS OF BUILDING NO. 4, (SURVEY SECTION 28A), APRIL 1, 1993 | 4/30/93 |
| REPORT #026 FINAL RADIOLOGICAL SURVEY OF BUILDING NO. 5A, (SURVEY SECTION 28C), APRIL 5, 1993 | 4/30/93 |
| REPORT #027 FINAL RADIOLOGICAL SURVEY OF THE FIRST FLOOR OF BUILDING NO. 12, (SURVEY SECTION 16) APRIL 5, 1993 | 4/30/93 |
| REPORT #028 FINAL RADIOLOGICAL SURVEY OF THE SECOND FLOOR OF BUILDING NO. 12, (SURVEY SECTION 28L), APRIL 7, 1993 | 4/30/93 |
| REPORT #029 FINAL RADIOLOGICAL SURVEY OF THE THIRD FLOOR OF BUILDING NO. 4, (SURVEY SECTION 15), APRIL 7, 1993 | 4/30/93 |
| REPORT #030 FINAL RADIOLOGICAL SURVEY OF THE FOURTH FLOOR OF BUILDING NO. 5, (SURVEY SECTION 28B), APRIL 8, 1993 | 4/30/93 |
| REPORT #031 FINAL BUILDING SURVEY OF THE FIREHALL, (SURVEY SECTION 28J), APRIL 8, 1993 | 4/30/93 |
| REPORT #032 FINAL RADIOLOGICAL SURVEY OF THE SECOND FLOOR OF BUILDING NO. 8A, (SURVEY SECTION 28F), APRIL 8, 1993 | 4/30/93 |
| REPORT #034 FINAL RADIOLOGICAL SURVEY OF THE FIRST FLOOR OF BUILDING NO. 5, (SURVEY SECTION 1), APRIL 20, 1993 | 4/30/93 |

"OFFICIAL RECORD COPY"

ML 10

117646

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY
OF THE THIRD FLOOR OF BUILDING NUMBER 4
(SURVEY SECTION 15)

APRIL 7, 1993

WESTINGHOUSE ELECTRIC CORPORATION
LARGE, PA

REPORT #029

"OFFICIAL RECORD COPY" ML 10

117446

FINAL RADIOLOGICAL SURVEY
OF THE THIRD FLOOR OF BUILDING NUMBER 4
(SURVEY SECTION 15)

TABLE OF CONTENTS

| | <u>Page Number</u> |
|---------------------|--------------------|
| Purpose | 1 |
| Scope | 1 |
| Analysis of Results | 1 |
| Current Status | 2 |
| Conclusions | 2 |

Appendix A - Radiological Survey Data Sheets For Unit 1

(i)

REPORT #029

"OFFICIAL RECORD COPY" ML 10

117646

FINAL RADIOLOGICAL SURVEY
OF THE THIRD FLOOR OF BUILDING NUMBER 4

(Survey Section 15)

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 documents the results of the final radiological survey of the third floor of Building Number 4 on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Survey information for the other floors of this building is documented in Reports #015 and #025.

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of Building Number 4 on the site. Figure 2 presents the floor plan for the third floor of the building. This floor has been designated as Survey Section 15. (See Report #009). The entire floor has been assigned a Survey Classification of Class 2 as defined in Report #009. This floor is a penthouse area for Building No. 4 and has served primarily as an office area. After a flood in 1990, the Radiation Safety Office was moved from the basement of Building 4 to the third floor level. This is the only known use of radioactive material in this area. Such use was limited to small calibration and check sources.

Appendix A incorporates all of the radiological survey data sheets for the survey unit. Table 1 presents the survey data for the survey unit with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of this table to determine if the acceptance criteria has been met at the desired degree of confidence.

Current Status

Building 5 is an occupied area. It is anticipated that use of this building will continue throughout the project. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of the third floor of this building meets all the radiological acceptance criteria at the 95% confidence level. Therefore, this floor can be released for unrestricted use. There is no potential for this building to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.

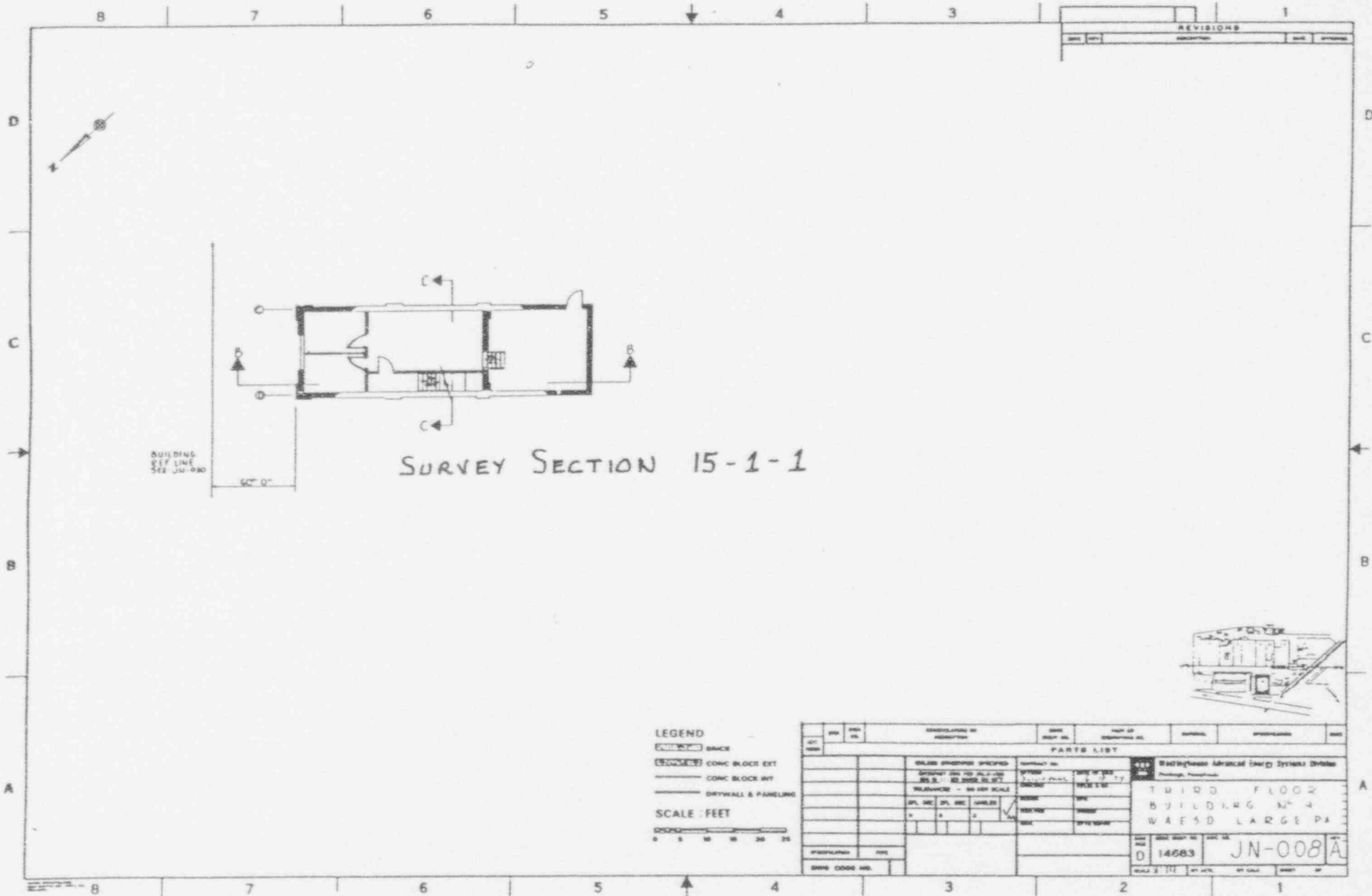


FIGURE 2
BUILDING 4, THIRD FLOOR

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #4, THIRD FLOOR (SECTION 15, UNIT 1)

| ? | ? | ? | X, Y | LOCATION | GAMMA SURVEY | BETA/GAMMA SURVEY | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | | |
|---|---------------------|------|-----------|----------|----------------------|--------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------|-------|
| | | | | | | | MAXIMUM BETA | AVERAGE BETA | ALPHA | BETA | ALPHA | BETA | | |
| ? | SURFACE DESCRIPTION | GRID | REF POINT | CODE | @1 METER (microR/hr) | ON CONTACT (mR/hr) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | | |
| ? | Floor, Carpet | ? | N/A | ? | 2, -2 | 15-1-1 | 14 | 0.010 | 122.3 | 80.0 | 0.0 | 42.4 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 2, -4 | 15-1-1 | 14 | 0.010 | 73.6 | 20.0 | -7.3 | 65.6 | -0.26 | 9.66 |
| ? | " | ? | " | ? | 2, -6 | 15-1-1 | 12 | 0.010 | 145.5 | 80.0 | -1.2 | 31.2 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 2, -8 | 15-1-1 | 14 | 0.010 | 115.9 | 60.0 | -9.8 | 111.1 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -10 | 15-1-1 | 13 | 0.020 | 136.7 | 60.0 | -3.7 | 66.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -2 | 15-1-1 | 14 | 0.010 | 57.6 | 20.0 | -9.8 | 59.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -4 | 15-1-1 | 15 | 0.020 | 60.0 | 20.0 | -2.4 | 44.0 | -0.26 | 9.66 |
| ? | " | ? | " | ? | 4, -6 | 15-1-1 | 15 | 0.020 | 145.5 | 60.0 | 1.2 | 44.8 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -8 | 15-1-1 | 13 | 0.020 | 140.7 | 60.0 | 0.0 | 83.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -10 | 15-1-1 | 15 | 0.010 | 154.3 | 60.0 | -1.2 | 89.5 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -12 | 15-1-1 | 12 | 0.010 | 21.6 | -12.0 | -3.7 | 26.4 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 2, -14 | 15-1-1 | 11 | 0.010 | 22.4 | -20.0 | -9.8 | 78.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -16 | 15-1-1 | 11 | 0.020 | 58.4 | 20.0 | -8.5 | 48.0 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 4, -12 | 15-1-1 | 13 | 0.010 | 49.6 | 4.0 | -1.2 | 48.0 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 4, -14 | 15-1-1 | 12 | 0.010 | -21.6 | -60.0 | -4.9 | -4.0 | -0.26 | 3.41 |
| ? | Floor, Carpet | ? | N/A | ? | 4, -16 | 15-1-1 | 12 | 0.010 | -44.8 | -80.0 | -3.7 | 5.6 | -0.26 | 3.41 |
| ? | West Wall | ? | " | ? | 2, -8 | 15-1-1 | | | 663.5 | 285.2 | 4.3 | 87.3 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -8 | 15-1-1 | | | 488.9 | 256.1 | -8.7 | 43.7 | -0.26 | -2.49 |
| ? | East Wall | ? | " | ? | 12, -8 | 15-1-1 | | | 340.5 | 139.7 | -4.3 | 200.8 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 14, -8 | 15-1-1 | | | 663.5 | 256.1 | 4.3 | 69.8 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 16, -8 | 15-1-1 | | | 619.8 | 285.2 | 4.3 | 43.7 | -0.26 | 3.59 |
| ? | South Wall | ? | " | ? | 2, -8 | 15-1-1 | | | 52.4 | -64.0 | 0.0 | 69.8 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -8 | 15-1-1 | | | 427.8 | 23.3 | -4.3 | 128.0 | -0.26 | -2.49 |
| ? | North Wall (2) | ? | " | ? | 2, -8 | 15-1-1 | | | 26.2 | -64.0 | -4.3 | 84.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -8 | 15-1-1 | | | -34.9 | -131.0 | 4.3 | 200.8 | -0.26 | 3.41 |
| ? | West Wall | ? | " | ? | 12, -8 | 15-1-1 | | | 389.9 | 139.7 | 21.7 | 180.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 14, -8 | 15-1-1 | | | 328.8 | 168.8 | 13.0 | 480.2 | -0.26 | 3.59 |

TABLE 2
SUMMARY OF RADIOLOGICAL SCAN DATA
(BUILDING 4, THIRD FLOOR)

| LOCATION CODE | SURFACE DESCRIPTION | EST % SCANNED | BETA SCAN SURVEY | | ACCEPTANCE CRITERIA | | UNITS | % OF ACCEPTANCE CRITERIA | |
|------------------|------------------------|------------------|------------------|---------|---------------------|---------|-------------------------|--------------------------|---------|
| | | | MAXIMUM | AVERAGE | MAXIMUM | AVERAGE | | MAXIMUM | AVERAGE |
| 15-1-1 | CARPET | 20% | 174 | 20 | 15,000 | 5,000 | DPM/100 cm ² | 1.16% | 0.40% |

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 2 | * | ESP2:1588-L | 34.3% | 2.91 | 282 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 11 | * | FLMON:91943 | 28.8% | 3.47 | 1275 |

| |
|----------------------|
| SURVEY DATE: 3/11/93 |
| COUNT DATE: 2/17/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 14 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor, Carpet | N/A | 2, -2 | 14 | .01 | 1428 | 1375 | 11 | 1328 | -0.264 | 3.41 | Floor monitor used for |
| " | " | 2, -4 | 14 | .01 | 1367 | 1300 | 5 | 1357 | -0.264 | 9.66 | scans & one minute |
| " | " | 2, -6 | 12 | .01 | 1457 | 1375 | 10 | 1314 | -0.264 | 3.59 | counts. |
| " | " | 2, -8 | 14 | .01 | 1420 | 1350 | 3 | 1414 | -0.264 | -2.49 | " |
| " | " | 2, -10 | 13 | .02 | 1446 | 1350 | 8 | 1358 | -0.264 | -2.49 | " |
| " | " | 4, -2 | 14 | .01 | 1347 | 1300 | 3 | 1349 | -0.264 | -2.49 | " |
| " | " | 4, -4 | 15 | .02 | 1350 | 1300 | 9 | 1330 | -0.264 | 9.66 | " |
| " | " | 4, -6 | 15 | .02 | 1457 | 1350 | 12 | 1331 | -0.264 | -2.49 | " |
| " | " | 4, -8 | 13 | .02 | 1451 | 1350 | 11 | 1379 | -0.264 | -2.49 | " |
| " | " | 4, -10 | 15 | .01 | 1468 | 1350 | 10 | 1387 | -0.264 | -2.49 | " |
| " | " | 2, -12 | 12 | .01 | 1302 | 1260 | 8 | 1308 | -0.264 | 3.59 | " |
| " | " | 2, -14 | 11 | .01 | 1303 | 1250 | 3 | 1373 | -0.264 | -2.49 | " |
| " | " | 2, -16 | 11 | .02 | 1348 | 1300 | 4 | 1335 | -0.264 | 3.41 | " |
| " | " | 4, -12 | 13 | .01 | 1337 | 1280 | 10 | 1335 | -0.264 | 3.59 | " |
| " | " | 4, -14 | 12 | .01 | 1248 | 1200 | 7 | 1270 | -0.264 | 3.41 | " |

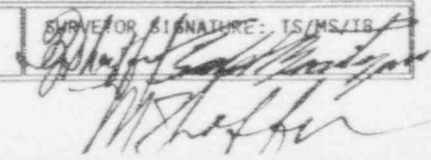
FORM SERIAL #: 15-001
(Survey Section - Sequential survey #)

LOCATION # 15-1-1
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: II
(Group I, II, III, IV)

DISK FILE CODE: FDS-0343

SURVEYOR SIGNATURE: TS/MS/IB



| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 2 | * | ESP2:1588-L | 34.3% | 2.91 | 282 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | 11 | * | FLMON:91943 | 28.8% | 3.47 | 1275 |

| |
|----------------------|
| SURVEY DATE: 3/11/93 |
| COUNT DATE: 2/17/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor, Carpet | N/A | 4, -16 | 12 | .01 | 1219 | 1175 | 8 | 1282 | -0.264 | 3.41 | Floor Mon used for scans |
| West Wall | " | 2, -.8 | N/A | N/A | 510 | 380 | 3 | 312 | -0.264 | -2.49 | & counts-Block/Brick |
| " | " | 4, -.8 | " | " | 450 | 370 | 0 | 297 | -0.264 | -2.49 | ESP's used for scans |
| East Wall | " | 12, -.8 | " | " | 399 | 330 | 1 | 351 | -0.264 | -2.49 | & 1 minute counts. |
| " | " | 14, -.8 | " | " | 510 | 370 | 3 | 306 | -0.264 | -2.49 | " |
| " | " | 16, -.8 | " | " | 495 | 380 | 3 | 297 | -0.264 | 3.59 | " |
| South Wall | " | 2, -.8 | " | " | 300 | 260 | 2 | 306 | -0.264 | -2.49 | " |
| " | " | 4, -.8 | " | " | 429 | 290 | 1 | 326 | -0.264 | -2.49 | " |
| North Wall (2) | " | 2, -.8 | " | " | 291 | 260 | 1 | 311 | -0.264 | -2.49 | " |
| " | " | 4, -.8 | " | " | 270 | 237 | 3 | 351 | -0.264 | 3.41 | " |
| West Wall | " | 12, -.8 | " | " | 416 | 330 | 7 | 344 | -0.264 | -2.49 | " |
| " | " | 14, -.8 | " | " | 395 | 340 | 5 | 447 | -0.264 | 3.59 | " |
| " | " | 16, -.8 | " | " | 360 | 320 | 2 | 347 | -0.264 | -2.49 | " |
| North Wall | " | 2, -.8 | " | " | 251 | 200 | 3 | 322 | -0.264 | 3.59 | " |
| " | " | 4, -.8 | " | " | 418 | 350 | 1 | 329 | -0.264 | -2.49 | " |

FORM SERIAL #: 15-001
(Survey Section - Sequential survey #)

LOCATION # 15-1-1
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: II
(Group I, II, III, IV)

DISK FILE CODE: FDS-0344

SURVEYOR SIGNATURE: TG/MS/TP
[Signature]
M. Shaffer

LB5100W Low Background Counting System - Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 14.35

Application Revision: 2

Application Version: Standard

Date: 3/11/93

Counting Unit id: 1

Data file name: C:\LBD\UNIT1\150101.XLD

Batch Ended: 2/17/93 11:11

Crosstalk Correction: Not Applied

Batch ID: FSB 15.1.1 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Alpha | | Beta | | Completion | |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------|-------|------------|------|---------------|--|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | Time (min) | CPM | Time (min) | CPM | TOD | |
| 1 | 0.264 | 1.60 | <MDA | 28.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.70 | 2/17/93 10:55 | |
| 2 | 0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | 0.100 | 0.33 | 4.82 | 2/17/93 10:56 | |
| 3 | 0.264 | 1.63 | <MDA | 28.84 | 3.50 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.79 | 2/17/93 10:57 | |
| 4 | 0.264 | 1.60 | <MDA | 28.84 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.24 | 2/17/93 10:57 | |
| 5 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.24 | 2/17/93 10:58 | |
| 6 | 0.264 | 1.60 | <MDA | 28.84 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.24 | 2/17/93 10:58 | |
| 7 | 0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | 0.100 | 0.33 | 4.82 | 2/17/93 10:59 | |
| 8 | 0.264 | 1.60 | <MDA | 28.84 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.24 | 2/17/93 10:59 | |
| 9 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.24 | 2/17/93 11:00 | |
| 10 | 0.264 | 1.60 | <MDA | 28.84 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.24 | 2/17/93 11:00 | |
| 11 | 0.264 | 1.63 | <MDA | 28.84 | 3.50 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.79 | 2/17/93 11:01 | |
| 12 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.24 | 2/17/93 11:02 | |
| 13 | 0.264 | 1.60 | <MDA | 28.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.70 | 2/17/93 11:02 | |
| 14 | 0.264 | 1.63 | <MDA | 28.84 | 3.50 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.79 | 2/17/93 11:03 | |
| 15 | 0.264 | 1.60 | <MDA | 28.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.70 | 2/17/93 11:03 | |
| 16 | 0.264 | 1.60 | <MDA | 28.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.70 | 2/17/93 11:04 | |
| 17 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.24 | 2/17/93 11:04 | |
| 18 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.24 | 2/17/93 11:05 | |
| 19 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.24 | 2/17/93 11:05 | |
| 20 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.24 | 2/17/93 11:06 | |
| 21 | 0.264 | 1.63 | <MDA | 28.84 | 3.50 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.79 | 2/17/93 11:06 | |
| 22 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.24 | 2/17/93 11:07 | |
| 23 | 0.264 | 1.60 | <MDA | 28.84 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.24 | 2/17/93 11:07 | |
| 24 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 0.33 | 1.24 | 2/17/93 11:08 | |
| 25 | 0.264 | 1.60 | <MDA | 28.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 0.34 | 1.70 | 2/17/93 11:08 | |

LB5100W Low Background Counting System – Smear Analysis

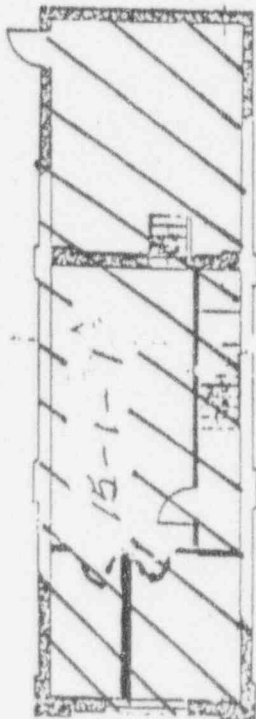
Date: 3/11/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\150101.XLD
 Batch Ended: 2/17/93 11:11
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 15-1-1 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 26 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 11:09 |
| 27 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/17/93 11:09 |
| 28 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 11:10 |
| 29 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/17/93 11:10 |
| 30 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 11:11 |



BUDG 4 3RD FLOOR

Survey Unit 15-1-1 CLASSIFICATION II



Bldg 4 3RD FLOOR

Survey Unit 45-1-1-1 CLASSIFICATION II

#117646

"OFFICIAL RECORD COPY" ML 10

LICENSE TERMINATION REPORT
USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY
OF THE SECOND FLOOR OF BUILDING NUMBER 12
(SURVEY SECTION 28L)

APRIL 7, 1993

WESTINGHOUSE ELECTRIC CORPORATION
LARGE, PA

REPORT #028

"OFFICIAL RECORD COPY" ML 10

FINAL RADIOLOGICAL SURVEY
OF THE SECOND FLOOR OF BUILDING NUMBER 12
(SURVEY SECTION 28L)

TABLE OF CONTENTS

| | <u>Page Number</u> |
|---------------------|--------------------|
| Purpose | 1 |
| Scope | 1 |
| Analysis of Results | 1 |
| Current Status | 2 |
| Conclusions | 2 |

Appendix A - Radiological Survey Data Sheets For Unit 1

FINAL RADIOLOGICAL SURVEY
OF THE SECOND FLOOR OF BUILDING NUMBER 12
(Survey Section 28L)

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 documents the results of the final radiological survey of the second floor of Building Number 12 on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Survey information for the first floor of Building 12 (Survey Section 16) is documented in Report #027.

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of Building Number 12 on the site. Figure 2 presents the floor plan for the second floor of the building. This floor has been designated as Survey Section 28L. (See Report #009). This area has been assigned a Survey Classification of Class 1 as defined in Report #009.

Appendix A incorporates all of the radiological survey data sheets for the survey unit. Table 1 presents the survey data for the survey unit with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of the table to determine if the acceptance criteria have been met at the desired degree of confidence.

Current Status

Building 12 is an occupied area. It is anticipated that use of this building will continue throughout the project. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of the second floor of this building meets all the radiological acceptance criteria at the 95% confidence level. Therefore, this floor can be released for unrestricted use. There is no potential for this building to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1


| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 1 | * | ESP2:1588-L | 34.3% | 2.91 | 275 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 5 | * | FLMON:91943 | 28.8% | 3.47 | 1057 |

| |
|----------------------|
| SURVEY DATE: 3/30/93 |
| COUNT DATE: 3/30/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 8 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|---------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| East Wall | N/A | 4, -1 | N/A | N/A | 472 | 455 | 4 | 498 | -0.264 | 3.59 | Brick |
| " | " | 6, -1 | " | " | 511 | 465 | 1 | 504 | -0.264 | -2.49 | " |
| " | " | 5, -2 | " | " | 512 | 460 | 2 | 476 | -0.264 | -2.49 | " |
| South Wall | " | 2, -1.1 | " | " | 227 | 205 | 2 | 201 | -0.264 | -2.49 | Wood |
| " | " | 8, -1.1 | " | " | 182 | 175 | 3 | 204 | -0.264 | -2.49 | " |
| Floor | " | 4, -2 | 10 | .01 | 1172 | 1125 | 7 | 1106 | -0.264 | 3.59 | Floor Monitor used for |
| " | " | 2, -2 | 8 | .01 | 1186 | 1125 | 8 | 1171 | -0.264 | -2.49 | scans & 1 minute counts |
| Wood | " | 6, -2 | 8 | .01 | 1177 | 1100 | 6 | 1100 | -0.264 | -2.49 | " |
| " | " | 8, -2 | 8 | .01 | 1094 | 1050 | 7 | 1115 | -0.264 | -2.49 | " |
| " | " | 4, -4 | 8 | .01 | 1098 | 1050 | 9 | 1104 | 7.506 | -2.49 | " |
| " | " | 6, -4 | 8 | .01 | 1112 | 1050 | 6 | 1073 | -0.264 | 3.59 | " |
| " | " | 8, -4 | 8 | .01 | 1136 | 1090 | 8 | 1081 | -0.264 | -2.49 | " |
| " | " | 4, -6 | 8 | .01 | 1175 | 1100 | 6 | 1099 | -0.264 | 3.41 | " |
| " | " | 6, -6 | 8 | .01 | 1140 | 1050 | 6 | 1044 | -0.264 | 9.31 | " |
| " | " | 8, -6 | 8 | .01 | 1217 | 1175 | 10 | 1165 | -0.264 | -2.49 | " |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 L - 001 (Survey Section - Sequential survey #) | LOCATION # 28 L-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0453 | DATE AND SIGNATURE: IS  |
|---|---|--|----------------------------|---|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 5 | * | FLMON:91943 | 28.8% | 3.47 | 1057 |

SURVEY DATE: 3/30/93
 COUNT DATE: 3/30/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 8 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 uR/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

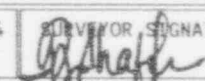
| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Wood Floor | N/A | 10, -6 | 8 | .01 | 1325 | 1250 | 5 | 1242 | -0.264 | 3.59 | <i>FLOOR MONITOR USED FOR SCANS AND 1 MIN. COUNTS.</i> |
| " | " | 12, -6 | 8 | .01 | 1228 | 1175 | 13 | 1186 | -0.264 | 3.59 | |
| " | " | 14, -6 | 9 | .01 | 1243 | 1190 | 13 | 1178 | -0.264 | 3.41 | |
| " | " | 14, -4 | 8 | .01 | 1095 | 1070 | 8 | 1140 | -0.264 | 3.41 | |
| " | " | 14, -2 | 9 | .01 | 1133 | 1085 | 9 | 1097 | -0.264 | -2.49 | |
| " | " | 16, -2 | 9 | .01 | 1212 | 1190 | 7 | 1195 | -0.264 | -2.49 | |
| " | " | 16, -4 | 8 | .01 | 1209 | 1150 | 4 | 1168 | -0.264 | -2.49 | |
| " | " | 16, -6 | 9 | .01 | 1154 | 1100 | 10 | 1143 | -0.264 | -2.49 | |
| " | " | 16, -8 | 10 | .01 | 1233 | 1190 | 4 | 1183 | -0.264 | -2.49 | |
| " | " | 14, -8 | 9 | .01 | 1137 | 1080 | 9 | 1324 | -0.264 | -2.49 | |
| " | " | 12, -8 | 8 | .01 | 1258 | 1200 | 9 | 1234 | -0.264 | 3.59 | |
| " | " | 10, -8 | 9 | .01 | 1162 | 1125 | 5 | 1170 | -0.264 | -2.49 | |
| " | " | 8, -8 | 8 | .01 | 1170 | 1125 | 3 | 1119 | -0.264 | 3.41 | |
| " | " | 6, -8 | 8 | .01 | 1250 | 1175 | 7 | 1127 | -0.264 | 3.41 | |
| " | " | 4, -8 | 8 | .01 | 1278 | 1225 | 6 | 1215 | -0.264 | -2.49 | |

FORM SERIAL #: 28 L - 001
 (Survey Section - Sequential survey #)

LOCATION # 28 L-1-1
 (Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: I
 (Group I, II, III, IV)

DISK FILE CODE: FDS - 0454

APPROVER SIGNATURE: TS


LB5100W Low Background Counting System -- Smear Analysis

Date: 3/30/93
 Counting Unit id: 1
 Data file name: C:\FBI\UNIT1\280191.XLD
 Batch Ended: 3/30/93 13:20
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: MJS 280 1 1 floors/walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 31 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:13 |
| 32 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:13 |
| 33 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:14 |
| 34 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:14 |
| 35 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:15 |
| 36 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:15 |
| 37 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:16 |
| 38 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:16 |
| 39 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:17 |
| 40 | 7.506 | 7.94 | AL AL | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 2.841 | -1.24 | 3/30/93 13:17 |
| 41 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:18 |
| 42 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:18 |
| 43 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:19 |
| 44 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/30/93 13:19 |
| 45 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:20 |
| 46 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:21 |
| 47 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:21 |
| 48 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:22 |
| 49 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:22 |
| 50 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:23 |
| 1 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:23 |
| 2 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:24 |
| 3 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:24 |
| 4 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:25 |
| 5 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:25 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/30/93
 Counting Unit id: 1
 Data file name: C:\EPC\UNIT1\6L0101.XLD
 Batch Ended: 3/30/93 13:26
 Crosstalk Correction: Not Applied

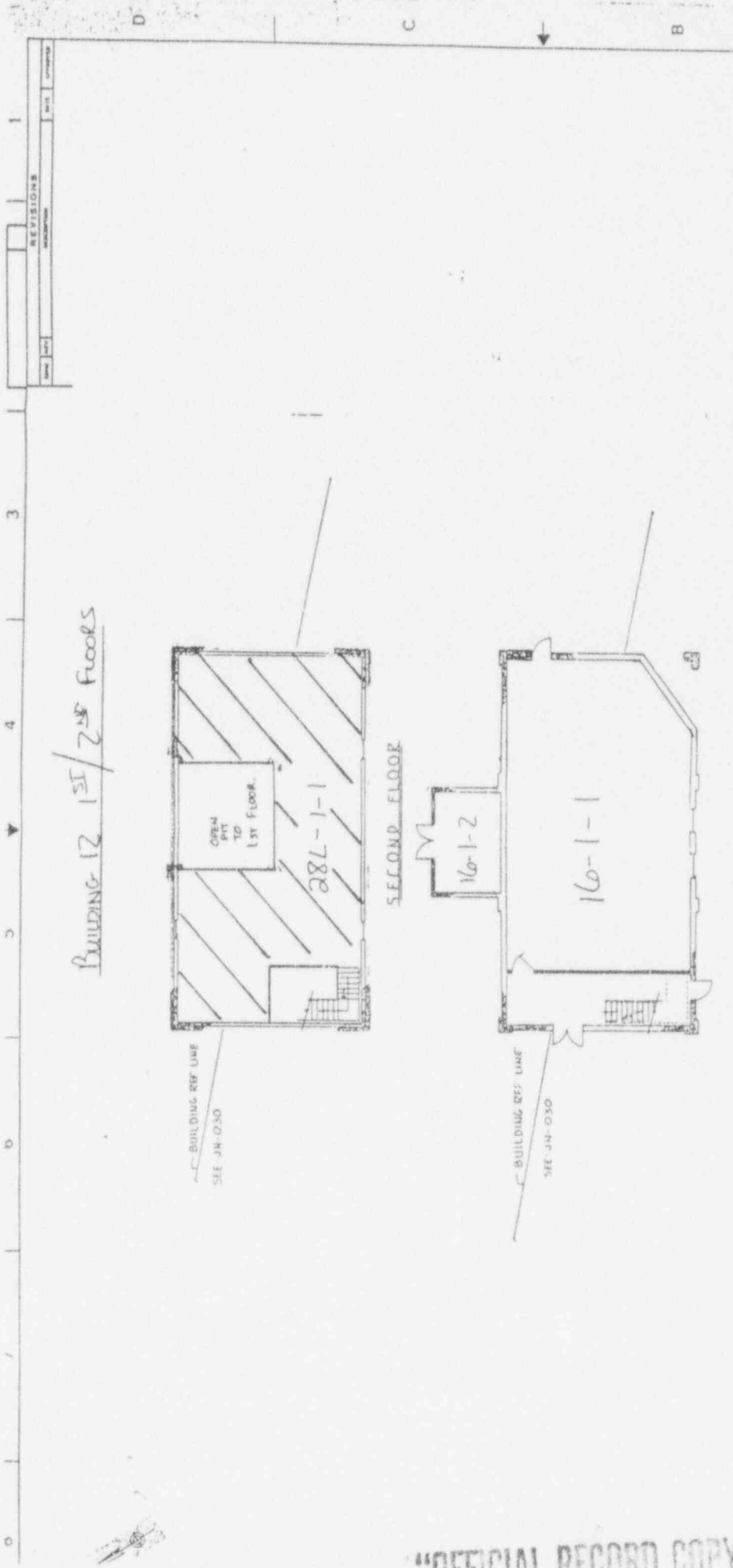
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

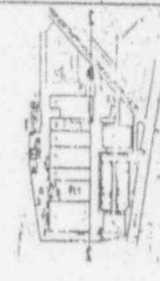
Batch ID: MTS 28L 1.1 floors/walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 6 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:26 |
| 7 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:26 |
| 8 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:27 |
| 9 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:27 |
| 10 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:28 |



BUILDING 12 1ST / 2ND FLOORS

| REVISIONS | |
|-----------|-------------|
| NO. | DESCRIPTION |
| | |



| REV | DATE | BY | CHKD | DESCRIPTION |
|-----|------|----|------|-------------|
| | | | | |

| NO. | DESCRIPTION | DATE | BY | CHKD |
|-----|-------------|------|----|------|
| | | | | |

| NO. | DESCRIPTION | DATE | BY | CHKD |
|-----|-------------|------|----|------|
| | | | | |

LEGEND

BRICK
 CONCRETE BLOCK EXT
 CONCRETE BLOCK INT
 DRYWALL & PANELING

SCALE: FEET

0 5 10 15 20 25

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY
OF THE FIRST FLOOR OF BUILDING NUMBER 12
(SURVEY SECTION 16)

APRIL 5, 1993

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

REPORT #027

"OFFICIAL RECORD COPY" ML 10

117646

FINAL RADIOLOGICAL SURVEY
OF THE FIRST FLOOR OF BUILDING NUMBER 12
(SURVEY SECTION 16)

TABLE OF CONTENTS

| | <u>Page Number</u> |
|---------------------|--------------------|
| Purpose | 1 |
| Scope | 1 |
| Analysis of Results | 1 |
| Current Status | 2 |
| Conclusions | 2 |

Appendix A - Radiological Survey Data Sheets For Unit 1

Appendix B - Radiological Survey Data Sheets for Floor Scans

(i)

REPORT #027

"OFFICIAL RECORD COPY" ML 10 # 117646

FINAL RADIOLOGICAL SURVEY
OF THE FIRST FLOOR OF BUILDING NUMBER 12
(Survey Section 16)

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 documents the results of the final radiological survey of the first floor of Building Number 12 on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Survey information for the second floor of Building 12 (Survey Section 28L) is documented in Report #028.

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of Building Number 12 on the site. Figure 2 presents the floor plan for the first floor of the building. This floor has been designated as Survey Section 16. (See Report #009). In addition, the floor was subdivided into subunits as shown on Figure 2. This floor has been assigned a Survey Classification of Class 2 as defined in Report #009.

Appendix A incorporates all of the radiological survey data sheets for the survey unit. Table 1 presents the survey data for the survey unit with all the results converted, as appropriate, to the

units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of the table to determine if the acceptance criteria have been met at the desired degree of confidence.

Floor scans of portions of each area were also conducted. Appendix B contains the radiological data survey sheets for these floor scans. Table 2 presents the results of the floor scan data in units directly comparable with the applicable acceptance criteria.

Current Status

Building 12 is an occupied area used as a machine shop. It is anticipated that use of this building will continue throughout the project. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of the first floor of this building meets all the radiological acceptance criteria at the 95% confidence level. Therefore, this floor can be released for unrestricted use. There is no potential for this building to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.

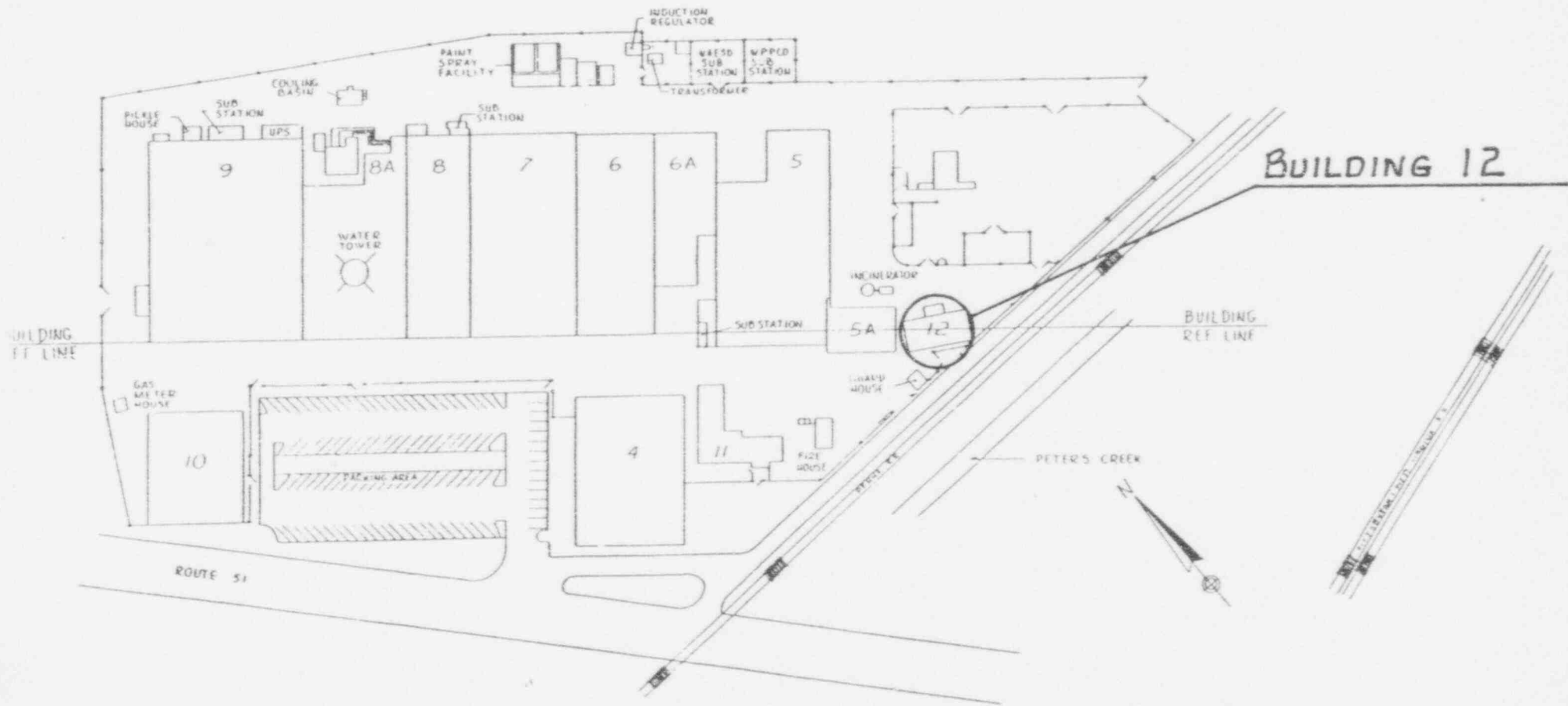


FIGURE 1
SITE PLOT PLAN

| REV | DATE | DESCRIPTION | DATE | BY | REVISION | DESCRIPTION | DATE | BY | REVISION | DESCRIPTION |
|---|------|-------------------------------------|------|---|----------|--------------------------|------|-------|----------|-------------|
| PARTS LIST | | | | | | | | | | |
| UNLESS OTHERWISE SPECIFIED | | APPLY TO ALL | | WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIV. | | Pittsburgh, Pennsylvania | | | | |
| DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE | | TOLERANCES - UNLESS NOTED OTHERWISE | | FINISHES - UNLESS NOTED OTHERWISE | | WAFSD LARGE PA | | | | |
| TOLERANCES - UNLESS NOTED OTHERWISE | | FINISHES - UNLESS NOTED OTHERWISE | | WAFSD LARGE PA | | WAFSD LARGE PA | | | | |
| SPECIFICATION | | TYPE | | DATE | | 14883 | | JN030 | | |
| DWG CODE NO. | | SCALE | | BY | | CHECKED | | DATE | | |

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #12, FIRST FLOOR (SECTION 16, UNIT 1)

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | LOCATION CODE | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------|----------------------|------------------|-----------------------------------|---------------------------------|--|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| | | | | SURVEY @1 METER (microR/hr) | SURVEY ON CONTACT (mR/hr) | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| Concrete Floor | N/A | 2, -8 | 16-1-1 | 11 | 0.010 | 142.3 | 37.6 | 13.4 | 61.6 | -0.26 | 3.59 |
| " | " | 2, -6 | 16-1-1 | 9 | 0.010 | 34.4 | -22.4 | 8.5 | -20.0 | 7.51 | -2.49 |
| " | " | 2, -4 | 16-1-1 | 9 | 0.010 | 31.2 | -22.4 | 6.1 | 4.8 | -0.26 | -2.49 |
| " | " | 2, -2 | 16-1-1 | 9 | 0.010 | 61.6 | -42.4 | 3.7 | -14.4 | -0.26 | 3.41 |
| " | " | 4, -2 | 16-1-1 | 9 | 0.010 | 30.4 | -22.4 | 12.2 | -11.2 | -0.26 | -2.49 |
| " | " | 6, -2 | 16-1-1 | 9 | 0.010 | 143.9 | 77.6 | 3.7 | 40.8 | -0.26 | 3.41 |
| " | " | 6, -4 | 16-1-1 | 9 | 0.010 | 171.1 | 97.5 | -1.2 | 56.8 | -0.26 | -2.49 |
| " | " | 8, -4 | 16-1-1 | 9 | 0.020 | 176.7 | 97.5 | 6.1 | 80.8 | 7.51 | -2.49 |
| " | " | 8, -2 | 16-1-1 | 9 | 0.010 | 43.2 | 17.6 | 2.4 | 54.4 | -0.26 | -2.49 |
| " | " | 10, -2 | 16-1-1 | 11 | 0.010 | 83.2 | 37.6 | 7.3 | 120.7 | -0.26 | -2.49 |
| " | " | 10, -4 | 16-1-1 | 10 | 0.020 | 123.9 | 57.6 | 9.8 | 68.8 | -0.26 | 3.41 |
| " | " | 12, -4 | 16-1-1 | 9 | 0.010 | 148.7 | 77.6 | 7.3 | 116.7 | -0.26 | -2.49 |
| " | " | 12, -2 | 16-1-1 | 8 | 0.010 | 83.2 | 17.6 | 9.8 | 43.2 | -0.26 | -2.49 |
| " | " | 14, -2 | 16-1-1 | 11 | 0.020 | 147.1 | 97.5 | 9.8 | 119.1 | -0.26 | -2.49 |
| " | " | 14, -4 | 16-1-1 | 9 | 0.020 | 123.1 | 101.5 | 4.9 | 55.2 | -0.26 | -2.49 |
| Concrete Floor | N/A | 16, -2 | 16-1-1 | 10 | 0.010 | 74.4 | 29.6 | -1.2 | 91.9 | -0.26 | 3.59 |
| " | " | 18, -1 | 16-1-1 | 9 | 0.010 | 164.7 | 109.5 | 6.1 | 80.8 | -0.26 | -2.49 |
| " | " | 18, -3 | 16-1-1 | 11 | 0.010 | 114.3 | 77.6 | 3.7 | 87.1 | -0.26 | -2.49 |
| " | " | 19, -4 | 16-1-1 | 15 | 0.010 | 183.9 | 117.5 | 6.1 | 123.1 | -0.26 | -2.49 |
| " | " | 15, -1 | 16-1-1 | 11 | 0.020 | 103.9 | 29.6 | 1.2 | 66.4 | -0.26 | 3.59 |
| " | " | 16, -4 | 16-1-1 | 9 | 0.010 | 101.5 | 77.6 | 7.3 | 95.9 | -0.26 | 3.59 |
| " | " | 16, -6 | 16-1-1 | 8 | 0.010 | 151.9 | 97.5 | 2.4 | 102.3 | -0.26 | -2.49 |
| " | " | 14, -6 | 16-1-1 | 9 | 0.010 | 167.1 | 97.5 | 9.8 | 115.9 | -0.26 | -2.49 |
| " | " | 12, -6 | 16-1-1 | 10 | 0.010 | 112.7 | 77.6 | 0.0 | 135.9 | -0.26 | -2.49 |
| " | " | 11, -5 | 16-1-1 | 10 | 0.010 | 78.4 | 29.6 | 0.0 | 74.4 | -0.26 | 3.59 |
| " | " | 9, -7 | 16-1-1 | 9 | 0.010 | 111.1 | 97.5 | 8.5 | 70.4 | -0.26 | -2.49 |
| " | " | 10, -6 | 16-1-1 | 8 | 0.020 | 115.1 | 77.6 | 14.7 | 0.0 | -0.26 | -2.49 |
| " | " | 10, -8 | 16-1-1 | 11 | 0.010 | 99.1 | 57.6 | 15.9 | 80.0 | -0.26 | -2.49 |

TABLE 2
SUMMARY OF RADIOLOGICAL SCAN DATA
(BUILDING 12, FIRST FLOOR)

| LOCATION CODE | SURFACE DESCRIPTION | EST % SCANNED | BETA SCAN SURVEY | | ACCEPTANCE CRITERIA | | UNITS | % OF ACCEPTANCE CRITERIA | |
|------------------|------------------------|------------------|------------------|---------|---------------------|---------|-------------------------|--------------------------|---------|
| | | | MAXIMUM | AVERAGE | MAXIMUM | AVERAGE | | MAXIMUM | AVERAGE |
| 16-1-1 | CONCRETE FLOOR | 25% | 248 | 38 | 15,000 | 5,000 | DPM/100 cm ² | 1.65% | 0.75% |

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

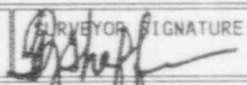
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 5 | * | FLMON:91943 | 28.8% | 3.47 | 1453 |

| |
|----------------------|
| SURVEY DATE: 3/30/93 |
| COUNT DATE: 3/30/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 9 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Concrete Floor | N/A | 2, -8 | 11 | .01 | 1631 | 1500 | 16 | 1530 | -0.264 | 3.59 | Floor monitor used for |
| " | " | 2, -6 | 9 | .01 | 1496 | 1425 | 12 | 1428 | 7.506 | -2.49 | scans & 1 minute counts |
| " | " | 2, -4 | 9 | .01 | 1492 | 1425 | 10 | 1459 | -0.264 | -2.49 | " |
| " | " | 2, -2 | 9 | .01 | 1530 | 1400 | 8 | 1435 | -0.264 | 3.41 | " |
| " | " | 4, -2 | 9 | .01 | 1491 | 1425 | 15 | 1439 | -0.264 | -2.49 | " |
| " | " | 6, -2 | 9 | .01 | 1633 | 1550 | 8 | 1504 | -0.264 | 3.41 | " |
| " | " | 6, -4 | 9 | .01 | 1667 | 1575 | 4 | 1524 | -0.264 | -2.49 | " |
| " | " | 8, -4 | 9 | .02 | 1674 | 1575 | 10 | 1554 | 7.506 | -2.49 | " |
| " | " | 8, -2 | 9 | .01 | 1507 | 1475 | 7 | 1521 | -0.264 | -2.49 | " |
| " | " | 10, -2 | 11 | .01 | 1557 | 1500 | 11 | 1604 | -0.264 | -2.49 | " |
| " | " | 10, -4 | 10 | .02 | 1608 | 1525 | 13 | 1539 | -0.264 | 3.41 | " |
| " | " | 12, -4 | 9 | .01 | 1639 | 1550 | 11 | 1599 | -0.264 | -2.49 | " |
| " | " | 12, -2 | 8 | .01 | 1557 | 1475 | 13 | 1507 | -0.264 | -2.49 | " |
| " | " | 14, -2 | 11 | .02 | 1637 | 1575 | 13 | 1602 | -0.264 | -2.49 | " |
| " | " | 14, -4 | 9 | .02 | 1607 | 1580 | 9 | 1522 | -0.264 | -2.49 | " |

| | | | | |
|---|---|---|----------------------------|---|
| FORM SERIAL #: 16 - 001 (Survey Section - Sequential survey #) | LOCATION # 16-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: II (Group I, II, III, IV) | DISK FILE CODE: FDS - 0455 | SURVEYOR SIGNATURE: TS  |
|---|---|---|----------------------------|---|

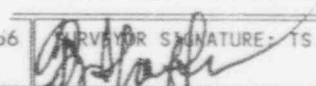
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 5 | * | FLMON:91943 | 28.8% | 3.47 | 1453 |

SURVEY DATE: 3/30/93
 COUNT DATE: 3/30/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Concrete Floor | N/A | 16, -2 | 10 | .01 | 1546 | 1490 | 4 | 1568 | -0.264 | 3.59 | Floor monitor used for |
| " | " | 18, -1 | 9 | .01 | 1659 | 1590 | 10 | 1554 | -0.264 | -2.49 | scans & 1 minute counts |
| " | " | 18, -3 | 11 | .01 | 1596 | 1550 | 8 | 1562 | -0.264 | -2.49 | " |
| " | " | 19, -4 | 15 | .01 | 1683 | 1600 | 10 | 1607 | -0.264 | -2.49 | " |
| " | " | 15, -1 | 11 | .02 | 1583 | 1490 | 6 | 1536 | -0.264 | 3.59 | " |
| " | " | 16, -4 | 9 | .01 | 1580 | 1550 | 11 | 1573 | -0.264 | 3.59 | " |
| " | " | 16, -6 | 8 | .01 | 1643 | 1575 | 7 | 1581 | -0.264 | -2.49 | " |
| " | " | 14, -6 | 9 | .01 | 1662 | 1575 | 13 | 1598 | -0.264 | -2.49 | " |
| " | " | 12, -6 | 10 | .01 | 1594 | 1550 | 5 | 1623 | -0.264 | -2.49 | " |
| " | " | 11, -5 | 10 | .01 | 1551 | 1490 | 5 | 1546 | -0.264 | 3.59 | " |
| " | " | 9, -7 | 9 | .01 | 1592 | 1575 | 12 | 1541 | -0.264 | -2.49 | " |
| " | " | 10, -6 | 8 | .02 | 1597 | 1550 | 17 | 1453 | -0.264 | -2.49 | " |
| " | " | 10, -8 | 11 | .01 | 1577 | 1525 | 18 | 1553 | -0.264 | -2.49 | " |
| " | " | 8, -8 | 11 | .01 | 1720 | 1650 | 15 | 1706 | -0.264 | -2.49 | " |
| " | " | 6, -6 | 8 | .01 | 1567 | 1500 | 8 | 1573 | -0.264 | -2.49 | " |

| | | | | |
|---|---|---|----------------------------|---|
| FORM SERIAL #: 16 - 001 (Survey Section - Sequential survey #) | LOCATION # 16-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: II (Group I, II, III, IV) | DISK FILE CODE: FDS - 0-36 | SURVEYOR SIGNATURE: TS  |
|---|---|---|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Beta efficiency log file: es137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 14.35

Application Revision: 2

Application Version: Standard

Date: 3/30/93

Counting Unit id: 1

Data file name: C:\LEL\WJNH1\100101.XLD

Batch Ended: 3/30/93 13:43

Crossstalk Correction: Not Applied

Batch ID: M1S 16 1 1 floes/walls

| Channel | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion IOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | LPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 11 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:28 |
| 12 | 7.506 | 7.94 | At Al | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 2.841 | -1.24 | 3/30/93 13:29 |
| 13 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:29 |
| 14 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:30 |
| 15 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:30 |
| 16 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:31 |
| 17 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:31 |
| 18 | 7.506 | 7.94 | At Al | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 2.841 | -1.24 | 3/30/93 13:32 |
| 19 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:32 |
| 20 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:33 |
| 21 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:33 |
| 22 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:34 |
| 23 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:34 |
| 24 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:35 |
| 25 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:36 |
| 26 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:36 |
| 27 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:37 |
| 28 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:37 |
| 29 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:38 |
| 30 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:38 |
| 31 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:39 |
| 32 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:39 |
| 33 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:40 |
| 34 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:40 |
| 35 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:41 |

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 14.35

Date: 3/30/93

Counting Unit Id: 1

Data file name: C:\DXI\BIN\115160101.XID

Batch Endid: 3/30/93 13:43

Crosstalk Correction: Not Applied

Beta efficiency log file: cs137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Application Revision: 2

Application Version: Standard

Batch ID: MTS 16 1 1 floors/walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 36 | -0.264 | 1.03 | <MDA | 28.84 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:41 |
| 37 | -0.264 | 1.03 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:42 |
| 38 | -0.264 | 1.03 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:42 |
| 39 | -0.264 | 1.03 | <MDA | 28.84 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:43 |
| 40 | -0.264 | 1.03 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:43 |



| REVISIONS | |
|-----------|------|
| NO. | DATE |
| | |
| | |

| NO. | DATE | DESCRIPTION | BY | CHECKED |
|-----|------|-------------|----|---------|
| | | | | |
| | | | | |

| PARTS LIST | |
|------------|-------------|
| QTY | DESCRIPTION |
| | |
| | |
| | |

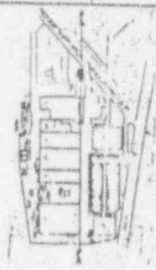
| CONTRACT NO. | |
|--------------|-------------|
| DATE | DESCRIPTION |
| | |
| | |

| FIRST, SECOND FLOORS | |
|----------------------|--|
| BUILDING No. 12 | |
| WAESD LARG.E. PA. | |
| | |
| | |

LEGEND

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

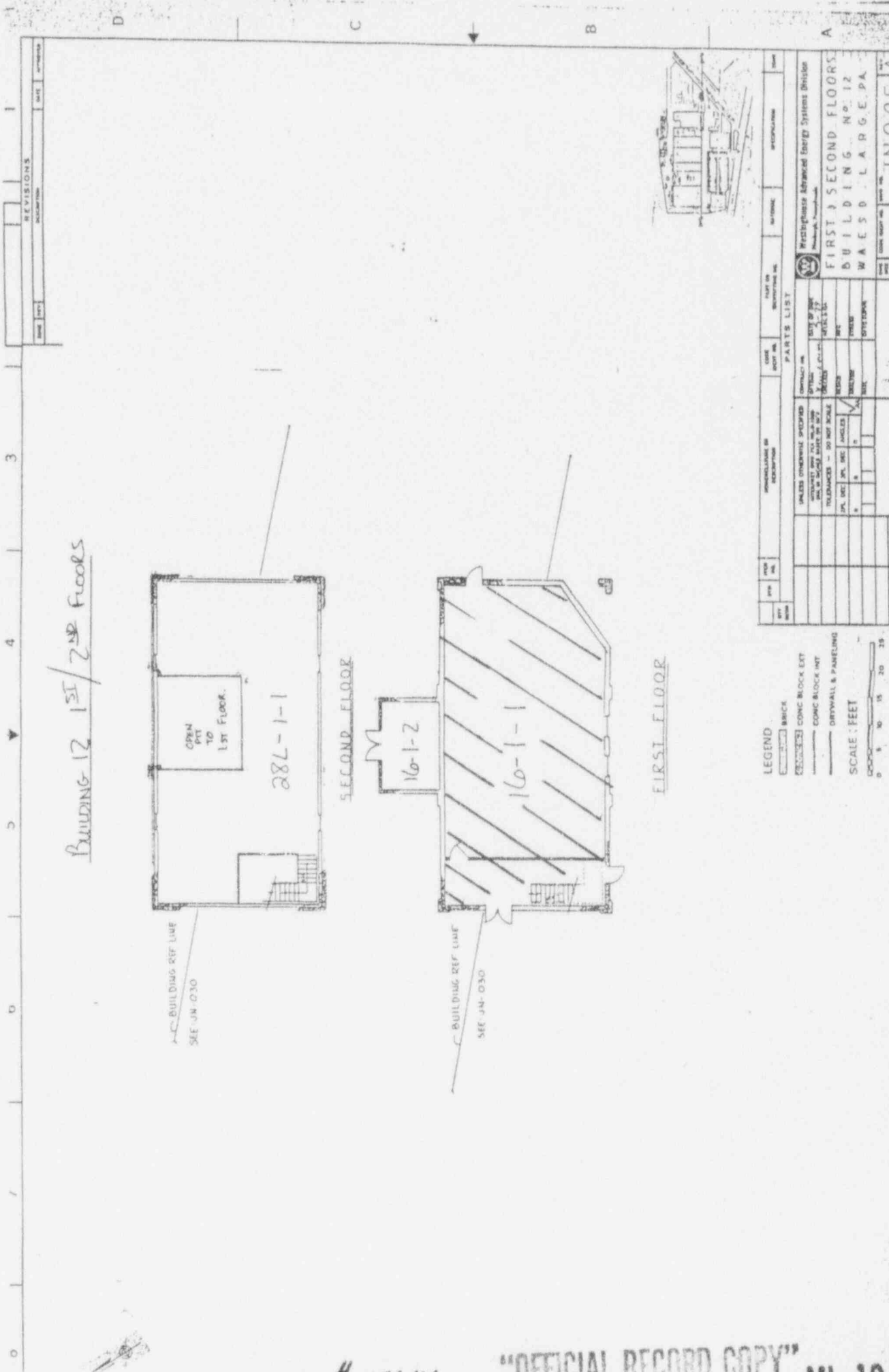
SCALE: FEET



TNO 251A

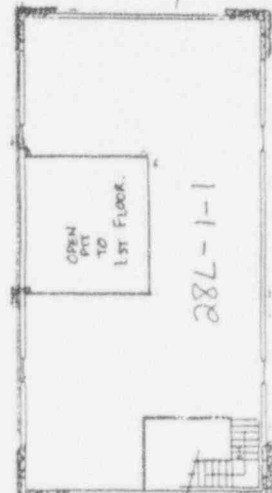
APPENDIX B

RADIOLOGICAL SURVEY DATA SHEETS FOR FLOOR SCANS

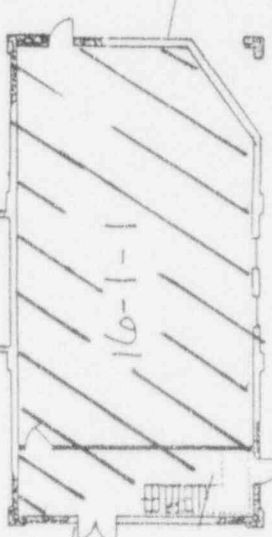


| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

BUILDING 12 1ST / 2ND FLOORS



SECOND FLOOR



FIRST FLOOR

BUILDING REF LINE
SEE JN-O-30

BUILDING REF LINE
SEE JN-O-30

| NO. | DATE | DESCRIPTION | BY | CHECKED BY |
|-----|------|-------------|----|------------|
| | | | | |

| NO. | DATE | DESCRIPTION | BY | CHECKED BY |
|-----|------|-------------|----|------------|
| | | | | |

| NO. | DATE | DESCRIPTION | BY | CHECKED BY |
|-----|------|-------------|----|------------|
| | | | | |

LEGEND
 BRICK
 CONG BLOCK EXT
 CONG BLOCK INT
 DRYWALL & PANELING
 SCALE: FEET
 0 5 10 15 20 25

#117646

"OFFICIAL RECORD COPY" ML 10

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY

OF BUILDING NUMBER 5A

(SURVEY SECTION 28C)

APRIL 5, 1993

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

REPORT #026

"OFFICIAL RECORD COPY" ML 10

117646

FINAL RADIOLOGICAL SURVEY
OF BUILDING NUMBER 5A
(SURVEY SECTION 28C)

TABLE OF CONTENTS

| | <u>Page Number</u> |
|---------------------|--------------------|
| Purpose | 1 |
| Scope | 1 |
| Analysis of Results | 1 |
| Current Status | 2 |
| Conclusions | 2 |

Appendix A - Radiological Survey Data Sheets For Unit 1

(i)

REPORT #026

"OFFICIAL RECORD COPY" ML 10

117646

FINAL RADIOLOGICAL SURVEY

OF BUILDING NUMBER 5A

(Survey Section 28C)

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 documents the results of the final radiological survey of Building Number 5A on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of Building Number 5A on the site. Figure 2 presents the floor plan for the building. This building has been designated as Survey Section 28C. (See Report #009). The entire building has been assigned a Survey Classification of Class 1 as defined in Report #009.

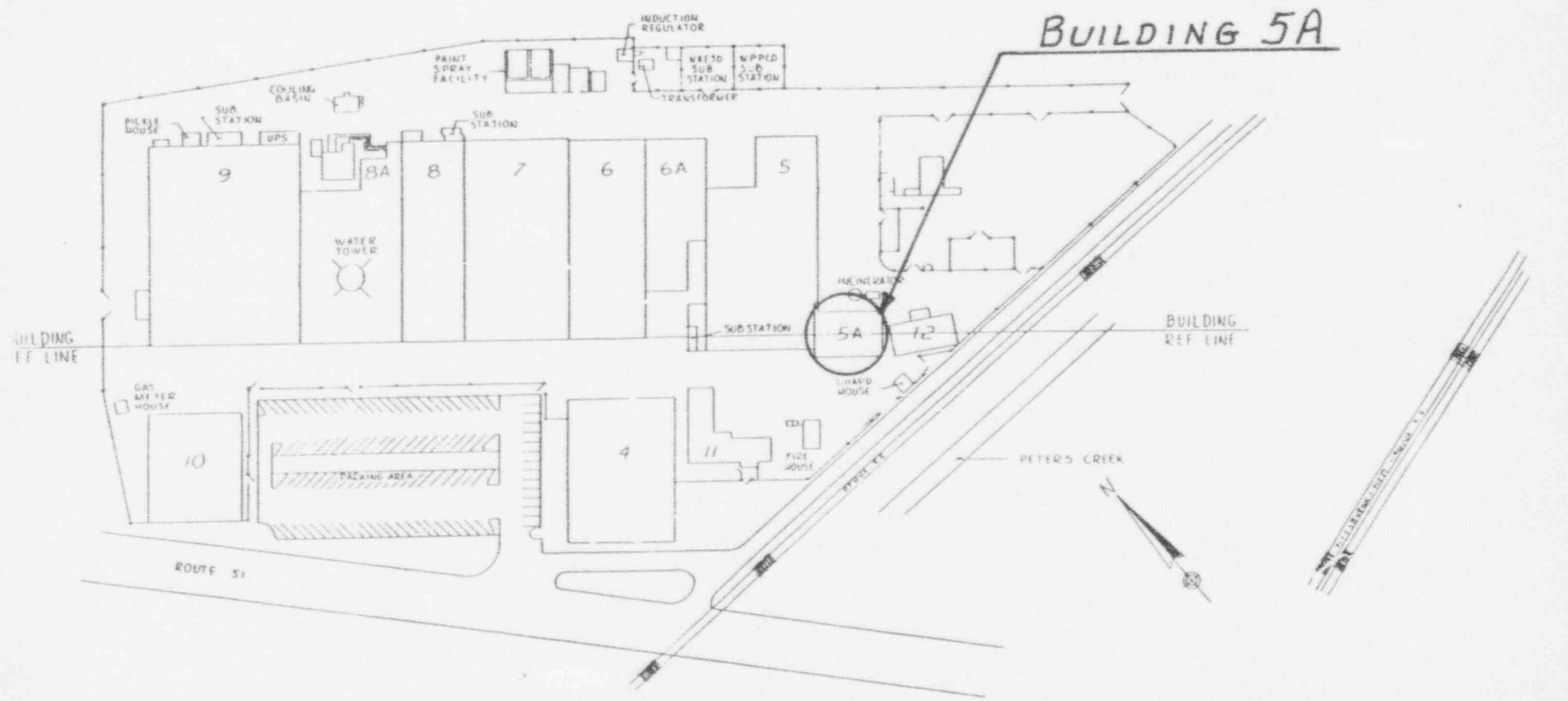
Appendix A incorporates all of the radiological survey data sheets for the survey unit. Table 1 presents the survey data for the survey unit with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of the table to determine if the acceptance criteria have been met at the desired degree of confidence.

Current Status

Building 5A is an occupied area. It is anticipated that use of this building will continue throughout the project. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of the building meets all the radiological acceptance criteria at the 95% confidence level. Therefore, this building can be released for unrestricted use. There is no potential for this building to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.



**FIGURE 1
SITE PLOT PLAN**

| REV | | DESCRIPTION OR REVISION | DATE | BY | CHKD BY | APPROVED BY |
|--|--|-------------------------|---------------|----|---------|-------------|
| PARTS LIST | | | | | | |
| UNLESS OTHERWISE SPECIFIED: | | | CONTRACT NO. | | 14683 | |
| SPECIFICATIONS SHALL BE AS SHOWN | | | DATE OF ORDER | | JN030 | |
| DIMENSIONS - IN UNLESS NOTED OTHERWISE | | | DRAWN BY | | SCALE | |
| MATERIALS - AS SHOWN | | | CHECKED BY | | BY CALC | |
| FINISHES - AS SHOWN | | | APPROVED BY | | DATE | |
| COLORS - AS SHOWN | | | BY | | SHEET | |
| PAINTS - AS SHOWN | | | DATE | | OF | |
| GLAZING - AS SHOWN | | | BY | | SHEET | |
| FLOORING - AS SHOWN | | | DATE | | OF | |
| ROOFING - AS SHOWN | | | BY | | SHEET | |
| MECHANICAL - AS SHOWN | | | DATE | | OF | |
| ELECTRICAL - AS SHOWN | | | BY | | SHEET | |
| PLUMBING - AS SHOWN | | | DATE | | OF | |
| HVAC - AS SHOWN | | | BY | | SHEET | |
| OTHER - AS SHOWN | | | DATE | | OF | |

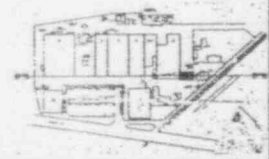
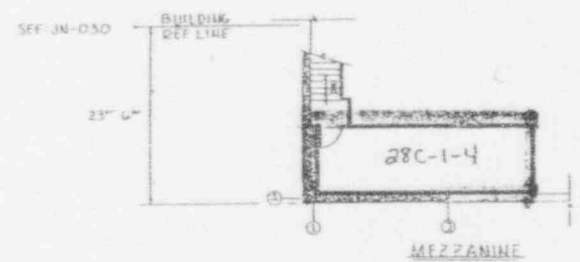
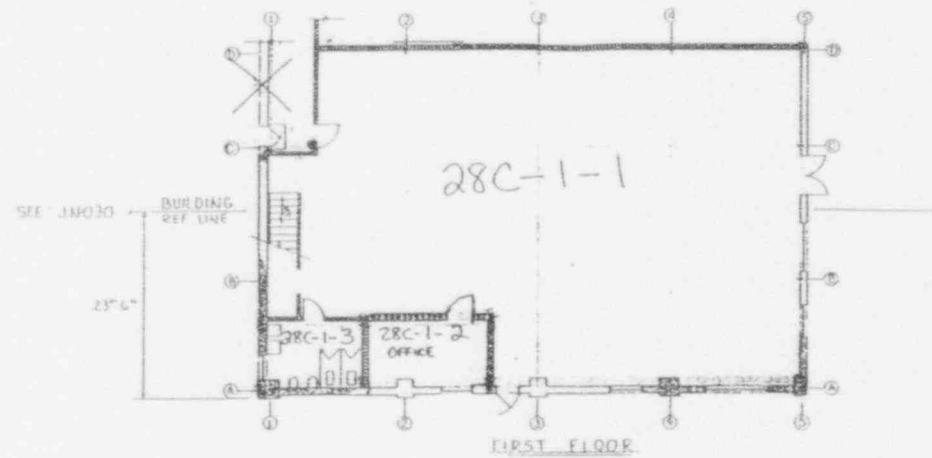
Westinghouse Advanced Energy Systems Div.
Pittsburgh, Pennsylvania

V A E S D L A R G E . P A

D 14683 JN030

| REV. NO. | | REVISIONS | DATE | APPROVED |
|----------|--|-----------|------|----------|
| | | | | |

BUILDING 5A 1ST/2ND FLOORS



LEGEND

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

SCALE : FEET

| QTY | UNIT | DESCRIPTION | CODE | PART OR IDENTIFYING NO. | MATERIAL | SPECIFICATION | ZONE |
|-------------------|------|------------------------------------|--------------|-------------------------|---|---------------|----------|
| PARTS LIST | | | | | | | |
| | | UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | | Westinghouse Advanced Energy Systems Division | | |
| | | INTERPRET AND FOR BUILDING | DATE | 8-77 | | | |
| | | 2 1/2" MIN DIMENSIONS UNLESS NOTED | DESIGN | STEEL/STC | | | |
| | | TOLERANCES - DO NOT SCALE | WOOD | SPE | | | |
| | SPL | ENC | SPL | DEF | ANGLES | QUALITY | FINISH |
| | X | A | X | | | AS | EXTERIOR |
| | | | | | | | |
| SPECIFICATION | | TYPE | | | D 14683 | | |
| DWG CODE NO. | | | | JN-010 | | REV. A | |
| | | SCALE | WT ACTL | WT CALC | ANEST | OP | |

FIGURE 2
BUILDING 5A, SURVEY SECTION 28C

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5A (SECTION 28C, UNIT 1)

| ? | ? | ? | X, Y | LOCATION | GAMMA SURVEY | BETA/GAMMA SURVEY | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---|---------------------|------|-----------|----------|--------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | | | | | | | MAXIMUM BETA | AVERAGE BETA | ALPHA | BETA | ALPHA | BETA |
| ? | SURFACE DESCRIPTION | GRID | REF POINT | CODE | @1 METER | ON CONTACT | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) |
| ? | Painted Concrete | N/A | 4, -2 | 28C-1-1 | 8 | 0.010 | 124.7 | 52.0 | -4.9 | 69.6 | -0.26 | -2.49 |
| ? | " | " | 2, -4 | 28C-1-1 | 9 | 0.010 | 103.9 | 52.0 | 7.3 | 47.2 | -0.26 | -2.49 |
| ? | " | " | 2, -6 | 28C-1-1 | 8 | 0.010 | 103.9 | 52.0 | 1.2 | 84.0 | -0.26 | -2.49 |
| ? | " | " | 4, -6 | 28C-1-1 | 9 | 0.020 | 132.7 | 72.0 | -2.4 | 48.8 | -0.26 | 9.66 |
| ? | " | " | 6, -10 | 28C-1-1 | 8 | 0.010 | 151.9 | 111.9 | 1.2 | 56.8 | -0.26 | -2.49 |
| ? | " | " | 6, -8 | 28C-1-1 | 10 | 0.010 | 289.4 | 171.9 | 3.7 | 147.1 | -0.26 | 3.59 |
| ? | " | " | 6, -6 | 28C-1-1 | 8 | 0.010 | 182.3 | 151.9 | -3.7 | 110.3 | -0.26 | 9.31 |
| ? | " | " | 6, -2 | 28C-1-1 | 9 | 0.010 | 137.5 | 91.9 | 2.4 | 156.7 | -0.26 | -2.49 |
| ? | " | " | 8, -3 | 28C-1-1 | 12 | 0.010 | 149.5 | 111.9 | 7.3 | 139.1 | -0.26 | 3.59 |
| ? | " | " | 8, -8 | 28C-1-1 | 8 | 0.020 | 159.9 | 115.9 | 3.7 | 123.1 | -0.26 | -2.49 |
| ? | " | " | 8, -10 | 28C-1-1 | 6 | 0.010 | 166.3 | 131.9 | 4.9 | 61.6 | -0.26 | -2.49 |
| ? | " | " | 8, -12 | 28C-1-1 | 9 | 0.010 | 140.7 | 123.9 | 0.0 | 190.3 | -0.26 | -2.49 |
| ? | " | " | 10, -12 | 28C-1-1 | 8 | 0.010 | 6.4 | -32.0 | 1.2 | 2.4 | -0.26 | 9.66 |
| ? | " | " | 10, -10 | 28C-1-1 | 7 | 0.010 | -10.4 | -68.0 | -1.2 | -78.4 | -0.26 | 3.41 |
| ? | " | " | 12, -12 | 28C-1-1 | 7 | 0.010 | 17.6 | -28.0 | 1.2 | -20.8 | -0.26 | 3.59 |
| ? | Concrete Floor | N/A | 12, -10 | 28C-1-1 | 7 | 0.010 | 0.8 | -48.0 | -8.5 | -49.6 | -0.26 | -2.49 |
| ? | " | " | 12, -4 | 28C-1-1 | 6 | 0.010 | 81.6 | 12.0 | -1.2 | 47.2 | -0.26 | 5.53 |
| ? | " | " | 12, -3 | 28C-1-1 | 7 | 0.010 | 108.7 | 72.0 | 0.0 | 55.2 | -0.26 | -2.49 |
| ? | " | " | 10, -2 | 28C-1-1 | 7 | 0.020 | 111.9 | 72.0 | 3.7 | 91.9 | 7.74 | -2.49 |
| ? | " | " | 10, -3 | 28C-1-1 | 9 | 0.010 | 173.5 | 131.9 | 0.0 | 106.3 | -0.26 | -2.49 |
| ? | " | " | 14, -3 | 28C-1-1 | 6 | 0.010 | 191.9 | 131.9 | 6.1 | 90.3 | -0.26 | -2.49 |
| ? | " | " | 14, -5 | 28C-1-1 | 7 | 0.010 | 94.3 | 52.0 | -6.1 | 97.5 | -0.26 | -2.49 |
| ? | " | " | 16, -5 | 28C-1-1 | 9 | 0.010 | 247.9 | 191.9 | 0.0 | 139.9 | -0.26 | -2.49 |
| ? | " | " | 18, -5 | 28C-1-1 | 11 | 0.010 | 246.3 | 203.9 | -3.7 | 250.3 | -0.26 | 3.59 |
| ? | " | " | 18, -3 | 28C-1-1 | 10 | 0.020 | 125.5 | 52.0 | 0.0 | 104.7 | -0.26 | -2.49 |
| ? | " | " | 15, -2 | 28C-1-1 | 7 | 0.010 | 284.6 | 251.9 | -4.9 | 248.7 | -0.26 | -2.49 |
| ? | " | " | 15, -7 | 28C-1-1 | 7 | 0.010 | 102.3 | 91.9 | -2.4 | 104.7 | -0.26 | -2.49 |
| ? | " | " | 14, -10 | 28C-1-1 | 7 | 0.010 | -36.0 | -84.0 | -4.9 | -50.4 | -0.26 | -2.49 |

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 7 | * | FLMON:91943 | 28.8% | 3.47 | 1285 |

| |
|----------------------|
| SURVEY DATE: 3/29/93 |
| COUNT DATE: 3/29/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 8 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Painted Concrete | N/A | 4, -2 | 8 | .01 | 1441 | 1350 | 3 | 1372 | -0.264 | -2.49 | Floor monitor used for |
| " | " | 2, -4 | 9 | .01 | 1415 | 1350 | 13 | 1344 | -0.264 | -2.49 | scans & 1 minute counts |
| " | " | 2, -6 | 8 | .01 | 1415 | 1350 | 8 | 1390 | -0.264 | -2.49 | " |
| " | " | 4, -6 | 9 | .02 | 1451 | 1375 | 5 | 1346 | -0.264 | 9.66 | " |
| " | " | 6, -10 | 8 | .01 | 1475 | 1425 | 8 | 1356 | -0.264 | -2.49 | " |
| " | " | 6, -8 | 10 | .01 | 1647 | 1500 | 10 | 1469 | -0.264 | 3.59 | " |
| " | " | 6, -6 | 8 | .01 | 1513 | 1475 | 4 | 1423 | -0.264 | 5.31 | " |
| " | " | 6, -2 | 9 | .01 | 1457 | 1400 | 9 | 1481 | -0.264 | -2.49 | " |
| " | " | 8, -3 | 12 | .01 | 1472 | 1425 | 13 | 1459 | -0.264 | 3.59 | " |
| " | " | 8, -8 | 8 | .02 | 1485 | 1430 | 10 | 1439 | -0.264 | -2.49 | " |
| " | " | 8, -10 | 6 | .01 | 1493 | 1450 | 11 | 1362 | -0.264 | -2.49 | " |
| " | " | 8, -12 | 9 | .01 | 1461 | 1440 | 7 | 1523 | -0.264 | -2.49 | " |
| " | " | 10, -12 | 8 | .01 | 1293 | 1245 | 8 | 1288 | -0.264 | 9.66 | " |
| " | " | 10, -10 | 7 | .01 | 1272 | 1200 | 6 | 1187 | -0.264 | 3.41 | " |
| " | " | 11, -12 | 7 | .01 | 1307 | 1250 | 8 | 1259 | -0.264 | 3.59 | " |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 C - 001 (Survey Section - Sequential survey #) | LOCATION # 28 C-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: * (Group I, II, III, IV) | DISK FILE CODE: FDS - 0437 | SURVEYOR SIGNATURE: TS  |
|---|---|--|----------------------------|---|

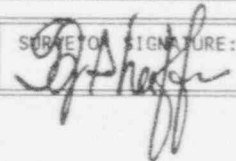
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 7 | * | FLMON:91943 | 28.8% | 3.47 | 1285 |

| |
|----------------------|
| SURVEY DATE: 3/29/93 |
| COUNT DATE: 3/29/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 8 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|---------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Concrete Floor | N/A | 12, -10 | 7 | .01 | 1286 | 1225 | 0 | 1223 | -0.264 | -2.49 | Floor monitor used for |
| " | " | 12, -4 | 6 | .01 | 1387 | 1300 | 6 | 1344 | -0.264 | 5.53 | scans & 1 minute counts |
| " | " | 12, -3 | 7 | .01 | 1421 | 1375 | 7 | 1354 | -0.264 | -2.49 | " |
| " | " | 10, -2 | 7 | .02 | 1425 | 1375 | 10 | 1400 | 7.741 | -2.49 | " |
| " | " | 10, -3 | 9 | .01 | 1502 | 1450 | 7 | 1418 | -0.264 | -2.49 | " |
| " | " | 14, -3 | 6 | .01 | 1525 | 1450 | 12 | 1398 | -0.264 | -2.49 | " |
| " | " | 14, -5 | 7 | .01 | 1403 | 1350 | 2 | 1407 | -0.264 | -2.49 | " |
| " | " | 16, -5 | 9 | .01 | 1595 | 1525 | 7 | 1460 | -0.264 | -2.49 | " |
| " | " | 18, -5 | 11 | .01 | 1593 | 1540 | 4 | 1598 | -0.264 | 3.59 | " |
| " | " | 18, -3 | 10 | .02 | 1442 | 1350 | 7 | 1416 | -0.264 | -2.49 | " |
| " | " | 15, -2 | 7 | .01 | 1641 | 1600 | 3 | 1596 | -0.264 | -2.49 | " |
| " | " | 15, -7 | 7 | .01 | 1413 | 1400 | 5 | 1416 | -0.264 | -2.49 | " |
| " | " | 14, -10 | 7 | .01 | 1240 | 1180 | 3 | 1222 | -0.264 | -2.49 | " |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 C - 001 (Survey Section - Sequential survey #) | LOCATION # 28 C-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0438 | SURVEYOR SIGNATURE: TS  |
|---|---|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/29/93
 Counting Unit id: 1
 Data file name: C:\LEXI\UNIT1\28C0101.XLD
 Batch File Id: 3/29/93 14:31
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: FLOORS AND WALLS BLDG. 5A

| Location | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|----------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 1 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 14:16 |
| 2 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:17 |
| 3 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:17 |
| 4 | 0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/29/93 14:18 |
| 5 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 14:18 |
| 6 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 14:19 |
| 7 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/29/93 14:19 |
| 8 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:20 |
| 9 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 14:20 |
| 10 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:21 |
| 11 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 14:21 |
| 12 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:22 |
| 13 | 0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/29/93 14:23 |
| 14 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.79 | 3/29/93 14:23 |
| 15 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 14:24 |
| 16 | 0.264 | 1.65 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:24 |
| 17 | 0.264 | 0.93 | <MDA | 11.27 | 5.53 | 4.80 | <AL | 15.88 | 1.00 | -0.100 | 2.76 | 3/29/93 14:25 |
| 18 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:26 |
| 19 | 7.741 | 8.17 | AL AL | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 2.930 | -1.24 | 3/29/93 14:26 |
| 20 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:27 |
| 21 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 14:27 |
| 22 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:28 |
| 23 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:28 |
| 24 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 14:29 |
| 25 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 14:29 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/29/93
 Counting Unit id: 1
 Data file name: C:\NIXI\UNIT1\28C0101.XLD
 Batch Ended: 3/29/93 14:31
 Crosstalk Correction: Not applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: FLOORS AND WALLS BLDG. 5A

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|------|-------|-------|---------------|------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | c | Flags | MDA | DPM | c | Flags | MDA | | | | |
| 26 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:30 |
| 27 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:30 |
| 28 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 14:31 |


| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 7 | * | FLMON:91943 | 28.8% | 3.47 | 1285 |

| |
|----------------------|
| SURVEY DATE: 3/29/93 |
| COUNT DATE: 3/29/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 8 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 2, -1 | 10 | .01 | 1290 | 1250 | 7 | 1270 | -0.264 | -2.49 | Floor monitor used for |
| " | " | 3, -1 | 9 | .01 | 1303 | 1250 | 2 | 1271 | -0.264 | 3.41 | scans & 1 minute counts |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 C - 002 (Survey Section - Sequential survey #) | LOCATION # 28 C-1-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0439 | SURVEYOR SIGNATURE: TS  |
|---|---|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/29/93
 Counting Unit id: 1
 Data file name: C:\LBXI\UNIF1\28C0102.XLD
 Batch Ended: 3/29/93 14:32
 Crosstalk Correction: Not Applied

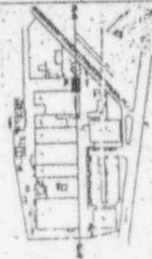
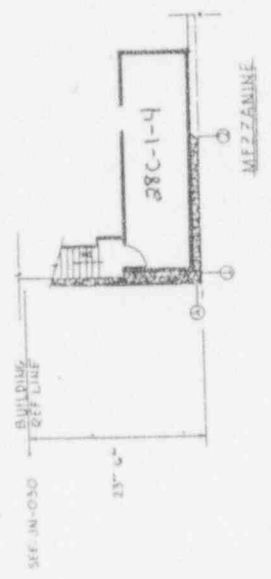
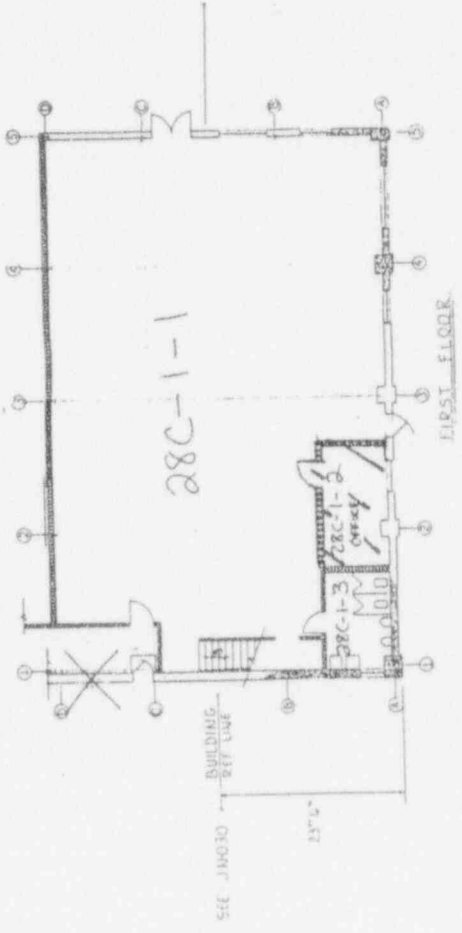
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainly level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: FLOORS AND WALLS BLDG 5A

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 29 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 14:31 |
| 30 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.86 | 0.34 | -0.100 | 1.70 | 3/29/93 14:32 |

BUILDING 5A 1ST / 2ND FLOORS



| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY

OF BUILDING NUMBER 10

(SURVEY SECTION 28H)

MARCH 17, 1993

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

REPORT #021

"OFFICIAL RECORD COPY" ML 10

117646

FINAL RADIOLOGICAL SURVEY

OF BUILDING NUMBER 10

(SURVEY SECTION 28H)

TABLE OF CONTENTS

| | <u>Page Number</u> |
|---|--------------------|
| Purpose | 1 |
| Scope | 1 |
| Analysis of Results | 1 |
| Current Status | 2 |
| Conclusions | 2 |
| Appendix A - Radiological Survey Data Sheets For Unit 1 | |
| Appendix B - Radiological Survey Data Sheets For Unit 2 | |

FINAL RADIOLOGICAL SURVEY

OF BUILDING NUMBER 10

(Survey Section 28H)

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 documents the results of the final radiological survey of Building Number 10 on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of Building Number 10 on the site. Figure 2 presents the floor plan for the building. This building has been designated as Survey Section 28H. (See Report #009). In addition, the building was subdivided into units and subunits as shown on Figure 2. This building has been assigned a Survey Classification of 1 as defined in Report #009.

Appendices A and B incorporate all of the radiological survey data sheets for each of the two survey units. Tables 1 and 2 present the survey data for each of the survey units with all the results converted, as appropriate, to the units necessary for comparison against the radiological

acceptance criteria. A statistical analysis is included at the end of each table to determine if the acceptance criteria have been met at the desired degree of confidence. In Table 1, the gamma dose rate at 1 meter does not meet the statistical test due to the elevated radiation readings in the rest rooms. This is apparently due to the presence of naturally occurring radioactive material in the ceramic tile. No further action has been taken. Table 3 presents a summary of the statistical information.

Current Status

Building 10 is partially occupied as an office building. It is anticipated that use of this building will continue throughout the project. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of this building meets all the radiological acceptance criteria at the 95% confidence level with the exception of the gamma dose rate at 1 meter in the restrooms as discussed above. Therefore, this building can be released for unrestricted use. There is no potential for this building to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.

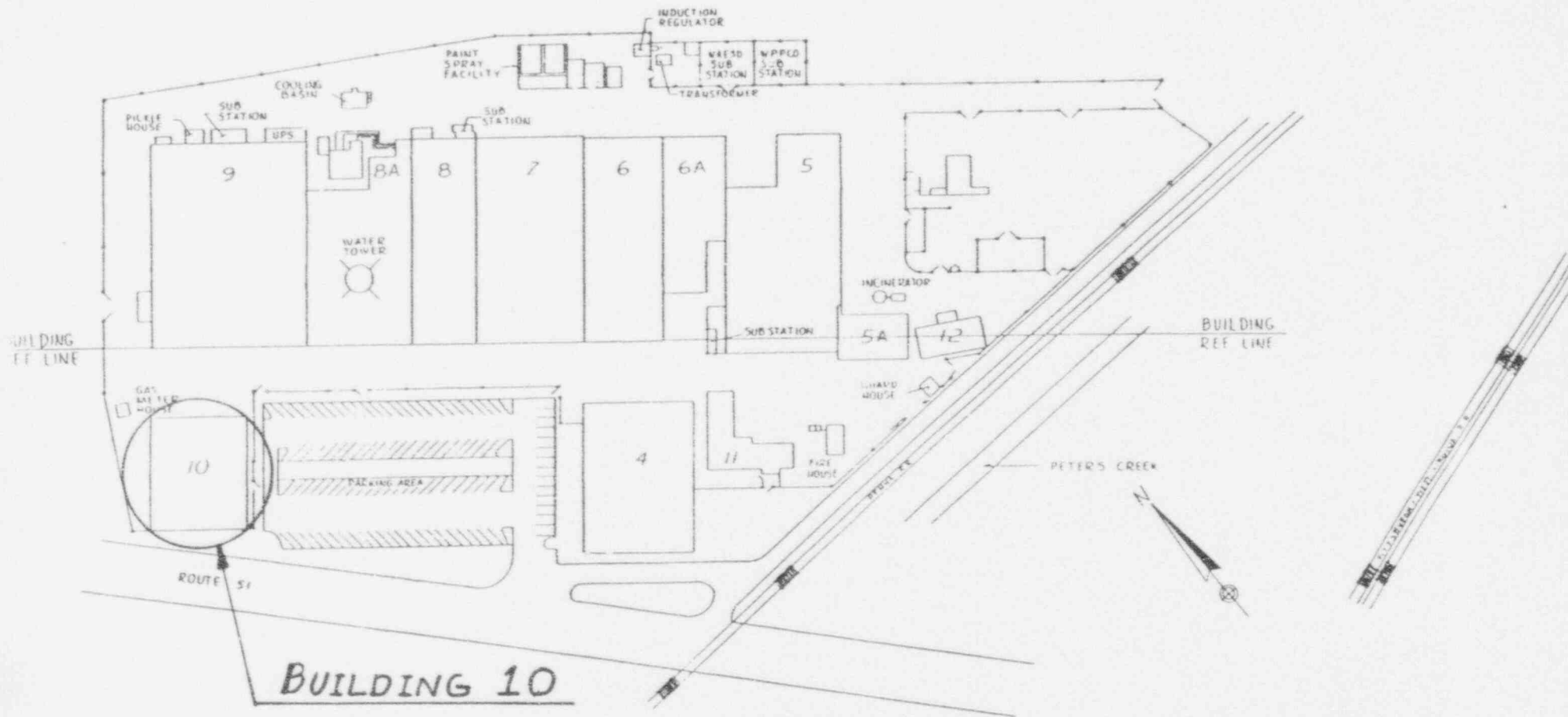


FIGURE 1
SITE PLOT PLAN

| REV | DATE | DESCRIPTION OR REVISION | DATE | REV. NO. | DESCRIPTION | DATE | REV. NO. | DESCRIPTION |
|--------------------------------|------|-------------------------|------------------|----------|-------------|--|----------|-------------|
| PARTS LIST | | | | | | | | |
| UNLESS OTHERWISE SPECIFIED | | | CONTRACT NO. | | | 499 Westinghouse Advanced Energy Systems Divs. Pittsburgh, Pennsylvania | | |
| DIMENSIONS ARE FOR DATA ONLY | | | DATE OF DRAWING | | | 12/1/83 | | |
| TOLERANCES - DO NOT SCALE | | | DESIGNER | | | WJL/TLS | | |
| MATERIALS - SEE SPECIFICATIONS | | | CHECKER | | | WJL | | |
| SCALE | | | DRAWN | | | WJL | | |
| PROJECT NO. | | | DATE OF ORDER | | | 14683 | | |
| JOB NO. | | | DATE OF DELIVERY | | | JN030 | | |
| DRAWN BY | | | CHECKED BY | | | DATE | | |
| SCALE | | | BY CAL. | | | SHEET NO. | | |

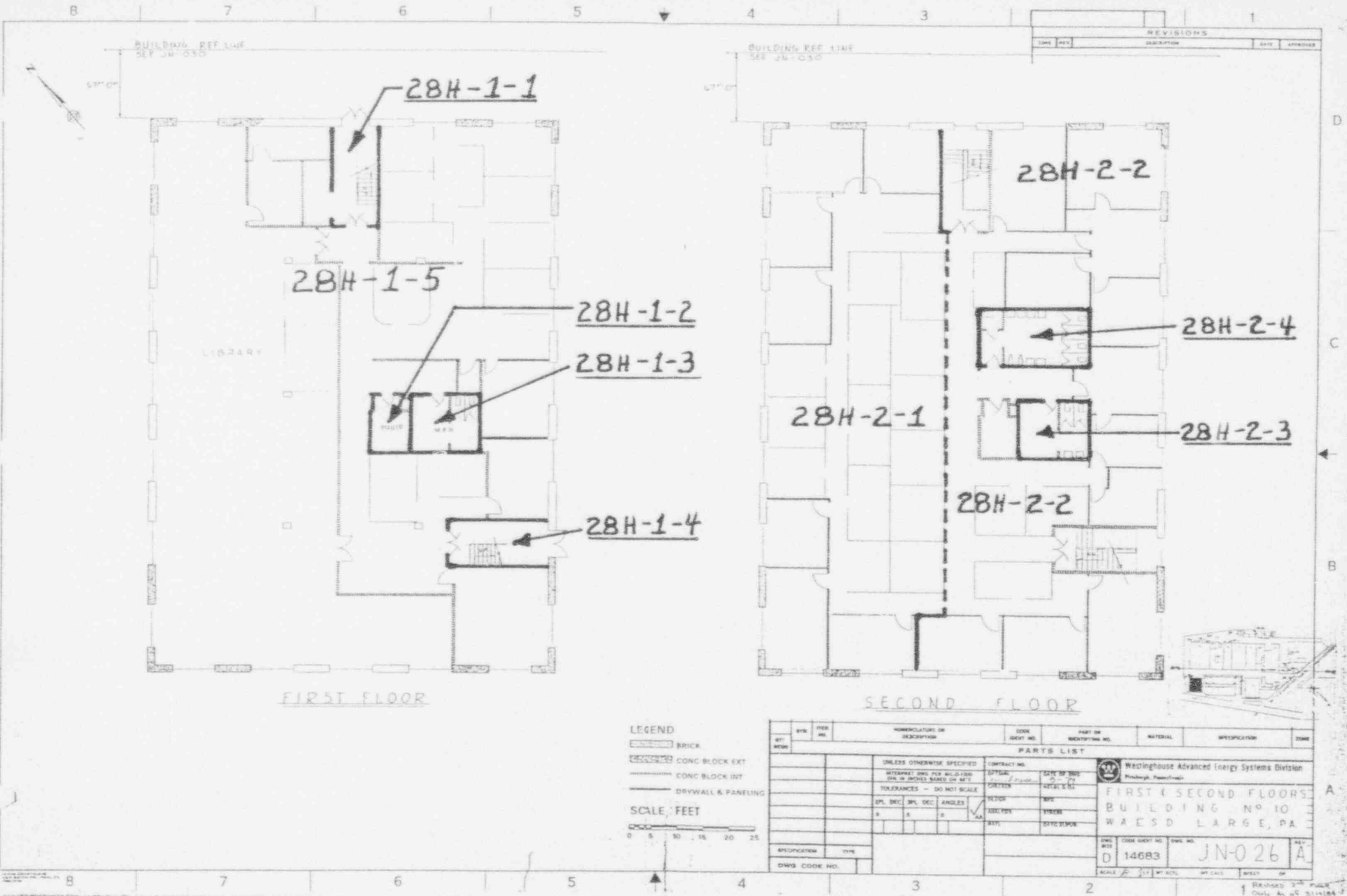


FIGURE 2
BUILDING 10

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #10, FIRST FLOOR (SECTION 28H, UNIT 1)

| ? | ? | ? | X, Y | LOCATION | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | | |
|---|---------------------|---|-------|----------|---------|------------|--------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|-------|-------|
| | | | | | SURVEY | SURVEY | MAXIMUM | AVERAGE | ALPHA | BETA | ALPHA | BETA | | |
| ? | SURFACE DESCRIPTION | ? | GRID | ? | REF | LOCATION | @1 METER | ON CONTACT | MAXIMUM | AVERAGE | ALPHA | BETA | | |
| ? | ? | ? | POINT | ? | CODE | | (microR/hr) | (mR/hr) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | | |
| ? | Slate Floor | ? | N/A | ? | 1, -2 | 28H-1-1 | 12 | 0.010 | -6.4 | -61.6 | 15.9 | -92.7 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 1, -4 | 28H-1-1 | 12 | 0.010 | -23.2 | -89.5 | 3.7 | -90.3 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 1, -6 | 28H-1-1 | 11 | 0.010 | -2.4 | -101.5 | 8.5 | -49.6 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -5 | 28H-1-1 | 10 | 0.020 | -17.6 | -81.6 | 14.7 | -28.0 | 7.51 | 3.41 |
| ? | Floor | ? | N/A | ? | 1, -2 | 28H-1-2 | 10 | 0.020 | 167.1 | 98.3 | 29.3 | 135.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 1, -1 | 28H-1-2 | 10 | 0.010 | 131.1 | 78.4 | 4.9 | 118.3 | -0.26 | -2.49 |
| ? | Floor Tile | ? | N/A | ? | 1, -1 | 28H-1-3 | 17 | 0.010 | 222.3 | 178.3 | 8.5 | 171.1 | -0.26 | 9.31 |
| ? | " | ? | " | ? | 1, -2 | 28H-1-3 | 15 | 0.010 | 243.9 | 178.3 | 9.8 | 166.3 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 1, -3 | 28H-1-3 | 18 | 0.020 | 357.4 | 278.2 | -4.9 | 273.4 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 2, -2 | 28H-1-3 | 18 | 0.020 | 245.5 | 198.3 | 3.7 | 259.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 3, -1 | 28H-1-3 | 17 | 0.010 | 362.2 | 298.2 | 3.7 | 338.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 3, -2 | 28H-1-3 | 17 | 0.020 | 238.3 | 198.3 | 2.4 | 246.3 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 3, -3 | 28H-1-3 | 17 | 0.020 | 293.4 | 258.3 | 9.8 | 306.2 | -0.26 | -2.49 |
| ? | Glazed Tile Wall/S. | ? | " | ? | 2, -5 | 28H-1-3 | | | 368.8 | 302.4 | 6.0 | 257.5 | -0.26 | 3.59 |
| ? | " West | ? | " | ? | 2, -5 | 28H-1-3 | | | 313.1 | 255.5 | 10.0 | 278.9 | -0.26 | -2.49 |
| ? | " North | ? | " | ? | 2, -5 | 28H-1-3 | | | 345.3 | 268.9 | 2.0 | 301.7 | -0.26 | -2.49 |
| ? | " East | ? | " | ? | 2, -5 | 28H-1-3 | | | 346.7 | 309.1 | 9.0 | 278.9 | -0.26 | 3.59 |
| ? | Floor Tile | ? | N/A | ? | 1, -6 | 28H-1-4 | 10 | 0.010 | 22.4 | -21.6 | 3.7 | 22.4 | 2.38 | 3.53 |
| ? | " | ? | " | ? | 1, -4 | 28H-1-4 | 12 | 0.010 | 63.2 | 18.4 | 0.0 | 70.4 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 1, -2 | 28H-1-4 | 12 | 0.020 | 98.3 | -1.6 | 4.9 | 62.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 1, -1 | 28H-1-4 | 10 | 0.020 | 190.3 | 118.3 | 19.5 | 80.0 | -0.26 | -2.49 |
| ? | North Wall/Block | ? | " | ? | 2, -1.3 | 28H-1-4 | | | 78.4 | 34.2 | 0.0 | 67.7 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -1.3 | 28H-1-4 | | | 100.6 | 61.0 | 0.0 | 67.7 | -0.26 | -2.49 |
| ? | West Wall | ? | " | ? | 2, -1 | 28H-1-4 | | | 79.8 | 27.5 | 3.0 | 69.7 | -0.26 | 9.31 |
| ? | South Wall | ? | N/A | ? | 2, -3 | 28H-1-5 | | | 120.7 | 54.3 | 4.0 | 51.0 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 4, -3 | 28H-1-5 | | | 94.5 | 54.3 | 1.0 | 66.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -3 | 28H-1-5 | | | 175.0 | 47.6 | 4.0 | 73.1 | -0.26 | -2.49 |
| ? | East Wall | ? | " | ? | 2, -6 | 28H-1-5 | | | 91.2 | 74.4 | 4.0 | 90.5 | -0.26 | -2.49 |
| ? | West Wall - 2 | ? | " | ? | 2, -6 | 28H-1-5 | | | 6.0 | -12.7 | 1.0 | 37.5 | -0.26 | -2.49 |
| ? | West Wall - 1 | ? | " | ? | 4, -3 | 28H-1-5 | | | 59.0 | 34.2 | 2.0 | 28.8 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 6, -3 | 28H-1-5 | | | 49.6 | 27.5 | 3.0 | 22.8 | -0.26 | -2.49 |

TABLE 2

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #10, SECOND FLOOR (SECTION 28H, UNIT 2)

| ? | ? | ? | X,Y | LOCATION | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | | |
|---|---------------------|------|-----------|----------|-----------------------------------|--------------------------------------|--|--|---------------------------------|--------------------------------|---------------------------------|--------------------------------|-------|-------|
| | | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | | |
| ? | SURFACE DESCRIPTION | GRID | REF POINT | CODE | | | | | | | | | | |
| ? | Floor | ? | N/A | ? | 6, -8 | 28H-2-1 | 9 | 0.020 | 121.5 | 25.6 | 2.4 | -20.8 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 6, -10 | 28H-2-1 | 8 | 0.020 | 41.6 | 0.8 | 14.7 | 8.8 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -12 | 28H-2-1 | 8 | 0.010 | 65.6 | 18.4 | 3.7 | 28.8 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 6, -14 | 28H-2-1 | 9 | 0.010 | 115.9 | 69.6 | 8.5 | 28.0 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -16 | 28H-2-1 | 7 | 0.010 | -1.6 | -20.8 | 1.2 | 63.2 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 6, -18 | 28H-2-1 | 9 | 0.020 | 32.8 | 12.0 | -1.2 | 38.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -20 | 28H-2-1 | 8 | 0.010 | 9.6 | -13.6 | 8.5 | 28.0 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 6, -22 | 28H-2-1 | 9 | 0.010 | 60.8 | -7.2 | 7.3 | -31.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -24 | 28H-2-1 | 8 | 0.010 | 81.6 | -3.2 | 14.7 | 91.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -26 | 28H-2-1 | 8 | 0.010 | 89.5 | 21.6 | 11.0 | 35.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -14 | 28H-2-1 | 10 | 0.020 | 179.9 | 131.1 | 1.2 | 100.7 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -16 | 28H-2-1 | 9 | 0.010 | 63.2 | 32.0 | 4.9 | 43.2 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 2, -18 | 28H-2-1 | 8 | 0.010 | 120.7 | 52.0 | -1.2 | 7.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -20 | 28H-2-1 | 9 | 0.020 | 43.2 | -11.2 | -6.1 | 11.2 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 8, -12 | 28H-2-1 | 7 | 0.010 | 38.4 | -14.4 | 6.1 | 14.4 | -0.26 | -2.49 |
| ? | Floors | ? | N/A | ? | 8, -14 | 28H-2-1 | 9 | 0.010 | 40.0 | 12.8 | 2.4 | -14.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 10, -12 | 28H-2-1 | 9 | 0.010 | 64.8 | 3.2 | 1.2 | 103.1 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 10, -14 | 28H-2-1 | 8 | 0.020 | -21.6 | -40.0 | 12.2 | -5.6 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 10, -16 | 28H-2-1 | 7 | 0.010 | 265.4 | 87.9 | 9.8 | 43.2 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 10, -20 | 28H-2-1 | 7 | 0.010 | 41.6 | -3.2 | 7.3 | -10.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 10, -22 | 28H-2-1 | 8 | 0.020 | 40.8 | -30.4 | -2.4 | 18.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 10, -24 | 28H-2-1 | 9 | 0.010 | 49.6 | -7.2 | 1.2 | -1.6 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 10, -26 | 28H-2-1 | 8 | 0.010 | 46.4 | 15.2 | 12.2 | -9.6 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 8, -26 | 28H-2-1 | 8 | 0.010 | -40.8 | -62.4 | 4.9 | 23.2 | -0.26 | -2.49 |
| ? | Floors | ? | N/A | ? | 2, -22 | 28H-2-2 | 11 | 0.020 | 55.2 | 5.6 | -3.7 | 36.0 | -0.26 | 9.66 |
| ? | " | ? | " | ? | 4, -22 | 28H-2-2 | 9 | 0.020 | 94.3 | 42.4 | 1.2 | 55.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -22 | 28H-2-2 | 9 | 0.010 | 63.2 | -20.8 | 2.4 | 99.9 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 8, -22 | 28H-2-2 | 10 | 0.010 | 177.5 | 122.3 | -1.2 | 151.1 | -0.26 | 3.59 |
| ? | Floor | ? | N/A | ? | 2, -2 | 28H-2-3 | 12 | 0.020 | 212.7 | 106.3 | 3.7 | 331.8 | -0.26 | -2.49 |

TABLE 3
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 28H - BUILDING 10, FIRST & SECOND FLOOR)

| LOCATION CODE | NUMBER OF SURVEY POINTS | MINIMUM VALUE | MAXIMUM VALUE | AVERAGE VALUE | STANDARD DEVIATION | UNITS |
|---|-------------------------|---------------|---------------|---------------|--------------------|-------------------------|
| ** SURVEY TYPE = GAMMA DOSERATE AT 1 METER FROM SURFACE | | | | | | |
| 28H-01 | 17 | 10.000 | 18.000 | 13.410 | 3.410 | MicroR/hour |
| 28H-02 | 32 | 7.000 | 12.000 | 8.840 | 1.300 | MicroR/hour |
| ** Subtotal ** | 49 | | | | | |
| ** SURVEY TYPE = BETA/GAMMA DOSERATE ON CONTACT WITH SURFACE | | | | | | |
| 28H-01 | 17 | 0.010 | 0.020 | 0.015 | 0.005 | MilliRem/hour |
| 28H-02 | 32 | 0.010 | 0.020 | 0.014 | 0.005 | MilliRem/hour |
| ** Subtotal ** | 49 | | | | | |
| ** SURVEY TYPE = MAXIMUM - BETA SCAN OF SURFACE NEAR SURVEY POINT | | | | | | |
| 28H-01 | 35 | -23.200 | 368.800 | 149.100 | 119.900 | DPM/100 cm ² |
| 28H-02 | 32 | -40.800 | 300.600 | 92.400 | 85.100 | DPM/100 cm ² |
| ** Subtotal ** | 67 | | | | | |
| ** SURVEY TYPE = AVERAGE - BETA SCAN OF SURFACE NEAR SURVEY POINT | | | | | | |
| 28H-01 | 35 | -101.500 | 309.100 | 93.700 | 117.500 | DPM/100 cm ² |
| 28H-02 | 32 | -62.400 | 243.900 | 35.100 | 69.500 | DPM/100 cm ² |
| ** Subtotal ** | 67 | | | | | |
| ** SURVEY TYPE = FIXED ALPHA SURVEY AT SURVEY POINT | | | | | | |
| 28H-01 | 35 | -4.900 | 29.300 | 5.700 | 6.300 | DPM/100 cm ² |
| 28H-02 | 32 | -6.100 | 14.700 | 4.800 | 5.500 | DPM/100 cm ² |
| ** Subtotal ** | 67 | | | | | |
| ** SURVEY TYPE = FIXED BETA SURVEY AT SURVEY POINT | | | | | | |
| 28H-01 | 35 | -92.700 | 338.200 | 110.800 | 115.400 | DPM/100 cm ² |
| 28H-02 | 32 | -31.200 | 331.800 | 63.900 | 90.800 | DPM/100 cm ² |
| ** Subtotal ** | 67 | | | | | |
| ** SURVEY TYPE = REMOVABLE ALPHA SMEAR SURVEY AT SURVEY POINT | | | | | | |
| 28H-01 | 35 | -0.260 | 7.510 | 0.030 | 1.350 | DPM/100 cm ² |
| 28H-02 | 32 | -0.260 | -0.260 | -0.260 | 0.000 | DPM/100 cm ² |
| ** Subtotal ** | 67 | | | | | |
| ** SURVEY TYPE = REMOVABLE BETA SMEAR SURVEY AT SURVEY POINT | | | | | | |
| 28H-01 | 35 | -2.490 | 9.660 | 0.070 | 3.850 | DPM/100 cm ² |
| 28H-02 | 32 | -2.490 | 9.660 | -0.230 | 3.290 | DPM/100 cm ² |
| ** Subtotal ** | | | | | | |

TABLE 3
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 28H - BUILDING 10, FIRST & SECOND FLOOR)

| LOCATION CODE | NUMBER OF SURVEY POINTS | MINIMUM VALUE | MAXIMUM VALUE | AVERAGE VALUE | STANDARD UNITS DEVIATION |
|------------------|----------------------------------|------------------|------------------|------------------|-----------------------------|
| *** Total *** | 67 | | | | 500 |

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

LD5100-V Low Background Counting System -- Smear Analysis

Date: 3/31/93
 Counting Unit id: 1
 Data file name: C:\EXL\UNIT1\28H0101.XLD
 Batch Ended: 3/31/93 10:20
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: CSB 28H 1 1 floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TCD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 31 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:19 |
| 32 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | DA | 33.88 | 0.34 | -0.100 | -1.24 | 3/31/93 10:19 |
| 33 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | DA | 33.88 | 0.34 | -0.100 | -1.24 | 3/31/93 10:20 |
| 34 | 7.506 | 7.94 | ALAL | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 2.841 | 1.70 | 3/31/93 10:20 |



NORTH

8 7 6 5 4 3 1

BUILDING REF. LINE
SEE JN-533

BUILDING REF. LINE
SEE JN-030

BUDG 10 1ST Floor



FIRST FLOOR



SECOND FLOOR

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

LEGEND

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

SCALE: FEET

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

PARTS LIST

| NO. | DESCRIPTION | QTY | UNIT | PRICE | TOTAL |
|-----|-------------|-----|------|-------|-------|
| | | | | | |

UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS IN FEET AND INCHES - DO NOT SCALE
 TOLERANCES - DO NOT SCALE

| NO. | DESCRIPTION | QTY | UNIT | PRICE | TOTAL |
|-----|-------------|-----|------|-------|-------|
| | | | | | |

W Westinghouse Electrical Energy Systems Division
 BUILDING No 10
 WA 5 D LARGE PA

DATE: JN-026
 DRAWING NO: 14683
 SHEET: D


| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 11 | * | FLMON:91943 | 28.8% | 3.47 | 1152 |

| |
|----------------------|
| SURVEY DATE: 3/31/93 |
| COUNT DATE: 3/31/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-20E3 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.5% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor | N/A | 1, -2 | 10 | .02 | 1361 | 1275 | 35 | 1322 | -0.264 | -2.49 | Floor monitor used for scans & 1 minute counts |
| " | " | 1, -1 | 10 | .01 | 1316 | 1250 | 15 | 1300 | -0.264 | -2.49 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 H - 006 (Survey Section - Sequential survey #) | LOCATION # 28 H-1-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0458 | SURVEYOR SIGNATURE: TS  |
|---|---|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/31/93
 Counting Unit id: 1
 Data file name: C:\LEXI\UNIT1\28H0102.XLD
 Batch Ended: 3/31/93 10:22
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

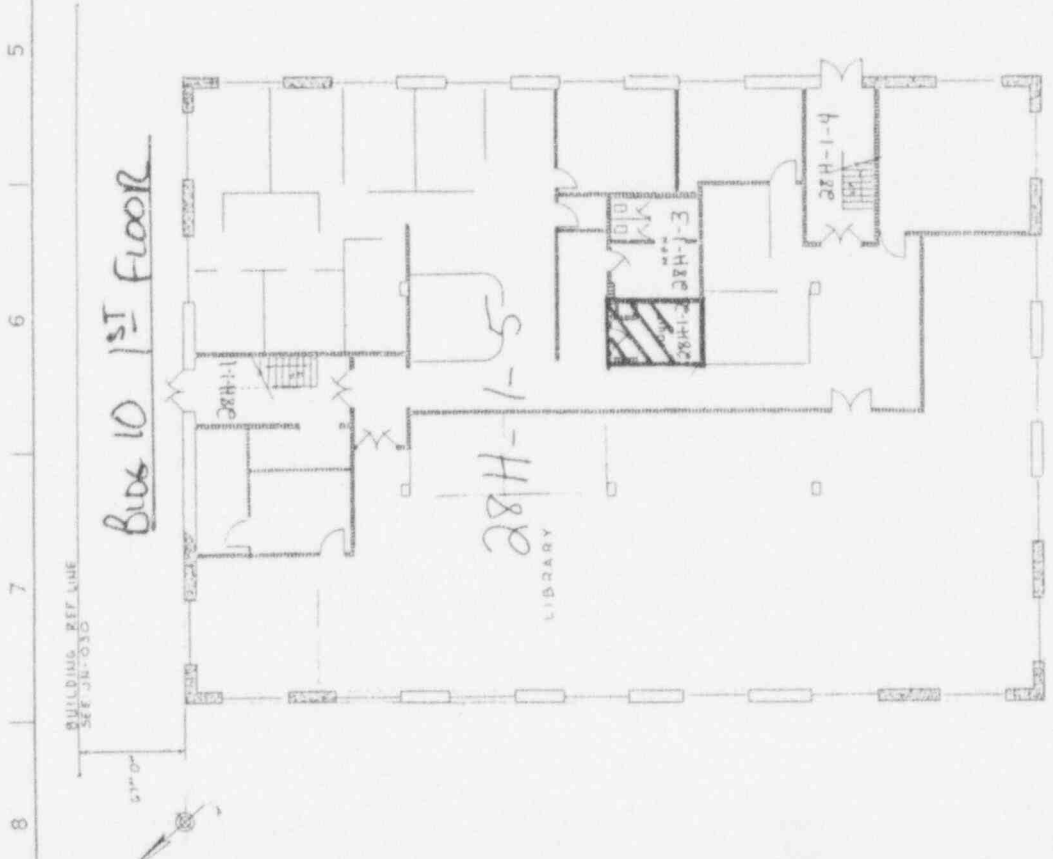
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 28H 1-2 floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 35 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:21 |
| 36 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:22 |

North ↑



SECOND FLOOR

FIRST FLOOR

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
| | | |

BUILDING REF LINE
SEE J.N.-030

BUILDING REF LINE
SEE J.N.-030

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
| | | |

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
| | | |

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
| | | |

LEGEND

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

SCALE: FEET

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
| | | |

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
| | | |

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
| | | |

Westinghouse Advanced Energy Systems Division
 FIRST & SECOND FLOORS
 BUILDING NO 10
 WAESD LARGE, PA
 DATE REV. NO. JNO26 A
 14683 D

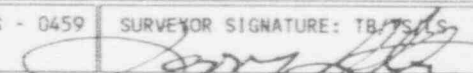
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 2 | * | ESP2:1588-L | 34.3% | 2.91 | 219 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.72 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:447B | 18.5% | 5.4 | | | PAC4G:447B | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 11 | * | FLMON:91943 | 28.8% | 3.47 | 1152 |

SURVEY DATE: 3/31/93
 COUNT DATE: 3/31/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 1, -1 | 17 | .01 | 1430 | 1375 | 18 | 1366 | -0.264 | 9.31 | Restroom/Floor monitor |
| " | " | 1, -2 | 15 | .01 | 1457 | 1375 | 19 | 1360 | -0.264 | 3.59 | " used for |
| " | " | 1, -3 | 18 | .02 | 1599 | 1500 | 7 | 1494 | -0.264 | 3.59 | " scans & 1 min |
| " | " | 2, -2 | 18 | .02 | 1459 | 1400 | 14 | 1477 | -0.264 | -2.49 | " counts |
| " | " | 3, -1 | 17 | .01 | 1605 | 1525 | 14 | 1575 | -0.264 | -2.49 | " " |
| " | " | 3, -2 | 17 | .02 | 1450 | 1400 | 13 | 1460 | -0.264 | -2.49 | " " |
| " | " | 3, -3 | 17 | .02 | 1519 | 1475 | 19 | 1535 | -0.264 | -2.49 | " " |
| Glazed Tile | " | 2, -.5 | N/A | N/A | 769 | 670 | 8 | 603 | -0.264 | 3.59 | ESP's used for scans & |
| " West | " | 2, -.5 | " | " | 686 | 600 | 12 | 635 | -0.264 | -2.49 | 1 minute counts |
| " North | " | 2, -.5 | " | " | 734 | 620 | 4 | 669 | -0.264 | -2.49 | " |
| " East | " | 2, -.5 | " | " | 736 | 680 | 11 | 635 | -0.264 | 3.59 | " |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 H - 007 (Survey Section - Sequential survey #) | LOCATION # 28 H-1-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0459 | SURVEYOR SIGNATURE: TB/TS/LS  |
|---|---|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/31/93
 Counting Unit id: 1
 Data file name: C:\TEXT\SMNH1\28440103.XID
 Batch Ended: 3/31/93 10:00
 Crosstalk Correction: Not Applied

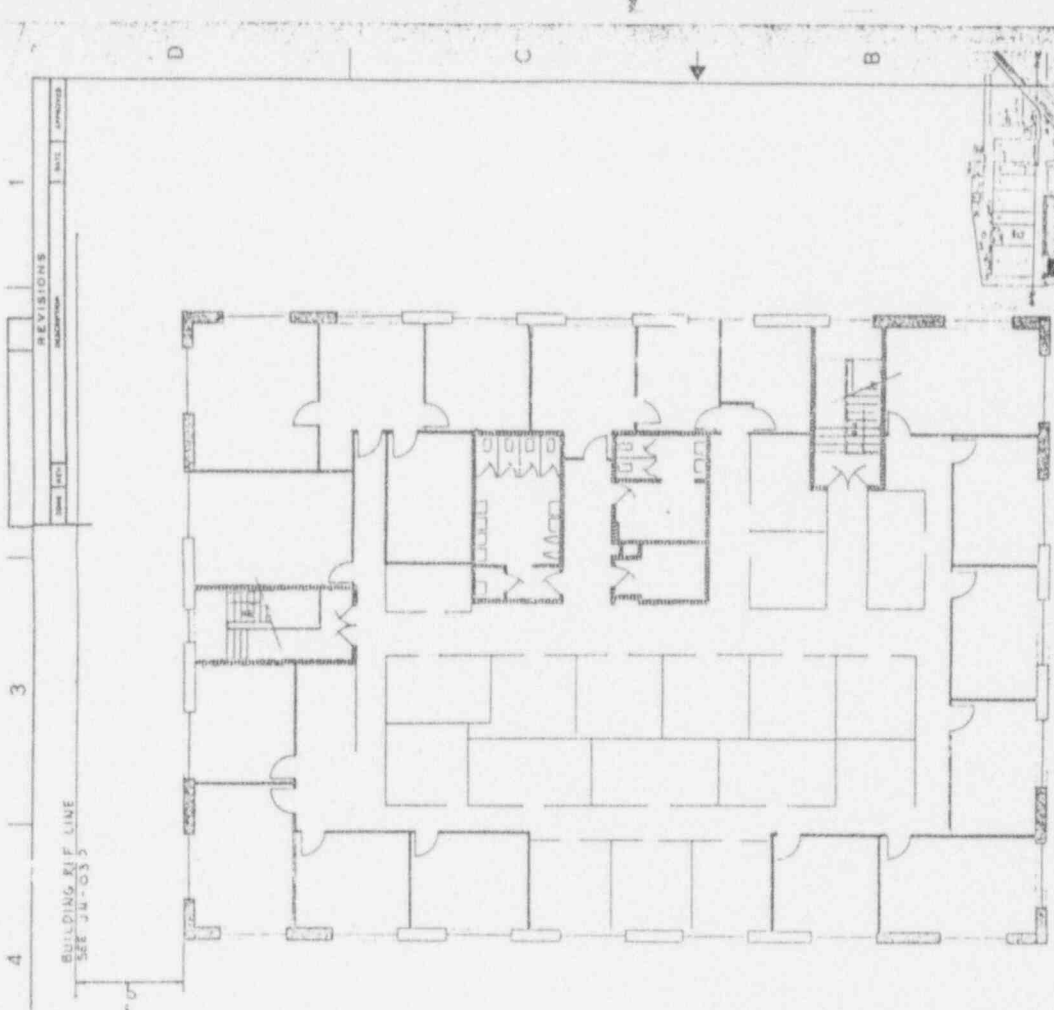
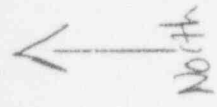
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210.ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137.ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSD 2844 1-3 floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/31/93 10:03 |
| 2 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/31/93 10:03 |
| 3 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/31/93 10:04 |
| 4 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/31/93 10:04 |
| 5 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/31/93 10:05 |
| 6 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:05 |
| 7 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:06 |
| 8 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/31/93 10:06 |
| 9 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:07 |
| 10 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:07 |
| 11 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/31/93 10:08 |
| 12 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:08 |

_____ = Survey Point not needed
 MMS 3/31



| REVISIONS | | |
|-----------|----|----------|
| DATE | BY | REVISION |
| | | |

BUILDING REF LINE
SEE JM-035

BUILDING REF LINE
SEE JM-030

SECOND FLOOR

FIRST FLOOR

| REV | DATE | DESCRIPTION | BY | CHK |
|-----|------|-------------|----|-----|
| | | | | |

| NO. | DESCRIPTION | QUANTITY | UNIT | PRICE | TOTAL |
|-----|-------------|----------|------|-------|-------|
| | | | | | |

| PARTS LIST | |
|------------|-------------|
| NO. | DESCRIPTION |
| | |

| MATERIALS SPECIFIED | |
|---------------------|-------------|
| NO. | DESCRIPTION |
| | |

| TOLERANCES - DO NOT EXCEED | |
|----------------------------|-------------|
| NO. | DESCRIPTION |
| | |

| FINISHES | |
|----------|-------------|
| NO. | DESCRIPTION |
| | |

| CONSTRUCTION | |
|--------------|-------------|
| NO. | DESCRIPTION |
| | |

LEGEND

BRICK

CONC BLOCK EXT

CONC BLOCK INT

DRYWALL & PAINTING

SCALE: FEET

0 5 10 15 20 25

Westphalia Abstract Energy Systems Division
Pittsburgh, Pennsylvania

FIRST & SECOND FLOORS
BUILDING NO 10
WAESD LARGE, PA.

DATE: JUNE 1963
DRAWN BY: D 14693
CHECKED BY: JNO 26 A

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/31/93
 Counting Unit id: 1
 Data file name: C:\LEXI\UNIT1\2810104.XLD
 Batch Ended: 3/31/93 10:13
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

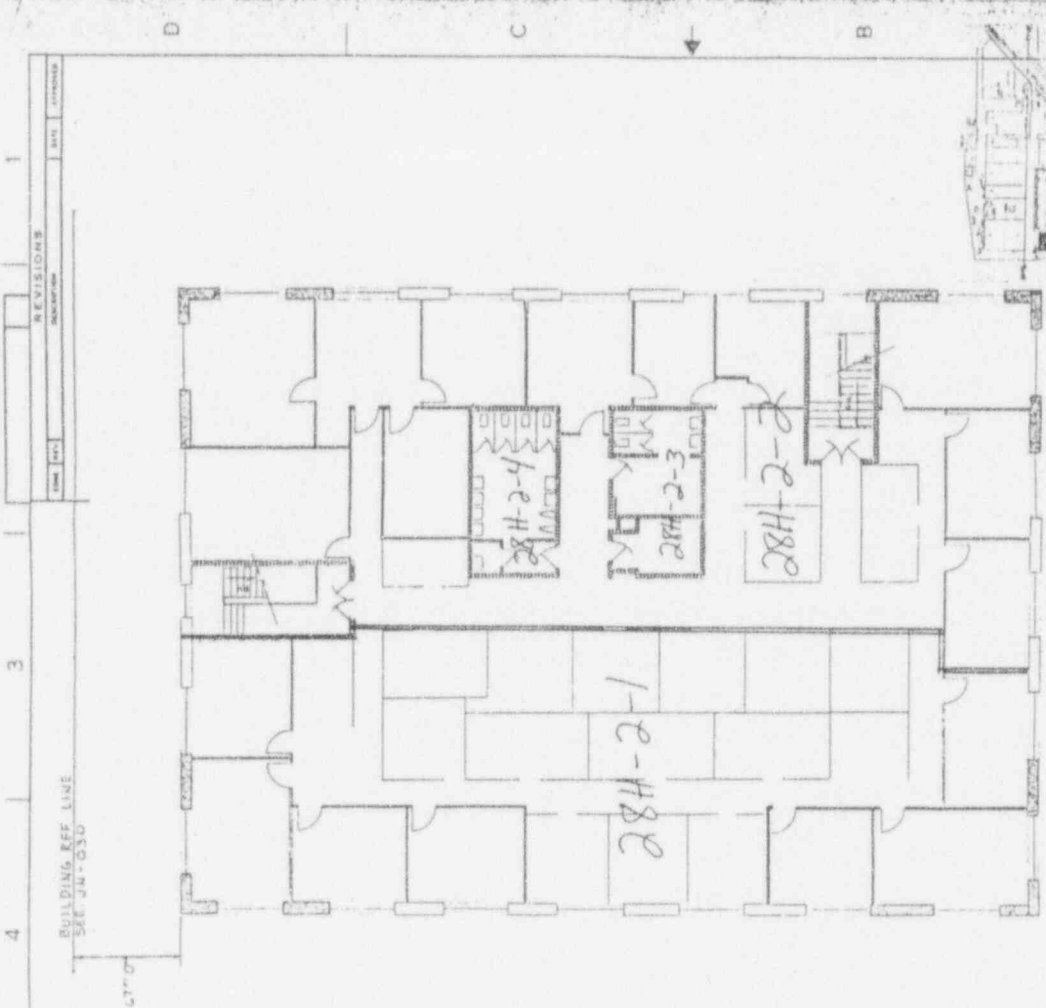
Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 2011 1-4 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 13 | 2.378 | 2.00 | <AL | 11.27 | 3.53 | 4.14 | <MDA | 15.88 | 1.00 | 0.900 | 1.76 | 3/31/93 10:09 |
| 14 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/31/93 10:10 |
| 15 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/31/93 10:11 |
| 16 | -0.264 | 1.63 | <MDA | 28.04 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:11 |
| 17 | -0.264 | 1.63 | <MDA | 28.04 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:12 |
| 18 | -0.264 | 1.63 | <MDA | 28.04 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:12 |
| 19 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/31/93 10:13 |



SECOND FLOOR

FIRST FLOOR

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

| BY | DATE | DESCRIPTION | TYPE |
|----|------|-------------|------|
| | | | |

| ITEM NO. | QUANTITY | DESCRIPTION | UNIT |
|----------|----------|-------------|------|
| | | | |

| ITEM NO. | DESCRIPTION | UNIT |
|----------|-------------|------|
| | | |

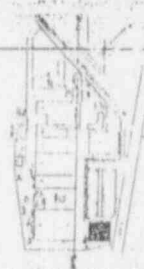
| UNLESS OTHERWISE SPECIFIED | UNLESS OTHERWISE SPECIFIED |
|----------------------------|--------------------------------|
| CONCRETE SHALL BE 3000 PSI | STEEL SHALL BE A36 |
| REINFORCEMENT SHALL BE #4 | WELDED WIRE FABRIC SHALL BE #4 |
| FINISHES - SEE SCHEDULE | PAINTS - SEE SCHEDULE |
| | |

| DATE | NO. | DESCRIPTION |
|------|-----|-------------|
| | | |

LEGEND

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

SCALE: FEET



Westphouse Advanced Energy Systems Division
 FIRST & SECOND FLOORS
 BUILDING No 10
 WAESD LARGE, PA

| DATE | NO. | DESCRIPTION |
|------|-----|-------------|
| | | |

D 14683 JN-026 A

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 2 | * | ESP2:1588-L | 34.3% | 2.91 | 219 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:447B | 18.5% | 5.4 | | | PAC4G:447B | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/31/93 |
| COUNT DATE: 3/31 /93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| South Wall | N/A | 2, -.3 | N/A | N/A | 399 | 300 | 6 | 295 | -0.264 | 3.41 | Concrete Block |
| " | " | 4, 3 | " | " | 360 | 300 | 3 | 318 | -0.264 | -2.49 | " |
| " | " | 6, -.3 | " | " | 480 | 290 | 6 | 328 | -0.264 | -2.49 | " |
| East Wall | " | 2, -.6 | " | " | 355 | 330 | 6 | 354 | -0.264 | -2.49 | Plaster on Brick |
| West Wall - 2 | " | 2, -.6 | " | " | 228 | 200 | 3 | 275 | -0.264 | -2.49 | Plaster |
| West Wall - 1 | " | 4, -.3 | " | " | 307 | 270 | 4 | 262 | -0.264 | 3.41 | Concrete Block |
| " | " | 6, -.3 | " | " | 293 | 260 | 5 | 253 | -0.264 | -2.49 | " |
| " | " | 8, -.3 | " | " | 345 | 290 | 7 | 281 | -0.264 | -2.49 | " |
| " | " | 10, -.3 | " | " | 480 | 300 | 6 | 291 | -0.264 | -2.49 | " |
| " | " | 14, -.3 | " | " | 293 | 280 | 5 | 291 | -0.264 | -2.49 | " |
| " | " | 16, -.3 | " | " | 360 | 300 | 2 | 305 | -0.264 | 9.66 | |

FORM SERIAL #: 28 H -009
(Survey Section - Sequential survey #)

LOCATION # 28 H-1-5
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: I
(Group I, II, III, IV)

DISK FILE CODE: FDS - 0461

DATE AND SIGNATURE: TB/TS

[Handwritten Signature]

LB5100W Low Background Counting System -- Smear Analysis

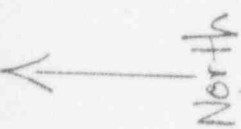
Date: 3/31/93
 Counting Unit id: 1
 Data file name: C:\EXL\UNIT1\28FH0105.XLD
 Batch Ended: 3/31/93 10:18
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

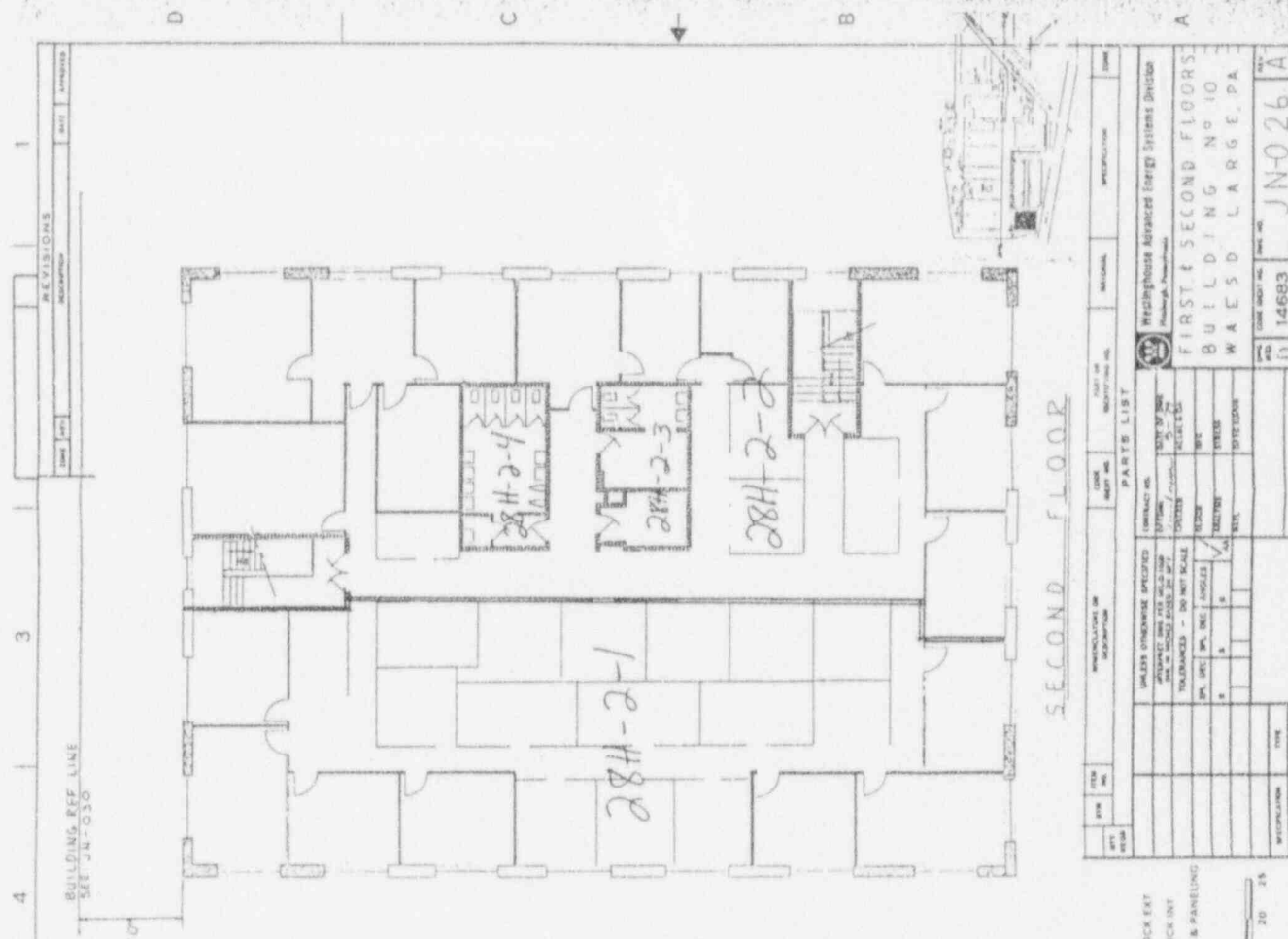
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB-2911 1.5 walls

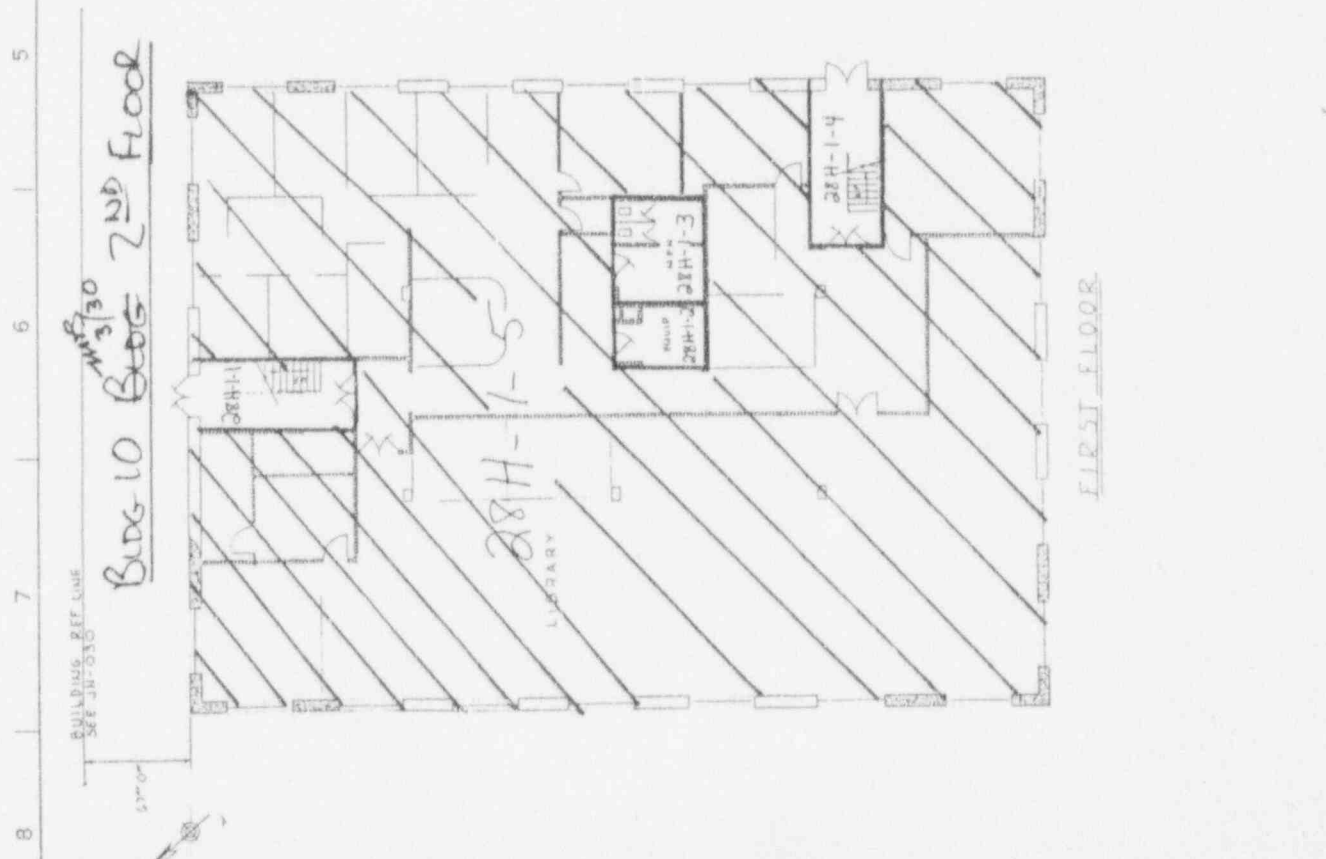
| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 20 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/31/93 10:13 |
| 21 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:14 |
| 22 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/31/93 10:14 |
| 23 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:15 |
| 24 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/31/93 10:15 |
| 25 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/31/93 10:16 |
| 26 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:16 |
| 27 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:17 |
| 28 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/31/93 10:17 |
| 29 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/31/93 10:18 |
| 30 | 0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/31/93 10:18 |



North



SECOND FLOOR



FIRST FLOOR

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
| | | |

BUILDING REF LINE SEE JN-030

BUILDING REF LINE SEE JN-030

BUDG 10 BUDG 2ND FLOOR

| REV. | DATE | DESCRIPTION | BY | CHKD. |
|------|------|-------------|----|-------|
| | | | | |

| REV. | DATE | DESCRIPTION | BY | CHKD. |
|------|------|-------------|----|-------|
| | | | | |

| NO. | DATE | DESCRIPTION | BY | CHKD. |
|-----|------|-------------|----|-------|
| | | | | |

LEGEND

- BRICK
- CONCRETE CONG BLOCK EXT
- CONCRETE CONG BLOCK INT
- DRYWALL & PANELING

SCALE: FEET
0 5 10 15 20 25

| REV. | DATE | DESCRIPTION | BY | CHKD. |
|------|------|-------------|----|-------|
| | | | | |

| REV. | DATE | DESCRIPTION | BY | CHKD. |
|------|------|-------------|----|-------|
| | | | | |

| REV. | DATE | DESCRIPTION | BY | CHKD. |
|------|------|-------------|----|-------|
| | | | | |

WESTHOUSE Advanced Energy Systems Division
 Pittsburgh, Pennsylvania

FIRST SECOND FLOOR
 BUILDING No 10
 WAESD LARGE PA

JUN 26 1983

APPENDIX B

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 2

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 15 | * | FLMON:91943 | 28.8% | 3.47 | 1075 |

| |
|----------------------|
| SURVEY DATE: 3/12/93 |
| COUNT DATE: 3/16/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 9 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor | N/A | 6, -8 | 9 | .02 | 1227 | 1107 | 17 | 1049 | -0.264 | 3.41 | Tile on Concrete |
| " | " | 6, -10 | 8 | .02 | 1127 | 1076 | 27 | 1086 | -0.264 | -2.49 | " |
| " | " | 6, -12 | 8 | .01 | 1157 | 1098 | 18 | 1111 | -0.264 | 3.59 | " |
| " | " | 6, -14 | 9 | .01 | 1220 | 1162 | 22 | 1110 | -0.264 | -2.49 | " |
| " | " | 6, -16 | 7 | .01 | 1073 | 1049 | 16 | 1154 | -0.264 | 3.59 | " |
| " | " | 6, -18 | 9 | .02 | 1116 | 1090 | 14 | 1123 | -0.264 | -2.49 | " |
| " | " | 6, -20 | 8 | .01 | 1087 | 1058 | 22 | 1110 | -0.264 | 3.59 | " |
| " | " | 6, -22 | 9 | .01 | 1151 | 1066 | 21 | 1036 | -0.264 | -2.49 | " |
| " | " | 6, -24 | 8 | .01 | 1177 | 1071 | 27 | 1190 | -0.264 | -2.49 | " |
| " | " | 6, -26 | 8 | .01 | 1187 | 1102 | 24 | 1119 | -0.264 | -2.49 | " |
| " | " | 2, -14 | 10 | .02 | 1300 | 1239 | 16 | 1201 | -0.264 | -2.49 | " |
| " | " | 2, -16 | 9 | .01 | 1154 | 1115 | 19 | 1129 | -0.264 | 3.41 | " |
| " | " | 2, -18 | 8 | .01 | 1226 | 1140 | 14 | 1084 | -0.264 | -2.49 | " |
| " | " | 2, -20 | 9 | .02 | 1129 | 1061 | 10 | 1089 | -0.264 | 3.41 | " |
| " | " | 8, -12 | 7 | .01 | 1123 | 1057 | 20 | 1093 | -0.264 | -2.49 | " |

| | | | | |
|--|---|--|--------------------------|--|
| FORM SERIAL #: 28 H -004 (Survey Section - Sequential survey #) | LOCATION # 28 H-2-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0352 | SURVEYOR SIGNATURE: MS <i>[Signature]</i> |
|--|---|--|--------------------------|--|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 15 | * | FLMON:91943 | 28.8% | 3.47 | 1075 |

| |
|----------------------|
| SURVEY DATE: 3/12/93 |
| COUNT DATE: 3/16/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 9 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floors | N/A | 8, -14 | 9 | .01 | 1125 | 1091 | 17 | 1057 | -0.264 | -2.49 | Tile on Concrete |
| " | " | 10, -12 | 9 | .01 | 1156 | 1079 | 16 | 1204 | -0.264 | 3.59 | " |
| " | " | 10, -14 | 8 | .02 | 1048 | 1025 | 25 | 1068 | -0.264 | -2.49 | " |
| " | " | 10, -16 | 7 | .01 | 1407 | 1185 | 23 | 1129 | -0.264 | 3.59 | " |
| " | " | 10, -20 | 7 | .01 | 1127 | 1071 | 21 | 1062 | -0.264 | -2.49 | " |
| " | " | 10, -22 | 8 | .02 | 1126 | 1037 | 13 | 1098 | -0.264 | -2.49 | " |
| " | " | 10, -24 | 9 | .01 | 1137 | 1066 | 16 | 1073 | -0.264 | -2.49 | " |
| " | " | 10, -26 | 8 | .01 | 1133 | 1094 | 25 | 1063 | -0.264 | -2.49 | " |
| " | " | 8, -26 | 8 | .01 | 1024 | 997 | 19 | 1104 | -0.264 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|---|---|--|--------------------------|--|
| FORM SERIAL #: 28 H - 004 (Survey Section - Sequential survey #) | LOCATION # 28 H-2-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0353 | SURVEYOR SIGNATURE: MS <i>W. Schaffer</i> |
|---|---|--|--------------------------|--|

LB5100W Low Background Counting System – Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 14.35

Crosstalk Correction: Not Applied

Beta efficiency log file: cs137ab

Beta Efficiency: 49.98%

Beta into Alpha Crosstalk: 0.36%

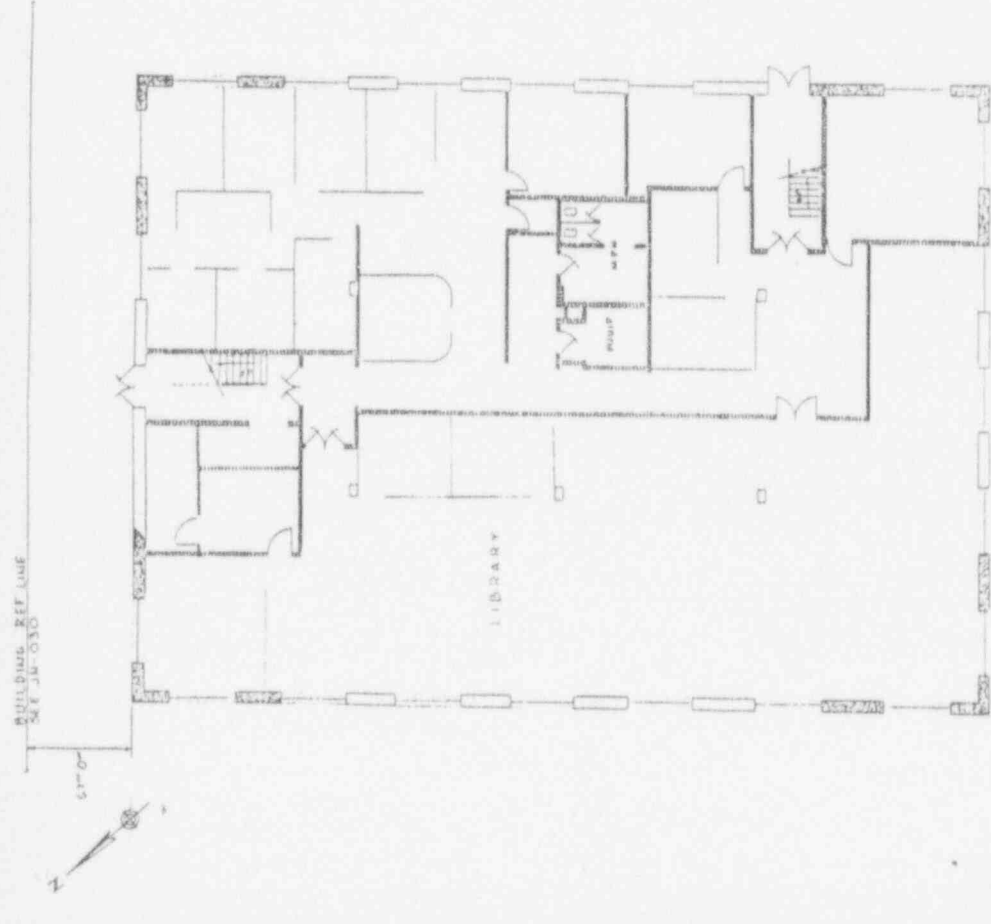
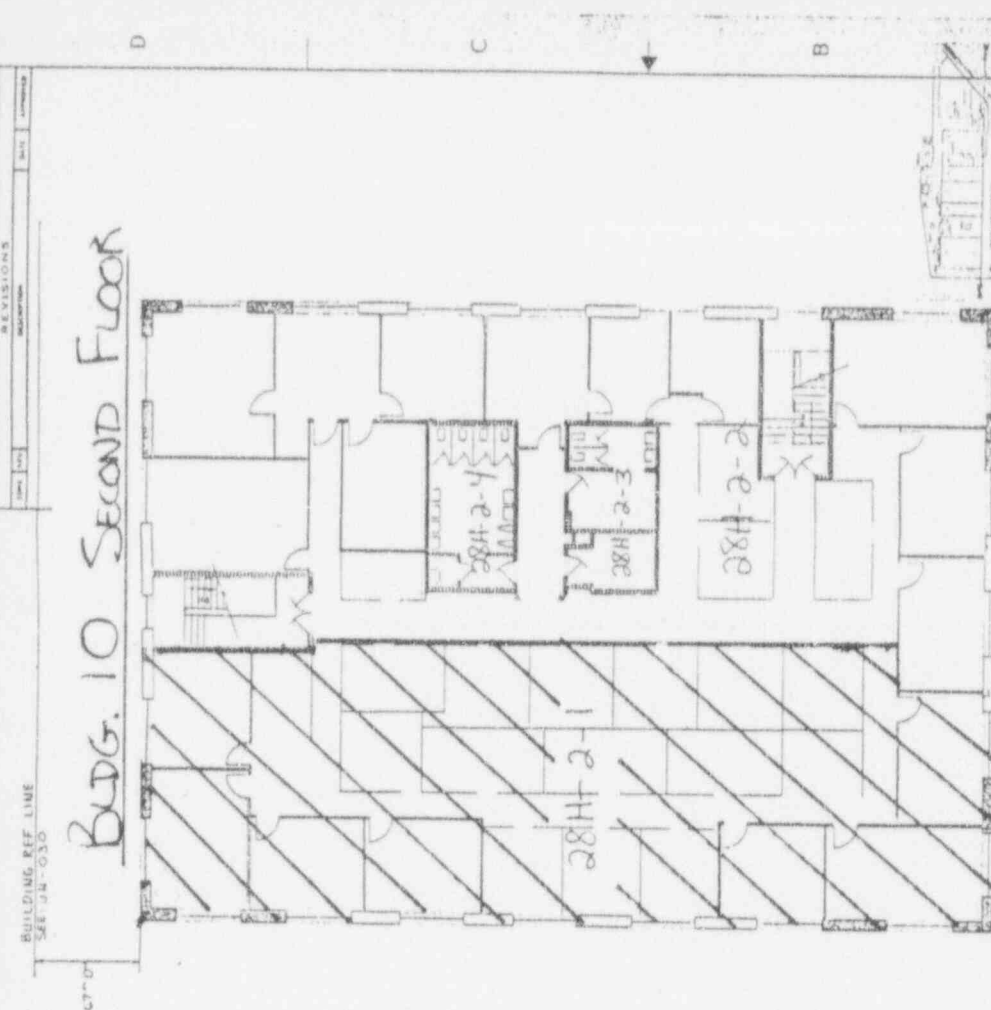
Beta Background (CPM): 1.24

Application Revision: 2

Application Version: Standard

Batch ID: TSB_28H2.1 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count Time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 26 | 0.264 | 1.63 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 1.70 | 3/16/93 8:35 |
| 27 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 8:35 |
| 28 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 3/16/93 8:36 |
| 29 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/16/93 8:36 |
| 30 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 8:37 |
| 31 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 8:37 |
| 32 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 8:38 |
| 33 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 8:38 |
| 34 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 2.33 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/16/93 8:38 |
| 35 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 8:39 |
| 36 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/16/93 8:40 |
| 37 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 1.70 | 3/16/93 8:41 |
| 38 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 8:41 |
| 39 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 1.70 | 3/16/93 8:42 |
| 40 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/16/93 8:42 |
| 41 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/16/93 8:43 |
| 42 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 8:43 |
| 43 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/16/93 8:44 |
| 44 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 8:44 |
| 45 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/16/93 8:45 |
| 46 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/16/93 8:45 |
| 47 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 8:46 |
| 48 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 8:46 |
| 49 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/16/93 8:47 |



SECOND FLOOR

FIRST FLOOR

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

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|------|-------------|----|------|
| | | | | |
| | | | | |

| DATE | BY | DESCRIPTION |
|------|----|-------------|
| | | |

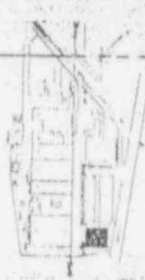
| CONTRACT NO. | DATE OF WORK | PROJECT |
|--------------|--------------|---------|
| | | |

| NO. | DESCRIPTION | UNIT | QTY | PRICE | TOTAL |
|-----|-------------|------|-----|-------|-------|
| | | | | | |

| PROFESSIONAL | DATE | SCALE | PROJECT |
|--------------|------|-------|---------|
| | | | |

| NO. | DESCRIPTION | UNIT | QTY | PRICE | TOTAL |
|-----|-------------|------|-----|-------|-------|
| | | | | | |

REGISTRATION ADVANCED ENERGY SYSTEMS DIVISION
 BUILDING NO 10
 W A E S D L A R G E , P A
 JN-026
 14683



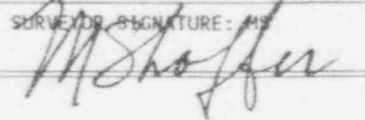
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 15 | * | FLMON:91943 | 28.8% | 3.47 | 1075 |

| |
|----------------------|
| SURVEY DATE: 3/12/93 |
| COUNT DATE: 3/16/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 9 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------------|-------|-----|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | * | TENN: 13295 | 49.9% | 2.0 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floors | N/A | 2, -22 | 11 | .02 | 1144 | 1082 | 12 | 1120 | -0.264 | 9.66 | Tile on Concrete |
| " | " | 4, -22 | 9 | .02 | 1193 | 1128 | 16 | 1144 | -0.264 | -2.49 | " |
| " | " | 6, -22 | 9 | .01 | 1154 | 1049 | 17 | 1200 | -0.264 | 3.59 | " |
| " | " | 8, -22 | 10 | .01 | 1297 | 1228 | 14 | 1264 | -0.264 | 3.59 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|---|---|--|--------------------------|---|
| FORM SERIAL #: 28 H - 001 (Survey Section - Sequential survey #) | LOCATION # 28 H-2-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0349 | SURVEYOR SIGNATURE:  |
|---|---|--|--------------------------|---|

LB5100W Low Background Counting System – Smear Analysis

Date: 3/16/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28H0202.XLD
 Batch Ended: 3/16/93 8:59
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 28H 2-2 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | 0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.190 | 4.82 | 3/16/93 8:58 |
| 2 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 8:58 |
| 3 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 8:59 |
| 4 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 8:59 |

LB5100W Low Background Counting System – Smear Analysis

Date: 3/11/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28H0203.XLD
 Batch Ended: 3/11/93 11:34
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 28H 2/3 floor and walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 29 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/11/93 11:33 |
| 30 | 0.264 | 1.60 | <MDA | 28.10 | 2.40 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | 1.24 | 3/11/93 11:33 |
| 31 | 0.264 | 1.63 | <MDA | 28.84 | 2.40 | 3.83 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/11/93 11:34 |
| 32 | 7.506 | 7.04 | AL AL | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 2.841 | 1.70 | 3/11/93 11:34 |

— = SURVEY POINT NOT NEEDED

MR 3/16

LB5100W Low Background Counting System – Smear Analysis

Date: 3/11/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28H0204.XLD
 Batch Ended: 3/11/93 11:36
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: pu210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 28H-2-4 floor and walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOI |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 33 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/11/93 11:35 |
| 34 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/11/93 11:35 |
| 35 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/11/93 11:36 |

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY

OF THE FIRST AND SECOND FLOORS OF BUILDING NUMBER 4

(SURVEY SECTION 28A)

APRIL 1, 1993

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

REPORT #025

"OFFICIAL RECORD COPY" ML 10

117646

FINAL RADIOLOGICAL SURVEY
OF THE FIRST AND SECOND FLOORS OF BUILDING NUMBER 4
(SURVEY SECTION 28A)

TABLE OF CONTENTS

| | <u>Page Number</u> |
|---|--------------------|
| Purpose | 1 |
| Scope | 1 |
| Analysis of Results | 1 |
| Current Status | 2 |
| Conclusions | 2 |
| Appendix A - Radiological Survey Data Sheets For Unit 1 | |
| Appendix B - Radiological Survey Data Sheets For Unit 2 | |

FINAL RADIOLOGICAL SURVEY
OF THE FIRST AND SECOND FLOORS OF BUILDING NUMBER 4
(Survey Section 28A)

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 documents the results of the final radiological survey of the first and second floors of Building Number 4 on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Survey information for the other floors of Building 4 are documented in other Reports.

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of Building Number 4 on the site. Figure 2 and 3 presents the floor plans for the first and second floors of the building. These floors have been designated as Survey Section 28A. (See Report #009). In addition, the floors were subdivided into units and subunits as shown on Figures 2 and 3. These areas have been assigned a Survey Classification of Class 1 as defined in Report #009.

Appendices A and B incorporate all of the radiological survey data sheets for each of the two floors. Tables 1 and 2 present the survey data for each of the floors with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of each table to determine if the acceptance criteria have been met at the desired degree of confidence. Table 3 presents a summary of the statistical information.

The radiological survey data indicates elevated radiation levels (gamma dose rate @ 1 meter, beta/gamma dose rate on contact, and beta count rate on contact) in the rest rooms in this building. It was also noted that certain original brick walls give elevated radiation readings. This radiation activity is apparently due to the presence of naturally occurring radioactive materials and no further action was taken.

Current Status

Building 4 is an occupied area. It is anticipated that use of this building will continue throughout the project. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of the first and second floors of this building meets all the radiological acceptance criteria at the 95% confidence level with the exception noted above for the rest room areas. Therefore, these floors can be released for unrestricted use. There is no potential for these floors to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.

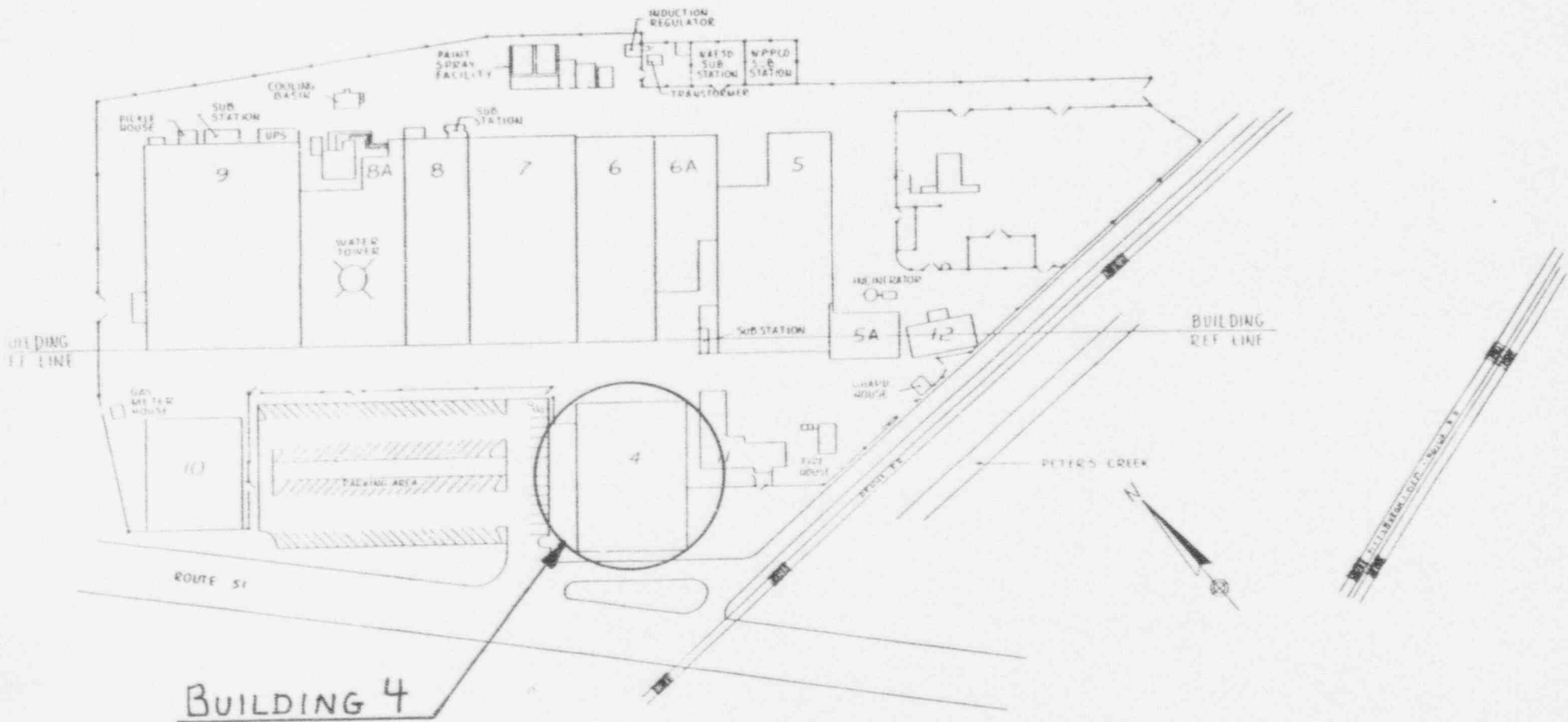
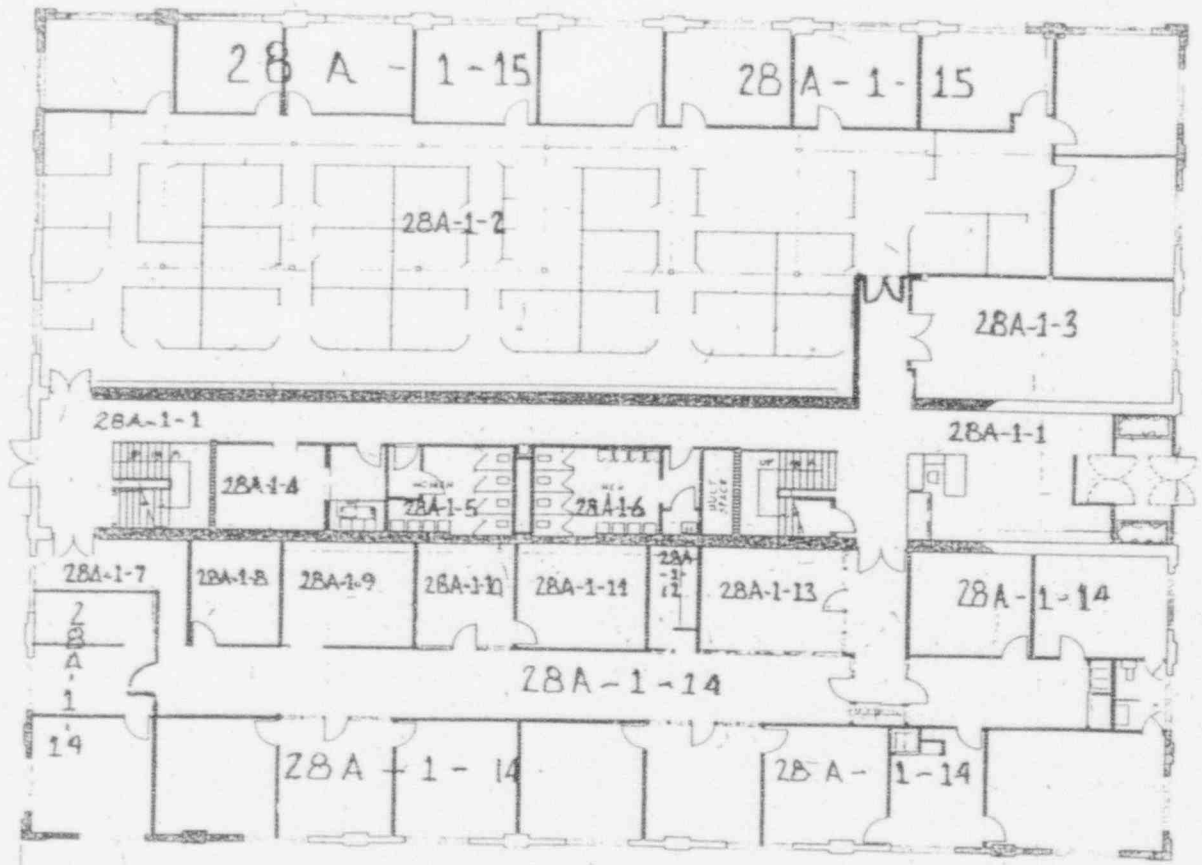


FIGURE 1
SITE PLOT PLAN

| REV | NO. | DESCRIPTION | DATE | BY | CHECKED | APPROVED | REVISIONS |
|----------------------------|---------------|--|-----------|----|---------|----------|-----------|
| PARTS LIST | | | | | | | |
| DATE ORDERED (SPECIFY) | CONTRACT NO. | 480 Westhouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | | | | |
| QUANTITY ORDERED (SPECIFY) | DATE OF ORDER | QUANTITY | DATE LIST | | | | |
| TOLERANCES - SEE DET SCALE | SCALE | DATE | DATE | | | | |
| SPL. NO. | SPL. NO. | AMOUNT | DATE | | | | |
| A | B | C | D | | | | |
| SPECIFICATION | TYPE | DATE ORDERED | DATE LIST | | | | |
| DATE CODE NO. | | D 14683 | JN030 | | | | |
| SCALE | BY DATE | BY DATE | BY DATE | | | | |



| REVISIONS | | | |
|-----------|------|-------------|----------|
| NO. | DATE | DESCRIPTION | APPROVED |
| | | | |



BUILDING
OUT LINE
SEE JN-000

50' 0"

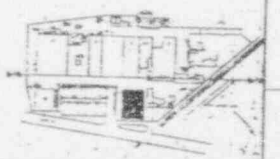


FIGURE 2
BUILDING 4, FIRST FLOOR

LEGEND

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

SCALE: FEET

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|-------------|----|---------|------|
| | | | | | | | | | |

| PARTS LIST | | CONTRACT NO. | | DATE OF REV. | |
|------------|--|--------------|--|--------------|--|
| | | | | | |

| | | |
|--|---|--|
| <p>UNLESS OTHERWISE SPECIFIED</p> <p>INTERIORS ARE FOR 24.0-100</p> <p>FIN. BY BRICKS BASED ON S.E.T.</p> <p>TOLERANCES - DO NOT SCALE</p> | <p>DESIGN</p> <p>ENGINEER</p> <p>DATE</p> | <p>WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION</p> <p>Pittsburgh, Pennsylvania</p> <p>FIRST FLOOR</p> <p>BUILDING NO 4</p> <p>WAESD LARGE PA</p> |
|--|---|--|

| | | | | |
|--------------------------------|-----------------------|----------------------------------|-----------------------|-----------------------|
| <p>DESCRIPTION</p> <p>TYPE</p> | <p>DATE</p> <p>BY</p> | <p>SCALE</p> <p>1/4" = 1'-0"</p> | <p>DATE</p> <p>BY</p> | <p>DATE</p> <p>BY</p> |
|--------------------------------|-----------------------|----------------------------------|-----------------------|-----------------------|

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #4, FIRST FLOOR (SECTION 28A, UNIT 1)

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | LOCATION CODE | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------|----------------------|------------------|-----------------------------------|---------------------------------|--|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| | | | | SURVEY @1 METER (microR/hr) | SURVEY ON CONTACT (mR/hr) | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| Floor | N/A | 2, -2 | 28A-1-1 | 11 | 0.010 | 114.3 | 205.3 | 4.9 | 171.1 | -0.26 | -2.49 |
| " | " | 4, -2 | 28A-1-1 | 12 | 0.010 | 58.4 | 133.1 | 0.0 | 139.9 | -0.26 | -2.49 |
| " | " | 4, -4 | 28A-1-1 | 13 | 0.025 | 109.5 | 186.3 | -3.7 | 203.8 | -0.26 | -2.49 |
| " | " | 4, -6 | 28A-1-1 | 14 | 0.020 | 186.3 | 224.3 | -2.4 | 226.6 | -0.26 | 3.53 |
| " | " | 4, -28 | 28A-1-1 | 14 | 0.010 | 107.9 | 224.3 | -2.4 | 228.9 | -0.26 | -2.49 |
| " | " | 4, -30 | 28A-1-1 | 13 | 0.010 | 183.9 | 262.3 | -1.2 | 195.4 | -0.26 | -2.49 |
| " | " | 4, -32 | 28A-1-1 | 11 | 0.015 | 120.7 | 186.3 | -2.4 | 233.4 | -0.26 | -2.49 |
| " | " | 4, -34 | 28A-1-1 | 12 | 0.020 | 133.5 | 224.3 | -4.9 | 228.1 | -0.26 | -2.49 |
| " | " | 4, -36 | 28A-1-1 | 13 | 0.020 | 229.5 | 300.3 | 0.0 | 282.1 | -0.26 | -2.49 |
| " | " | 4, -38 | 28A-1-1 | 14 | 0.025 | 174.3 | 243.3 | 1.2 | 233.4 | -0.26 | 3.41 |
| " | " | 4, -40 | 28A-1-1 | 12 | 0.010 | 224.7 | 243.3 | -6.1 | 179.4 | -0.26 | 9.66 |
| " | " | 2, -40 | 28A-1-1 | 13 | 0.020 | 58.4 | 148.3 | 0.0 | 205.3 | -0.26 | -2.49 |
| " | " | 2, -32 | 28A-1-1 | 11 | 0.010 | 223.1 | 205.3 | 11.0 | 237.2 | -0.26 | -2.49 |
| " | " | 0, -32 | 28A-1-1 | 12 | 0.010 | 27.2 | 129.3 | 4.9 | 146.8 | -0.26 | 3.59 |
| East Wall | " | 4, -9 | 28A-1-1 | | | 389.9 | -642.5 | 4.3 | -676.7 | -0.26 | -2.49 |
| East Wall | N/A | 6, -9 | 28A-1-1 | | | 622.7 | -627.3 | 0.0 | -663.0 | -0.26 | -2.49 |
| " | " | 8, -9 | 28A-1-1 | | | 264.8 | -672.9 | 4.3 | -717.0 | -0.26 | 3.59 |
| " | " | 10, -9 | 28A-1-1 | | | 328.8 | -650.1 | 0.0 | -637.9 | -0.26 | 3.59 |
| " | " | 14, -9 | 28A-1-1 | | | 523.8 | -634.9 | 8.7 | -662.3 | -0.26 | -2.49 |
| " | " | 12, -9 | 28A-1-1 | | | 419.0 | -634.9 | 4.3 | -664.6 | -0.26 | 3.41 |
| " | " | 16, -9 | 28A-1-1 | | | 323.0 | -672.9 | 0.0 | -650.1 | -0.26 | 3.59 |
| " | " | 18, -9 | 28A-1-1 | | | 561.6 | -642.5 | 4.3 | -656.2 | -0.26 | 9.31 |
| " | " | 20, -9 | 28A-1-1 | | | 491.8 | -634.9 | -4.3 | -641.8 | -0.26 | 3.41 |
| " | " | 22, -9 | 28A-1-1 | | | 456.9 | -627.3 | 13.0 | -644.8 | -0.26 | -2.49 |
| " | " | 24, -9 | 28A-1-1 | | | 296.8 | -665.3 | -4.3 | -650.1 | -0.26 | 3.41 |
| " | " | 26, -9 | 28A-1-1 | | | 398.7 | -642.5 | 13.0 | -675.2 | -0.26 | -2.49 |
| " | " | 28, -9 | 28A-1-1 | | | 404.5 | -634.9 | 13.0 | -655.4 | -0.26 | -2.49 |
| " | " | 30, -9 | 28A-1-1 | | | 355.0 | -650.1 | 8.7 | -628.8 | -0.26 | -2.49 |
| " | " | 35, -9 | 28A-1-1 | | | 593.6 | -627.3 | -4.3 | -669.1 | -0.26 | 9.66 |
| " | " | 36, -9 | 28A-1-1 | | | 212.4 | -710.9 | 34.6 | -691.2 | -0.26 | -2.49 |
| East Wall | N/A | 38, -9 | 28A-1-1 | | | 427.8 | -688.1 | 4.3 | -660.8 | -0.26 | -2.49 |
| " | " | 40, -9 | 28A-1-1 | | | 678.0 | -619.7 | 0.0 | -672.2 | -0.26 | -2.49 |
| Floor Tile | N/A | 2, -4 | 28A-1-5 | 15 | 0.020 | 1481.5 | 1440.9 | -1.2 | 1416.6 | -0.26 | -2.49 |

TABLE 2

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #4, SECOND FLOOR (SECTION 28A, UNIT 2)

| ? | ? | ? | X, Y | LOCATION | SCAN RESULTS | | | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | | |
|---|------------|---|-----------|----------|-----------------------|------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------|-------|
| | | | | | GAMMA SURVEY @1 METER | BETA/GAMMA SURVEY ON CONTACT | MAXIMUM BETA | AVERAGE BETA | ALPHA | BETA | ALPHA | BETA | | |
| ? | ? | ? | REF POINT | CODE | (microR/hr) | (mR/hr) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | | |
| ? | Floor Tile | ? | N/A | ? | 4, -2 | 28A-2-1 | 12 | 0.010 | 6.8 | -23.6 | -4.5 | -53.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -6 | 28A-2-1 | 12 | 0.013 | -14.4 | -23.6 | 28.2 | -27.4 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 4, -10 | 28A-2-1 | 13 | 0.019 | -55.5 | -76.8 | 2.3 | -17.5 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 4, -14 | 28A-2-1 | 14 | 0.017 | 16.7 | -4.6 | 19.2 | -12.9 | 2.38 | 7.54 |
| ? | " | ? | " | ? | 4, -18 | 28A-2-1 | 14 | 0.015 | 40.3 | 14.4 | 0.0 | -16.0 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -22 | 28A-2-1 | 15 | 0.013 | 167.3 | 90.5 | 24.8 | 129.3 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -26 | 28A-2-1 | 13 | 0.015 | 35.0 | 14.4 | 4.5 | 63.1 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -30 | 28A-2-1 | 14 | 0.017 | 79.1 | 14.4 | 5.6 | 17.5 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -32 | 28A-2-1 | 12 | 0.012 | 137.6 | 90.5 | 1.1 | 31.2 | 7.74 | -2.49 |
| ? | Floor Tile | ? | N/A | ? | 2, -2 | 28A-2-11 | 8 | 0.008 | 69.2 | 40.3 | 10.2 | 18.2 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 2, -6 | 28A-2-11 | 8 | 0.012 | 95.0 | 40.3 | -10.2 | 2.3 | 7.74 | 3.59 |
| ? | " | ? | " | ? | 2, -10 | 28A-2-11 | 10 | 0.008 | 121.7 | 40.3 | 12.4 | 19.0 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 2, -14 | 28A-2-11 | 10 | 0.014 | 41.1 | -16.7 | -11.3 | 24.3 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -18 | 28A-2-11 | 8 | 0.013 | -41.1 | -54.7 | -2.3 | -25.1 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -22 | 28A-2-11 | 8 | 0.012 | 32.7 | -16.7 | -14.7 | -2.3 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 2, -26 | 28A-2-11 | 8 | 0.019 | -7.6 | -54.7 | -7.9 | -28.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -28 | 28A-2-11 | 9 | 0.013 | 11.4 | -35.7 | -20.3 | -15.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -2 | 28A-2-11 | 12 | 0.026 | 42.6 | 2.3 | -11.3 | 28.9 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 6, -6 | 28A-2-11 | 13 | 0.008 | -2.3 | -35.7 | -2.3 | -51.7 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 6, -10 | 28A-2-11 | 12 | 0.013 | 14.4 | -12.9 | -29.4 | -35.7 | -0.26 | -2.49 |
| ? | Floor Tile | ? | N/A | ? | 2, -2 | 28A-2-12 | 10 | 0.014 | 117.1 | 38.0 | -6.8 | 6.1 | -0.26 | -2.49 |
| ? | Floor Tile | ? | N/A | ? | 2, -2 | 28A-2-13 | 10 | 0.014 | 96.6 | 38.0 | 12.4 | 20.5 | -0.26 | -2.49 |
| ? | Floor Tile | ? | N/A | ? | 2, -2 | 28A-2-14 | 12 | 0.009 | 71.5 | 54.7 | 10.2 | 3.8 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -4 | 28A-2-14 | 10 | 0.011 | 89.7 | 54.7 | 7.9 | -37.3 | -0.26 | 3.41 |
| ? | Floor Tile | ? | N/A | ? | 2, -2 | 28A-2-20 | 9 | 0.009 | 17.5 | 0.0 | 3.4 | -12.2 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 2, -4 | 28A-2-20 | 8 | 0.009 | 13.7 | 0.0 | 4.5 | -6.1 | -0.26 | 3.59 |
| ? | Floor Tile | ? | 2, -2 | ? | N/A | 28A-2-21 | 8 | 0.012 | 83.6 | 38.0 | 16.9 | 0.0 | -0.26 | 3.41 |
| ? | " | ? | 2, -4 | ? | " | 28A-2-21 | 8 | 0.021 | 60.8 | 0.0 | 0.0 | 19.8 | -0.26 | -2.49 |

TABLE 3
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 28A - BUILDING 4, FIRST & SECOND FLOOR)

| LOCATION CODE | NUMBER OF SURVEY POINTS | MINIMUM VALUE | MAXIMUM VALUE | AVERAGE VALUE | STANDARD DEVIATION | UNITS |
|---|-------------------------|---------------|---------------|---------------|--------------------|-------------------------|
| ** SURVEY TYPE = GAMMA DOSERATE AT 1 METER FROM SURFACE | | | | | | |
| 28A-01 | 19 | 11.000 | 18.000 | 13.370 | 1.810 | MicroR/hour |
| 28A-02 | 32 | 8.000 | 16.000 | 10.940 | 2.450 | MicroR/hour |
| ** Subtotal ** | 51 | | | | | |
| ** SURVEY TYPE = BETA/GAMMA DOSERATE ON CONTACT WITH SURFACE | | | | | | |
| 28A-01 | 19 | 0.010 | 0.025 | 0.014 | 0.006 | MilliRem/hour |
| 28A-02 | 32 | 0.008 | 0.026 | 0.014 | 0.004 | MilliRem/hour |
| ** Subtotal ** | 51 | | | | | |
| ** SURVEY TYPE = MAXIMUM - BETA SCAN OF SURFACE NEAR SURVEY POINT | | | | | | |
| 28A-01 | 48 | -32.000 | 1488.700 | 396.200 | 377.200 | DPM/100 cm ² |
| 28A-02 | 32 | -55.500 | 1474.400 | 136.300 | 344.200 | DPM/100 cm ² |
| ** Subtotal ** | 80 | | | | | |
| ** SURVEY TYPE = AVERAGE - BETA SCAN OF SURFACE NEAR SURVEY POINT | | | | | | |
| 28A-01 | 48 | -787.000 | 1440.900 | -220.500 | 627.200 | DPM/100 cm ² |
| 28A-02 | 32 | -76.800 | 1459.100 | 96.700 | 344.500 | DPM/100 cm ² |
| ** Subtotal ** | 80 | | | | | |
| ** SURVEY TYPE = FIXED ALPHA SURVEY AT SURVEY POINT | | | | | | |
| 28A-01 | 48 | -6.100 | 34.600 | 3.900 | 7.900 | DPM/100 cm ² |
| 28A-02 | 32 | -29.400 | 28.200 | 3.000 | 12.800 | DPM/100 cm ² |
| ** Subtotal ** | 80 | | | | | |
| ** SURVEY TYPE = FIXED BETA SURVEY AT SURVEY POINT | | | | | | |
| 28A-01 | 48 | -739.100 | 1460.700 | -218.900 | 635.500 | DPM/100 cm ² |
| 28A-02 | 32 | -53.200 | 1482.000 | 94.800 | 359.800 | DPM/100 cm ² |
| ** Subtotal ** | 80 | | | | | |
| ** SURVEY TYPE = REMOVABLE ALPHA SMEAR SURVEY AT SURVEY POINT | | | | | | |
| 28A-01 | 48 | -0.260 | 7.510 | -0.100 | 1.110 | DPM/100 cm ² |
| 28A-02 | 32 | -0.260 | 7.740 | 0.320 | 1.970 | DPM/100 cm ² |
| ** Subtotal ** | 80 | | | | | |
| ** SURVEY TYPE = REMOVABLE BETA SMEAR SURVEY AT SURVEY POINT | | | | | | |
| 28A-01 | 48 | -2.490 | 9.660 | 0.130 | 3.660 | DPM/100 cm ² |
| 28A-02 | 32 | -2.490 | 7.540 | 0.270 | 3.200 | DPM/100 cm ² |
| ** Subtotal ** | 80 | | | | | |

TABLE 3
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 28A - BUILDING 4, FIRST & SECOND FLOOR)

| LOCATION CODE | NUMBER OF SURVEY POINTS | MINIMUM VALUE | MAXIMUM VALUE | AVERAGE VALUE | STANDARD UNITS DEVIATION |
|------------------|----------------------------------|------------------|------------------|------------------|-----------------------------|
| | 80 | | | | |
| *** Total *** | 582 | | | | |

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 1 | * | ESP2:1588-L | 34.3% | 2.91 | 266 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:447B | 18.5% | 5.4 | | | PAC4G:447B | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 7 | * | FLMON:91943 | 28.8% | 3.47 | 1375 |

| |
|----------------------|
| SURVEY DATE: 3/11/93 |
| COUNT DATE: 2/17/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor | N/A | 2, -2 | 11 | .01 | 1518 | 1475 | 11 | 1430 | -0.264 | -2.49 | Tile on Concrete |
| " | " | 4, -2 | 12 | .01 | 1448 | 1380 | 7 | 1389 | -0.264 | -2.49 | " |
| " | " | 4, -4 | 13 | .025 | 1512 | 1450 | 4 | 1473 | -0.264 | -2.49 | " |
| " | " | 4, -6 | 14 | .02 | 1608 | 1500 | 5 | 1503 | -0.264 | 3.53 | " |
| " | " | 4, -28 | 14 | .01 | 1510 | 1500 | 5 | 1506 | -0.264 | -2.49 | " |
| " | " | 4, -30 | 13 | .01 | 1605 | 1550 | 6 | 1462 | -0.264 | -2.49 | " |
| " | " | 4, -32 | 11 | .015 | 1526 | 1450 | 5 | 1512 | -0.264 | -2.49 | " |
| " | " | 4, -34 | 12 | .02 | 1542 | 1500 | 3 | 1505 | -0.264 | -2.49 | " |
| " | " | 4, -36 | 13 | .02 | 1662 | 1600 | 7 | 1576 | -0.264 | -2.49 | " |
| " | " | 4, -38 | 14 | .025 | 1593 | 1525 | 8 | 1512 | -0.264 | 3.41 | " |
| " | " | 4, -40 | 12 | .01 | 1656 | 1525 | 2 | 1441 | -0.264 | 9.66 | " |
| " | " | 2, -40 | 13 | .02 | 1448 | 1400 | 7 | 1475 | -0.264 | -2.49 | " |
| " | " | 2, -32 | 11 | .01 | 1654 | 1475 | 16 | 1517 | -0.264 | -2.49 | " |
| " | " | 0, -32 | 12 | .01 | 1409 | 1375 | 11 | 1398 | -0.264 | 3.59 | " |
| East Wall | " | 4, -9 | N/A | N/A | 400 | 360 | 2 | 315 | -0.264 | -2.49 | ESP's used - Brick |

| | | | | |
|---|---|--|--------------------------|--|
| FORM SERIAL #: 28 A-011 (Survey Section - Sequential survey #) | LOCATION # 28 A-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0336 | SURVEYOR SIGNATURE: <i>[Signature]</i> |
|---|---|--|--------------------------|--|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 1 | * | ESP2:1588-L | 34.3% | 2.91 | 266 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/11/93 |
| COUNT DATE: 2/17/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| East Wall | N/A | 6, -.9 | N/A | N/A | 480 | 380 | 1 | 333 | -0.264 | -2.49 | Brick |
| " | " | 8, -.9 | " | " | 357 | 320 | 2 | 262 | -0.264 | 3.59 | " |
| " | " | 10, -.9 | " | " | 379 | 350 | 1 | 366 | -0.264 | 3.59 | " |
| " | " | 14, -.9 | " | " | 446 | 370 | 3 | 334 | -0.264 | -2.49 | " |
| " | " | 12, -.9 | " | " | 410 | 370 | 2 | 331 | -0.264 | 3.41 | " |
| " | " | 16, -.9 | " | " | 377 | 320 | 1 | 350 | -0.264 | 3.59 | " |
| " | " | 18, -.9 | " | " | 459 | 360 | 2 | 342 | -0.264 | 9.31 | " |
| " | " | 20, -.9 | " | " | 435 | 370 | 0 | 361 | -0.264 | 3.41 | " |
| " | " | 22, -.9 | " | " | 423 | 380 | 4 | 357 | -0.264 | -2.49 | " |
| " | " | 24, -.9 | " | " | 368 | 330 | 0 | 350 | -0.264 | 3.41 | " |
| " | " | 26, -.9 | " | " | 403 | 360 | 4 | 317 | -0.264 | -2.49 | " |
| " | " | 28, -.9 | " | " | 405 | 370 | 4 | 343 | -0.264 | -2.49 | " |
| " | " | 30, -.9 | " | " | 388 | 350 | 3 | 378 | -0.264 | -2.49 | " |
| " | " | 35, -.9 | " | " | 470 | 380 | 0 | 325 | -0.264 | 9.66 | " |
| " | " | 36, -.9 | " | " | 339 | 270 | 9 | 296 | -0.264 | -2.49 | " |

| | | | | |
|--|---|--|--------------------------|---|
| FORM SERIAL #: 28 A -011 (Survey Section - Sequential survey #) | LOCATION # 28 A-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0337 | SURVEYOR SIGNATURE: MS/TB <i>[Signature]</i> |
|--|---|--|--------------------------|---|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | BETA SURVEY EQUIPMENT | | |
|------------|------------------------|-------|------|-----------------------|-------|------|
| | INST: S/N | EFF | C.F. | INST: S/N | EFF | C.F. |
| | ESP2: 1517 | 21.1% | 4.74 | ESP2: 1595 | 34.2% | 2.92 |
| | ESP2: 1517-L | 21.7% | 4.60 | ESP2: 1595-L | 31.3% | 3.20 |
| * | ESP2: 1601-L | 23.1% | 4.33 | ESP2: 1588-L | 34.3% | 2.91 |
| | ESP2: | | | ESP2: | | |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 |
| | ASP1: 1891 | 19.1% | 5.23 | E520: 5245 | | |
| | PAC4G: 4478 | 18.5% | 5.4 | PAC4G: 4478 | 33.5% | 3.0 |
| | FLMOM: 91943 | 18.8% | 5.3 | FLMOM: 91943 | 28.8% | 3.47 |

| |
|----------------------|
| SURVEY DATE: 3/11/93 |
| COUNT DATE: 2/17/93 |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | |
|------------|----------------------------|-------|------|
| | INST: S/N | EFF | C.F. |
| * | TENN: 13295 | 37.8% | 2.64 |
| | SAC4: 1128 | 40.6% | 2.46 |
| | SAC4: 263 | 34.7% | 2.88 |
| (*)IF USED | COUNTING EQUIPMENT (BETA) | | |
| | INST: S/N | EFF | C.F. |
| * | TENN: 13295 | 49.9% | 2.0 |
| | MS-2: 1848 | 26.4% | 3.8 |
| | BC-4: 808 | 16.9% | 5.92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | | UR/hr |
|------------|---------------------------|-----|-------|
| | INST: S/N | BKG | |
| | R/S: L-2088 | | UR/hr |
| | PRM7: 234 | | UR/hr |
| | E520: 5242 | | mr/hr |
| | E520: 5245 | | mr/hr |
| | ESP2: 1522 | | mr/hr |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. UR/hr | BETA/GAMMA COMT. mr/hr | SCAN CONTACT GROSS CPM | | | CONTACT GROSS 1 MIN. CT. | | | SMEAR LEVELS IN DPM/100cm ² | | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|------|--------------------------|--------|-------|--|--|--|----------|
| | | | | | MAX BETA | AVG BETA | BETA | ALPHA | BETA | ALPHA | BETA | | | |
| East Wall | N/A | 38, -9 | N/A | N/A | 413 | 300 | 2 | 336 | -0.264 | -2.49 | Brick | | | |
| " | " | 40, -9 | " | " | 499 | 390 | 1 | 321 | -0.264 | -2.49 | " | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| | | | | |
|---|---|--|--------------------------|--|
| FORM SERIAL #: 28 A - 011 (Survey Section - Sequential survey #) | LOCATION # 28 A-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0338 | SURVEYOR SIGNATURE: <i>[Signature]</i> |
|---|---|--|--------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 1435

Date: 2/17/93

Counting Unit ID: 1

Data file name: C:\BXL\UNIT1\28A0101.XLD

Batch Ended: 2/17/93 12:37

Crosstalk Correction: Not Applied

Beta efficiency log file: cs137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.74

Application Revision: 2

Application Version: Standard

Batch ID: TSB - 28A 1-1 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count Time (min) | Alpha CPM | Beta CPM | Completion TID |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 1 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/17/93 12:20 |
| 2 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:21 |
| 3 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:21 |
| 4 | 0.264 | 0.93 | <MDA | 11.27 | 3.53 | 7.14 | <MDA | 15.88 | 1.00 | 0.100 | 1.76 | 2/17/93 12:23 |
| 5 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/17/93 12:23 |
| 6 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:24 |
| 7 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 2/17/93 12:24 |
| 8 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 2/17/93 12:25 |
| 9 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:25 |
| 10 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/17/93 12:26 |
| 11 | 0.264 | 1.63 | <MDA | 28.84 | 0.66 | 0.45 | <AL | 34.63 | 0.33 | 0.100 | 4.82 | 2/17/93 12:26 |
| 12 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/17/93 12:27 |
| 13 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:27 |
| 14 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/17/93 12:28 |
| 15 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/17/93 12:28 |
| 16 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:29 |
| 17 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/17/93 12:29 |
| 18 | 0.264 | 1.63 | <MDA | 28.84 | 3.58 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/17/93 12:30 |
| 19 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/17/93 12:30 |
| 20 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/17/93 12:31 |
| 21 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/17/93 12:31 |
| 22 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 2/17/93 12:32 |
| 23 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/17/93 12:32 |
| 24 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:33 |
| 25 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/17/93 12:33 |

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 1435

Beta efficiency log file: cs137ab

Beta Efficiency: 49.86%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Date: 2/17/93

Counting Unit id: 1

Data file name: C:\EXL\UNIT1\28A0101.XLD

Batch Ended: 2/17/93 12:37

Crosstalk Correction: Not Applied

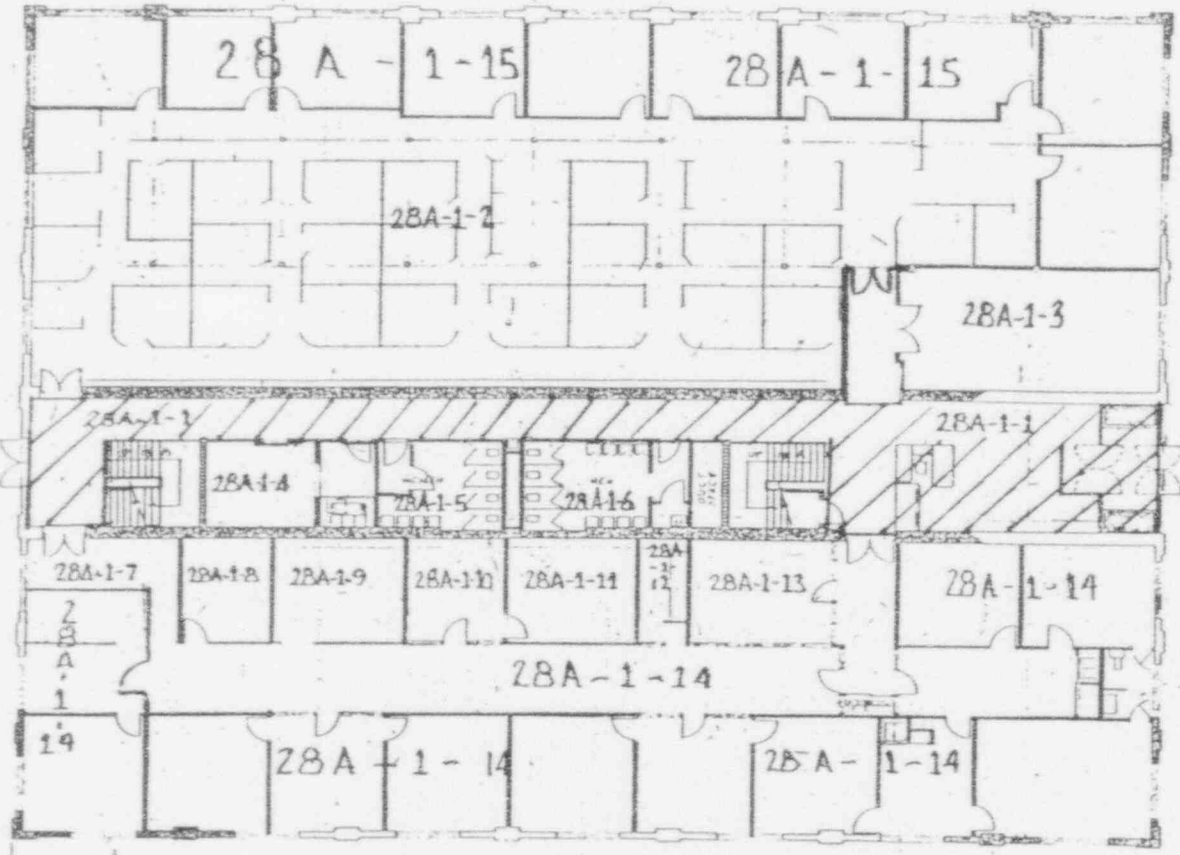
Application Revision: 2

Application Version: Standard

Batch ID: TSB-28A-1-1 walls and floor

| Carrier | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD | | |
|---------|----------------|----------|-------|---------------|------|----------|------------------|-----------|----------|----------------|-------|---------------|
| | DPM | σ | flags | MDA | DPM | σ | | | | | flags | MDA |
| 26 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 2/17/93 12:34 |
| 27 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:34 |
| 28 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/17/93 12:35 |
| 29 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 2/17/93 12:35 |
| 30 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 2/17/93 12:36 |
| 31 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:36 |
| 32 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 12:37 |

| REVISIONS | | |
|-----------|-------------|------|
| NO. | DESCRIPTION | DATE |
| | | |



BUILDING
REF LINE
SEE JN-000

Bldg 4 First Floor Classification 1
Survey Unit ZBA-1

LEGEND

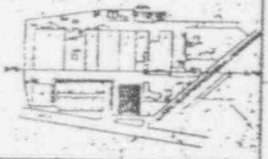
- BRICK
- CONG BLOCK EXT
- CONG BLOCK INT
- DRYWALL & PANELING

SCALE : FEET

| REV | DATE | DESCRIPTION | BY | CHKD | DATE | DESCRIPTION | MATERIAL | QUANTITY | UNIT |
|-----|------|-------------|----|------|------|-------------|----------|----------|------|
| | | | | | | | | | |

| PARTS LIST | | CONTRACT NO. | | DATE OF ORDER | |
|------------|--|--------------|--|---------------|--|
| | | | | | |

| | | | |
|---|----------------|----------|--|
| Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | | |
| FIRST FLOOR BUILDING NO 4 WAESD LARGE PA | | | |
| DATE D 14683 | DATE JN-006 | REV A | |



| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 1 | * | ESP2:1588-L | 34.3% | 2.91 | 266 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 7 | * | FLMON:91943 | 28.8% | 3.47 | 1375 |

SURVEY DATE: 3/11/93
 COUNT DATE: 2/17/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 2, -4 | 15 | .02 | 3228 | 3100 | 6 | 3068 | -0.264 | -2.49 | Floor Mon used for scans |
| Glazed old E. Wall | " | 2, -2 | 15 | .01 | 3111 | 2975 | 13 | 3052 | -0.264 | 3.59 | scans & 1 minute counts. |
| " | " | 2, -.9 | N/A | N/A | 431 | 320 | 1 | 328 | -0.264 | 3.41 | ESP's used for scans |
| " | " | 4, -.9 | " | " | 389 | 370 | 2 | 351 | -0.264 | 3.41 | Block & Glazed Tile |
| South Wall | " | 2, -.9 | " | " | 382 | 300 | 3 | 359 | -0.264 | -2.49 | " |
| West Wall | " | 2, -.9 | " | " | 584 | 520 | 8 | 609 | -0.264 | 3.41 | " |

FORM SERIAL #: 28 A-012 (Survey Section - Sequential survey #)
 LOCATION # 28 A-1-5 (Survey Section - Unit # - Sub Unit #)
 SURVEY CLASSIFICATION: I (Group I, II, III, IV)
 DISK FILE CODE: FDS-0339
 SURVEYOR SIGNATURE: *[Signature]*

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 1435

Date: 2/17/93

Counting Unit id: 1

Data file name: C:\BXL\UNIT1\28A0105.XLD

Batch Ended: 2/17/93 11:18

Crosstalk Correction: Not Applied

Beta efficiency log file: cs137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Application Revision: 2

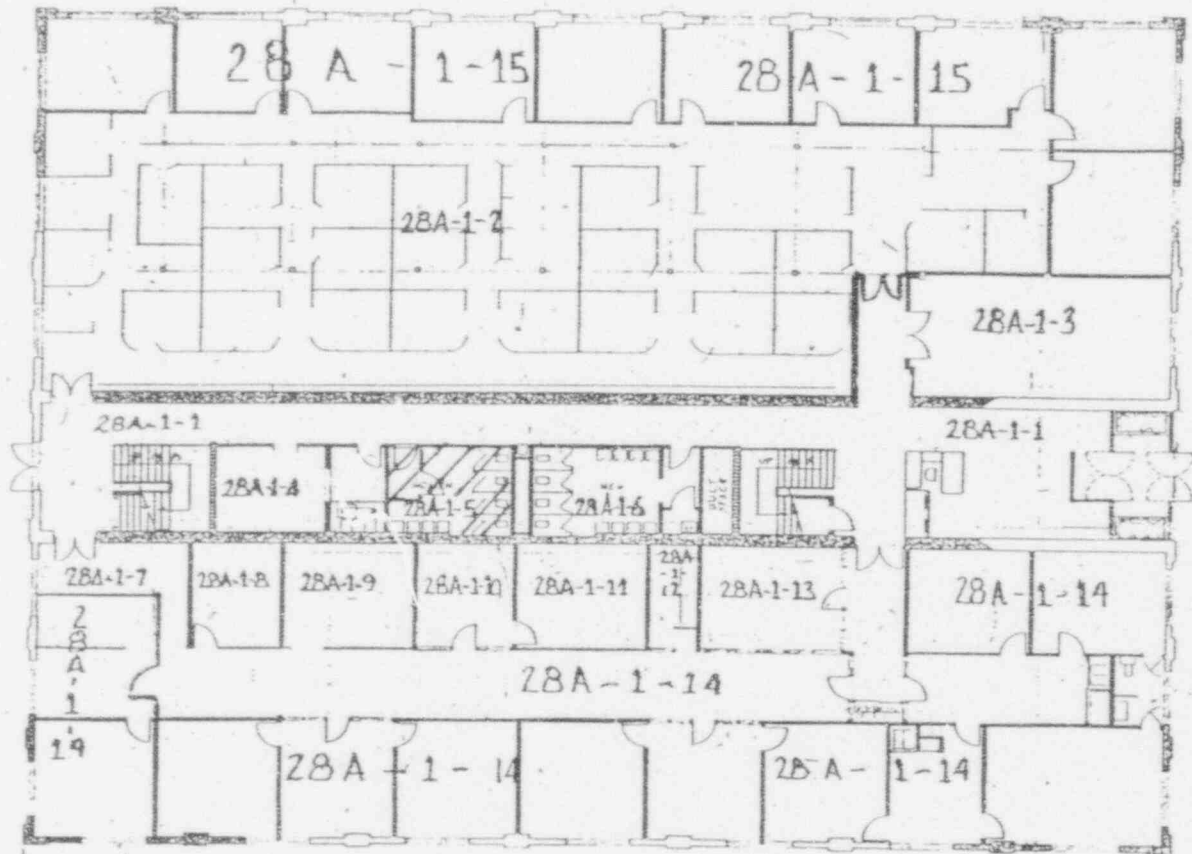
Application Version: Standard

Batch ID: TSB_28A_1.5 walls and floor

| Carrier | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD | |
|---------|----------------|----------|-------|---------------|-------|----------|------------------|-----------|----------|----------------|---------------|
| | DPM | σ | flags | MDA | DPM | σ | | | | | flags |
| 38 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | -0.100 | 1.24 | 2/17/93 11:15 |
| 39 | -0.264 | 1.63 | <MDA | 28.84 | 3.50 | 7.24 | <MDA | 34.63 | -0.100 | 1.79 | 2/17/93 11:16 |
| 40 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | -0.100 | 1.70 | 2/17/93 11:16 |
| 41 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | -0.100 | 1.70 | 2/17/93 11:17 |
| 42 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.97 | <MDA | 33.88 | -0.100 | 1.24 | 2/17/93 11:17 |
| 43 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | -0.100 | 1.70 | 2/17/93 11:18 |
| 44 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | -0.100 | 1.70 | 2/17/93 11:18 |

Survey Point not needed
~~MDA~~ → 3/11

| REVISIONS | | | |
|-----------|------|-------------|----|
| NO. | DATE | DESCRIPTION | BY |
| | | | |
| | | | |



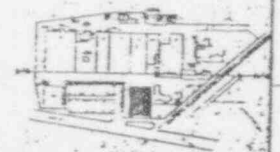
BUILDING
REF LINE
SET JN-000

Bldg 4 FIRST FLOOR CLASSIFICATION 1
SURVEY UNIT 28A-1

LEGEND

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

SCALE: FEET



| REV | DATE | DESCRIPTION | BY | APP |
|-----|------|-------------|----|-----|
| | | | | |
| | | | | |

| PARTS LIST | | CONTRACT NO. | | DATE OF DRAW | |
|------------|--|--------------|--|--------------|--|
| | | | | | |
| | | | | | |

| | | | |
|---|----------|--------|----------|
| Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | | |
| FIRST FLOOR BUILDING NO 4 WAESD LARGE PA | | | |
| DWG NO | DWG DATE | DWG NO | DWG DATE |
| D | 14683 | JN-006 | A |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 1 | * | ESP2:1588-L | 34.3% | 2.91 | 266 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 7 | * | FLMON:91943 | 28.8% | 3.47 | 1375 |

SURVEY DATE: 3/11/93
 COUNT DATE: 2/17/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Glazed Floor Tile & Old Composit Tile | N/A | 2, -2 | 16 | .01 | 3184 | 3000 | 10 | 3112 | -0.264 | -2.49 | Floor Monitor used for scans & 1 min. counts |
| " | " | 2, -4 | 18 | .01 | 3237 | 3100 | 8 | 3126 | -0.264 | -2.49 | " |
| " | " | 2, -6 | 15 | .01 | 1404 | 1300 | 16 | 1325 | -0.264 | -2.49 | " |
| North Wall | " | 2, -.9 | N/A | N/A | 342 | 300 | 3 | 339 | 7.506 | 3.41 | ESP's used - Block & Glazed Tile |
| East Wall | " | 2, -.9 | " | " | 366 | 340 | 2 | 334 | -0.264 | -2.49 | " |
| " | " | 4, -.9 | " | " | 511 | 420 | 0 | 353 | -0.264 | 3.59 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

LB5100W Low Background Counting System - Smear Analysis

Alpha efficiency log file: po210.ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 1435

Crosstalk Correction: Not Applied

Beta efficiency log file: cs137.ab

Beta Efficiency: 49.88%

Beta to Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Application Revision: 2

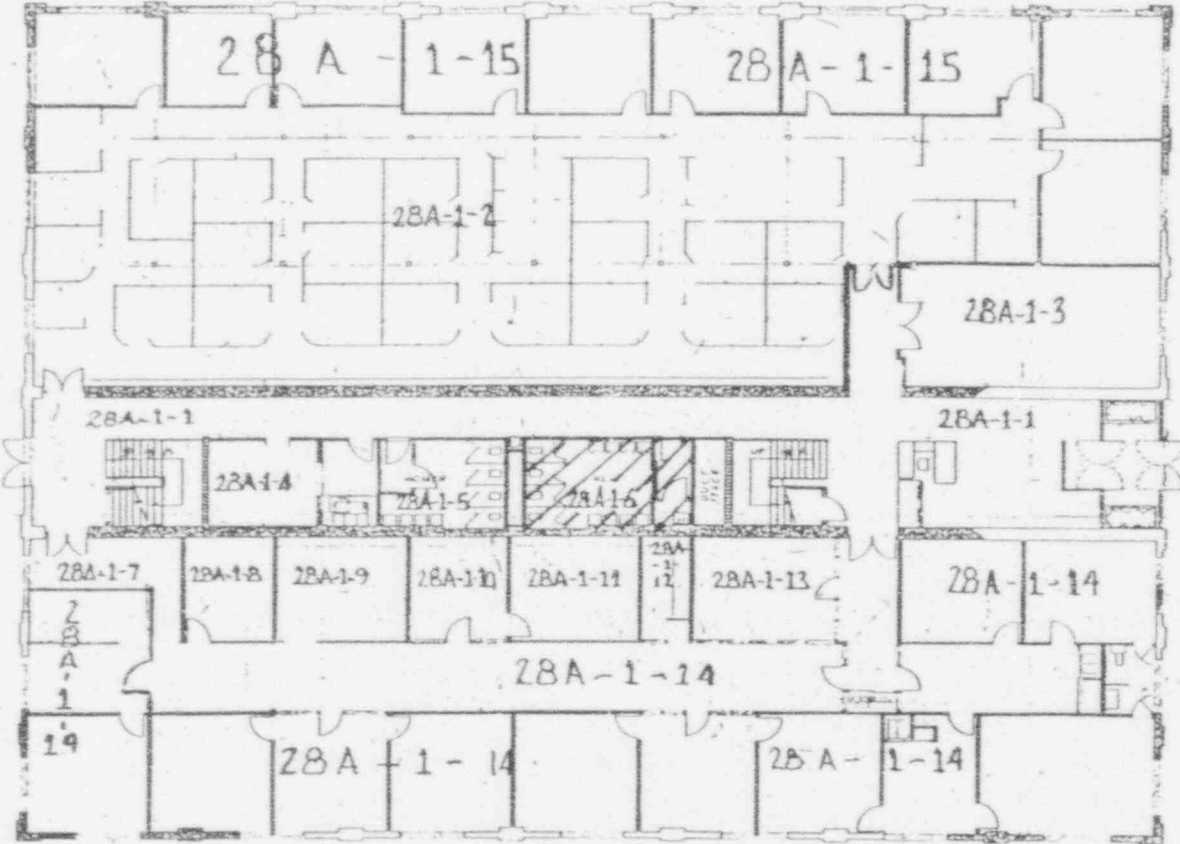
Application Version: Standard

Batch ID: TSB - 28A - 1.6 walls and floor

| Carrier | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|---------------|-------|----------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | | | | |
| 31 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | -1.24 | 2/17/93 11:11 |
| 32 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | -1.24 | 2/17/93 11:12 |
| 33 | 0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | -1.24 | 2/17/93 11:12 |
| 34 | 7.506 | 7.94 | At AL | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 1.70 | 2/17/93 11:13 |
| 35 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | -1.24 | 2/17/93 11:13 |
| 36 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 1.79 | 2/17/93 11:14 |
| 37 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | -1.24 | 2/17/93 11:14 |

— = Survey Point not needed
MRS 3/11

| REVISIONS | | | |
|-----------|------|-------------|----|
| NO. | DATE | DESCRIPTION | BY |
| | | | |
| | | | |



BUILDING REF LINE SEE JN-000

Bldg 4 First Floor Classification 1
Survey Unit 28A-1

LEGEND

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

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|------|-------------|----|------|
| | | | | |
| | | | | |

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|------|-------------|----|------|
| | | | | |
| | | | | |

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|------|-------------|----|------|
| | | | | |
| | | | | |

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|------|-------------|----|------|
| | | | | |
| | | | | |

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|------|-------------|----|------|
| | | | | |
| | | | | |

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|------|-------------|----|------|
| | | | | |
| | | | | |

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|------|-------------|----|------|
| | | | | |
| | | | | |

Westinghouse Advanced Energy Systems Division
 Pittsburgh, Pennsylvania
FIRST FLOOR
BUILDING NO 4
WAESD LARGE PA
 DATE: 11-1-63
 DRAWING NO: JN-006 A
 SHEET NO: 2

| |
|----------------------|
| SURVEY DATE: 3/11/93 |
| COUNT DATE: 2/17/93 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | BETA SURVEY EQUIPMENT | |
|------------|------------------------|-------|-----------------------|-------|
| | INST: S/N | EFF | INST: S/N | EFF |
| | ESP2: 1517 | 21.1% | ESP2: 1595 | 34.2% |
| | ESP2: 1517-L | 21.7% | ESP2: 1595-L | 31.3% |
| * | ESP2: 1601-L | 23.1% | ESP2: 1588-L | 34.3% |
| | ESP2: | | ESP2: | |
| | ESP2: | | E520: 5242 | 20.3% |
| | ASP1: 1891 | 19.1% | E520: 5245 | |
| | PAC4G: 4478 | 18.5% | PAC4G: 4478 | 33.5% |
| | FLMON: 91943 | 18.8% | FLMON: 91943 | 28.8% |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | COUNTING EQUIPMENT (BETA) | |
|------------|----------------------------|-------|---------------------------|-------|
| | INST: S/N | EFF | INST: S/N | EFF |
| * | TENN: 13295 | 37.8% | TENN: 13295 | 49.9% |
| | SAC4: 1128 | 40.6% | MS-2: 1848 | 26.4% |
| | SAC4: 263 | 34.7% | BC-4: 808 | 16.9% |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | | UR/hr |
|------------|---------------------------|-----|-------|
| | INST: S/N | BKG | |
| | R/S: L 2088 | | UR/hr |
| | PRM7: 234 | | UR/hr |
| | E520: 5242 | | mr/hr |
| | E520: 5245 | | mr/hr |
| | ESP2: 1522 | | mr/hr |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. UR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| East Wall | N/A | 2, -9 | N/A | N/A | 291 | 240 | 1 | 233 | -0.264 | -2.49 | Brick |
| " | " | 4, -9 | " | " | 307 | 250 | 2 | 249 | -0.264 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|---|---|--|--------------------------|-------------------------|
| FORM SERIAL #: 28 A-014 (Survey Section - Sequential survey #) | LOCATION # 28 A-1-7 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0341 | SURVEYOR SIGNATURE: |
|---|---|--|--------------------------|-------------------------|

LB5100W Low Background Counting System – Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 1435

Date: 2/17/93

Counting Unit id: 1

Data file name: C:\BXL\UNIT1\28A0107.XLD

Batch Ended: 2/17/93 11:20

Crosstalk Correction: Not Applied

Beta efficiency log file: cs137ab

Beta Efficiency: 49.68%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Application Revision: 2

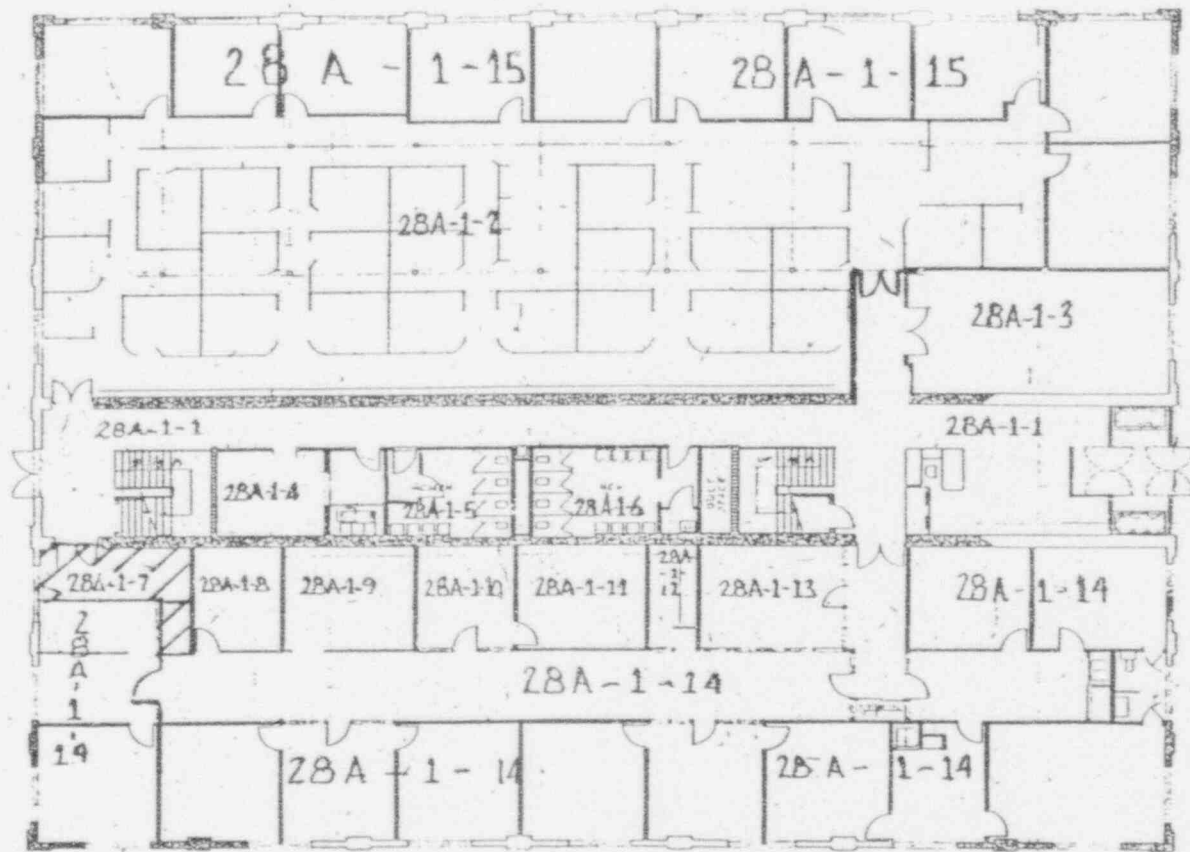
Application Version: Standard

Batch ID: TSB-28A-1.7 walls and floor

| Carrier | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|---------------|-------|----------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | | | | |
| 46 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | -1.24 | 2/17/93 11:19 |
| 47 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | -1.24 | 2/17/93 11:20 |

REVISIONS

| NO. | DATE | DESCRIPTION | BY | APPROVED |
|-----|------|-------------|----|----------|
| | | | | |



BUILDING REF LINE SEE JN-000

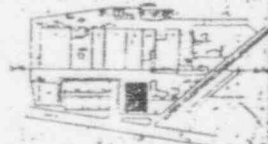
60'-0"

Bldg 4 First Floor Classification 1
Survey Unit 28A-1

LEGEND

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

SCALE: FEET



| REV | DATE | DESCRIPTION | BY | APP'D |
|---------|--------|-------------|----|-------|
| Revised | 4/1/75 | | | |

| NO. | REV | DATE | DESCRIPTION | BY | APP'D |
|-----|-----|------|-------------|----|-------|
| | | | | | |

| ITEM NO. | QUANTITY | DESCRIPTION | UNIT | PRICE | TOTAL |
|----------|----------|-------------|------|-------|-------|
| | | | | | |

| | | |
|--------------|---------------|------------------|
| CONTRACT NO. | DATE OF ORDER | DATE OF DELIVERY |
| | | |

| |
|---|
| WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION Pittsburgh, Pennsylvania |
| FIRST FLOOR BUILDING NO. 4 WAEED LARGE PA |
| DWG NO. D 14683 |
| DATE JN-006 |
| SCALE 1/8" = 1'-0" |

LB5100W Low Background Counting System – Smear Analysis

Date: 2/17/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28A0111.XLD
 Batch Ended: 2/17/93 11:21
 Crosstalk Correction: Not Applied

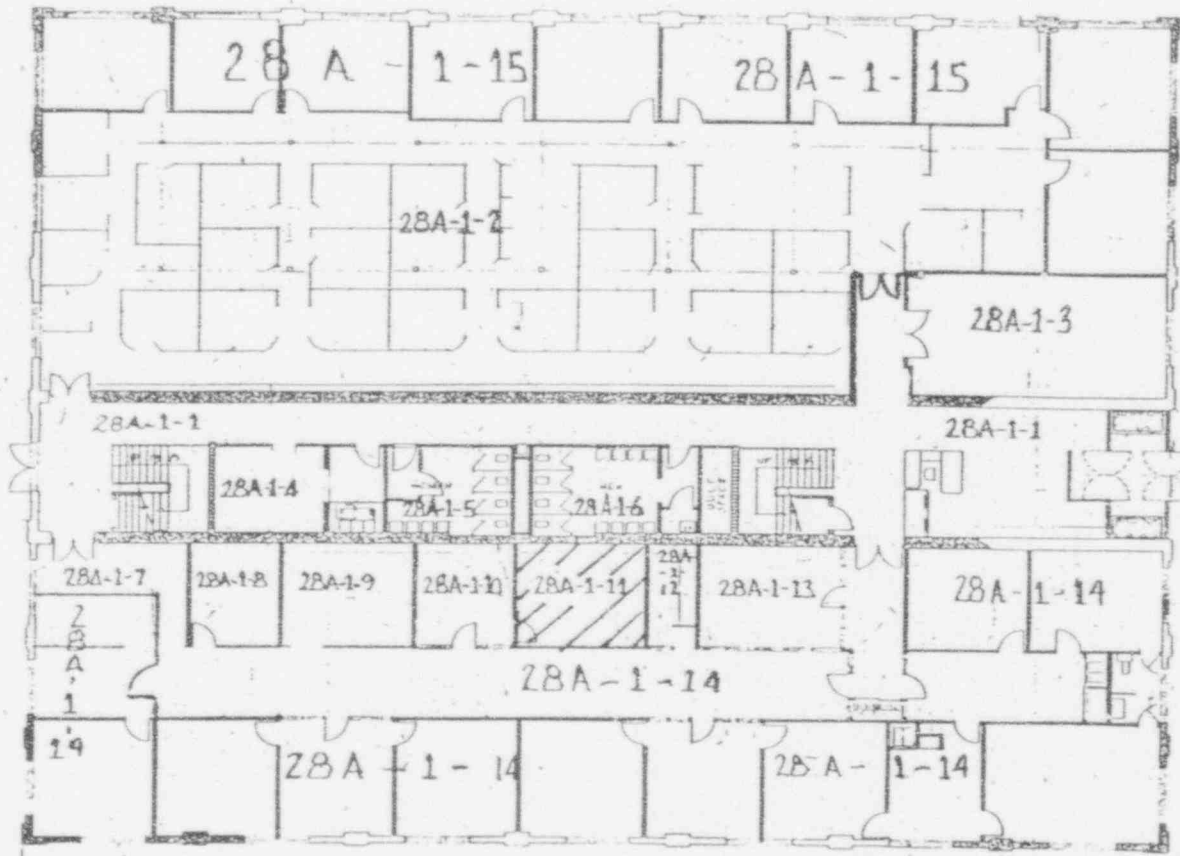
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

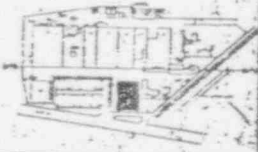
Batch ID: TSB - 28A-1-11 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 48 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/17/93 11:20 |
| 49 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/17/93 11:21 |

| REVISIONS | | | |
|-----------|------|-------------|----|
| NO. | DATE | DESCRIPTION | BY |
| | | | |



BLDG 4 FIRST FLOOR CLASSIFICATION 1
 SURVEY UNIT 28A-1



BUILDING SET LINE
 SEE JN-000

50'0"

LEGEND

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

SCALE : FEET

| REVISED | | DATE | | DESCRIPTION | | BY | |
|---------|--|------|--|-------------|--|----|--|
| | | | | | | | |

| PARTS LIST | | | |
|------------|------|-------------|------|
| QTY | UNIT | DESCRIPTION | NOTE |
| | | | |

| | | |
|--------------|---------------|---|
| CONTRACT NO. | DATE OF ISSUE | Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania |
| DRAWN BY | CHECKED BY | |
| CHECKED BY | DATE | |

| | |
|----------------|--|
| FIRST FLOOR | |
| BUILDING NO 4 | |
| WAESD LARGE PA | |

| | | |
|------|--------------|----------|
| DATE | CONTRACT NO. | DATE |
| D | 14683 | JN-006 A |

| | | |
|--------------|----|-------|
| SCALE | BY | APP'D |
| 1/8" = 1'-0" | JN | |

APPENDIX B

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 2

DECOMMISSIONING FIELD DATA SHEET

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/M | EFF | C.F. | BKG CPM | | INST: S/M | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | SP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 20.4% | 4.9 | 65 | * | FLMON:91943 | 30.3% | 3.3 | 1481 |

| |
|----------------------|
| SURVEY DATE: 2/10/93 |
| COUNT DATE: 2/10/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|----------|
| | INST: S/M | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 12 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .01 mr/h |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/M | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
| | INST: S/M | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 4, -2 | 12 | .010 | 1490 | 1450 | 61 | 1411 | -0.264 | -2.49 | Floor monitor used for |
| " | " | 4, -6 | 12 | .013 | 1462 | 1450 | 90 | 1445 | -0.264 | 3.59 | smears and one minute |
| " | " | 4, -10 | 13 | .019 | 1408 | 1380 | 67 | 1458 | -0.264 | 3.41 | counts. |
| " | " | 4, -14 | 14 | .017 | 1503 | 1475 | 82 | 1464 | 2.378 | 7.54 | " |
| " | " | 4, -18 | 14 | .015 | 1534 | 1500 | 65 | 1460 | -0.264 | -2.49 | " |
| " | " | 4, -22 | 15 | .013 | 1701 | 1600 | 87 | 1651 | -0.264 | -2.49 | " |
| " | " | 4, -26 | 13 | .015 | 1527 | 1500 | 69 | 1564 | -0.264 | -2.49 | " |
| " | " | 4, -30 | 14 | .017 | 1585 | 1500 | 70 | 1504 | -0.264 | -2.49 | " |
| " | " | 2, -32 | 12 | .012 | 1662 | 1600 | 66 | 1522 | 7.741 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|--|--------------------------|--|
| FORM SERIAL #: 28A-001 (Survey Section - Sequential survey #) | LOCATION # 28A-2-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0242 | SUBSURFACE SIGNATURE: TS <i>[Signature]</i> |
|--|--|--|--------------------------|--|

LB5100W Low Background Counting System – Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28A0201.XLF
 Batch Ended: 2/10/93 13:52
 Crosstalk Correction: Not Applied

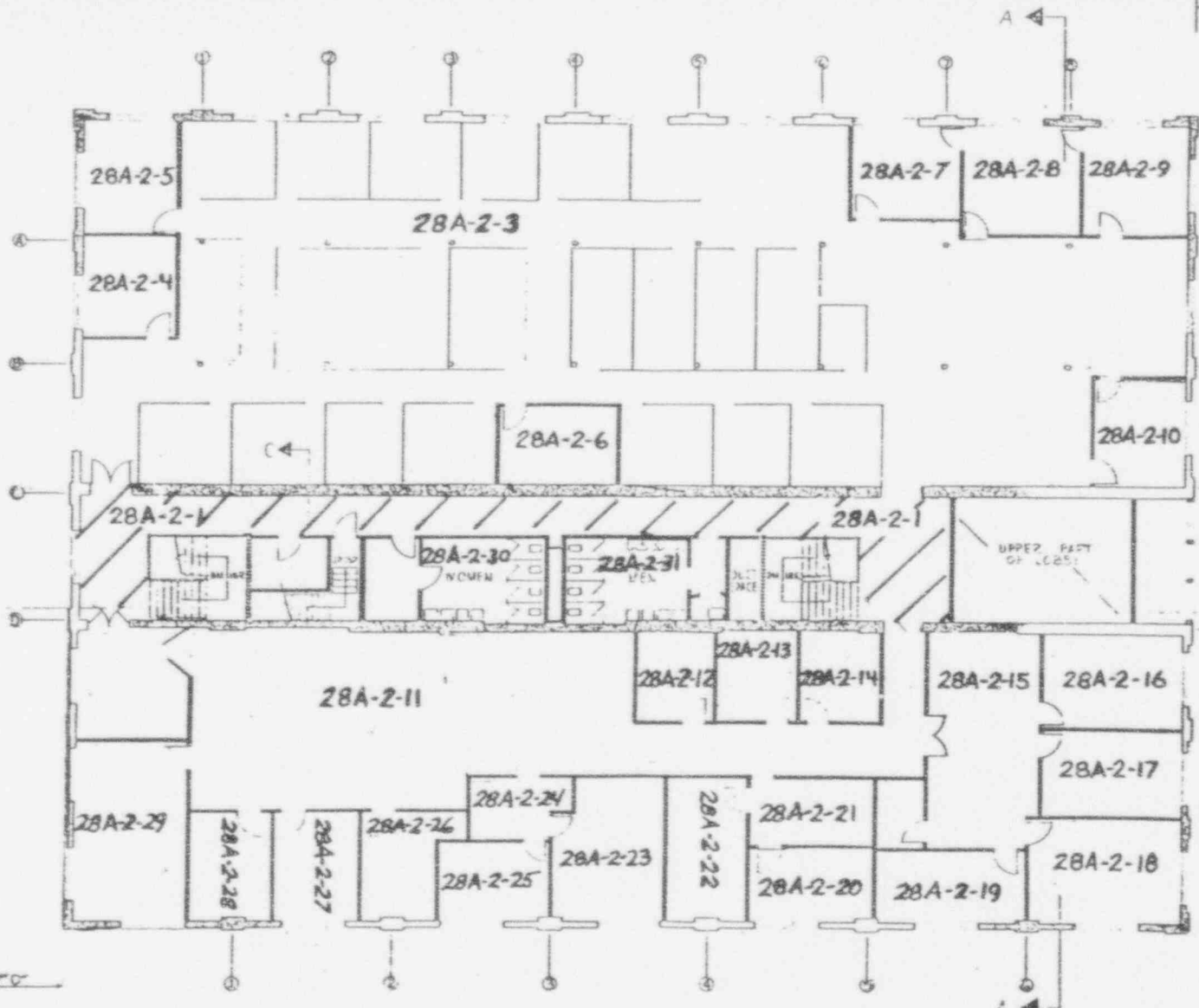
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0201 FLOORS AND WALLS

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 13:47 |
| 2 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/10/93 13:47 |
| 3 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/10/93 13:48 |
| 4 | 2.378 | 2.80 | <AL | 11.27 | 7.54 | 5.02 | <AL | 15.88 | 1.00 | 0.900 | 3.76 | 2/10/93 13:49 |
| 5 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 13:50 |
| 6 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 13:50 |
| 7 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/10/93 13:51 |
| 8 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 2/10/93 13:51 |
| 9 | 7.741 | 8.17 | At AL | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | 2.930 | -1.24 | 2/10/93 13:52 |

| REVISIONS | | | |
|-----------|------|-------------|------|
| NO. | REV. | DESCRIPTION | DATE |
| | | | |
| | | | |



DWG LINE M-030
60'0"

LEGEND

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

SCALE: FEET

0 5 10 15 20 25

| REV. | DATE | DESCRIPTION | BY | CHKD | APP'D |
|------|------|-------------|----|------|-------|
| | | | | | |
| | | | | | |

| REV. | DATE | DESCRIPTION | BY | CHKD | APP'D |
|------|------|-------------|----|------|-------|
| | | | | | |
| | | | | | |

| PARTS LIST | | | | | | | | | | | |
|------------|------|-------------|----|------|-------|-------------|-----------|------------|--------------|------|------|
| REV. | DATE | DESCRIPTION | BY | CHKD | APP'D | CURRANT NO. | ISSUE NO. | ISSUE DATE | ISSUE REASON | REV. | DATE |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | |
|---------------|--|------|--|
| SPECIFICATION | | TYPE | |
| DWG CODE NO. | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |

Westinghouse Advanced Energy Systems Division
Pittsburgh, Pennsylvania

SECOND FLOOR
BUILDING N° 4
VAESD LARGE, PA

DWG NO. D
CASE NO. 14683
REV. NO. JN-007
SCALE: 3/8" = 1'-0"

DECOMMISSIONING FIELD DATA SHEET

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | SP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 20.4% | 4.9 | 84 | * | FLMON:91943 | 30.3% | 3.3 | 1397 |

| |
|----------------------|
| SURVEY DATE: 2/10/93 |
| COUNT DATE: 2/10/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 8 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .01 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 2, -2 | 8 | .008 | 1488 | 1450 | 93 | 1421 | -0.264 | 3.59 | Floor monitor used |
| " | " | 2, -6 | 8 | .012 | 1522 | 1450 | 75 | 1400 | 7.741 | 3.59 | for scans & 1 minute |
| " | " | 2, -10 | 10 | .008 | 1557 | 1450 | 95 | 1422 | -0.264 | 3.59 | counts. |
| " | " | 2, -14 | 10 | .014 | 1451 | 1375 | 74 | 1429 | -0.264 | -2.49 | " |
| " | " | 2, -18 | 8 | .013 | 1343 | 1325 | 82 | 1364 | -0.264 | -2.49 | " |
| " | " | 2, -22 | 8 | .012 | 1440 | 1375 | 71 | 1394 | -0.264 | 3.41 | " |
| " | " | 2, -26 | 8 | .019 | 1387 | 1325 | 77 | 1359 | -0.264 | -2.49 | " |
| " | " | 4, -28 | 9 | .013 | 1412 | 1350 | 66 | 1377 | -0.264 | -2.49 | " |
| " | " | 6, -2 | 12 | .026 | 1453 | 1400 | 74 | 1435 | -0.264 | 3.59 | " |
| " | " | 6, -6 | 13 | .008 | 1394 | 1350 | 82 | 1329 | -0.264 | 3.59 | " |
| " | " | 6, -10 | 12 | .013 | 1416 | 1380 | 58 | 1350 | -0.264 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|--|--------------------------|--|
| FORM SERIAL #: 28A-002 (Survey Section - Sequential survey #) | LOCATION # 28A-2-11 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0243 | SURVEYOR SIGNATURE: TS <i>[Signature]</i> |
|--|---|--|--------------------------|--|

LB5100W Low Background Counting System – Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28A0211.XLD
 Batch Ended: 2/10/93 13:57
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

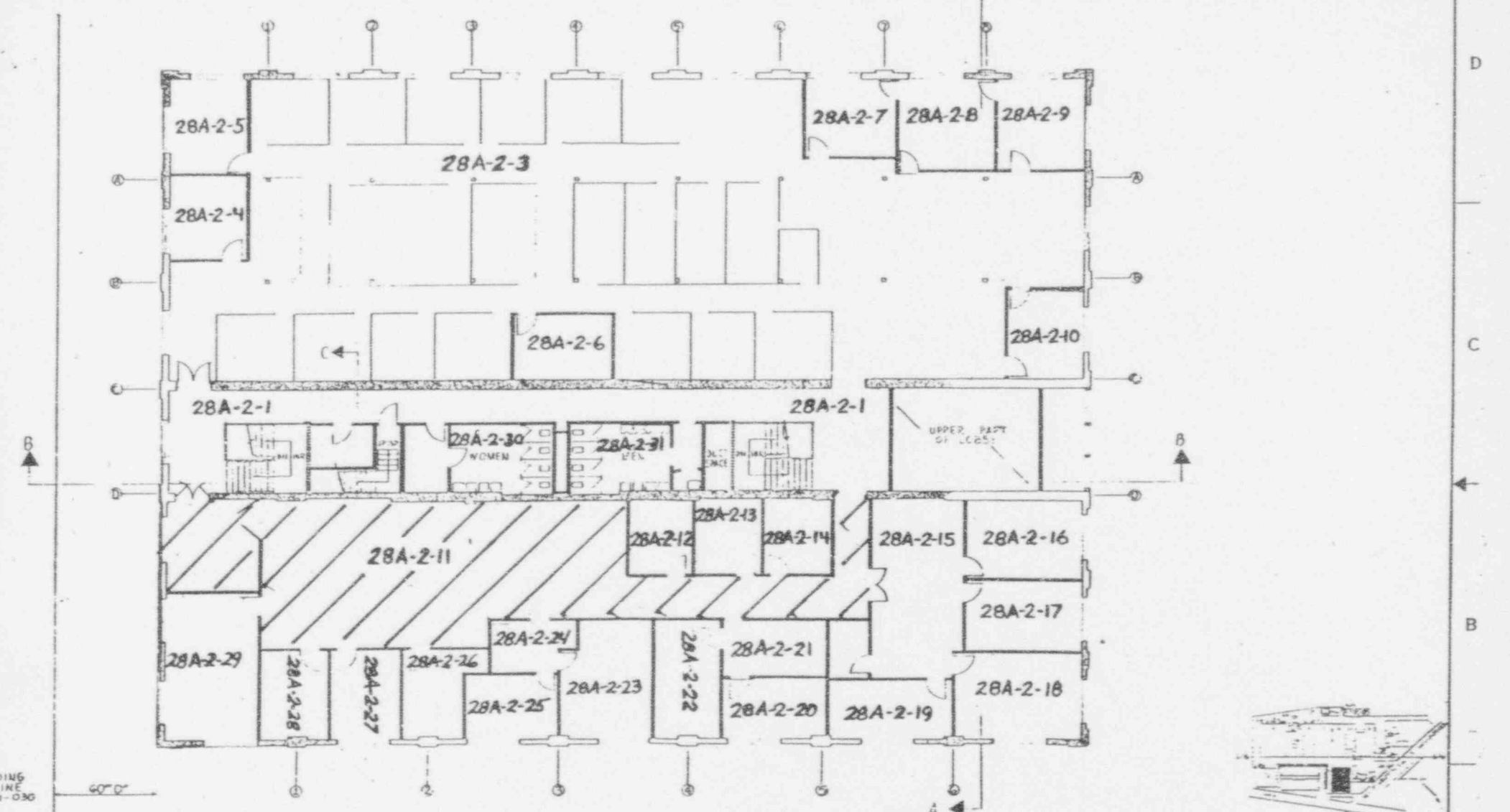
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.86%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0211 FLOORS & walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 10 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/10/93 13:52 |
| 11 | 7.741 | 8.17 | At AL | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 2.930 | 1.79 | 2/10/93 13:53 |
| 12 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/10/93 13:53 |
| 13 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/10/93 13:54 |
| 14 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 13:54 |
| 15 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/10/93 13:55 |
| 16 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/10/93 13:55 |
| 17 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/10/93 13:56 |
| 18 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/10/93 13:56 |
| 19 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/10/93 13:57 |
| 20 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 13:57 |

| REVISIONS | | | |
|-----------|----|-------------|----------|
| DATE | BY | DESCRIPTION | APPROVED |
| | | | |



DWG
IN 4-030
60' 0"

LEGEND

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

SCALE: FEET

| REV | DATE | DESCRIPTION | BY | CHECKED | DATE | DESCRIPTION | BY | CHECKED | DATE |
|-----|------|-------------|----|---------|------|-------------|----|---------|------|
| | | | | | | | | | |

| PARTS LIST | | CONTRACT NO. | | DATE OF ORDER | |
|------------|--|--------------|--|---------------|--|
| | | | | | |

| | |
|---|----------------------------|
| Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | |
| SECOND FLOOR BUILDING N° 4 VAESD LARGE, PA | |
| DWG NO. D 14683 | DWG NO. JN-007 A |
| SCALE 1/8" = 1'-0" | SHEET NO. |

A

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/M | EFF | C.F. | BKG CPM | | INST: S/M | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | SP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ES20: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | ES20: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 20.4% | 4.9 | 59 | * | FLMON:91943 | 30.3% | 3.3 | 1350 |

| |
|----------------------|
| SURVEY DATE: 2/10/93 |
| COUNT DATE: 2/10/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/M | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| | ES20: 5242 | mr/hr |
| | ES20: 5245 | mr/hr |
| * | ESP2: 1522 | .01 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/M | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/M | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|---------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|---|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 2, -2 | 10 | .014 | 1504 | 1400 | 53 | 1358 | .264 | -2.49 | Floor monitor used for scans & 1 minute counts. |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|--|--------------------------|---|
| FORM SERIAL #: 28A-003 (Survey Section - Sequential survey #) | LOCATION # 28A-2-12 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0244 | SURVEYOR SIGNATURE: TS <i>D. Shaff</i> |
|--|---|--|--------------------------|---|

LB5100W Low Background Counting System – Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28A0212.XLD
 Batch Ended: 2/10/93 13:59
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0212 FLOORS & WALLS

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 24 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 13:59 |

DECOMMISSIONING FIELD DATA SHEET

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | SP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 20.4% | 4.9 | 59 | * | FLMON:91943 | 30.3% | 3.3 | 1350 |

| |
|----------------------|
| SURVEY DATE: 2/10/93 |
| COUNT DATE: 2/10/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .01 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|------|--|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 2, -2 | 10 | .014 | 1477 | 1400 | 70 | 1377 | 0.264 | 2.49 | Floor monitor used for smears & 1 minute counts. |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|--|---------------------|--|
| FORM SERIAL #: 28A-004 (Survey Section - Sequential survey #) | LOCATION # 28A-2-13 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | FILE CODE: FDS-0245 | SURVEYOR SIGNATURE: TS <i>[Signature]</i> |
|--|---|--|---------------------|--|

LB5100W Low Background Counting System – Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\BXL\UNIT1\28A0213.XLD
 Batch Ended: 2/10/93 13:59
 Crosstalk Correction: Not Applied

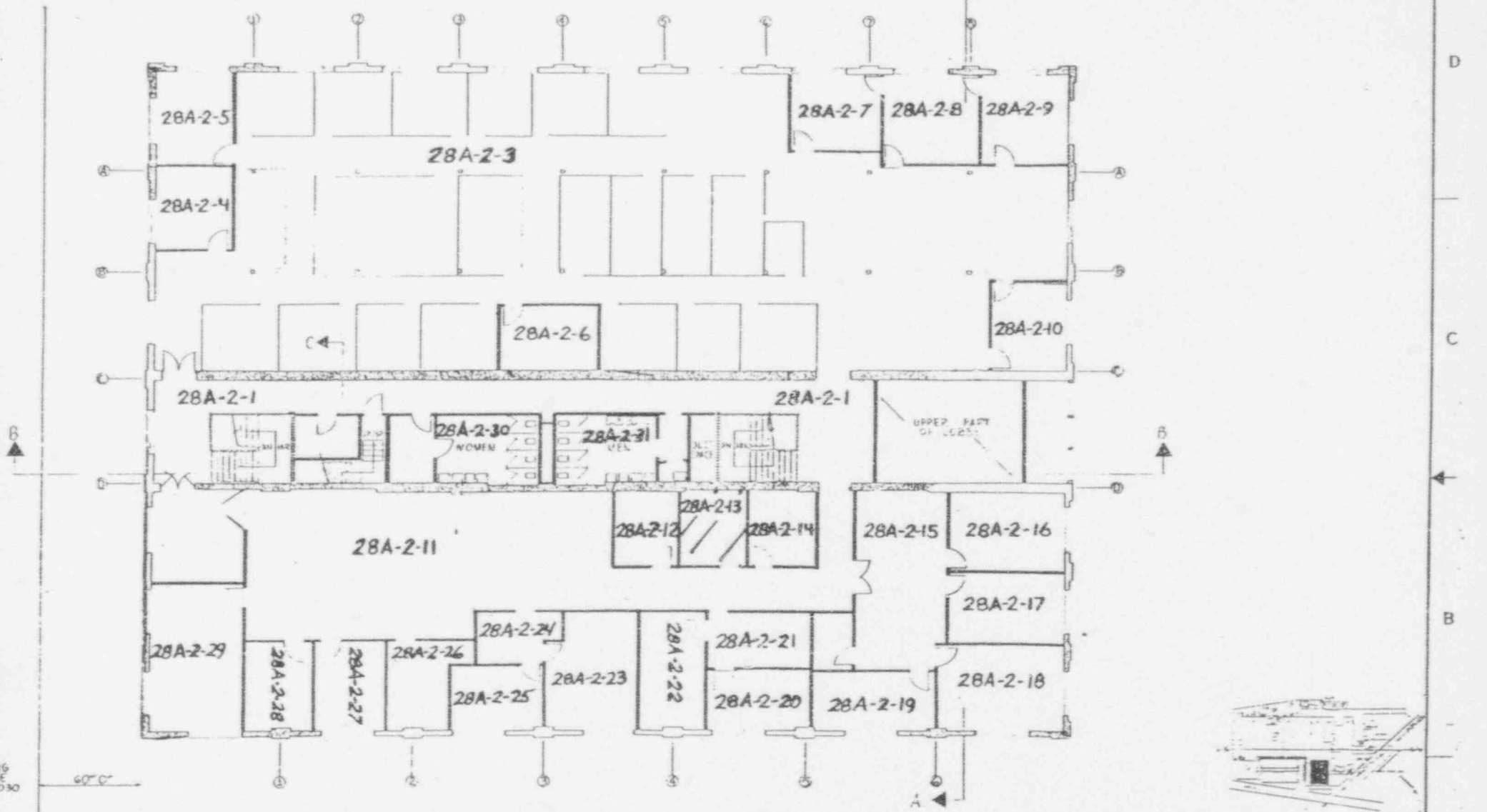
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0213 FLOORS & WALLS

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 23 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 13:59 |

| REVISIONS | | |
|-----------|-------------|----|
| DATE | DESCRIPTION | BY |
| | | |



ING
NE
-030

60' 0"

LEGEND

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

SCALE : FEET

0 5 10 15 20 25

| REV | DATE | DESCRIPTION | CONTRACT NO. | PART OR DESCRIPTION NO. | MATERIAL | SPECIFICATION | QTY |
|-------------------|---------|--|---------------|-------------------------|---|---------------|-----|
| PARTS LIST | | | | | | | |
| REVISED | 1/24/53 | UNLESS OTHERWISE SPECIFIED: | CONTRACT NO. | DATE OF ORDER | Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | |
| REVISED | 1/13/53 | INTERPRET DIMS PER MIL-S-1000 DIM IN DIMES SHOWN BY 1/16" | DATE OF ORDER | DATE OF ORDER | | | |
| | | TOLERANCES - DO NOT SCALE | WELDER | SPC | SECOND FLOOR BUILDING NO 4 WAESD LARGE, PA | | |
| | | SPL DEC SPL DEC ANGLES | EXCITER | DRYER | | | |
| | | | WAL | DRYERDRUM | SPEC D 14683 JN-007 A | | |
| | | | | | | | |
| SPECIFICATION | | TYPE | | | SCALE 1/8" = 1'-0" WT ACTL WT CALC SHEET 04 | | |
| DWG CODE NO. | | | | | | | |

DECOMMISSIONING FIELD DATA SHEET

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | SP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 20.4% | 4.9 | 58 | * | FLMON:91943 | 30.3% | 3.3 | 1328 |

SURVEY DATE: 2/10/93
 COUNT DATE: 2/10/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .01 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SHEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|------------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 2, -2 | 12 | .009 | 1422 | 1400 | 67 | 1333 | -0.264 | -2.49 | Floor monitor used |
| " | " | 2, -4 | 10 | .011 | 1446 | 1400 | 65 | 1279 | -0.264 | 3.41 | for scans & 1 minute counts. |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|--|--------------------------|--|
| FORM SERIAL #: 28A-005 (Survey Section - Sequential survey #) | LOCATION # 28A-2-14 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0246 | SURVEYOR SIGNATURE: TS <i>[Signature]</i> |
|--|---|--|--------------------------|--|

LB5100W Low Background Counting System – Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\LBX1\UNIT1\28A0214.XLD
 Batch Ended: 2/10/93 13:58
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

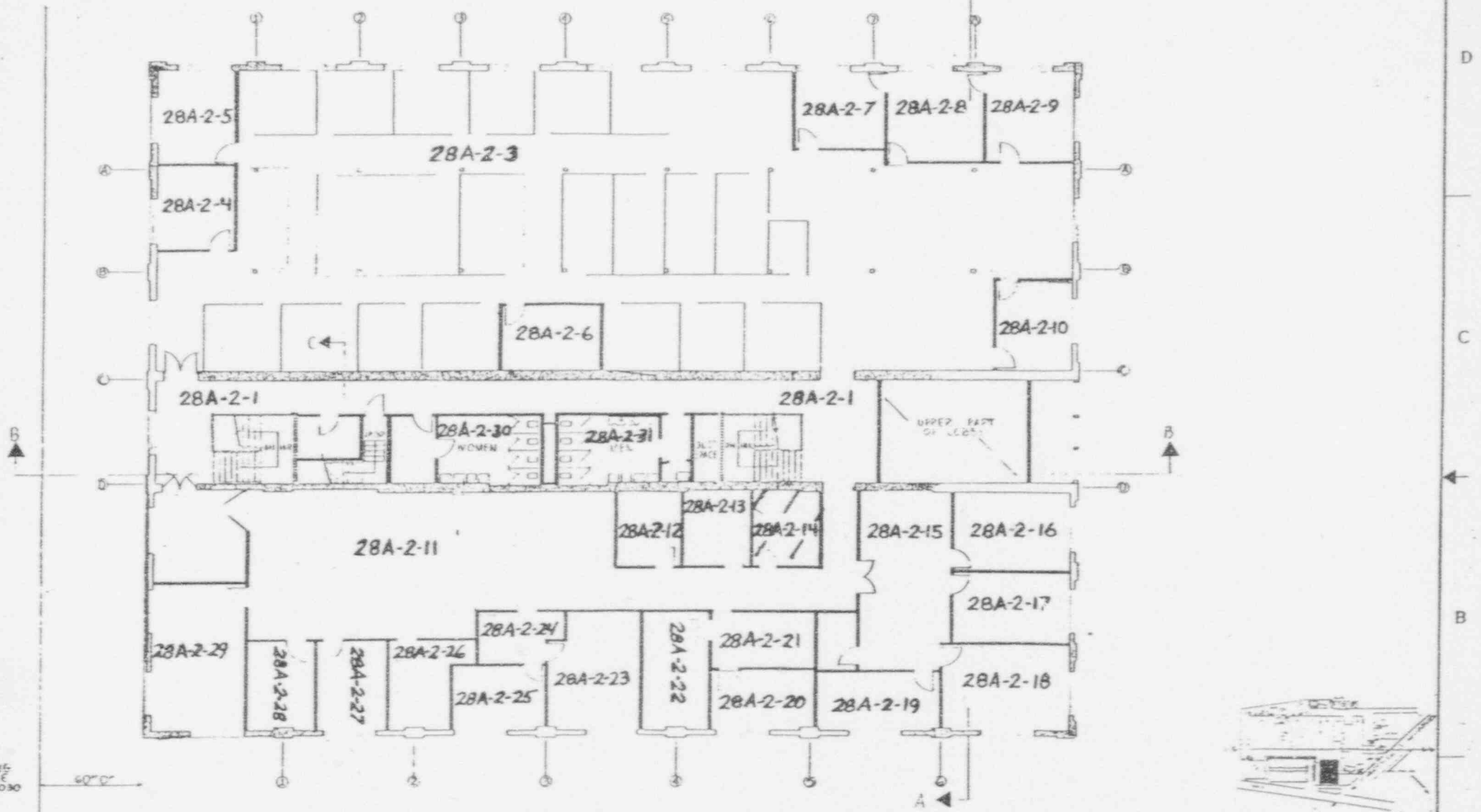
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0214 FLOORS+51.518

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 21 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 13:58 |
| 22 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/10/93 13:58 |

| REVISIONS | | | |
|-----------|------|-------------|----------|
| NO. | DATE | DESCRIPTION | APPROVED |
| | | | |



DRAWING
INC
4-030

60' 0"

LEGEND

BRICK

CONC BLOCK EXT

CONC BLOCK INT

DRYWALL & PANELING

SCALE : FEET

| REV | REV. NO. | DESCRIPTION | DATE | BY | CHKD |
|-----|----------|-------------|------|----|------|
| | | | | | |

| REV | REV. NO. | DESCRIPTION | DATE | BY | CHKD |
|-----|----------|-------------|------|----|------|
| | | | | | |

| PARTS LIST | | UNLESS OTHERWISE SPECIFIED | | CONTRACT NO. | |
|------------|-------------|----------------------------|----------|--------------|-------|
| QUANTITY | DESCRIPTION | UNIT | QUANTITY | DATE OF DWG | SCALE |
| | | | | | |

| | | | |
|---|-----------------|----------|-------|
| Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | | |
| SECOND FLOOR | | | |
| BUILDING N° 4 | | | |
| WAESD LARGE, PA | | | |
| DWG. NO. | CONC. SHEET NO. | DWG. NO. | REV. |
| D | 14683 | JN-007 | A |
| SCALE | BY ACCL | BY CALC | SHEET |

DECOMMISSIONING FIELD DATA SHEET

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | SP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 20.4% | 4.9 | 59 | * | FLMON:91943 | 30.3% | 3.3 | 1300 |

| |
|----------------------|
| SURVEY DATE: 2/10/93 |
| COUNT DATE: 2/10/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 9 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .01 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|-----|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.4 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|------|------------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| | | | | | | | | | | | |
| Floor Tile | N/A | 2, -2 | 9 | .009 | 1323 | 1300 | 62 | 1284 | -0.264 | 3.41 | Floor monitor used |
| " | " | 2, -4 | 8 | .009 | 1318 | 1300 | 63 | 1292 | -0.264 | 3.59 | for scans & 1 minute counts. |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|--|--------------------------|--|
| FORM SERIAL #: 28A-006 (Survey Section - Sequential survey #) | LOCATION # 28A-2-20 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0247 | SURVEYOR SIGNATURE: TS <i>[Signature]</i> |
|--|---|--|--------------------------|--|

LB5100W Low Background Counting System – Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28A0220.XLD
 Batch Ended: 2/10/93 14:00
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0220 FLOORS & WALLS

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 25 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/10/93 14:00 |
| 26 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/10/93 14:00 |

LB5100W Low Background Counting System – Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28A0221.XLD
 Batch Ended: 2/10/93 14:01
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0221 FLOORS & WALLS

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 27 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/10/93 14:01 |
| 28 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 2/10/93 14:01 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28A0222.XLD
 Batch Ended: 2/10/93 14:03
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

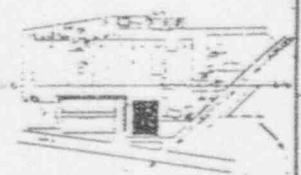
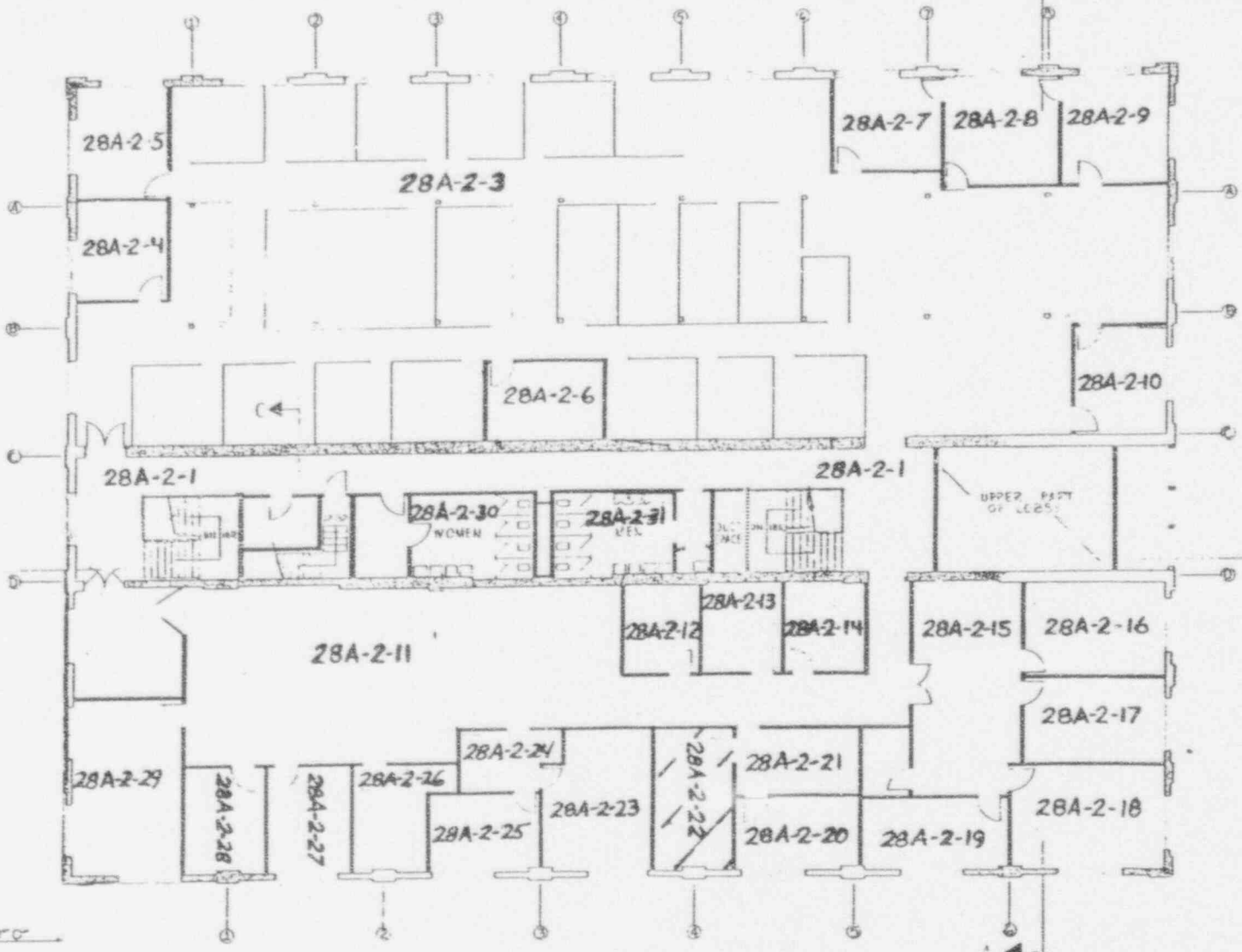
Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0222 FLOORS & WALLS

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 29 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 14:02 |
| 30 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/10/93 14:03 |



D146
1/4" = 1'-0"

LEGEND

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

SCALE : FEET

| REV | DATE | DESCRIPTION | CODE | PART OR IDENTIFYING NO. | MATERIAL | SPECIFICATION | QTY |
|-------------------|----------|---|--------------|---|--------------|---------------|-----|
| PARTS LIST | | | | | | | |
| Revised | 1/12/63 | UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | | |
| Revised | 12/11/62 | INTERPRET DIMS PER MILS-STD 100 IN INCHES BASED ON 1/8" | OFFICE | DATE OF REV | 3-27 | | |
| | | TOLERANCES - DO NOT SCALE | DESIGNER | SCALE | 1/4" = 1'-0" | | |
| | | SPL DEC SPL DEC ANGLES | DESIGN | DATE | | | |
| | | R R R R | EXCUTER | DATE | | | |
| | | | BY | DATE | | | |
| SPECIFICATION | | TYPE | DWC | | CODE | DATE | REV |
| DWG CODE NO. | | | D | 14683 | JN-007 | A | |
| SCALE | | 1/4" = 1'-0" | BY ACTL | BY CALC | SHEET | OF | |

D
C
B
A

LB5100W Low Background Counting System – Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28A0230.XLD
 Batch Ended: 2/10/93 14:03
 Crosstalk Correction: Not Applied

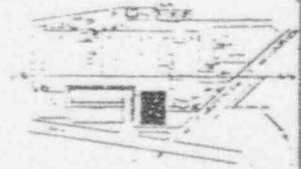
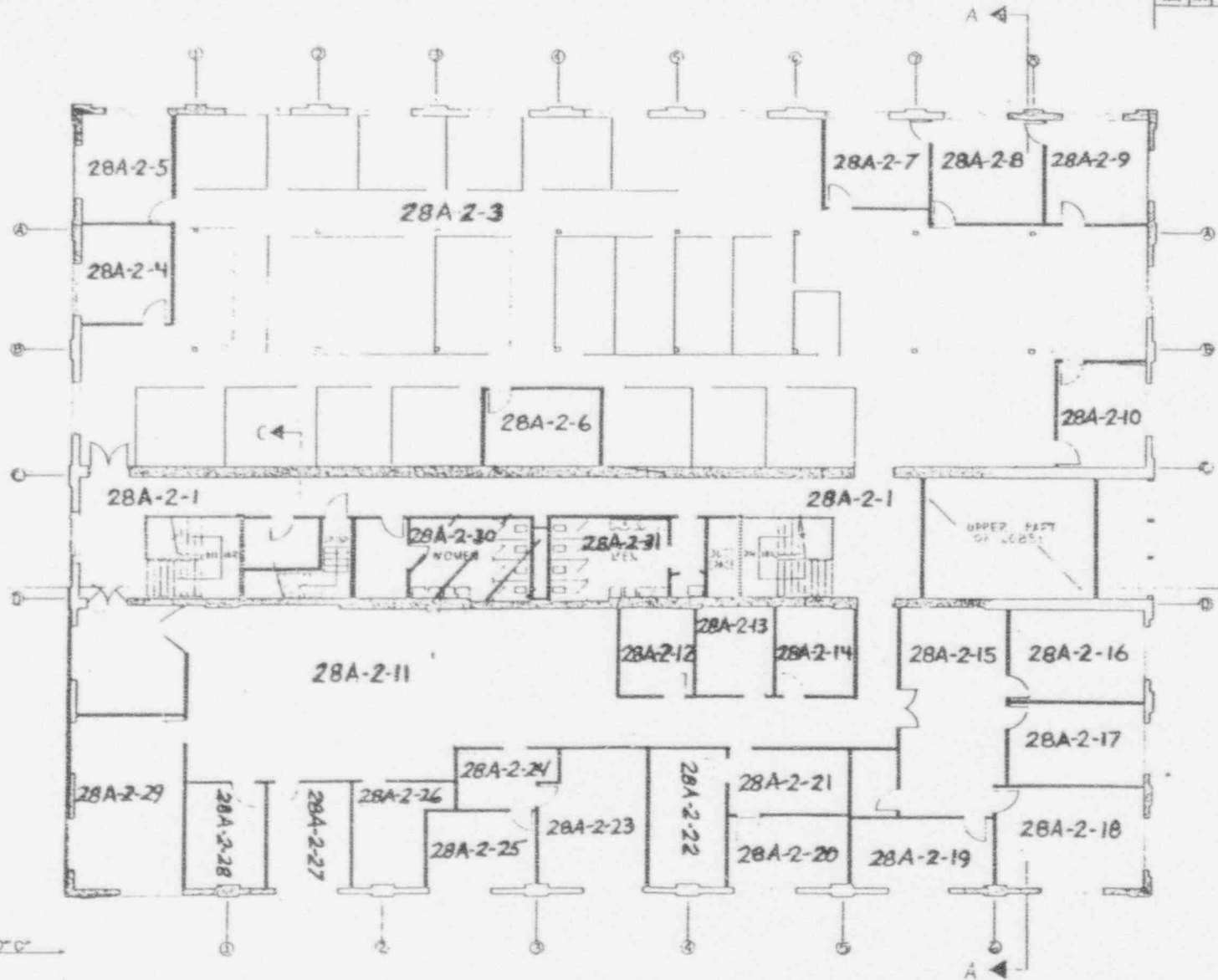
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0230 FLOORS & WALLS

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 31 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 2/10/93 14:03 |

| REVISIONS | | |
|-----------|-------------|------|
| NO. | DESCRIPTION | DATE |
| | | |



DWG LINE 14-030

60'

LEGEND

BRICK

CONC BLOCK EXT

CONC BLOCK INT

DRYWALL & PANELING

SCALE : FEET

0 5 10 15 20 25

| QTY | REV | DESCRIPTION OR | QTY | REV | DESCRIPTION | QTY | REV | DESCRIPTION | QTY | REV | DESCRIPTION |
|--|-----|----------------|---|-----|-------------|---|-----|-------------|---|-----|-------------|
| DESG | NO. | REVISIONS | DESG | NO. | REVISIONS | DESG | NO. | REVISIONS | DESG | NO. | REVISIONS |
| PARTS LIST | | | | | | | | | | | |
| Drawn: J. P. G. / 1/28/63 Revised: M. J. S. / 1/28/63 | | | UNLESS OTHERWISE SPECIFIED: INTERPRET DWG PER AIA & AIA DIM. IN DIMENSIONS UNLESS OTHERWISE NOTED | | | CONTRACT NO.: SITE BY DATE: 3-77 | | | Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | |
| TOLERANCES - DO NOT SCALE DIM. DEC. SPL. DEC. ANGLES X R X | | | | | | FINISH: BRICK CONCRETE GYP. BOARD PAINT | | | SECOND FLOOR BUILDING N° 4 WAESD LARGE, PA | | |
| SPECIFICATION TYPE | | | DWG. NO. D 14683 | | | REV. NO. JN-007 | | | SHEET 11A | | |
| DWG. CODE NO. | | | SCALE 1/4" = 1'-0" | | | BY ACT. | | | BY CAL. | | |

LB5100W Low Background Counting System – Smear Analysis

Date: 2/10/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28A0231.XLD
 Batch Ended: 2/10/93 14:04
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TJS 28A0231 FLOORS & WALLS

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 32 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/10/93 14:04 |

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY
OF THE FOURTH FLOOR OF BUILDING NUMBER 5
(SURVEY SECTION 28B)

APRIL 8, 1993

WESTINGHOUSE ELECTRIC CORPORATION
LARGE, PA

REPORT #030

"OFFICIAL RECORD COPY"

ML 10

4 117646

FINAL RADIOLOGICAL SURVEY
OF THE FOURTH FLOOR OF BUILDING NUMBER 5
(SURVEY SECTION 28B)

TABLE OF CONTENTS

| | <u>Page Number</u> |
|---|--------------------|
| Purpose | 1 |
| Scope | 1 |
| Analysis of Results | 1 |
| Current Status | 2 |
| Conclusions | 2 |
| Appendix A - Radiological Survey Data Sheets For Unit 1 | |

FINAL RADIOLOGICAL SURVEY
OF THE FOURTH FLOOR OF BUILDING NUMBER 5
(Survey Section 28B)

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 documents the results of the final radiological survey of the fourth floor of Building Number 5 on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Survey information for the other floors of Building 5 are documented in other Reports.

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of Building Number 5 on the site. Figure 2 presents the floor plan for the fourth floor of the building. This floor has been designated as Survey Section 28B. (See Report #009). In addition, the floor was subdivided into subunits as shown on Figure 2. This floor has been assigned a Survey Classification of Class 1 as defined in Report #009.

Appendix A incorporates all of the radiological survey data sheets for the survey unit. Table 1 presents the survey data for the survey unit with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of the table to determine if the acceptance criteria have been met at the desired degree of confidence.

Current Status

The fourth floor of Building 5 is currently not occupied. The last use of this area was as a cafeteria and eating area. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of the fourth floor of this building meets all the radiological acceptance criteria at the 95% confidence level. Therefore, this floor can be released for unrestricted use. There is no potential for this floor to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.

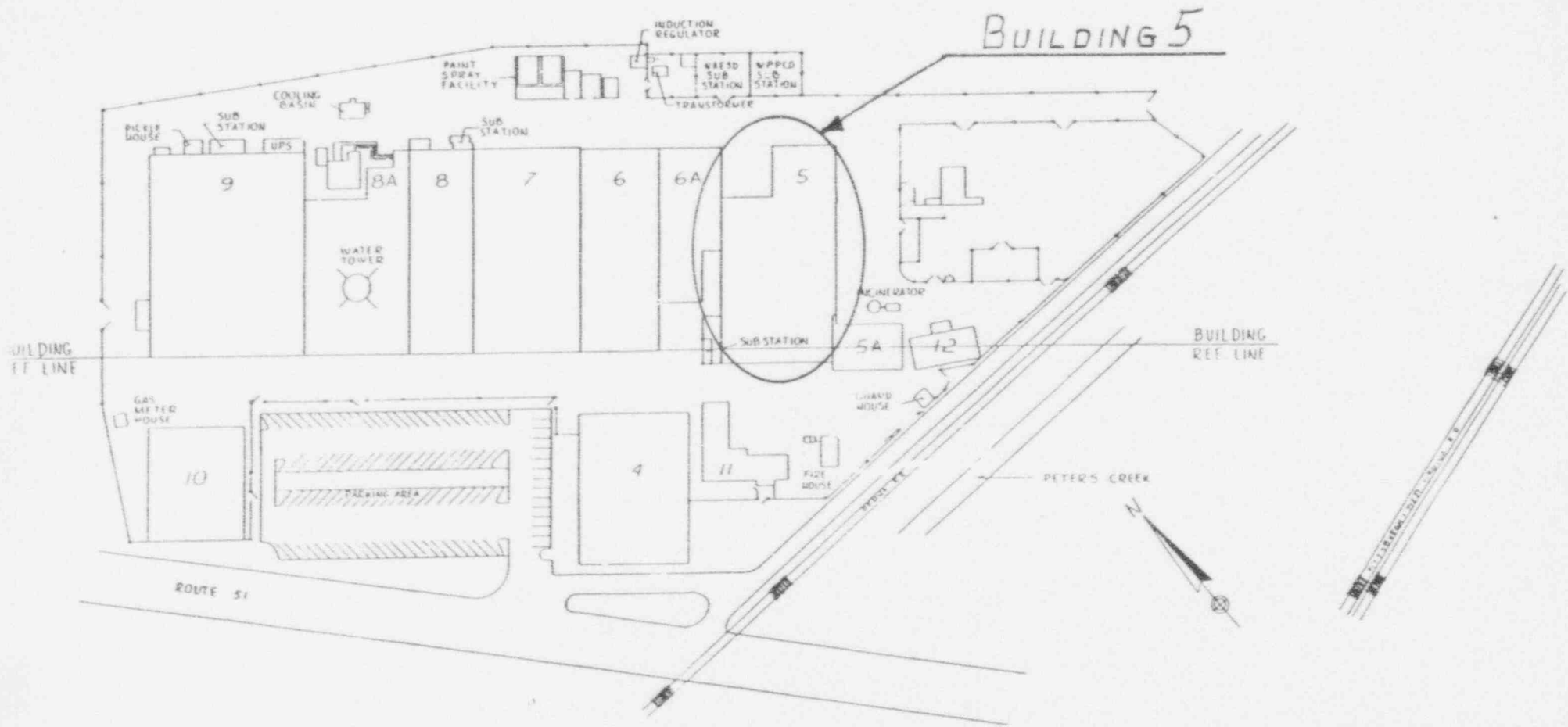
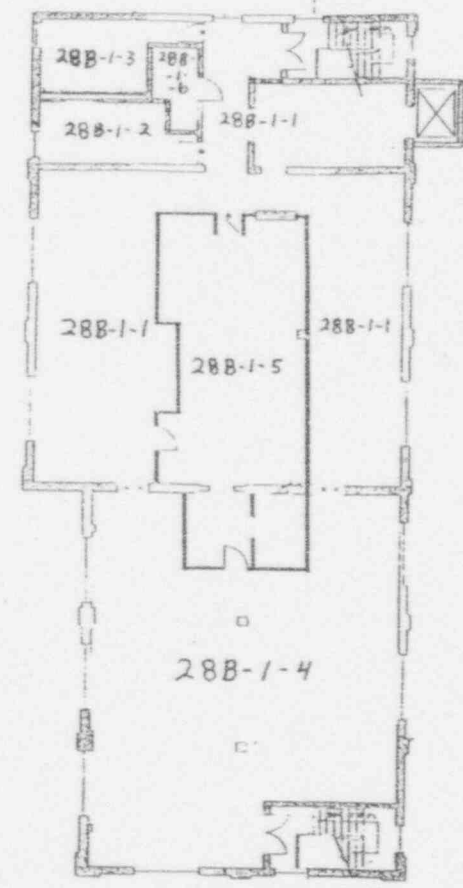


FIGURE 1
SITE PLOT PLAN

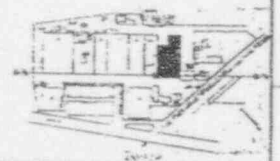
| REV | DATE | DESCRIPTION | DATE | BY | REVISION | SPECIFICATION |
|---|------|-------------|-----------------|----|----------|---------------|
| PARTS LIST | | | | | | |
| UNLESS OTHERWISE SPECIFIED: | | | CONTRACT NO. | | VAESD | |
| DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE | | | DATE OF DRAWING | | 10/1/83 | |
| TOLERANCES - SEE DETAIL SHEETS | | | DRAWN BY | | JNO | |
| FINISHES - SEE DETAIL SHEETS | | | CHECKED BY | | JNO | |
| MATERIALS - SEE DETAIL SHEETS | | | DESIGNED BY | | JNO | |
| COLORS - SEE DETAIL SHEETS | | | APPROVED BY | | JNO | |
| PAINTS - SEE DETAIL SHEETS | | | DATE | | 10/1/83 | |
| GLAZING - SEE DETAIL SHEETS | | | SCALE | | AS SHOWN | |
| OTHER NOTES - SEE DETAIL SHEETS | | | PROJECT NO. | | 14663 | |
| SPECIFICATIONS - SEE DETAIL SHEETS | | | DRAWING NO. | | JN030 | |
| DRAWING CODE NO. | | | SCALE | | BY DATE | |

| REVISIONS | | | |
|-----------|------|-------------|----|
| NO. | DATE | DESCRIPTION | BY |
| | | | |

North
←



Building 5



LEGEND

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

SCALE : FEET

| REV | | REV NO. | DESCRIPTION | DATE | BY | APPROVED |
|-----|--|---------|-------------|------|----|----------|
| | | | | | | |

| PARTS LIST | | | | | | | |
|------------|-------------|------|-----|-------------|------|-----|-------------|
| QTY | DESCRIPTION | UNIT | QTY | DESCRIPTION | UNIT | QTY | DESCRIPTION |
| | | | | | | | |

| | | | | |
|---|-------------------|-----------------------|--------------------------|---|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DIMENSIONS BASED ON 1/8" TYPICAL TOLERANCES - DO NOT SCALE | | CONTRACT NO. 14683 | DATE OF DRAW 12-15-55 | Westinghouse Advanced Energy Systems Division Westinghouse, Pittsburgh |
| THIRD & FOURTH FLOORS BUILDING N-5 W A E S D LARGE PA | | | | |
| DWG NO. D | CASE NO. 14683 | DWG NO. JN-012 | REV. A | |
| SCALE: 1/8" = 1'-0" | DATE: 12-15-55 | BY: JAC | CHECKED: JAC | |

FIGURE 2
BUILDING 5, FOURTH FLOOR

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FOURTH FLOOR (SECTION 28B, UNIT 1)

| ? | ? | ? | X,Y | LOCATION | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---|---------------------|-------|-----------|----------|-----------------------------------|--------------------------------------|--|--|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
| | | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| ? | SURFACE DESCRIPTION | GRID | REF POINT | CODE | | | | | | | | |
| ? | Floor Tile | ? N/A | ? 2, -2 | 288-1-1 | 13 | 0.010 | 116.7 | 59.2 | 11.0 | 40.0 | -0.26 | 3.59 |
| ? | " | ? " | ? 2, -4 | 288-1-1 | 11 | 0.010 | 77.6 | 19.2 | 4.9 | -13.6 | -0.26 | 9.66 |
| ? | " | ? " | ? 2, -6 | 288-1-1 | 11 | 0.010 | 116.7 | 59.2 | 0.0 | 51.2 | -0.26 | -2.49 |
| ? | " | ? " | ? 2, -8 | 288-1-1 | 12 | 0.020 | 130.3 | 39.2 | -1.2 | 28.8 | -0.26 | -2.49 |
| ? | " | ? " | ? 2, -10 | 288-1-1 | 12 | 0.010 | 67.2 | -0.8 | 0.0 | 89.5 | -0.26 | 9.66 |
| ? | " | ? " | ? 4, -10 | 288-1-1 | 11 | 0.010 | 131.1 | 59.2 | 1.2 | 45.6 | -0.26 | -2.49 |
| ? | " | ? " | ? 4, -6 | 288-1-1 | 9 | 0.010 | -42.4 | -80.8 | -2.4 | -64.8 | -0.26 | 9.31 |
| ? | " | ? " | ? 4, -4 | 288-1-1 | 10 | 0.010 | 6.4 | -80.8 | 6.1 | -36.8 | -0.26 | -2.49 |
| ? | " | ? " | ? 4, -2 | 288-1-1 | 11 | 0.020 | 26.4 | -40.8 | 4.9 | 74.4 | 7.51 | -2.49 |
| ? | " | ? " | ? 12, -6 | 288-1-1 | 14 | 0.010 | 171.1 | 99.1 | 13.4 | 112.7 | -0.26 | 3.59 |
| ? | " | ? " | ? 12, -8 | 288-1-1 | 11 | 0.020 | 55.2 | -0.8 | 11.0 | 42.4 | -0.26 | -2.49 |
| ? | " | ? " | ? 12, -10 | 288-1-1 | 16 | 0.020 | 132.7 | 39.2 | 2.4 | 116.7 | -0.26 | -2.49 |
| ? | " | ? " | ? 14, -7 | 288-1-1 | 11 | 0.020 | 116.7 | 39.2 | 3.7 | 4.0 | -0.26 | -2.49 |
| ? | " | ? " | ? 16, -7 | 288-1-1 | 10 | 0.020 | 26.4 | -20.8 | 9.8 | 24.0 | -0.26 | -2.49 |
| ? | " | ? " | ? 18, -7 | 288-1-1 | 12 | 0.010 | 46.4 | -20.8 | 7.3 | -30.4 | -0.26 | -2.49 |
| ? | Floor Tile | ? N/A | ? 1, -4 | 288-1-2 | 12 | 0.010 | 157.5 | 79.2 | 0.0 | 89.5 | -0.26 | -2.49 |
| ? | " | ? " | ? 1, -2 | 288-1-2 | 13 | 0.010 | 87.9 | 19.2 | 6.1 | 66.4 | 7.74 | 3.59 |
| ? | Floors | ? N/A | ? 2, -4 | 288-1-3 | 13 | 0.010 | 76.0 | 13.6 | 3.7 | 14.4 | -0.26 | -2.49 |
| ? | " | ? " | ? 2, -2 | 288-1-3 | 12 | 0.010 | 106.3 | 33.6 | 3.7 | 22.4 | -0.26 | 3.59 |
| ? | Floor Tile | ? N/A | ? 12, -2 | 288-1-4 | 11 | 0.010 | 55.2 | 39.2 | 4.9 | 103.1 | -0.26 | -2.49 |
| ? | " | ? " | ? 14, -2 | 288-1-4 | 14 | 0.020 | 105.5 | 59.2 | 1.2 | 83.2 | -0.26 | -2.49 |
| ? | Floor Tile | ? N/A | ? 2, -2 | 288-1-5 | 11 | 0.020 | 184.7 | 119.1 | -3.7 | 100.7 | -0.26 | -2.49 |
| ? | " | ? " | ? 2, -4 | 288-1-5 | 11 | 0.010 | 149.5 | 99.1 | 4.9 | 38.4 | -0.26 | 5.53 |
| ? | " | ? " | ? 4, -4 | 288-1-5 | 10 | 0.010 | 94.3 | 19.2 | 6.1 | 79.2 | -0.26 | -2.49 |
| ? | " | ? " | ? 6, -1 | 288-1-5 | 9 | 0.010 | 40.8 | -20.8 | 1.2 | 34.4 | -0.26 | -2.49 |
| ? | " | ? " | ? 8, -2 | 288-1-5 | 9 | 0.010 | 26.4 | -40.8 | 0.0 | 20.0 | -0.26 | -2.49 |
| ? | " | ? " | ? 8, -4 | 288-1-5 | 9 | 0.010 | 26.4 | -40.8 | 0.0 | -21.6 | -0.26 | -2.49 |

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 12 | * | FLMON:91943 | 28.8% | 3.47 | 1201 |

SURVEY DATE: 3/22/93
 COUNT DATE: 3/22/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPH/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 2, -2 | 13 | .01 | 1347 | 1275 | 21 | 1251 | -0.264 | 3.59 | Floor monitor used |
| " | " | 2, -4 | 11 | .01 | 1298 | 1225 | 16 | 1184 | -0.264 | 9.66 | for scans and one |
| " | " | 2, -6 | 11 | .01 | 1347 | 1275 | 12 | 1265 | -0.264 | -2.49 | minute counts. |
| " | " | 2, -8 | 12 | .02 | 1364 | 1250 | 11 | 1237 | -0.264 | -2.49 | " |
| " | " | 2, -10 | 12 | .01 | 1285 | 1200 | 12 | 1313 | -0.264 | 9.66 | " |
| " | " | 4, -10 | 11 | .01 | 1365 | 1275 | 13 | 1258 | -0.264 | -2.49 | " |
| " | " | 4, -6 | 9 | .01 | 1148 | 1100 | 10 | 1120 | -0.264 | 9.31 | " |
| " | " | 4, -4 | 10 | .01 | 1209 | 1100 | 17 | 1155 | -0.264 | -2.49 | " |
| " | " | 4, -2 | 11 | .02 | 1234 | 1150 | 16 | 1294 | 7.506 | -2.49 | " |
| " | " | 12, -6 | 14 | .01 | 1415 | 1325 | 23 | 1342 | -0.264 | 3.59 | " |
| " | " | 12, -8 | 11 | .02 | 1270 | 1200 | 21 | 1254 | -0.264 | -2.49 | " |
| " | " | 12, -10 | 16 | .02 | 1367 | 1250 | 14 | 1347 | -0.264 | -2.49 | " |
| " | " | 14, -7 | 11 | .02 | 1347 | 1250 | 15 | 1206 | -0.264 | -2.49 | " |
| " | " | 16, -7 | 10 | .02 | 1234 | 1175 | 20 | 1231 | -0.264 | -2.49 | " |
| " | " | 18, -7 | 12 | .01 | 1259 | 1175 | 18 | 1163 | -0.264 | -2.49 | " |

FORM SERIAL #: 28 - B - 001 LOCATION # 28 B -1-1 SURVEY CLASSIFICATION: I DISK FILE CODE: FDS - 0400 SURVEYOR SIGNATURE: TS
 (Survey Section - Sequential survey #) (Survey Section - Unit # - Sub Unit #) (Group I, II, III, IV)

T. Shaff

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/22/93
 Counting Unit id: 1
 Data file name: C:\LBXLU\UNIT1\28B0101.XLD
 Batch Ended: 3/22/93 13:39
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

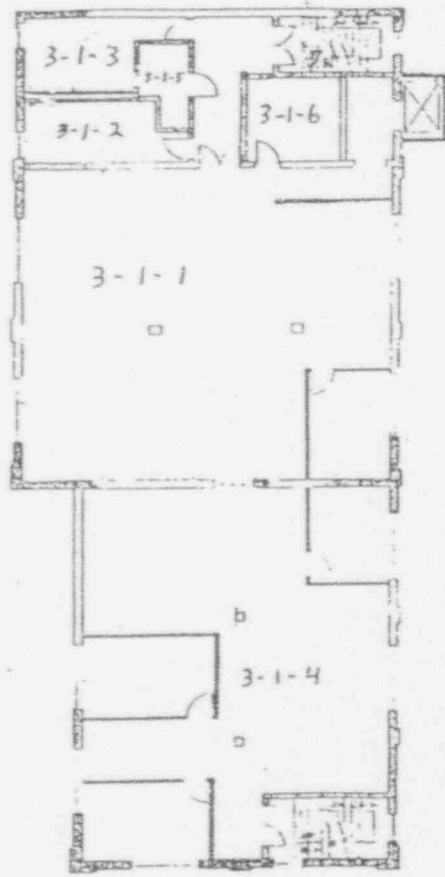
Batch ID: TSB - 28B-1-1 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/22/93 13:30 |
| 2 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/22/93 13:30 |
| 3 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:31 |
| 4 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/22/93 13:32 |
| 5 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/22/93 13:32 |
| 6 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/22/93 13:33 |
| 7 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/22/93 13:33 |
| 8 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:34 |
| 9 | 7.506 | 7.94 | At AL | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | 2.841 | -1.24 | 3/22/93 13:34 |
| 10 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/22/93 13:35 |
| 11 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:35 |
| 12 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.38 | 0.34 | -0.100 | -1.24 | 3/22/93 13:36 |
| 13 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:36 |
| 14 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/22/93 13:37 |
| 15 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:37 |
| * 16 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/22/93 13:38 |
| * 17 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/22/93 13:38 |
| * 18 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/22/93 13:39 |

* SURVEY POINT NOT NEEDED

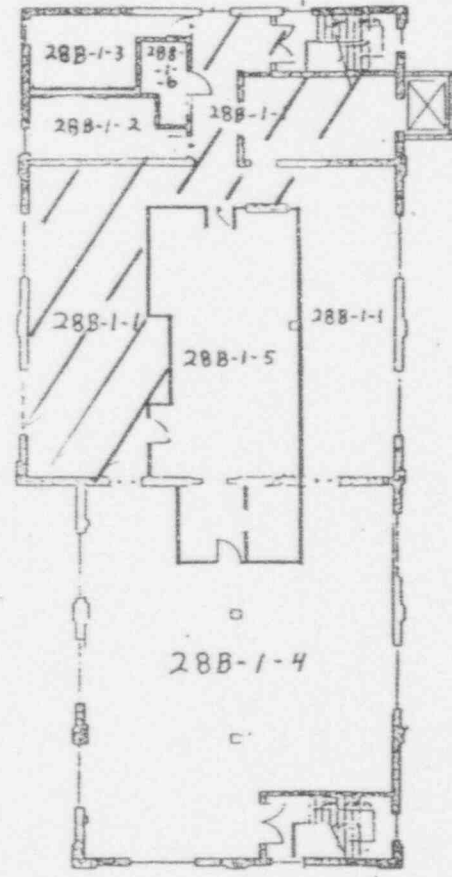
| REVISIONS | | | |
|-----------|------|-------------|----|
| NO. | DATE | DESCRIPTION | BY |
| | | | |

Building 5
Third Floor



North
←

Building 5
Forth Floor



LEGEND

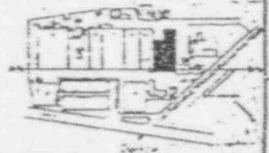
- BRICK
- CONC BLOCK EXT
- CONC BLOCK INT
- DRYWALL & PANELING

SCALE : FEET

| REV | BY | DATE | DESCRIPTION | APP'D | DATE |
|-----|----|------|-------------|-------|------|
| | | | | | |

| PARTS LIST | | PARTS IN DESCRIPTION | | REVISION | DESCRIPTION |
|------------|--|----------------------|--|----------|-------------|
| | | | | | |

| | |
|---|---------------------------|
| <p>Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania</p> | |
| <p>THIRD & FOURTH FLOORS BUILDINGS N-5 W A E S D LARGE PA</p> | |
| <p>DATE D 14683</p> | <p>DWG NO. JN-012</p> |



LB5100W Low Background Counting System -- Smear Analysis

Date: 3/22/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28B0102.XLD
 Batch Ended: 3/22/93 13:40
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DFM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

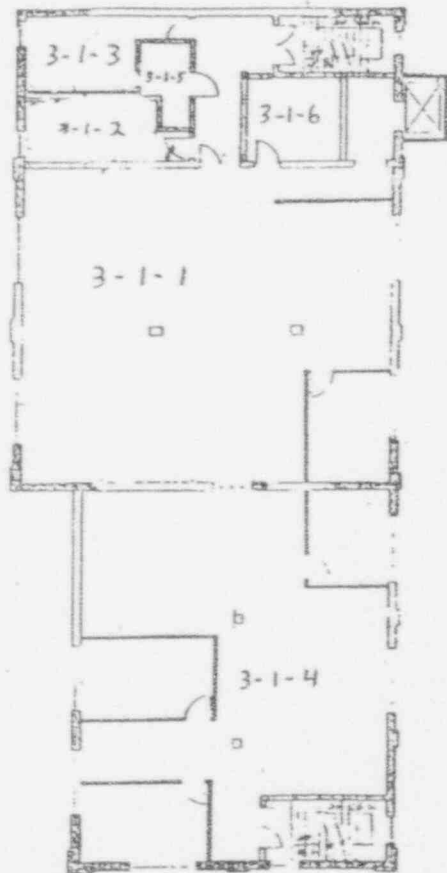
Batch ID: TSB - 28B-1-2 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 19 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:39 |
| 20 | 7.741 | 8.17 | At AL | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 2.930 | 1.79 | 3/22/93 13:40 |

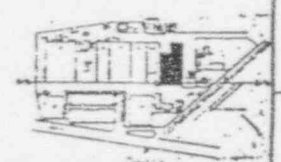
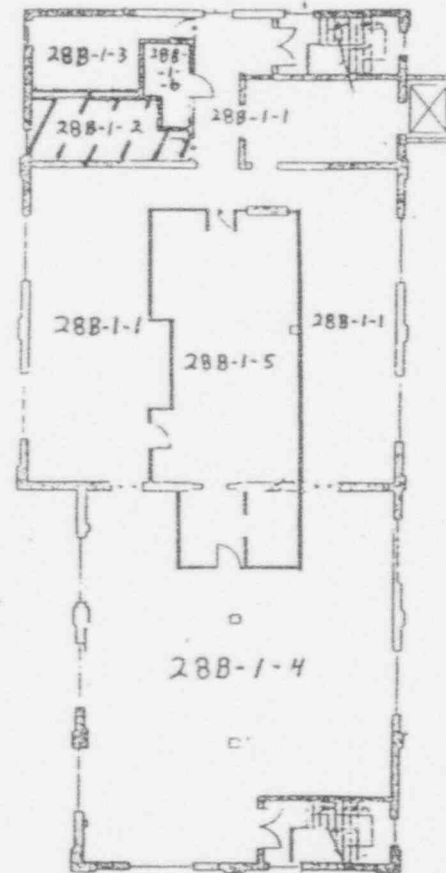
| REVISIONS | | | |
|-----------|------|-------------|----|
| NO. | DATE | DESCRIPTION | BY |
| | | | |

Building 5
Third Floor

North



Building 5
Forth Floor



LEGEND

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

SCALE : FEET



| REV. NO. | DATE | DESCRIPTION | BY | CHKD. |
|----------|------|-------------|----|-------|
| | | | | |

| PARTS LIST | | | |
|------------|-------------|------|---------|
| QTY | DESCRIPTION | UNIT | REMARKS |
| | | | |

| | |
|---|--------------------|
| Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | |
| THIRD & FOURTH FLOORS BUILDING N-5 W A E S D LARGE PA | |
| DWG NO. D 14683 | REV. NO. JN-012 |
| SCALE 1/4" = 1'-0" | SHEET NO. 1 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/22/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28B0103.XLD
 Batch Ended: 3/22/93 13:41
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 28B-1-3 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 21 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:40 |
| 22 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/22/93 13:41 |

LB5100W Low Background Counting System – Smear Analysis

Date: 3/22/93
 Counting Unit id: 1
 Data file name: C:\LBXLU\UNIT1\020101AD.XLD
 Batch Ended: 3/22/93 13:47
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 2-1-1 lower surfaces added points

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 32 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:47 |
| 33 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:47 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 13 | * | FLMON:91943 | 28.8% | 3.47 | 1126 |

SURVEY DATE: 3/22 /93
 COUNT DATE: 3/22/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|----------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 2, -2 | 11 | .02 | 1357 | 1275 | 10 | 1252 | -0.264 | -2.49 | Floor monitor used |
| " | " | 2, -4 | 11 | .01 | 1313 | 1250 | 17 | 1174 | -0.264 | 5.53 | for scans & 1 minute |
| " | " | 4, -4 | 10 | .01 | 1244 | 1150 | 18 | 1225 | -0.264 | -2.49 | counts |
| " | " | 6, -1 | 9 | .01 | 1177 | 1100 | 14 | 1169 | -0.264 | -2.49 | " |
| " | " | 8, -2 | 9 | .01 | 1159 | 1075 | 13 | 1151 | -0.264 | -2.49 | " |
| " | " | 8, -4 | 9 | .01 | 1159 | 1075 | 13 | 1099 | -0.264 | -2.49 | " |
| " | " | 10, -2 | 9 | .01 | 1221 | 1150 | 33 | 1166 | -0.264 | 3.41 | " |
| " | " | 12, -4 | 11 | .01 | 1195 | 1100 | 28 | 1154 | -0.264 | -2.49 | " |
| " | " | 12, -2 | 9 | .01 | 1177 | 1125 | 21 | 1181 | -0.264 | 3.41 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|---|---|--|----------------------------|--|
| FORM SERIAL #: 28 B - 005 (Survey Section - Sequential survey #) | LOCATION # 28 B-1-5 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0404 | SURVEYOR SIGNATURE: TS <i>[Signature]</i> |
|---|---|--|----------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/22/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28B0105.XLD
 Batch Ended: 3/22/93 13:46
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

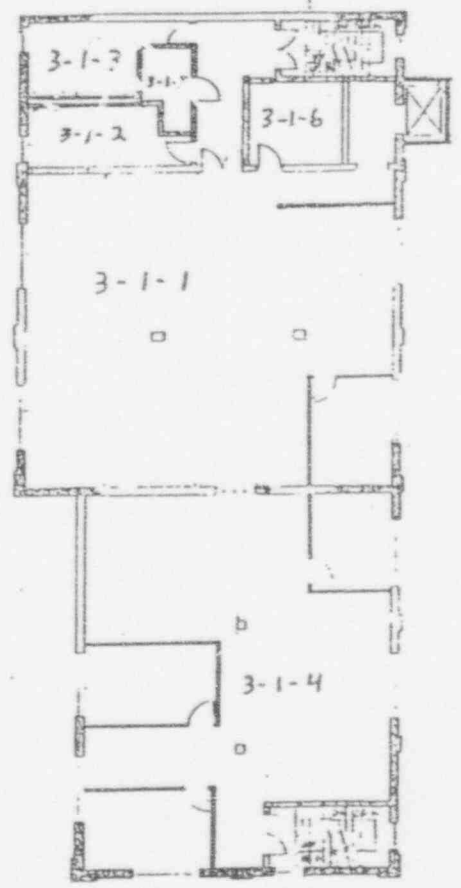
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta Into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 28B-1-5 walls and floor

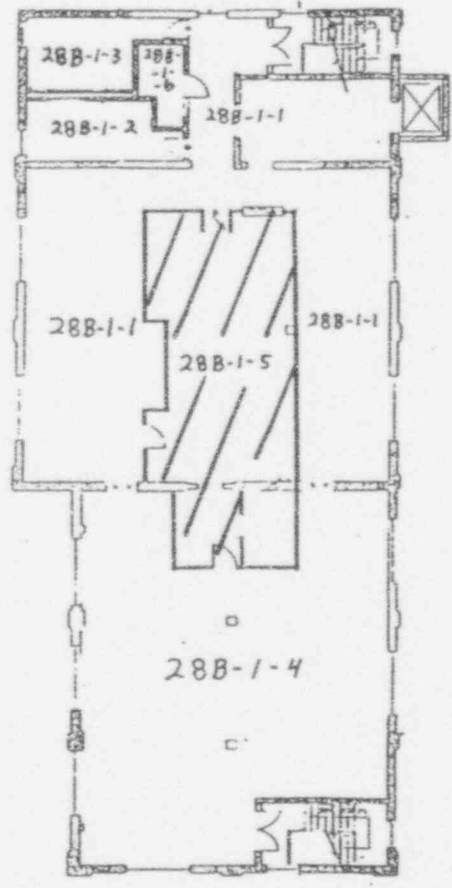
| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 23 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/22/93 13:41 |
| 24 | -0.264 | 0.93 | <MDA | 11.27 | 5.53 | 4.60 | <AL | 15.88 | 1.00 | -0.100 | 2.76 | 3/22/93 13:43 |
| 25 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.07 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:43 |
| 26 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/22/93 13:44 |
| 27 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:44 |
| 28 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.00 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/22/93 13:45 |
| 29 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.70 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/22/93 13:45 |
| 30 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/22/93 13:46 |
| 31 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/22/93 13:46 |

Building 5
Third Floor

North
←



Building 5
Forth Floor



| REVISIONS | | | |
|-----------|------|-------------|----|
| NO. | DATE | DESCRIPTION | BY |
| | | | |

LEGEND

- BRICK
 - CONCRETE BLOCK EXT
 - CONCRETE BLOCK INT
 - DRYWALL & PANELING
- SCALE : FEET
-

| REV | DATE | DESCRIPTION | BY | CHKD | APP'D |
|-----|------|-------------|----|------|-------|
| | | | | | |

| PARTS LIST | | UNLESS OTHERWISE SPECIFIED | | SHEET NO. | |
|------------|-------------|----------------------------|-------------|-----------|----------|
| QTY | DESCRIPTION | QTY | DESCRIPTION | OF SHEET | OF SHEET |
| | | | | | |

| | | | |
|---|--------|------|-------|
| Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | | |
| THIRD & FOURTH FLOORS BUILDING N-5 W A 250 LARGE PA | | | |
| DATE | DATE | DATE | DATE |
| D 14683 | JN-012 | | |
| SCALE | BY | CHKD | APP'D |
| | | | |



D
C
B
A

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY

OF THE FIRE HALL

(SURVEY SECTION 28J)

APRIL 8, 1993

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

REPORT #031

"OFFICIAL RECORD COPY"

ML 10

117646

FINAL RADIOLOGICAL SURVEY

OF THE FIRE HALL

(SURVEY SECTION 28J)

TABLE OF CONTENTS

| | <u>Page Number</u> |
|---------------------|--------------------|
| Purpose | 1 |
| Scope | 1 |
| Analysis of Results | 1 |
| Current Status | 2 |
| Conclusions | 2 |

Appendix A - Radiological Survey Data Sheets For Unit 1

FINAL RADIOLOGICAL SURVEY
OF THE FIRE HALL
(Survey Section 28J)

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 documents the results of the final radiological survey of the Fire Hall on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of the Fire Hall on the site. Figure 2 presents the floor plan for the building. This building has been designated as Survey Section 28J. (See Report #009). This building has been assigned a Survey Classification of Class 1 as defined in Report #009. This building is a garage type structure that was originally used to house a fire truck and supporting equipment for the on-site fire brigade.

Appendix A incorporates all of the radiological survey data sheets for the survey unit. Table 1 presents the survey data for the survey unit with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of the table to determine if the acceptance criteria have been met at the desired degree of confidence.

Current Status

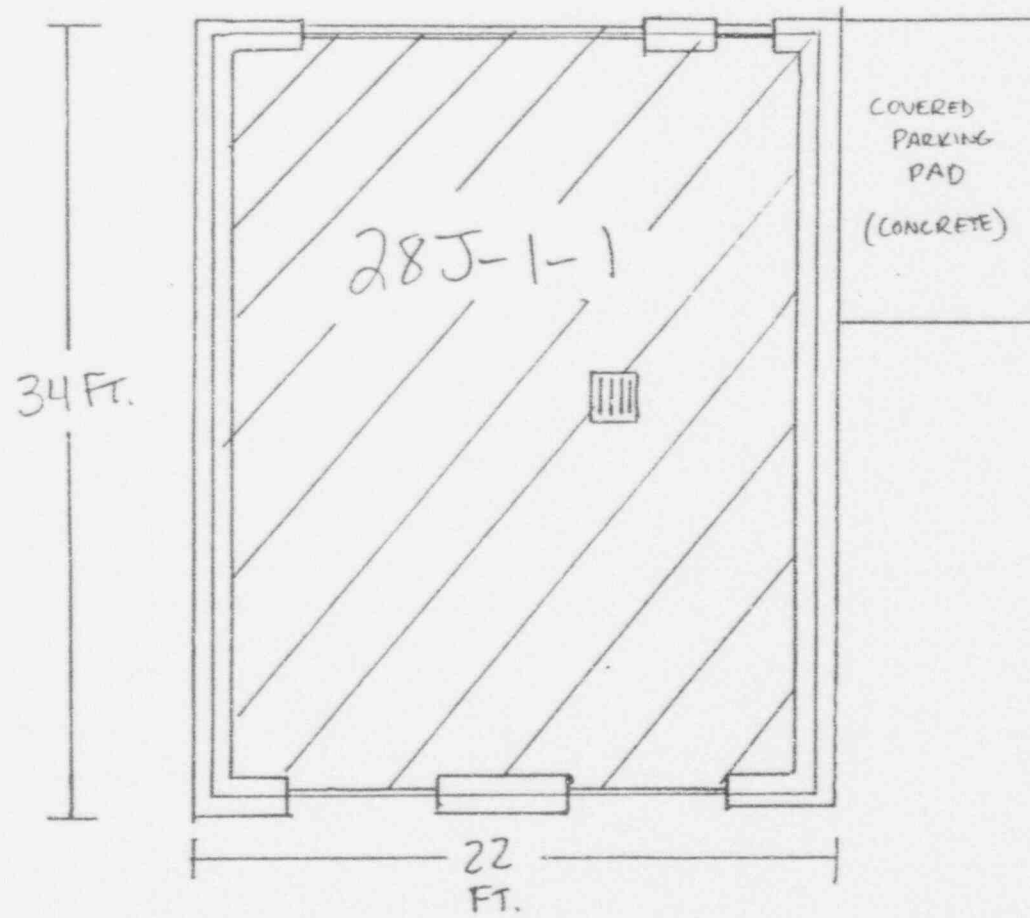
The Fire Hall is a garage type structure used for storage. It is anticipated that use of this will continue throughout the project. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of this building meets all the radiological acceptance criteria at the 95% confidence level. Therefore, this floor can be released for unrestricted use. There is no potential for this building to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.

FIREHOUSE BLDG

← NORTH



**FIGURE 2
FIREHOUSE BUILDING**

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR FIREHOUSE BUILDING (SECTION 28J, UNIT 1)

| ? | ? | ? | X, Y | LOCATION | GAMMA SURVEY | BETA/GAMMA SURVEY | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | |
|---|---------------------|--------------|-----------|----------|----------------------|--------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------|
| | | | | | | | MAXIMUM BETA | AVERAGE BETA | ALPHA | BETA | ALPHA | BETA | |
| ? | SURFACE DESCRIPTION | GRID | REF POINT | CODE | @1 METER (microR/hr) | ON CONTACT (mR/hr) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | |
| ? | West Wall | N/A | 2, -2.8 | 28J-1-1 | | | 189.2 | 37.8 | 0.0 | 157.1 | -0.26 | -2.49 | |
| ? | " | " | 4, -2.8 | 28J-1-1 | | | 285.2 | 52.4 | 4.3 | 163.0 | -0.26 | -2.49 | |
| ? | " | " | 6, -2.8 | 28J-1-1 | | | 526.7 | 343.4 | 17.3 | 401.6 | -0.26 | -2.49 | |
| ? | " | " | 8, -2.8 | 28J-1-1 | | | 544.2 | 401.6 | 0.0 | 532.5 | -0.26 | -2.49 | |
| ? | East Wall | " | 2, -2.8 | 28J-1-1 | | | 599.5 | 343.4 | -8.7 | 314.3 | -0.26 | 9.31 | |
| ? | " | " | 3, -3.8 | 28J-1-1 | | | 387.0 | 139.7 | -8.7 | 398.7 | -0.26 | -2.49 | |
| ? | " | " | 4, -2.8 | 28J-1-1 | | | 285.2 | 110.6 | 0.0 | 558.7 | -0.26 | -2.49 | |
| ? | " | " | 5, -3.8 | 28J-1-1 | | | 308.5 | 168.8 | -4.3 | 410.3 | -0.26 | 3.41 | |
| ? | " | " | 6, -2.8 | 28J-1-1 | | | -26.2 | -93.1 | -4.3 | 145.5 | -0.26 | -2.49 | |
| ? | " | " | 7, -3.8 | 28J-1-1 | | | 331.7 | 52.4 | 0.0 | 128.0 | -0.26 | 9.31 | |
| ? | " | " | 8, 2.8 | 28J-1-1 | | | 212.4 | 23.3 | 0.0 | 136.8 | -0.26 | -2.49 | |
| ? | " | " | 9, -3.8 | 28J-1-1 | | | 325.9 | 52.4 | 0.0 | 113.5 | -0.26 | -2.49 | |
| ? | South Wall | " | 3, -2.8 | 28J-1-1 | | | 72.8 | -64.0 | -8.7 | 235.7 | -0.26 | -2.49 | |
| ? | " | " | 5, -2.8 | 28J-1-1 | | | -64.0 | -180.4 | 0.0 | 197.9 | -0.26 | 9.31 | |
| ? | West Wall | " | 1, 3.8 | 28J-1-1 | | | 168.8 | 52.4 | 8.7 | 81.5 | -0.26 | -2.49 | |
| ? | South Wall | Window Sill? | #1 | 28J-1-1 | | | 515.1 | 110.6 | 8.7 | -14.6 | -0.26 | -2.49 | |
| ? | " | " | #2 | 28J-1-1 | | | 81.5 | -34.9 | 13.0 | 81.5 | -0.26 | 3.59 | |
| ? | West Wall | N/A | 5, -3.8 | 28J-1-1 | | | 474.3 | 195.0 | 8.7 | 471.4 | -0.26 | -2.49 | |
| ? | " | " | 7, -3.8 | 28J-1-1 | | | 587.8 | 314.3 | 8.7 | 465.6 | -0.26 | 3.59 | |
| ? | " | " | 9, -3.8 | 28J-1-1 | | | 355.0 | 256.1 | 0.0 | 483.1 | -0.26 | 3.41 | |
| ? | Floor | " | 2, -2 | 28J-1-1 | | 9 | 0.010 | -49.5 | -93.1 | -4.3 | 52.4 | -0.26 | -2.49 |
| ? | " | " | 4, -2 | 28J-1-1 | | 9 | 0.010 | -32.0 | -122.2 | -4.3 | 52.4 | -0.26 | -2.49 |
| ? | " | " | 2, -4 | 28J-1-1 | | 10 | 0.020 | 78.6 | -64.0 | 0.0 | 20.4 | -0.26 | 9.31 |
| ? | " | " | 4, -4 | 28J-1-1 | | 11 | 0.010 | -8.7 | -122.2 | 0.0 | 23.3 | -0.26 | 9.31 |
| ? | " | " | 2, -6 | 28J-1-1 | | 10 | 0.010 | 55.3 | -122.2 | -4.3 | 66.9 | -0.26 | -2.49 |
| ? | " | " | 4, -6 | 28J-1-1 | | 10 | 0.020 | 180.4 | 52.4 | 0.0 | 101.9 | -0.26 | -2.49 |
| ? | " | " | 2, -8 | 28J-1-1 | | 9 | 0.010 | 87.3 | -34.9 | 8.7 | 84.4 | -0.26 | 3.41 |

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 2 | * | ESP2:1588-L | 34.3% | 2.91 | 262 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:447B | 18.5% | 5.4 | | | PAC4G:447B | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 5.47 | |

| |
|----------------------|
| SURVEY DATE: 3/30/93 |
| COUNT DATE: 3/30/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|----------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| West Wall | N/A | 2, -2.8 | N/A | N/A | 327 | 275 | 2 | 316 | -0.264 | -2.49 | Concrete Block |
| " | " | 4, -2.8 | " | " | 360 | 280 | 3 | 318 | -0.264 | -2.49 | " |
| " | " | 6, -2.8 | " | " | 443 | 380 | 6 | 400 | -0.264 | -2.49 | Brick |
| " | " | 8, -2.8 | " | " | 449 | 400 | 2 | 445 | -0.264 | -2.49 | " |
| East Wall | " | 2, -2.8 | " | " | 468 | 380 | 0 | 370 | -0.264 | 9.31 | " |
| " | " | 3, -3.8 | " | " | 395 | 310 | 0 | 399 | -0.264 | -2.49 | " |
| " | " | 4, -2.8 | " | " | 360 | 300 | 2 | 454 | -0.264 | -2.49 | " |
| " | " | 5, -3.8 | " | " | 368 | 320 | 1 | 403 | -0.264 | 3.41 | " |
| " | " | 6, -2.8 | " | " | 253 | 230 | 1 | 312 | -0.264 | -2.49 | Cement Block |
| " | " | 7, -3.8 | " | " | 376 | 280 | 2 | 306 | -0.264 | 9.31 | " |
| " | " | 8, 2.8 | " | " | 335 | 270 | 2 | 309 | -0.264 | -2.49 | " |
| " | " | 9, -3.8 | " | " | 374 | 280 | 2 | 301 | -0.264 | -2.49 | " |
| South Wall | " | 3, -2.8 | " | " | 287 | 240 | 0 | 343 | -0.264 | -2.49 | " |
| " | " | 5, -2.8 | " | " | 240 | 200 | 2 | 330 | -0.264 | 9.31 | " |
| West Wall | " | 1, 3.8 | " | " | 320 | 280 | 4 | 290 | -0.264 | -2.49 | " |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 J - 001 (Survey Section - Sequential survey #) | LOCATION # 28 J-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0451 | SURVEYOR SIGNATURE: MS/TB <i>[Signature]</i> |
|---|---|--|----------------------------|---|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 2 | * | ESP2:1588-L | 34.3% | 2.91 | 262 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/30/93 |
| COUNT DATE: 3/30/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. UR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|-------------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| South Wall | Window Sill | #1 | N/A | N/A | 439 | 300 | 4 | 257 | -0.264 | -2.49 | Cement/Brick |
| " | " | #2 | " | " | 290 | 250 | 5 | 290 | -0.264 | 3.59 | " |
| West Wall | N/A | 5, -3.8 | " | " | 425 | 329 | 4 | 424 | -0.264 | -2.49 | Brick |
| " | " | 7, -3.8 | " | " | 464 | 370 | 4 | 422 | -0.264 | 3.59 | " |
| " | " | 9, -3.8 | " | " | 384 | 350 | 2 | 428 | -0.264 | 3.41 | " |
| Floor | " | 2, -2 | 9 | .01 | 245 | 230 | 1 | 280 | -0.264 | -2.49 | Concrete |
| " | " | 4, -2 | 9 | .01 | 251 | 220 | 1 | 280 | -0.264 | -2.49 | " |
| " | " | 2, -4 | 10 | .02 | 289 | 240 | 2 | 269 | -0.264 | 9.31 | " |
| " | " | 4, -4 | 11 | .01 | 259 | 220 | 2 | 270 | -0.264 | 9.31 | " |
| " | " | 2, -6 | 10 | .01 | 281 | 220 | 1 | 285 | -0.264 | -2.49 | " |
| " | " | 4, -6 | 10 | .02 | 324 | 280 | 2 | 297 | -0.264 | -2.49 | " |
| " | " | 2, -8 | 9 | .01 | 292 | 250 | 4 | 291 | -0.264 | 3.41 | " |
| " | " | 4, -8 | 9 | .02 | 350 | 240 | 4 | 269 | -0.264 | 3.41 | " |
| " | " | 3, -7 | 8 | .01 | 308 | 260 | 2 | 333 | -0.264 | 9.31 | " |
| " | " | 3, -3 | 9 | .01 | 330 | 230 | 0 | 319 | -0.264 | 9.31 | " |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 J - 001 (Survey Section - Sequential survey #) | LOCATION # 28 J-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0452 | SURVEYOR SIGNATURE: MS/TB <i>M. Schaffer</i> |
|---|---|--|----------------------------|---|

Ed. [Signature]

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab

Date: 3/30/93
 Counting Unit id: 1
 Data file name: C:\LBXI\UNIT1\2R30101.XLD
 Batch Ended: 3/30/93 13:12
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Application Revision: 2
 Application Version: Standard

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: MFS 283.1.1 floorwalls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 12:57 |
| 2 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 12:58 |
| 3 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 12:58 |
| 4 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 12:59 |
| 5 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/30/93 12:59 |
| 6 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:00 |
| 7 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:00 |
| 8 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:01 |
| 9 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:01 |
| 10 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/30/93 13:02 |
| 11 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:02 |
| 12 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:03 |
| 13 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:03 |
| 14 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/30/93 13:04 |
| 15 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:04 |
| 16 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:05 |
| 17 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:05 |
| 18 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 13:06 |
| 19 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 13:07 |
| 20 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 13:07 |
| 21 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:08 |
| 22 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:08 |
| 23 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/30/93 13:09 |
| 24 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/30/93 13:09 |
| 25 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 13:16 |

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab
Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%
Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00
Beta activity action level (DPM): 200.00
Certainty level for MDA and flags: 95.00%

Beta efficiency log file: cs137ab
Beta Efficiency: 49.88%
Beta into Alpha Crosstalk: 0.36%
Beta Background (CPM): 1.24

High Voltage Setting: 1435

Application Revision: 2
Application Version: Standard

Date: 3/30/93

Counting Unit id: 1

Data file name: C:\EXL\MINE\12810101.XLD

Batch Entered: 3/30/93 13:12

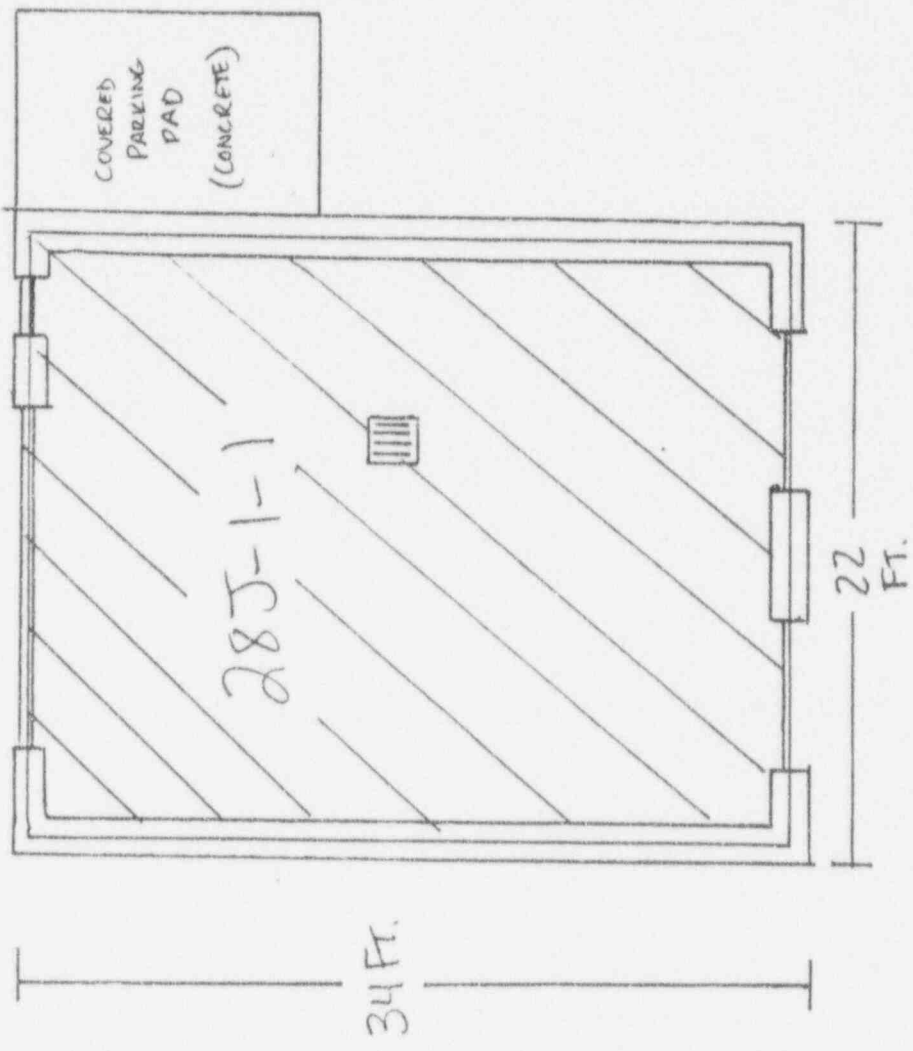
Crosstalk Correction: Not Applied

Batch ID: MTS 28J 1 1 floors/walks

| Count | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|-------|----------------|----------|-------|---------------|------|----------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | | | | |
| 26 | 0.264 | 1.03 | <MDA | 29.84 | 2.40 | 3.93 | <MDA | 34.63 | -1.24 | 3/30/93 13:10 |
| 27 | 0.264 | 1.03 | <MDA | 26.10 | 3.41 | 7.06 | <MDA | 33.88 | 1.70 | 3/30/93 13:11 |
| 28 | 0.264 | 1.00 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 1.70 | 3/30/93 13:11 |
| 29 | 0.264 | 1.00 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | -1.24 | 3/30/93 13:12 |
| 30 | 0.264 | 1.00 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 4.64 | 3/30/93 13:12 |

FIREHOUSE BLDG

NORTH
↙



Do Not Scale

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY
OF THE SECOND FLOOR OF BUILDING NUMBER 8A
(SURVEY SECTION 28F)

APRIL 8, 1993

WESTINGHOUSE ELECTRIC CORPORATION
LARGE, PA

REPORT #032

#117646 "OFFICIAL RECORD COPY" ML 10

FINAL RADIOLOGICAL SURVEY
OF THE SECOND FLOOR OF BUILDING NUMBER 8A
(SURVEY SECTION 28F)

TABLE OF CONTENTS

| | <u>Page Number</u> |
|---|--------------------|
| Purpose | 1 |
| Scope | 1 |
| Analysis of Results | 1 |
| Current Status | 2 |
| Conclusions | 2 |
| Appendix A - Radiological Survey Data Sheets For Unit 1 | |

(i)

REPORT #032

"OFFICIAL RECORD COPY" ML 10

117646

FINAL RADIOLOGICAL SURVEY
OF THE SECOND FLOOR OF BUILDING NUMBER 8A
(Survey Section 28F)

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 documents the results of the final radiological survey of the second floor of Building Number 8A on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Survey information for the first floor of Building 8A is documented in Report Number 035.

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of Building Number 8A on the site. Figure 2 presents the floor plan for the second floor of the building. This floor has been designated as Survey Section 28F. (See Report #009). In addition, the floor was subdivided into units and subunits as shown on Figure 2. This floor has been assigned a Survey Classification of Class 1 as defined in Report #009.

Appendix A incorporates all of the radiological survey data sheets for the survey unit. Table 1 presents the survey data for the survey unit with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of the table to determine if the acceptance criteria have been met at the desired degree of confidence. In Table 1 the gamma dose rate at 1 meter does not meet the statistical test due to the elevated radiation readings in the rest rooms. This is apparently due to the presence of naturally occurring radioactive material in the ceramic tile. All the beta measurements on the ceramic tile also show elevated readings. No further action has been taken.

Current Status

The second floor of Building 8A is an occupied area. It is anticipated that use of this floor will continue throughout the project. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of the second floor of this building meets all the radiological acceptance criteria at the 95% confidence level with the exception of the gamma dose rate at 1 meter in the restrooms as discussed above. Therefore, this floor can be released for unrestricted use. There is no potential for this floor to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.

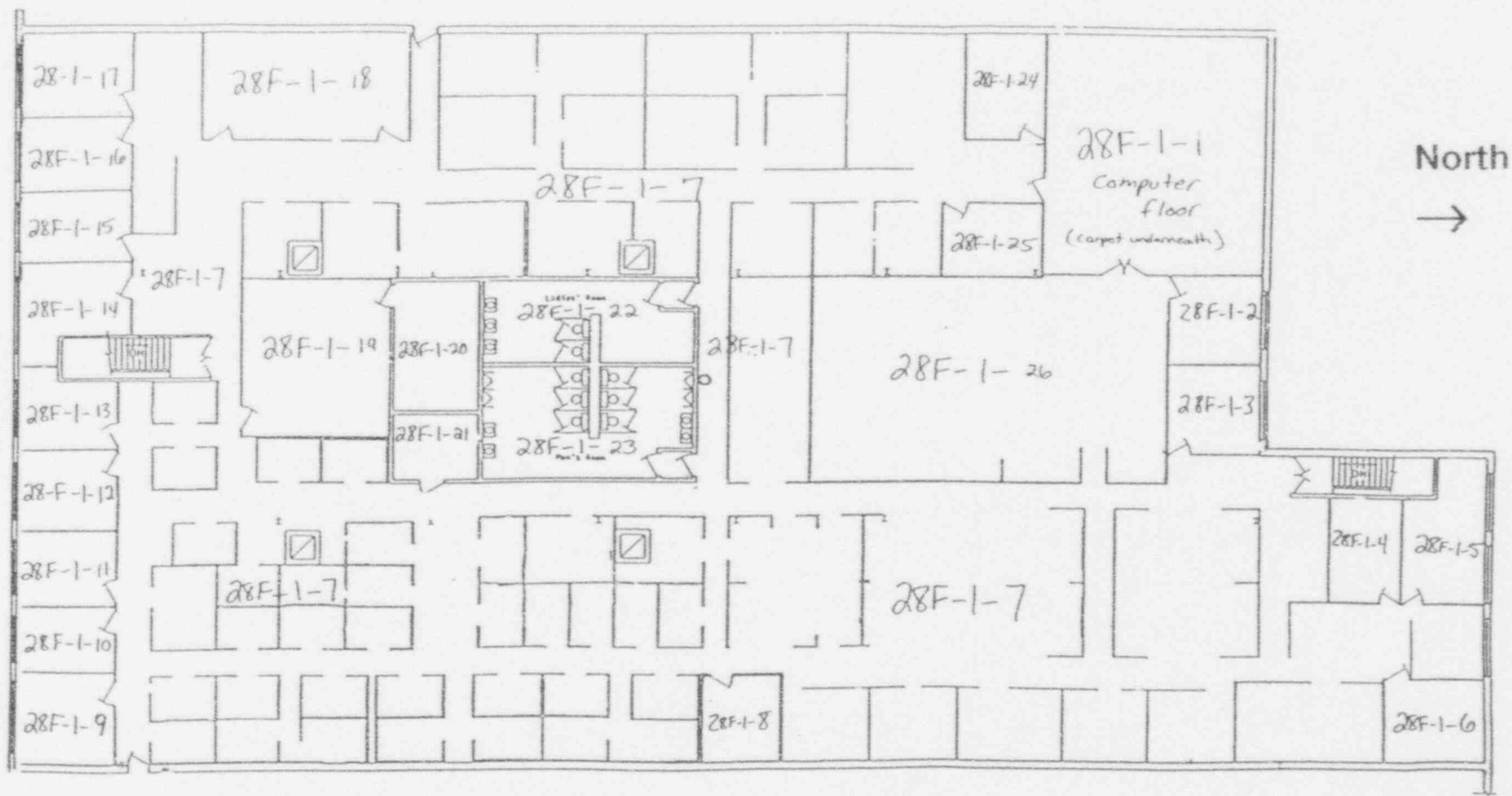


FIGURE 2
BUILDING 8A, SECOND FLOOR

TABLE 1

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #8A, SECOND FLOOR (SECTION 28F, UNIT 1)

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | LOCATION CODE | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------|----------------------|------------------|--|---|--|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| East Wall | N/A | 2, -.4 | 28F-1-7 | | | 619.8 | 279.4 | -17.3 | 261.9 | -0.26 | -2.49 |
| " | " | 4, -.4 | 28F-1-7 | | | 576.2 | 308.5 | -17.3 | 349.2 | -0.26 | -2.49 |
| " | " | 6, -.4 | 28F-1-7 | | | 611.1 | 483.1 | -8.7 | 512.2 | -0.26 | 9.31 |
| " | " | 8, -.4 | 28F-1-7 | | | 526.7 | 366.7 | 0.0 | 395.8 | -0.26 | 3.41 |
| " | " | 10, -.4 | 28F-1-7 | | | 686.8 | 483.1 | -8.7 | 433.6 | -0.26 | 3.59 |
| " | " | 12, -.4 | 28F-1-7 | | | 881.7 | 512.2 | -17.3 | 477.2 | -0.26 | -2.49 |
| " | " | 14, -.4 | 28F-1-7 | | | 660.6 | 395.8 | -13.0 | 378.3 | -0.26 | 3.59 |
| " | " | 18, -.4 | 28F-1-7 | | | 657.7 | 424.9 | -17.3 | 422.0 | -0.26 | -2.49 |
| " | " | 20, -.4 | 28F-1-7 | | | 555.8 | 395.8 | -13.0 | 416.1 | -0.26 | -2.49 |
| " | " | 22, -1.4 | 28F-1-7 | | | 529.6 | 337.6 | -17.3 | 305.6 | -0.26 | 3.59 |
| " | " | 24, -1.4 | 28F-1-7 | | | 867.2 | 483.1 | -8.7 | 436.5 | -0.26 | 3.41 |
| " | " | 30, -.4 | 28F-1-7 | | | 619.8 | 424.9 | -13.0 | 419.0 | -0.26 | 9.31 |
| " | " | 34, -.4 | 28F-1-7 | | | 480.2 | 395.8 | -13.0 | 407.4 | -0.26 | 3.59 |
| " | " | 38, -.4 | 28F-1-7 | | | 718.8 | 483.1 | -8.7 | 474.3 | -0.26 | -2.49 |
| " | " | 48, -.4 | 28F-1-7 | | | 631.5 | 424.9 | -13.0 | 442.3 | -0.26 | 3.59 |
| S. E. Pillar/Block | N/A | North Face | 28F-1-7 | | | 261.9 | 104.8 | 0.0 | 87.3 | -0.26 | -2.49 |
| N. E. Pillar/ " | " | " | 28F-1-7 | | | 299.7 | 104.8 | -4.3 | 87.3 | -0.26 | -2.49 |
| N. W. Pillar/ " | " | " | 28F-1-7 | | | 232.8 | -11.6 | -8.7 | 119.3 | -0.26 | 9.66 |
| S. W. Pillar/ " | " | " | 28F-1-7 | | | 148.4 | 17.5 | -4.3 | 5.8 | -0.26 | -2.49 |
| West Wall | " | 2, -.4 | 28F-1-7 | | | 672.2 | 424.9 | -17.3 | 349.2 | -0.26 | 3.41 |
| " | " | 4, -1.4 | 28F-1-7 | | | 520.9 | 352.1 | -13.0 | 285.2 | -0.26 | -2.49 |
| " | " | 6, -1.4 | 28F-1-7 | | | 538.4 | 366.7 | -13.0 | 352.1 | -0.26 | -2.49 |
| " | " | 8, -.4 | 28F-1-7 | | | 410.3 | 221.2 | -13.0 | 238.6 | -0.26 | -2.49 |
| " | " | 14, -.4 | 28F-1-7 | | | 509.3 | 337.6 | -8.7 | 308.5 | -0.26 | -2.49 |
| Floor Tile | N/A | 1, -1 | 28F-1-21 | 11 | 0.012 | 233.5 | 152.7 | -2.4 | 223.9 | -0.26 | 9.66 |
| " | " | 2, -2 | 28F-1-21 | 11 | 0.008 | 175.1 | 140.7 | -3.7 | 163.9 | -0.26 | 3.41 |
| Floor | " | 2, -6 | 28F-1-23 | 18 | 0.008 | 1474.4 | 1280.1 | 7.3 | 1427.2 | -0.26 | -2.49 |
| " | " | 4, -6 | 28F-1-23 | 17 | 0.023 | 1670.2 | 1360.0 | 0.0 | 1483.9 | -0.26 | -2.49 |
| " | " | 4, -4 | 28F-1-23 | 17 | 0.015 | 1579.9 | 1368.0 | 1.2 | 1465.6 | -0.26 | -2.49 |
| " | " | 4, -2 | 28F-1-23 | 16 | 0.020 | 1612.7 | 1519.9 | 2.4 | 1466.4 | -0.26 | 3.59 |
| " | " | 2, -2 | 28F-1-23 | 19 | 0.020 | 1605.5 | 1559.9 | 3.7 | 1563.1 | -0.26 | 3.59 |

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

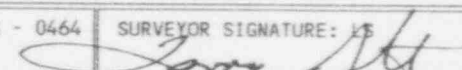
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 4 | * | ESP2:1588-L | 34.3% | 2.91 | 304 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 4/01/93 |
| COUNT DATE: 4/05/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-208C | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| East Wall | N/A | 2, -.4 | N/A | N/A | 517 | 400 | 0 | 394 | -0.264 | -2.49 | Brick |
| " | " | 4, -.4 | " | " | 502 | 410 | 0 | 424 | -0.264 | -2.49 | " |
| " | " | 6, -.4 | " | " | 514 | 470 | 2 | 480 | -0.264 | 9.31 | " |
| " | " | 8, -.4 | " | " | 485 | 430 | 4 | 440 | -0.264 | 3.41 | " |
| " | " | 10, -.4 | " | " | 540 | 470 | 2 | 453 | -0.264 | 3.59 | " |
| " | " | 12, -.4 | " | " | 607 | 480 | 0 | 468 | -0.264 | -2.49 | " |
| " | " | 14, -.4 | " | " | 531 | 440 | 1 | 434 | -0.264 | 3.59 | " |
| " | " | 18, -.4 | " | " | 530 | 450 | 0 | 449 | -0.264 | -2.49 | " |
| " | " | 20, -.4 | " | " | 495 | 440 | 1 | 447 | -0.264 | -2.49 | " |
| " | " | 22, -1.4 | " | " | 486 | 420 | 0 | 409 | -0.264 | 3.59 | " |
| " | " | 24, -1.4 | " | " | 602 | 470 | 2 | 454 | -0.264 | 3.41 | " |
| " | " | 30, -.4 | " | " | 517 | 450 | 1 | 448 | -0.264 | 9.31 | " |
| " | " | 34, -.4 | " | " | 469 | 440 | 1 | 444 | -0.264 | 3.59 | " |
| " | " | 38, -.4 | " | " | 551 | 470 | 2 | 467 | -0.264 | -2.49 | " |
| " | " | 48, -.4 | " | " | 521 | 450 | 1 | 456 | -0.264 | 3.59 | " |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 F - 003 (Survey Section - Sequential survey #) | LOCATION # 28 F-1-7 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0464 | SURVEYOR SIGNATURE:  |
|---|---|--|----------------------------|---|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | BETA SURVEY EQUIPMENT | | (*)IF USED | BKG CPM | X, Y REF POINT | GRID |
|------------|------------------------|-------|-----------------------|-------------|------------|---------|----------------|------|
| | INST: S/N | EFF | C.F. | BKG CPM | | | | |
| | ESP2:1517 | 21.1% | 4.74 | ESP2:1595 | 34.2% | 2.92 | | |
| | ESP2:1517-L | 21.7% | 4.60 | ESP2:1595-L | 31.3% | 3.20 | | |
| * | ESP2:1601-L | 23.1% | 4.33 | ESP2:1588-L | 34.3% | 2.91 | 4 | 304 |
| | ESP2: | | | ESP2: | | | | |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 | | |
| | ASP1: 1891 | 19.1% | 5.23 | E520: 5245 | | | | |
| | PAC4G:4478 | 18.5% | 5.4 | PAC4G:4478 | 33.5% | 3.0 | | |
| | FLMON:91943 | 18.8% | 5.3 | FLMON:91943 | 28.8% | 3.47 | | |

| |
|----------------------|
| SURVEY DATE: 4/01/93 |
| COUNT DATE: 4/05/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | | UR/hr |
|------------|---------------------------|-----|-------|
| | INST: S/N | BKG | |
| | R/S: L-2088 | | |
| | PRM7: 234 | | |
| | E520: 5242 | | |
| | E520: 5245 | | |
| | ESP2: 1522 | | |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | BKG |
|---------------------------|----------------------------|-------|------|
| | INST: S/N | EFF | |
| * | TENN: 13295 | 37.8% | 2.64 |
| | SAC4: 1128 | 40.6% | 2.46 |
| | SAC4: 263 | 34.7% | 2.88 |
| COUNTING EQUIPMENT (BETA) | | | |
| (*)IF USED | INST: S/N | | BKG |
| | EFF | C.F. | |
| * | TENN: 13295 | 49.9% | 2.0 |
| | MS-2: 1848 | 26.4% | 3.8 |
| | BC-4: 808 | 16.9% | 5.92 |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. UR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|---------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| S. E. Pillar/Block | N/A | North Face | N/A | N/A | 394 | 340 | 4 | 334 | -0.264 | -2.49 | See #4 on Map |
| N. E. Pillar/ " | " | " | " | " | 407 | 340 | 3 | 334 | -0.264 | -2.49 | See #2 on Map |
| N. W. Pillar/ " | " | " | " | " | 384 | 300 | 2 | 345 | -0.264 | 9.66 | See #1 on Map |
| S. W. Pillar/ " | " | " | " | " | 355 | 310 | 3 | 306 | -0.264 | -2.49 | See #3 on Map |
| West Wall | " | 2, -4 | " | " | 535 | 450 | 0 | 424 | -0.264 | 3.41 | Brick |
| " | " | 4, -1.4 | " | " | 483 | 425 | 1 | 402 | -0.264 | -2.49 | " |
| " | " | 6, -1.4 | " | " | 489 | 430 | 1 | 425 | -0.264 | -2.49 | " |
| " | " | 8, -4 | " | " | 445 | 380 | 1 | 386 | -0.264 | -2.49 | " |
| " | " | 14, -4 | " | " | 479 | 420 | 2 | 410 | -0.264 | -2.49 | " |

| | | | | |
|---|---|--|----------------------------|---|
| FORM SERIAL #: 28 F - 003 (Survey Section - Sequential survey #) | LOCATION # 28 F-1-7 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 3465 | SURVEYOR SIGNATURE:  |
|---|---|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 4/2/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28F0107W.XLD
 Batch Ended: 4/5/93 7:19
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

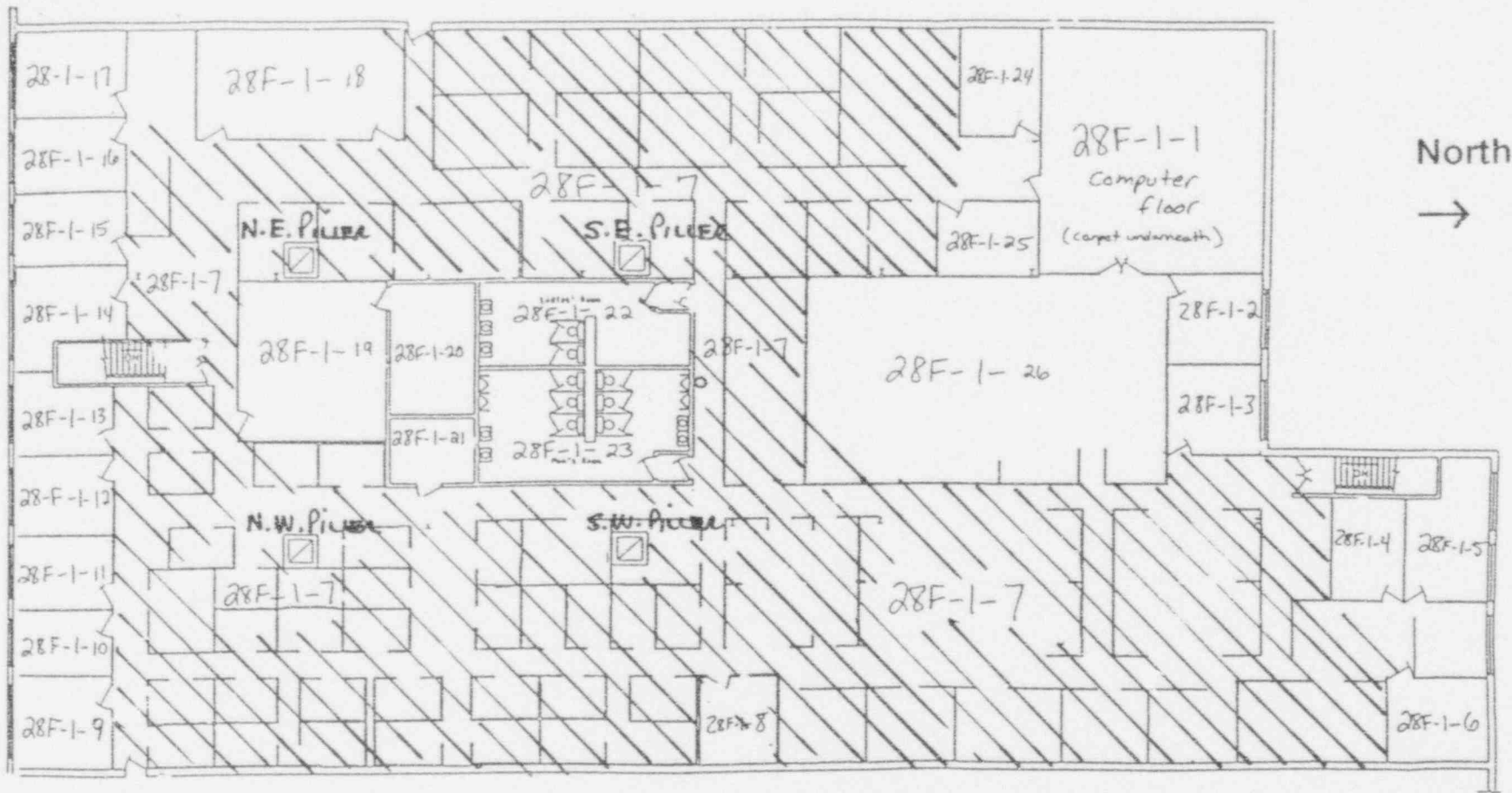
Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 28F-1-7 walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/5/93 7:07 |
| 2 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:07 |
| 3 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 4/5/93 7:08 |
| 4 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/5/93 7:08 |
| 5 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/5/93 7:09 |
| 6 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:09 |
| 7 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/5/93 7:10 |
| 8 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/5/93 7:10 |
| 9 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:11 |
| 10 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/5/93 7:12 |
| 11 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/5/93 7:12 |
| 12 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 4/5/93 7:13 |
| 13 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/5/93 7:13 |
| 14 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:14 |
| 15 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/5/93 7:14 |
| 16 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:15 |
| 17 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:15 |
| 18 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 4/5/93 7:16 |
| 19 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:16 |
| 20 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/5/93 7:17 |
| 21 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/5/93 7:17 |
| 22 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:18 |
| 23 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:18 |
| 24 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 7:19 |



2ND FLOOR BLDG 8A

LB5100W Low Background Counting System -- Smear Analysis

Date: 4/1/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28H0121.XLD
 Batch Ended: 4/1/93 14:36
 Crosstalk Correction: Not Applied

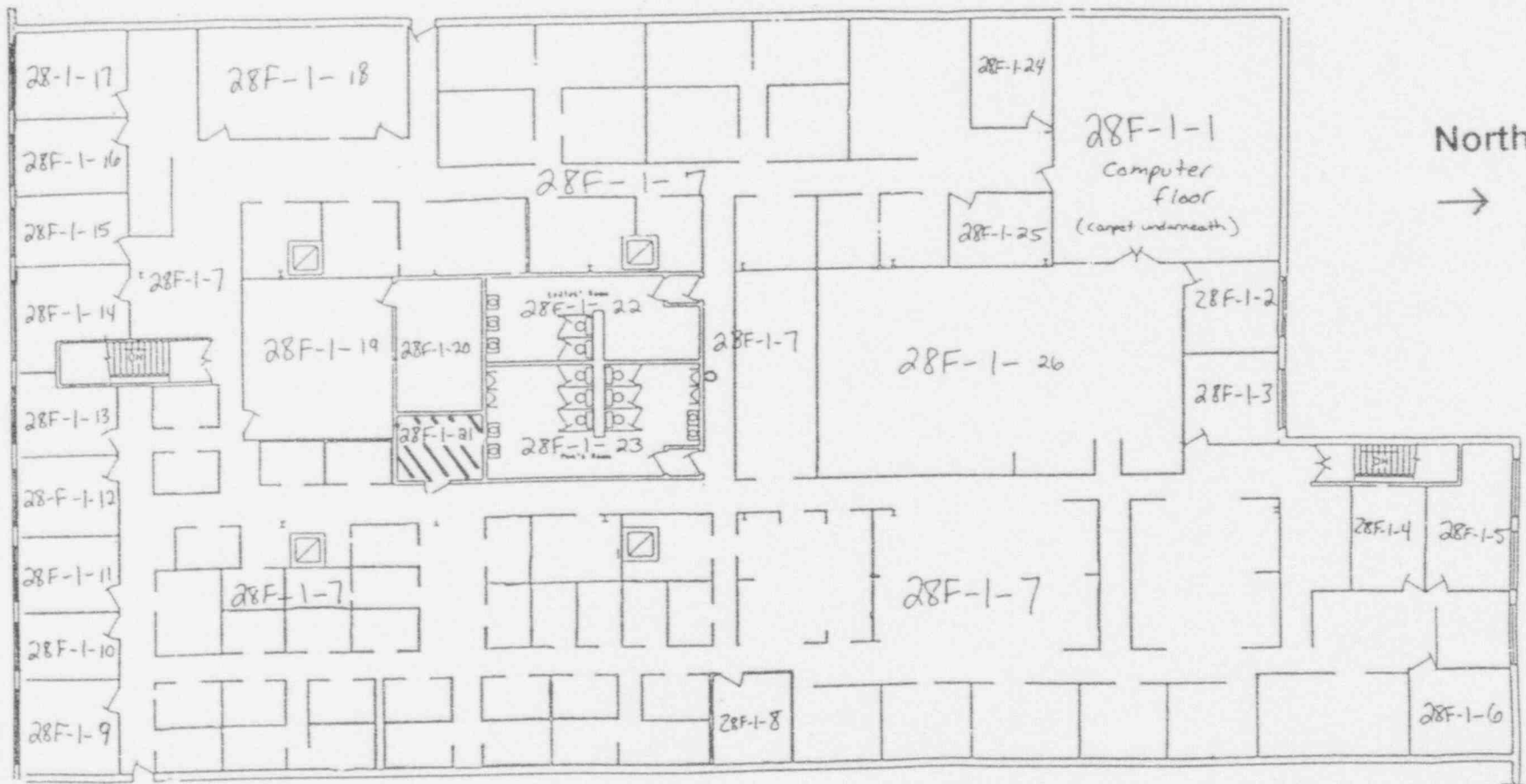
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

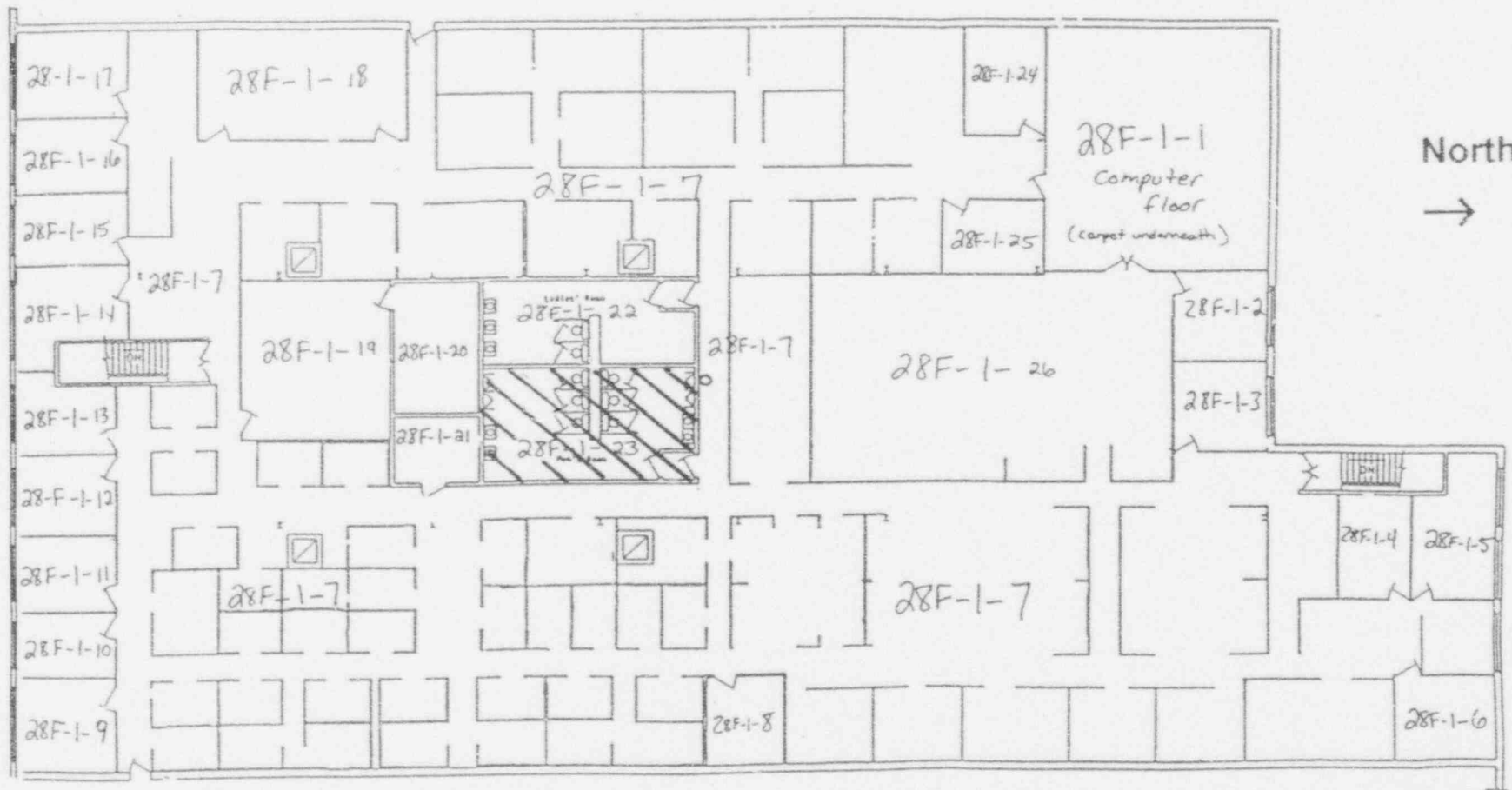
Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 28F-1-21 floor and walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 4/1/93 14:36 |
| 2 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/1/93 14:36 |



2ND FLOOR BLDG 8A



2ND FLOOR BLDG 8A

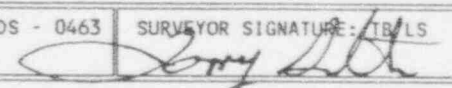
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 4 | * | ESP2:1588-L | 34.3% | 2.91 | 304 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 6 | * | FLMON:91943 | 28.8% | 3.47 | 999 |

SURVEY DATE: 4/01/93
 COUNT DATE: 4/05/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|------------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 8 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .015 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|---------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor | N/A | 2, -6 | 18 | .008 | 2843 | 2600 | 12 | 2784 | -0.264 | -2.49 | Ceramic Tile |
| " | " | 4, -6 | 17 | .023 | 3088 | 2700 | 6 | 2855 | -0.264 | -2.49 | " |
| " | " | 4, -4 | 17 | .015 | 2975 | 2710 | 7 | 2832 | -0.264 | -2.49 | " |
| " | " | 4, -2 | 16 | .02 | 3016 | 2900 | 8 | 2833 | -0.264 | 3.59 | " |
| " | " | 2, -2 | 19 | .02 | 3007 | 2950 | 9 | 2954 | -0.264 | 3.59 | " |
| West Wall | " | 1, -1.4 | N/A | N/A | 1050 | 850 | 20 | 819 | -0.264 | -2.49 | " |
| " | " | 2, -.4 | " | " | 829 | 790 | 9 | 803 | -0.264 | -2.49 | "ESP's used |
| " | " | 6, -1.4 | " | " | 884 | 860 | 12 | 833 | -0.264 | 3.53 | "for scans |
| North Wall | " | 1, -1.4 | " | " | 802 | 760 | 18 | 780 | -0.264 | -2.49 | "& 1 minute |
| " | " | 2, -.4 | " | " | 825 | 790 | 15 | 814 | -0.264 | -2.49 | "counts |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|---|--|--|----------------------------|---|
| FORM SERIAL #: 28 F - 002 (Survey Section - Sequential survey #) | LOCATION # 28 F-1-23 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0463 | SURVEYOR SIGNATURE:  |
|---|--|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 4/2/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\28F0123W.XLD
 Batch Ended: 4/5/93 6:44
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 28F-1-23 walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 25 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/5/93 6:39 |
| 26 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/5/93 6:40 |
| 27 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 6:40 |
| 28 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/5/93 6:41 |
| 29 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/5/93 6:41 |
| 30 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/5/93 6:42 |
| 31 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/5/93 6:42 |
| 32 | -0.264 | 0.93 | <MDA | 11.27 | 3.53 | 4.14 | <MDA | 15.88 | 1.00 | -0.100 | 1.76 | 4/5/93 6:43 |
| 33 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 6:44 |
| 34 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/5/93 6:44 |

117646

"OFFICIAL RECORD COPY" APR 10

LICENSE TERMINATION REPORT

USNRC LICENSE NO. SNM-951

FINAL RADIOLOGICAL SURVEY
OF THE FIRST FLOOR OF BUILDING NUMBER 5
(SURVEY SECTION 1)

April 20, 1993

WESTINGHOUSE ELECTRIC CORPORATION

LARGE, PA

Report #034

"OFFICIAL RECORD COPY"

ML 10

* 117646

FINAL RADIOLOGICAL SURVEY
OF THE FIRST FLOOR OF BUILDING NUMBER 5
(SURVEY SECTION 1)

TABLE OF CONTENTS

| | <u>Page Number</u> | |
|--|--------------------|---|
| Purpose | | 1 |
| Scope | | 1 |
| Analysis of Results | | 1 |
| Current Status | | 2 |
| Conclusions | | 2 |
| Appendix A - Radiological Survey Data Sheets For Unit 1 | | |
| Appendix B - Radiological Survey Data Sheets For Unit 3 | | |
| Appendix C - Radiological Survey Data Sheets For Unit 4 | | |
| Appendix D - Radiological Survey Data Sheets For Unit 6 | | |
| Appendix E - Radiological Survey Data Sheets For Unit 7 | | |
| Appendix F - Radiological Survey Data Sheets For Unit 8 | | |
| Appendix G - Radiological Survey Data Sheets For Unit 9 | | |
| Appendix H - Radiological Survey Data Sheets For Unit 10 | | |
| Appendix I - Radiological Survey Data Sheets For Unit 13 | | |
| Appendix J - Radiological Survey Data Sheets For Unit 14 | | |
| Appendix K - Radiological Survey Data Sheets for Floor Scans | | |

(i)

Report #034

"OFFICIAL RECORD COPY" ML 10

117646

FINAL RADIOLOGICAL SURVEY
OF THE FIRST FLOOR OF BUILDING NUMBER 5
(Survey Section 1)

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 documents the results of the final radiological survey of the first floor of Building Number 5 on the Westinghouse Site in Large, PA. Included in the report is the original survey data sheets, the conversion of the results into units comparable with the acceptance criteria and a statistical analysis of the survey data in order to determine if the radiological acceptance criteria have been met at the desired degree of confidence. Report #009 defines the general information relative to the final radiological surveys of buildings under this program. Refer to that report for the following information:

- 1) Site Description
- 2) Radiological Acceptance Criteria
- 3) Survey Classification System
- 4) Classification of Building Area
- 5) Selection of Survey Instruments and Instrument Characterization
- 6) System for Identification of Survey Point Locations
- 7) Statistical Analysis of Survey Results
- 8) Survey Protocol

Survey information for the other floors of Building 5 are documented in reports numbered 023, 024, and 030.

Analysis of Results

Figure 1 presents the Site Plot Plan and identifies the location of Building Number 5 on the site. Figures 2 and 3 presents the floor plan for the first floor of the building. This floor has been designated as Survey Section 1. (See Report #009). In addition, the floor was subdivided into units and subunits as shown on Figures 2 and 3. Each area has been assigned a Survey Classification as defined in Report #009. Table 1 presents a summary of the assigned classification and provides references to the appropriate Table and Appendix for the data for each survey unit.

Thirteen survey units were originally designated for the first floor of this building. Four survey units were deleted during the process of conducting the survey and the area involved was combined with other survey units. Thus there is no data presented or other reference made to Units 2, 5, 11, and 12 in this report. The upper surfaces for units 4, 6 and 10 are designated as unit 14 because this area is a large volume above the false ceilings of the first floor. This building is an old structure that is 3 stories high. Administratively, it was decided to designate the internal walls and ceilings of this area of the building as unit 14 for the first floor.

Appendices A through J incorporate all of the radiological survey data sheets for the survey units. Tables 2 through 11 present the survey data for each of the survey units with all the results converted, as appropriate, to the units necessary for comparison against the radiological acceptance criteria. A statistical analysis is included at the end of each table to determine if the acceptance criteria have been met at the desired degree of confidence. Table 12 presents a summary of the statistical information.

In table No. 2, some of the measurements of gamma radiation at 1 meter in survey area 1-1-4 are elevated. The south wall in this room is an old brick wall and the measurements are about 1 meter from the wall. Such elevated readings are typical for what has been measured at other locations and is apparently due to the presence of naturally occurring radioactive material. No further action was taken.

In Tables No. 6, the statistical test is not met for the measurement of gamma radiation at 1 meter. This area is a new building addition which has never been used for radioactive material storage or processing. The floor is a red ceramic brick that indicates elevated radiation readings apparently due to the presence of naturally occurring radioactive material. No further action was taken.

In Table No. 9, some of the measurements of radiation at 1 meter are elevated due to the presence of the brick wall. The gamma readings on contact with the old brick walls are as high as 22 micro R/hour. This is apparently due to the presence of naturally occurring radioactive material. No further action was taken.

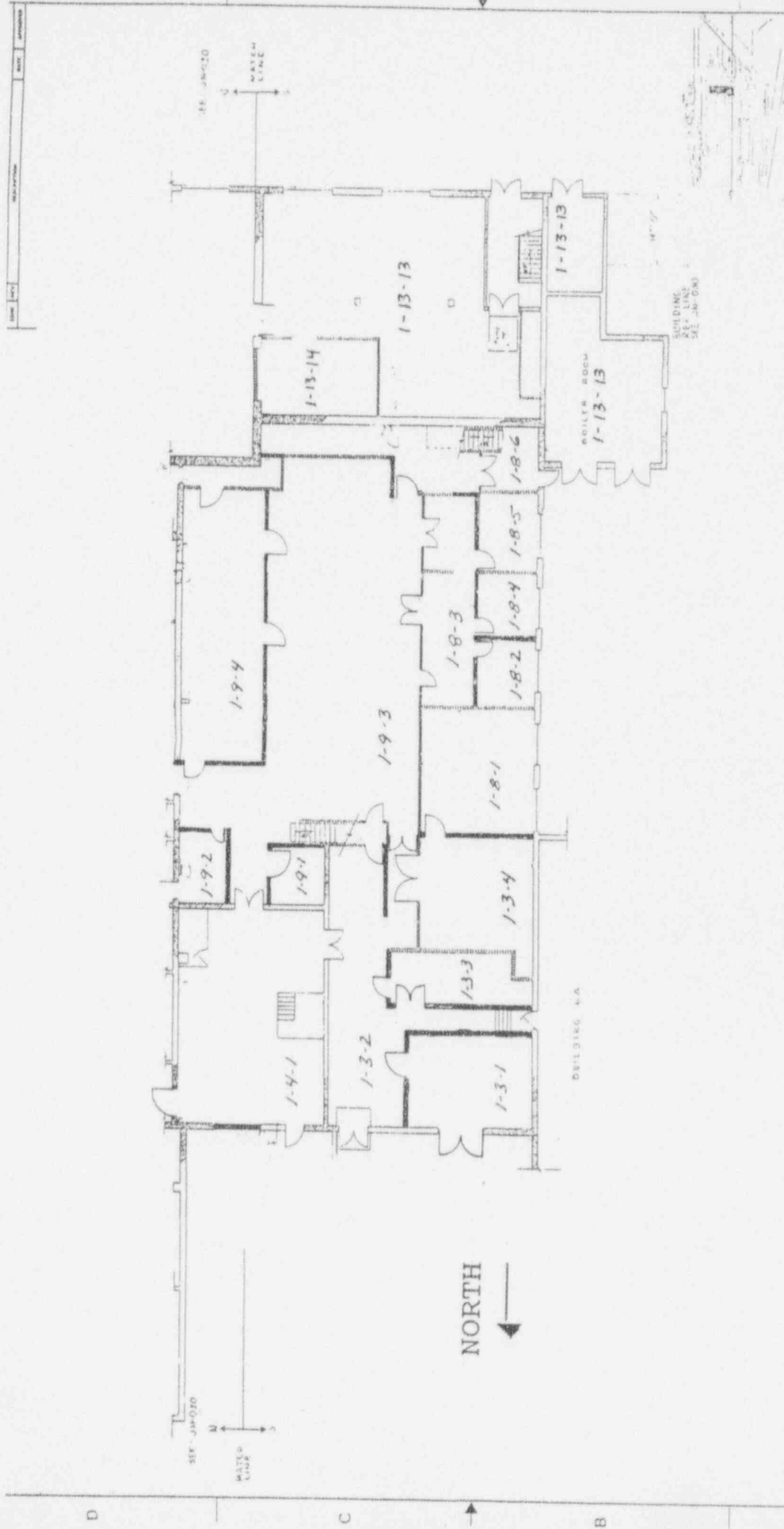
Floor scans of portions of each area were also conducted. Appendix K contains the radiological data survey sheets for these floor scans. Table 13 presents the results of the floor scan data in units directly comparable with the applicable acceptance criteria.

Current Status

Building 5 is a partially occupied area. It is anticipated that use of this building will continue throughout the project. No radioactive material is utilized and no such use is anticipated.

Conclusions

The statistical analysis of the radiological survey data presented in this report indicates that the current condition of this floor of this building meets all the radiological acceptance criteria at the 95% confidence level with the exception noted above for the gamma survey at 1 meter. There is no potential for this building to become contaminated after the surveys which have been made and documented in this report as there is no further use of radioactive material on the site.



| NO. | DESCRIPTION | QUANTITY | UNIT | PRICE | TOTAL |
|-----|-------------------|----------|------|-------|-------|
| 1 | CONCRETE | | | | |
| 2 | BRICK | | | | |
| 3 | CEMENT BLOCK EXT | | | | |
| 4 | CEMENT BLOCK INT | | | | |
| 5 | CEMENT & PAINTING | | | | |
| 6 | SCAFFOLD | | | | |
| 7 | FORMWORK | | | | |
| 8 | IRON CLAMP | | | | |
| 9 | STEEL | | | | |
| 10 | WOOD | | | | |
| 11 | PAINT | | | | |
| 12 | GLASS | | | | |
| 13 | IRON | | | | |
| 14 | STEEL | | | | |
| 15 | WOOD | | | | |
| 16 | PAINT | | | | |
| 17 | GLASS | | | | |
| 18 | IRON | | | | |
| 19 | STEEL | | | | |
| 20 | WOOD | | | | |
| 21 | PAINT | | | | |
| 22 | GLASS | | | | |
| 23 | IRON | | | | |
| 24 | STEEL | | | | |
| 25 | WOOD | | | | |
| 26 | PAINT | | | | |
| 27 | GLASS | | | | |
| 28 | IRON | | | | |
| 29 | STEEL | | | | |
| 30 | WOOD | | | | |
| 31 | PAINT | | | | |
| 32 | GLASS | | | | |
| 33 | IRON | | | | |
| 34 | STEEL | | | | |
| 35 | WOOD | | | | |
| 36 | PAINT | | | | |
| 37 | GLASS | | | | |
| 38 | IRON | | | | |
| 39 | STEEL | | | | |
| 40 | WOOD | | | | |
| 41 | PAINT | | | | |
| 42 | GLASS | | | | |
| 43 | IRON | | | | |
| 44 | STEEL | | | | |
| 45 | WOOD | | | | |
| 46 | PAINT | | | | |
| 47 | GLASS | | | | |
| 48 | IRON | | | | |
| 49 | STEEL | | | | |
| 50 | WOOD | | | | |
| 51 | PAINT | | | | |
| 52 | GLASS | | | | |
| 53 | IRON | | | | |
| 54 | STEEL | | | | |
| 55 | WOOD | | | | |
| 56 | PAINT | | | | |
| 57 | GLASS | | | | |
| 58 | IRON | | | | |
| 59 | STEEL | | | | |
| 60 | WOOD | | | | |
| 61 | PAINT | | | | |
| 62 | GLASS | | | | |
| 63 | IRON | | | | |
| 64 | STEEL | | | | |
| 65 | WOOD | | | | |
| 66 | PAINT | | | | |
| 67 | GLASS | | | | |
| 68 | IRON | | | | |
| 69 | STEEL | | | | |
| 70 | WOOD | | | | |
| 71 | PAINT | | | | |
| 72 | GLASS | | | | |
| 73 | IRON | | | | |
| 74 | STEEL | | | | |
| 75 | WOOD | | | | |
| 76 | PAINT | | | | |
| 77 | GLASS | | | | |
| 78 | IRON | | | | |
| 79 | STEEL | | | | |
| 80 | WOOD | | | | |
| 81 | PAINT | | | | |
| 82 | GLASS | | | | |
| 83 | IRON | | | | |
| 84 | STEEL | | | | |
| 85 | WOOD | | | | |
| 86 | PAINT | | | | |
| 87 | GLASS | | | | |
| 88 | IRON | | | | |
| 89 | STEEL | | | | |
| 90 | WOOD | | | | |
| 91 | PAINT | | | | |
| 92 | GLASS | | | | |
| 93 | IRON | | | | |
| 94 | STEEL | | | | |
| 95 | WOOD | | | | |
| 96 | PAINT | | | | |
| 97 | GLASS | | | | |
| 98 | IRON | | | | |
| 99 | STEEL | | | | |
| 100 | WOOD | | | | |

Figure 2
Building 5, First Floor (Western Portion)

TABLE 1

SURVEY CLASSIFICATION FOR THE FIRST FLOOR OF BUILDING 5

| SURVEY SECTION | UNIT | SUBUNITS | CLASSIFICATION | REFERENCES | |
|-------------------|------|------------------|----------------|------------|----------|
| | | | | TABLE | APPENDIX |
| 1 | 1 | 1 TO 5 | 4 | 2 | A |
| 1 | 2 | COMBINED INTO 1 | | | |
| 1 | 3 | 1 TO 4 | 4 | 3 | B |
| 1 | 4 | 1 TO 4 | 4 | 4 | C |
| 1 | 5 | COMBINED INTO 4 | | | |
| 1 | 6 | 1 TO 6 | 4 | 5 | D |
| 1 | 7 | 1 | 1 | 6 | E |
| 1 | 8 | 1 TO 6 | 4 | 7 | F |
| 1 | 9 | 1 TO 4 | 4 | 8 | G |
| 1 | 10 | 1 TO 5 | 4 | 9 | H |
| 1 | 11 | COMBINED INTO 13 | | | |
| 1 | 12 | COMBINED INTO 13 | | | |
| 1 | 13 | 1 TO 14 | 1 | 10 | I |
| 1 | 14 | 1 | 4 | 11 | J |

TABLE 2

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 1)

| SURFACE DESCRIPTION | GRID | X, Y | REF | LOCATION | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------|----------|-----|----------|-----------------------------------|--------------------------------------|--|--|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
| | | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| North Wall | N/A | 4, -3.3 | | 1-1-1 | | | 564.5 | 195.0 | 21.7 | 90.2 | -0.26 | -2.49 |
| " | " | 6, -3.3 | | 1-1-1 | | | 212.4 | 107.7 | 0.0 | 151.3 | -0.26 | -2.49 |
| " | " | 8, -3.3 | | 1-1-1 | | | 267.7 | 122.2 | 0.0 | 37.8 | -0.26 | 9.66 |
| " | " | 10, -3.3 | | 1-1-1 | | | 224.1 | 165.9 | 4.3 | 154.2 | -0.26 | -2.49 |
| " | " | 12, -3.3 | | 1-1-1 | | | 573.3 | 49.5 | 4.3 | 69.8 | -0.26 | 9.66 |
| " | " | 14, -3.3 | | 1-1-1 | | | 87.3 | -8.7 | 4.3 | 96.0 | -0.26 | -2.49 |
| " | " | 16, -3.3 | | 1-1-1 | | | 486.0 | 282.3 | 8.7 | 157.1 | -0.26 | -2.49 |
| East Wall | " | 2, -3.3 | | 1-1-1 | | | 261.9 | 49.5 | 8.7 | 116.4 | 7.74 | 3.59 |
| " | " | 4, -3.3 | | 1-1-1 | | | 64.0 | -66.9 | 0.0 | 160.1 | -0.26 | -2.49 |
| West Wall | " | 4, -3.3 | | 1-1-1 | | | 212.4 | 49.5 | 0.0 | -37.8 | -0.26 | -2.49 |
| " | " | 6, -3.3 | | 1-1-1 | | | 224.1 | -37.8 | 8.7 | 133.9 | -0.26 | -2.49 |
| " | " | 2, -3.3 | | 1-1-1 | | | 171.7 | -66.9 | 4.3 | 209.5 | -0.26 | -2.49 |
| Light Fixture | " | 2, -4 | | 1-1-1 | | | 293.9 | 136.8 | 21.7 | -116.4 | -0.26 | -2.49 |
| " | " | 4, -4 | | 1-1-1 | | | 276.5 | 122.2 | 30.3 | -119.3 | -0.26 | -2.49 |
| " | " | 6, -4 | | 1-1-1 | | | 96.0 | 49.5 | 30.3 | -110.6 | -0.26 | -2.49 |
| Floor | N/A | 2, -2 | | 1-1-1 | 9 | 0.010 | -56.0 | -118.3 | 3.7 | -84.0 | -0.26 | -2.49 |
| " | " | 2, -4 | | 1-1-1 | 11 | 0.010 | -143.9 | -198.3 | 2.4 | -130.3 | -0.26 | -2.49 |
| " | " | 2, -6 | | 1-1-1 | 11 | 0.010 | 10.4 | -70.4 | 2.4 | -49.6 | -0.26 | 3.59 |
| " | " | 4, -2 | | 1-1-1 | 10 | 0.010 | -11.2 | -118.3 | 7.3 | -60.0 | -0.26 | -2.49 |
| " | " | 4, -4 | | 1-1-1 | 9 | 0.010 | 13.6 | -86.4 | 9.8 | -53.6 | -0.26 | -2.49 |
| " | " | 6, -2 | | 1-1-1 | 10 | 0.015 | -115.9 | -166.3 | 1.2 | -139.9 | -0.26 | 9.66 |
| " | " | 6, -4 | | 1-1-1 | 9 | 0.010 | -38.4 | -102.3 | -2.4 | -17.5 | -0.26 | 3.41 |
| " | " | 8, -2 | | 1-1-1 | 9 | 0.010 | -82.4 | -150.3 | -2.4 | -115.9 | -0.26 | -2.49 |
| " | " | 8, -4 | | 1-1-1 | 10 | 0.010 | 18.4 | -62.4 | 3.7 | -123.1 | -0.26 | 3.59 |
| " | " | 8, -6 | | 1-1-1 | 10 | 0.015 | -80.0 | -166.3 | 0.0 | -106.4 | -0.26 | -2.49 |
| " | " | 10, -2 | | 1-1-1 | 11 | 0.010 | 16.8 | -102.3 | -1.2 | -139.7 | -0.26 | -2.49 |
| " | " | 10, -4 | | 1-1-1 | 10 | 0.015 | 16.8 | -134.3 | -2.4 | -61.6 | -0.26 | -2.49 |
| " | " | 10, -6 | | 1-1-1 | 9 | 0.010 | -179.1 | -222.3 | -3.7 | -181.5 | -0.26 | 3.59 |
| " | " | 12, -2 | | 1-1-1 | 10 | 0.010 | -64.8 | -126.3 | 0.0 | -159.1 | -0.26 | -2.49 |
| " | " | 12, -4 | | 1-1-1 | 10 | 0.010 | -56.8 | -102.3 | -1.2 | -108.7 | -0.26 | -2.49 |
| Floor | N/A | 12, -8 | | 1-1-1 | 10 | 0.010 | 8.0 | -28.0 | -4.9 | -27.2 | -0.26 | -2.49 |

TABLE 2

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 1)

| ? | ? | ? | X, Y | LOCATION | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---|---------------------|------|-----------|----------|-----------------------------------|--------------------------------------|--|--|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
| | | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| ? | SURFACE DESCRIPTION | GRID | REF POINT | CODE | | | | | | | | |
| ? | " | ? | 12, -10 | 1-1-1 | 10 | 0.010 | 48.0 | -12.0 | -1.2 | 12.0 | -0.26 | -2.49 |
| ? | " | ? | 14, -2 | 1-1-1 | 9 | 0.010 | 32.0 | -4.0 | -4.9 | -12.8 | -0.26 | 3.41 |
| ? | " | ? | 14, -6 | 1-1-1 | 10 | 0.010 | -44.0 | -72.0 | -6.1 | -25.6 | -0.26 | 3.41 |
| ? | " | ? | 14, -10 | 1-1-1 | 9 | 0.010 | 133.5 | 20.0 | -8.5 | 56.8 | -0.26 | 3.41 |
| ? | " | ? | 14, -14 | 1-1-1 | 10 | 0.010 | 28.0 | -28.0 | 4.9 | -25.6 | -0.26 | -2.49 |
| ? | " | ? | 16, -2 | 1-1-1 | 13 | 0.020 | 131.9 | 68.0 | -3.7 | 61.6 | -0.26 | 3.41 |
| ? | " | ? | 16, -6 | 1-1-1 | 13 | 0.010 | 147.9 | 68.0 | -9.8 | 100.7 | -0.26 | -2.49 |
| ? | " | ? | 16, -10 | 1-1-1 | 15 | 0.010 | 107.9 | 48.0 | -4.9 | 72.8 | -0.26 | -2.49 |
| ? | " | ? | 16, -14 | 1-1-1 | 12 | 0.020 | 68.0 | 8.0 | -8.5 | -0.8 | -0.26 | 3.41 |
| ? | North Wall | ? | 2, -1.0 | 1-1-2 | | | 75.7 | -104.8 | 0.0 | 0.0 | -0.26 | -2.49 |
| ? | East Wall | ? | 2, -1 | 1-1-2 | | | 55.3 | -75.7 | 4.3 | 17.5 | -0.26 | 3.41 |
| ? | " | ? | 4, -1 | 1-1-2 | | | 29.1 | -104.8 | -4.3 | 17.5 | -0.26 | 3.59 |
| ? | South Wall | ? | 2, -1 | 1-1-2 | | | 119.3 | 11.6 | 4.3 | 87.3 | -0.26 | 3.59 |
| ? | West Wall | ? | 2, -1 | 1-1-2 | | | 69.8 | -75.7 | 4.3 | 131.0 | -0.26 | -2.49 |
| ? | " | ? | 4, -1 | 1-1-2 | | | 64.0 | -75.7 | 0.0 | 0.0 | -0.26 | -2.49 |
| ? | " | ? | 6, -1 | 1-1-2 | | | 90.2 | -2.9 | -4.3 | 20.4 | -0.26 | 3.59 |
| ? | " | ? | 8, -1 | 1-1-2 | | | 515.1 | 69.8 | 0.0 | 395.8 | -0.26 | 3.59 |
| ? | Floor | ? | 2, -2 | 1-1-2 | 12 | 0.010 | 45.6 | -6.4 | 7.3 | 20.8 | -0.26 | 9.31 |
| ? | " | ? | 2, -4 | 1-1-2 | 12 | 0.010 | -22.4 | -46.4 | 3.7 | -35.2 | -0.26 | 3.59 |
| ? | Floor | ? | 2, -2 | 1-1-3 | 10 | 0.010 | 93.5 | 33.6 | 4.9 | 70.4 | -0.26 | -2.49 |
| ? | " | ? | 2, -4 | 1-1-3 | 9 | 0.010 | 13.6 | -22.4 | 2.4 | 8.0 | -0.26 | -2.49 |
| ? | " | ? | 4, -4 | 1-1-3 | 9 | 0.010 | 9.6 | -46.4 | 3.7 | 37.6 | -0.26 | -2.49 |
| ? | " | ? | 6, -4 | 1-1-3 | 10 | 0.010 | 13.6 | -38.4 | 6.1 | 35.2 | -0.26 | -2.49 |
| ? | South Wall | ? | 2, -1 | 1-1-4 | | | 797.3 | 547.1 | -4.3 | 494.7 | -0.26 | 9.66 |
| ? | " | ? | 4, -1 | 1-1-4 | | | 657.7 | 547.1 | -13.0 | 526.7 | -0.26 | -2.49 |
| ? | " | ? | 6, -1 | 1-1-4 | | | 742.1 | 401.6 | -13.0 | 564.5 | -0.26 | -2.49 |
| ? | " | ? | 8, -1 | 1-1-4 | | | 582.0 | 328.8 | -4.3 | 759.5 | -0.26 | -2.49 |
| ? | West Wall | ? | 2, -1 | 1-1-4 | | | 200.8 | -34.9 | -4.3 | 157.1 | -0.26 | -2.49 |
| ? | North Wall | ? | 2, -1 | 1-1-4 | | | 197.9 | 110.6 | 8.7 | 305.6 | -0.26 | -2.49 |
| ? | " | ? | 4, -1 | 1-1-4 | | | 250.3 | 37.8 | 4.3 | 122.2 | -0.26 | 3.41 |
| ? | " | ? | 6, -1 | 1-1-4 | | | 320.1 | 37.8 | 0.0 | 46.6 | -0.26 | 3.59 |

TABLE 3

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 3)

| ? | ? | ? | X, Y | LOCATION | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---|----------------------|-------|-----------|----------|-----------------------------------|--------------------------------------|--|--|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
| | | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| ? | SURFACE DESCRIPTION | GRID | REF POINT | CODE | | | | | | | | |
| ? | North Wall | ? N/A | ? 4, -2.8 | 1-3-1 | | | -81.5 | -160.1 | 4.3 | -110.6 | -0.26 | 3.41 |
| ? | " | ? " | ? 6, -2.8 | 1-3-1 | | | 34.9 | -116.4 | 0.0 | -145.5 | -0.26 | -2.49 |
| ? | Floor Tile | ? N/A | ? 3, -2 | 1-3-1 | 9 | 0.010 | 53.6 | -4.0 | 0.0 | 0.0 | -0.26 | 3.59 |
| ? | " | ? " | ? 6, -2 | 1-3-1 | 9 | 0.010 | 136.7 | 103.9 | 2.4 | 92.7 | -0.26 | -2.49 |
| ? | East Wall | ? N/A | ? 2, -1 | 1-3-2 | | | -5.8 | -96.0 | 4.3 | -20.4 | -0.26 | -2.49 |
| ? | Vent-Top of N. Wall? | " | ? 3, -1.8 | 1-3-2 | | | -69.8 | -160.1 | 30.3 | -87.3 | -0.26 | 3.59 |
| ? | Light Fixture | " | ? 3, -2 | 1-3-2 | | | -183.3 | -267.7 | 21.7 | -139.7 | -0.26 | -2.49 |
| ? | East Wall | " | ? 4, -1 | 1-3-2 | | | -46.6 | -116.4 | 0.0 | -23.3 | -0.26 | -2.49 |
| ? | " | " | ? 6, -1 | 1-3-2 | | | 180.4 | -14.6 | 13.0 | -160.1 | -0.26 | 3.41 |
| ? | Light Fixture | " | ? 3, -5 | 1-3-2 | | | 122.2 | 0.0 | 21.7 | -128.0 | -0.26 | -2.49 |
| ? | East Wall | " | ? 8, -1 | 1-3-2 | | | -17.5 | -122.2 | 8.7 | -107.7 | -0.26 | -2.49 |
| ? | Beam | " | ? 3, -7 | 1-3-2 | | | -203.7 | -349.2 | 0.0 | -346.3 | -0.26 | -2.49 |
| ? | East Wall | " | ? 10, -1 | 1-3-2 | | | -64.0 | -160.1 | 0.0 | -104.8 | -0.26 | -2.40 |
| ? | Light Fixture | " | ? 3, -9 | 1-3-2 | | | 148.4 | 43.7 | 13.0 | -157.1 | -0.26 | -2.49 |
| ? | East Wall | " | ? 9, -2 | 1-3-2 | | | 69.8 | -43.7 | 0.0 | -49.5 | -0.26 | 9.54 |
| ? | " | " | ? 7, -2 | 1-3-2 | | | -241.5 | -267.7 | 8.7 | -122.2 | -0.26 | 3.59 |
| ? | " | " | ? 5, -2 | 1-3-2 | | | 78.6 | -14.6 | 4.3 | -107.7 | -0.26 | -2.49 |
| ? | " | " | ? 3, -2 | 1-3-2 | | | 43.7 | -116.4 | 4.3 | -131.0 | -0.26 | -2.49 |
| ? | " | " | ? 1, -2 | 1-3-2 | | | 11.6 | -101.9 | 0.0 | -122.2 | -0.26 | -2.49 |
| ? | West Wall | ? N/A | ? 6, -1 | 1-3-2 | | | -49.5 | -203.7 | 8.7 | 37.8 | -0.26 | 3.41 |
| ? | Vent Top West Wall | " | ? 6, -3 | 1-3-2 | | | -37.8 | -232.8 | 8.7 | -189.2 | -0.26 | 9.66 |
| ? | North Wall | " | ? 1, -2 | 1-3-2 | | | 145.5 | 0.0 | 17.3 | -104.8 | 7.74 | -2.49 |
| ? | " | " | ? 2, -1 | 1-3-2 | | | -116.4 | -218.3 | 0.0 | -58.2 | -0.26 | 3.41 |
| ? | " | " | ? 3, -2 | 1-3-2 | | | 125.1 | -29.1 | 4.3 | -20.4 | -0.26 | -2.49 |
| ? | Floor Tile | ? N/A | ? 3, -14 | 1-3-2 | 8 | 0.010 | 60.8 | 6.4 | 6.1 | 4.8 | -0.26 | -2.49 |
| ? | " | " | ? 3, -12 | 1-3-2 | 11 | 0.010 | 80.0 | 26.4 | 9.8 | 38.4 | -0.26 | -2.49 |
| ? | " | " | ? 3, -10 | 1-3-2 | 10 | 0.010 | 53.6 | 6.4 | 0.0 | 0.0 | -0.26 | -2.49 |
| ? | " | " | ? 3, -8 | 1-3-2 | 10 | 0.020 | 28.8 | -53.6 | 3.7 | -1.6 | -0.26 | -2.49 |
| ? | " | " | ? 3, -6 | 1-3-2 | 10 | 0.020 | 37.6 | -53.6 | 7.3 | -11.2 | -0.26 | -2.49 |
| ? | " | " | ? 3, -4 | 1-3-2 | 10 | 0.010 | 72.0 | -13.6 | 1.2 | 48.0 | -0.26 | 9.31 |
| ? | " | " | ? 2, -5 | 1-3-2 | 10 | 0.010 | 159.9 | 86.4 | 0.0 | 88.7 | -0.26 | 3.41 |

TABLE 3

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 3)

| ? | ? | ? | X, Y | LOCATION | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---|----------------------|----------|-----------|----------|-----------------------------------|--------------------------------------|--|--|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
| | | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| ? | SURFACE DESCRIPTION | GRID | REF POINT | CODE | | | | | | | | |
| ? | " | " | 1, -5 | 1-3-2 | 9 | 0.020 | 83.2 | 6.4 | 4.9 | -5.6 | -0.26 | -2.49 |
| ? | " | " | 0, -5 | 1-3-2 | 10 | 0.010 | 59.2 | -13.6 | 0.0 | 31.2 | -0.26 | -2.49 |
| ? | " | " | -2, -2 | 1-3-2 | 9 | 0.010 | 123.9 | 6.4 | 0.0 | 158.3 | -0.26 | 9.66 |
| ? | " | " | -2, -4 | 1-3-2 | 9 | 0.010 | 170.3 | 126.3 | 0.0 | 132.7 | -0.26 | 3.59 |
| ? | " | " | 2, -6 | 1-3-2 | 9 | 0.010 | -20.8 | -93.5 | 7.3 | -49.6 | -0.26 | -2.49 |
| ? | " | " | 2, -8 | 1-3-2 | 9 | 0.010 | 26.4 | -13.6 | 8.5 | 0.8 | -0.26 | -2.49 |
| ? | " | " | 1, -10 | 1-3-2 | 9 | 0.010 | -44.8 | -93.5 | 2.4 | -22.4 | -0.26 | 9.31 |
| ? | " | " | 1, -12 | 1-3-2 | 8 | 0.020 | 79.2 | 26.4 | 1.2 | 17.6 | -0.26 | -2.49 |
| ? | Floor Tile | N/A | 1, -14 | 1-3-2 | 8 | 0.010 | -25.6 | -73.6 | 3.7 | -68.0 | -0.26 | -2.49 |
| ? | " | " | 3, -4 | 1-3-2 | 11 | 0.010 | 74.4 | 6.4 | 3.7 | 51.2 | -0.26 | -2.49 |
| ? | " | " | 3, -2 | 1-3-2 | 10 | 0.020 | 76.0 | 26.4 | 0.0 | 41.6 | -0.26 | -2.49 |
| ? | " | " | 1, -2 | 1-3-2 | 9 | 0.010 | 5.6 | -53.6 | 1.2 | -4.8 | -0.26 | -2.49 |
| ? | " | " | 1, -4 | 1-3-2 | 10 | 0.010 | 11.2 | -53.6 | 2.4 | 10.4 | -0.26 | -2.49 |
| ? | Floor-Painted Cement | N/A | 2, -2 | 1-3-3 | 8 | 0.010 | 147.1 | 49.6 | 4.9 | 135.1 | -0.26 | -2.49 |
| ? | " | " | 4, -2 | 1-3-3 | 8 | 0.010 | 94.3 | 9.6 | 0.0 | 103.1 | -0.26 | -2.49 |
| ? | " | " | 6, -2 | 1-3-3 | 8 | 0.010 | 88.7 | 9.6 | 1.2 | 77.6 | -0.26 | 3.59 |
| ? | North Wall | 2, -1.25 | N/A | 1-3-4 | 14 | 0.010 | 218.5 | 77.1 | -13.2 | 54.0 | -0.15 | -2.82 |
| ? | " | 4, -1.25 | " | 1-3-4 | 14 | 0.010 | 226.2 | -848.1 | -4.4 | -28.3 | -0.15 | -2.82 |
| ? | West Wall | 2, -1.25 | " | 1-3-4 | 14 | 0.010 | 591.1 | 205.6 | -4.4 | 64.3 | -0.15 | -2.82 |
| ? | " | 4, -1.25 | " | 1-3-4 | 14 | 0.010 | 621.9 | 205.6 | 0.0 | 5.1 | -0.15 | 3.28 |
| ? | " | 6, -1.25 | " | 1-3-4 | 14 | 0.010 | 344.4 | 12.9 | -8.8 | 43.7 | -0.15 | 3.28 |
| ? | East Wall | 2, -1.25 | " | 1-3-4 | 14 | 0.010 | 591.1 | 257.0 | -8.8 | 43.7 | -0.15 | -2.82 |
| ? | Floor | 2, -2 | " | 1-3-4 | 14 | 0.010 | -46.3 | -179.9 | 3.7 | -21.8 | -0.15 | -2.82 |
| ? | " | 4, -2 | " | 1-3-4 | 14 | 0.010 | 77.1 | -179.9 | 2.4 | -18.7 | -0.15 | -2.82 |
| ? | " | 2, -4 | " | 1-3-4 | 14 | 0.010 | 18.0 | -179.9 | -3.7 | -32.4 | -0.15 | -2.82 |
| ? | " | 4, -4 | " | 1-3-4 | 14 | 0.010 | 591.1 | 115.7 | -3.7 | -19.3 | -0.15 | -2.82 |
| ? | " | 2, -6 | " | 1-3-4 | 14 | 0.010 | 213.3 | 25.7 | 0.0 | 29.2 | -0.15 | 9.03 |
| ? | " | 4, -6 | " | 1-3-4 | 14 | 0.010 | 12.9 | -102.8 | -2.4 | -42.3 | -0.15 | -2.82 |
| ? | South Wall | 4, -1.25 | " | 1-3-4 | 14 | 0.010 | 372.7 | 282.7 | -13.2 | 226.2 | -0.15 | -2.82 |
| ? | North Wall | 2, -.6 | N/A | 1-3-4 | | | 448.9 | 59.3 | 0.0 | 118.7 | -0.15 | 9.39 |
| ? | West Wall | 4, -.6 | " | 1-3-4 | | | 536.6 | 239.9 | 8.8 | 183.2 | -0.15 | 3.10 |

TABLE 4

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 4)

| ? | ? | ? | X, Y | LOCATION | GAMMA SURVEY @1 METER | BETA/GAMMA SURVEY ON CONTACT | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | | |
|---|---------------------|---|------|----------|-----------------------|------------------------------|--------------|--------------|---------------------------|---------------------------|---------------------------|---------------------------|-------|-------|
| | | | | | | | MAXIMUM BETA | AVERAGE BETA | ALPHA | BETA | ALPHA | BETA | | |
| ? | SURFACE DESCRIPTION | ? | GRID | ? | REF POINT | CODE | (microR/hr) | (mR/hr) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | | |
| ? | Floor | ? | N/A | ? | 2, -2 | 1-4-1 | 15 | 0.015 | 154.3 | 127.9 | -3.7 | 133.5 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 4, -2 | 1-4-1 | 15 | 0.016 | 65.6 | 40.0 | 4.9 | 49.6 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 6, -2 | 1-4-1 | 14 | 0.009 | -73.6 | -87.9 | -22.0 | -74.4 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 4, -4 | 1-4-1 | 13 | 0.020 | 117.5 | 80.0 | 0.0 | 6.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -6 | 1-4-1 | 15 | 0.022 | -28.8 | -40.0 | 6.1 | 36.0 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 6, -4 | 1-4-1 | 15 | 0.015 | 25.0 | -8.0 | 0.0 | 30.4 | -0.26 | 9.31 |
| ? | " | ? | " | ? | 6, -6 | 1-4-1 | 15 | 0.019 | 73.6 | 40.0 | -1.2 | -4.8 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 4, -8 | 1-4-1 | 12 | 0.012 | -151.9 | -159.9 | -9.8 | -111.9 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 4, -10 | 1-4-1 | 12 | 0.014 | -151.1 | -159.9 | 13.4 | -167.1 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -8 | 1-4-1 | 12 | 0.018 | -148.7 | -159.9 | -15.9 | -159.1 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -10 | 1-4-1 | 10 | 0.011 | -169.5 | -199.9 | -7.3 | -201.5 | -0.26 | -2.49 |
| ? | Ceiling | ? | N/A | ? | 4, -2 | 1-4-1 | | | 37.8 | -157.1 | -4.3 | -110.6 | -0.26 | 7.54 |
| ? | " | ? | " | ? | 6, -2 | 1-4-1 | | | 61.1 | -98.9 | -4.3 | -113.5 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -4 | 1-4-1 | | | -139.7 | -244.4 | 0.0 | -157.1 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -4 | 1-4-1 | | | -43.7 | -215.3 | -4.3 | -72.8 | -0.26 | 3.59 |
| ? | Light Fixture | ? | " | ? | 7, -4 | 1-4-1 | | | 259.0 | 46.6 | 90.9 | 238.6 | -0.26 | 3.41 |
| ? | Ceiling | ? | " | ? | 4, -6 | 1-4-1 | | | -171.7 | -331.7 | -4.3 | -215.3 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -6 | 1-4-1 | | | -43.7 | -186.2 | -4.3 | -203.7 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -8 | 1-4-1 | | | -93.1 | -244.4 | 0.0 | -197.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -8 | 1-4-1 | | | -107.7 | -215.3 | 0.0 | -192.1 | -0.26 | -2.49 |
| ? | Main "I" Beam | ? | " | ? | @ Midpoint | 1-4-1 | | | -200.8 | -360.8 | -4.3 | -195.0 | -0.26 | -2.49 |
| ? | Ceiling | ? | " | ? | 2, -8 | 1-4-1 | | | 20.4 | -128.0 | -4.3 | -87.3 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -10 | 1-4-1 | | | 81.5 | -75.7 | 4.3 | -215.3 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 4, -10 | 1-4-1 | | | 55.3 | -66.9 | -4.3 | -75.7 | -0.26 | 3.53 |
| ? | Light Fixture | ? | " | ? | 4, -9 | 1-4-1 | | | 133.9 | -5.8 | 56.3 | -46.6 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 1, -9 | 1-4-1 | | | 52.4 | 2.9 | 168.9 | 37.8 | -0.26 | -2.49 |
| ? | West Wall | ? | N/A | ? | 3, -1 | 1-4-1 | | | 238.6 | 72.8 | 4.3 | 131.0 | 7.74 | -2.49 |
| ? | Main "I" Beam | ? | " | ? | 1, -1 | 1-4-1 | | | 52.4 | -58.2 | 8.7 | -238.6 | -0.26 | -2.49 |
| ? | West Wall | ? | " | ? | 4, -2 | 1-4-1 | | | 32.0 | -107.7 | 0.0 | -180.4 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -2 | 1-4-1 | | | 104.8 | 0.0 | 0.0 | 37.8 | -0.26 | 3.41 |
| ? | East Wall | ? | " | ? | 2, -1 | 1-4-1 | | | 305.6 | 145.5 | 8.7 | 148.4 | -0.26 | -2.49 |

TABLE 4

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 4)

| SURFACE DESCRIPTION | GRID | X, Y | REF | LOCATION | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------|----------|-----|----------|-----------------------------------|--------------------------------------|--|--|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
| | | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| " | " | 4, -1 | | 1-4-1 | | | 587.8 | 436.5 | 4.3 | 541.3 | -0.26 | -2.49 |
| " | " | 6, -1 | | 1-4-1 | | | 631.5 | 392.9 | 8.7 | 340.5 | -0.26 | -2.49 |
| East Wall | N/A | 1, -5.8 | | 1-4-1 | | | 646.0 | 439.4 | -13.0 | 369.6 | -0.26 | -2.49 |
| " | " | 4, -4.8 | | 1-4-1 | | | 675.1 | 526.7 | -8.7 | 541.3 | -0.26 | 3.59 |
| " | " | 6, -4.8 | | 1-4-1 | | | 427.8 | 323.0 | -17.3 | 442.3 | -0.26 | 3.41 |
| " | " | 7, -5.8 | | 1-4-1 | | | 477.2 | 424.9 | -17.3 | 462.7 | -0.26 | -2.49 |
| " | " | 8, -4.8 | | 1-4-1 | | | 250.3 | 46.6 | -17.3 | 66.9 | -0.26 | -2.49 |
| West Wall | " | 3, -5.8 | | 1-4-1 | | | 171.7 | 75.7 | -17.3 | 128.0 | -0.26 | -2.49 |
| " | " | 10, -4.8 | | 1-4-1 | | | 369.6 | 90.2 | -13.0 | 8.7 | -0.26 | -2.49 |
| Floor Tile | N/A | 2, -4 | | 1-4-2 | 14 | 0.020 | 59.2 | 16.8 | 0.0 | 62.4 | -0.26 | -2.49 |
| " | " | 2, -2 | | 1-4-2 | 14 | 0.010 | 134.3 | 96.7 | 3.7 | 76.8 | -0.26 | -2.49 |
| West Wall | N/A | 2, -1 | | 1-4-2 | | | 532.5 | 302.6 | -4.3 | 291.0 | -0.26 | 3.59 |
| North Wall | " | 1, -1 | | 1-4-2 | | | 337.6 | 128.0 | -4.3 | 212.4 | -0.26 | 9.66 |
| " | " | 3, 0 | | 1-4-2 | | | 357.9 | 215.3 | -4.3 | 375.4 | -0.26 | -2.49 |
| " | " | 5, -1 | | 1-4-2 | | | 395.8 | 157.1 | 4.3 | 183.3 | -0.26 | 3.59 |
| Ceiling | " | 2, -2 | | 1-4-2 | | | 107.7 | 40.7 | 4.3 | -96.0 | -0.26 | 9.31 |
| " | " | 4, -2 | | 1-4-2 | | | 197.9 | 11.6 | 0.0 | -8.7 | -0.26 | -2.49 |
| Floor Tile | N/A | 4, -3 | | 1-4-3 | 12 | 0.010 | 45.6 | -19.2 | 1.2 | -16.8 | -0.26 | -2.49 |
| " | " | 2, -3 | | 1-4-3 | 12 | 0.010 | 167.9 | 108.7 | 2.4 | 72.8 | -0.26 | -2.49 |
| " | " | 2, -1 | | 1-4-3 | 13 | 0.010 | 45.6 | -19.2 | 0.0 | 12.8 | -0.26 | -2.49 |
| " | " | 4, -1 | | 1-4-3 | 13 | 0.010 | 116.7 | 28.8 | 3.7 | 0.0 | -0.26 | -2.49 |
| Ceiling | N/A | 2, -4 | | 1-4-3 | | | -128.0 | -221.2 | -4.3 | -64.0 | -0.26 | -2.49 |
| Floor Tile | N/A | 4, -6 | | 1-4-4 | 10 | 0.020 | 40.8 | 18.4 | 3.7 | 15.2 | -0.26 | 9.31 |
| " | " | 4, -4 | | 1-4-4 | 10 | 0.010 | -7.2 | -41.6 | 0.0 | 13.6 | -0.26 | 3.41 |
| " | " | 2, -4 | | 1-4-4 | 10 | 0.020 | 74.4 | 38.4 | 7.3 | -5.6 | -0.26 | -2.49 |
| " | " | 1, -2 | | 1-4-4 | 14 | 0.020 | 117.5 | 38.4 | 7.3 | 122.3 | -0.26 | -2.49 |
| " | " | 1, -4 | | 1-4-4 | 12 | 0.020 | 111.1 | 38.4 | 3.7 | 52.0 | -0.26 | -2.49 |
| " | " | 1, -6 | | 1-4-4 | 14 | 0.020 | 31.2 | -41.6 | 0.0 | 24.8 | -0.26 | -2.49 |
| Ceiling | N/A | N/A | | 1-4-4 | | | 32.0 | -163.0 | 8.7 | -171.7 | -0.26 | -2.49 |
| Floor-(Post-decon) | 1. | " | " | 1-4-1 * | | | 1897.6 | 1478.4 | 18.4 | 2019.2 | -0.26 | -2.49 |
| " | 2. | " | " | 1-4-1 * | | | 2009.6 | 1798.4 | 96.6 | 899.2 | -0.26 | -2.49 |

TABLE 5

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 6)

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | LOCATION CODE | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | |
|---------------------|------------|----------------------|------------------|----------------------------------|---------------------------------|--|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-------|
| | | | | 1 METER SURVEY (microR/hr) | ON CONTACT SURVEY (mR/hr) | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | |
| ? | ? | ? | 4, -2 | 1-6-1 | 13 | 0.010 | 32.8 | 10.4 | 2.4 | 57.6 | -0.26 | -2.49 |
| ? | ? | ? | 2, -2 | 1-6-1 | 11 | 0.010 | 107.9 | 70.4 | 3.7 | 121.5 | 2.38 | 3.53 |
| ? | ? | ? | 2, -4 | 1-6-1 | 11 | 0.010 | 131.9 | 86.4 | 1.2 | 107.9 | -0.26 | -2.49 |
| ? | ? | ? | 4, -4 | 1-6-1 | 10 | 0.020 | 16.8 | -17.6 | 0.0 | -36.0 | -0.26 | -2.49 |
| ? | ? | ? | 2, -6 | 1-6-1 | 8 | 0.010 | 72.8 | 6.4 | 0.0 | -2.4 | -0.26 | -2.49 |
| ? | ? | ? | 4, -6 | 1-6-1 | 11 | 0.010 | 64.0 | 30.4 | 3.7 | 38.4 | -0.26 | -2.49 |
| ? | Floors | ? | -4, -10 | 1-6-2 | 12 | 0.010 | 63.2 | 20.8 | 6.1 | 32.8 | -0.26 | -2.49 |
| ? | " | ? | -2, -10 | 1-6-2 | 12 | 0.010 | 12.8 | -79.2 | 7.3 | -87.9 | -0.26 | -2.49 |
| ? | " | ? | 0, -10 | 1-6-2 | 11 | 0.010 | 102.3 | 8.8 | 3.7 | 39.2 | -0.26 | -2.49 |
| ? | " | ? | 2, -10 | 1-6-2 | 11 | 0.010 | 72.0 | 8.8 | -1.2 | 65.6 | -0.26 | 3.59 |
| ? | " | ? | 4, -10 | 1-6-2 | 12 | 0.020 | 123.9 | 64.8 | 2.4 | 17.6 | -0.26 | 9.31 |
| ? | " | ? | 4, -12 | 1-6-2 | 13 | 0.020 | 138.3 | 60.8 | 11.0 | 99.1 | -0.26 | -2.49 |
| ? | " | ? | 2, -12 | 1-6-2 | 13 | 0.020 | 63.2 | 20.8 | 2.4 | 57.6 | -0.26 | 3.41 |
| ? | " | ? | 3, -11 | 1-6-2 | 11 | 0.010 | 87.1 | 40.8 | -1.2 | 64.8 | -0.26 | -2.49 |
| ? | " | ? | 2, -8 | 1-6-2 | 13 | 0.010 | 41.6 | 20.8 | -2.4 | 85.6 | -0.26 | -2.49 |
| ? | " | ? | 3, -7 | 1-6-2 | 13 | 0.020 | 44.0 | 0.8 | 7.3 | 5.6 | -0.26 | -2.49 |
| ? | " | ? | 2, -6 | 1-6-2 | 12 | 0.020 | 125.5 | 20.8 | 1.2 | 7.2 | -0.26 | -2.49 |
| ? | " | ? | 3, -5 | 1-6-2 | 11 | 0.010 | 69.6 | 8.8 | -2.4 | 44.0 | -0.26 | -2.49 |
| ? | " | ? | 2, -4 | 1-6-2 | 12 | 0.010 | 81.6 | 20.8 | 0.0 | 41.6 | -0.26 | -2.49 |
| ? | " | ? | 3, -3 | 1-6-2 | 12 | 0.010 | 50.4 | 16.8 | 4.9 | 26.4 | -0.26 | -2.49 |
| ? | " | ? | 2, -2 | 1-6-2 | 12 | 0.010 | 114.3 | 40.8 | 2.4 | 67.2 | -0.26 | 3.59 |
| ? | Floor Tile | ? | 3, -1 | 1-6-2 | 12 | 0.020 | 44.8 | -7.2 | 3.7 | 0.0 | -0.26 | 3.59 |
| ? | Floor Tile | ? | -5, -9 | 1-6-3 | 12 | 0.010 | 72.0 | 29.6 | 4.9 | 54.4 | -0.26 | 3.59 |
| ? | " | ? | -5, -11 | 1-6-3 | 11 | 0.020 | 89.5 | 49.6 | 7.3 | 92.7 | -0.26 | 9.54 |
| ? | " | ? | -5, -13 | 1-6-3 | 14 | 0.020 | 155.9 | 97.5 | -1.2 | 127.1 | -0.26 | -2.49 |
| ? | " | ? | -3, -11 | 1-6-3 | 12 | 0.010 | 168.7 | 81.6 | 3.7 | 57.6 | -0.26 | 3.41 |
| ? | " | ? | -1, -11 | 1-6-3 | 10 | 0.020 | 84.0 | 61.6 | 0.0 | 69.6 | -0.26 | -2.49 |
| ? | " | ? | 1, -11 | 1-6-3 | 10 | 0.010 | 127.1 | 65.6 | 3.7 | 45.6 | -0.26 | -2.49 |
| ? | " | ? | 1, -9 | 1-6-3 | 12 | 0.020 | 112.7 | 73.6 | 0.0 | 103.9 | -0.26 | -2.49 |
| ? | " | ? | 1, -6 | 1-6-3 | 12 | 0.010 | 163.9 | 141.5 | 2.4 | 131.9 | -0.26 | -2.49 |
| ? | " | ? | 1, -4 | 1-6-3 | 10 | 0.010 | 218.3 | 153.5 | 1.2 | 116.7 | -0.26 | 9.66 |

TABLE 6

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 7)

| ? | ? | ? | X, Y | ? | LOCATION | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | |
|---|---------------------|---|----------|---|----------|-------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------|
| | | | | | | SURVEY | SURVEY | MAXIMUM | AVERAGE | ALPHA | BETA | ALPHA | BETA | |
| ? | SURFACE DESCRIPTION | ? | GRID | ? | REF | ? | ON CONTACT | BETA | BETA | ALPHA | BETA | ALPHA | BETA | |
| ? | ? | ? | POINT | ? | CODE | (microR/hr) | (mR/hr) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | |
| ? | Brick Tile Floor | ? | 2, -2 | ? | N/A | 1-7-1 | 15 | 0.022 | 988.1 | 735.3 | 4.9 | 731.6 | -0.15 | 3.28 |
| ? | " | ? | 2, -4 | ? | " | 1-7-1 | 15 | 0.026 | 1238.4 | 838.5 | 20.8 | 678.1 | -0.15 | -2.82 |
| ? | " | ? | 2, -6 | ? | " | 1-7-1 | 15 | 0.016 | 941.7 | 812.7 | 9.8 | 640.2 | -0.15 | 3.28 |
| ? | " | ? | 2, -8 | ? | " | 1-7-1 | 15 | 0.025 | 709.5 | 657.9 | 7.3 | 666.9 | -0.15 | 9.39 |
| ? | " | ? | 2, -10 | ? | " | 1-7-1 | 15 | 0.018 | 1264.2 | 774.0 | 4.9 | 652.6 | -0.15 | 15.49 |
| ? | " | ? | 2, -12 | ? | " | 1-7-1 | 15 | 0.014 | 952.0 | 709.5 | 3.7 | 633.3 | -0.15 | -2.82 |
| ? | " | ? | 2, -14 | ? | " | 1-7-1 | 15 | 0.011 | 892.7 | 838.5 | 13.4 | 709.8 | -0.15 | -2.82 |
| ? | " | ? | 2, -16 | ? | " | 1-7-1 | 15 | 0.011 | 1055.2 | 838.5 | 6.1 | 685.6 | -0.15 | 3.28 |
| ? | " | ? | 2, -18 | ? | " | 1-7-1 | 15 | 0.014 | 1189.4 | 941.7 | 4.9 | 548.7 | -0.15 | -2.82 |
| ? | " | ? | 2, -20 | ? | " | 1-7-1 | 15 | 0.017 | 712.1 | 554.7 | -1.2 | 675.6 | -0.15 | 3.10 |
| ? | " | ? | 2, -22 | ? | " | 1-7-1 | 15 | 0.015 | 1130.0 | 838.5 | 7.3 | 594.7 | -0.15 | 3.28 |
| ? | " | ? | 2, -24 | ? | " | 1-7-1 | 15 | 0.012 | 1073.3 | 786.9 | 1.2 | 701.1 | -0.15 | -2.82 |
| ? | " | ? | 2, -26 | ? | " | 1-7-1 | 15 | 0.018 | 892.7 | 606.3 | 9.8 | 652.6 | -0.15 | -2.82 |
| ? | " | ? | 2, -28 | ? | " | 1-7-1 | 15 | 0.020 | 1070.7 | 774.0 | 19.5 | 754.0 | -0.15 | 9.39 |
| ? | South Wall | ? | 2, -1 | ? | " | 1-7-1 | 15 | 0.022 | 165.1 | -141.9 | | -18.1 | -0.15 | 9.39 |
| ? | West Wall | ? | 4, -1.6 | ? | N/A | 1-7-1 | 15 | 0.024 | 129.0 | 12.9 | -8.3 | -141.9 | -0.15 | -2.82 |
| ? | " | ? | 6, -1.6 | ? | " | 1-7-1 | 15 | 0.004 | 554.7 | -64.5 | -8.3 | -25.8 | -0.15 | 3.28 |
| ? | " | ? | 8, -1.6 | ? | " | 1-7-1 | 15 | 0.021 | 234.8 | -90.3 | -8.3 | -198.7 | -0.15 | -2.82 |
| ? | " | ? | 12, -1.6 | ? | " | 1-7-1 | 15 | 0.014 | 314.8 | 64.5 | -8.3 | -167.7 | -0.15 | -2.82 |
| ? | " | ? | 14, -1.6 | ? | " | 1-7-1 | 15 | 0.020 | 162.5 | 64.5 | -8.3 | -121.3 | -0.15 | -2.82 |
| ? | " | ? | 16, -1.6 | ? | " | 1-7-1 | 15 | 0.024 | 492.8 | 116.1 | -8.3 | 25.8 | -0.15 | -2.82 |
| ? | " | ? | 18, -1.6 | ? | " | 1-7-1 | 15 | 0.010 | 443.8 | 141.9 | -4.1 | 61.9 | 8.05 | 3.28 |
| ? | " | ? | 20, -1.6 | ? | " | 1-7-1 | 15 | 0.021 | 263.2 | 90.3 | 4.1 | -167.7 | -0.15 | 9.39 |
| ? | " | ? | 24, -1.6 | ? | " | 1-7-1 | 15 | 0.014 | 325.1 | 12.9 | -4.1 | 18.1 | -0.15 | 3.10 |
| ? | " | ? | 26, -1.6 | ? | " | 1-7-1 | 15 | 0.010 | 167.7 | 0.0 | 4.1 | -23.2 | -0.15 | -2.82 |
| ? | " | ? | 28, -1.6 | ? | " | 1-7-1 | 15 | 0.002 | 190.9 | -38.7 | 4.1 | -123.8 | -0.15 | -2.82 |
| ? | East Wall | ? | 7, -1 | ? | " | 1-7-1 | 15 | 0.013 | -20.6 | -116.1 | -8.3 | -69.7 | -0.15 | 9.39 |

TABLE 7

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 8)

| SURFACE DESCRIPTION | GRID | X, Y | REF | LOCATION | GAMMA SURVEY @1 METER | BETA/GAMMA SURVEY ON CONTACT | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------------|-------|-----|----------|-----------------------|------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | | | | | | | MAXIMUM BETA | AVERAGE BETA | ALPHA | BETA | ALPHA | BETA |
| | | POINT | | CODE | (microR/hr) | (mR/hr) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) |
| ? North Wall | ? 2, -1.25 | ? N/A | | 1-8-1 | 13 | 0.020 | 899.5 | 205.6 | -4.4 | 161.9 | -0.15 | 3.28 |
| ? East Wall | ? 2, -1.25 | ? " | | 1-8-1 | 12 | 0.010 | 228.7 | 51.4 | -13.2 | 12.9 | -0.15 | -2.82 |
| ? West Wall | ? 4, -1.25 | ? " | | 1-8-1 | 14 | 0.020 | 1207.9 | 334.1 | -8.8 | 151.6 | -0.15 | 3.10 |
| ? Floor | ? 2, -2 | ? " | | 1-8-1 | 12 | 0.010 | 323.8 | 25.7 | 1.2 | -2.5 | -0.15 | -2.82 |
| ? " | ? 4, -2 | ? " | | 1-8-1 | 12 | 0.010 | 236.4 | -51.4 | -2.4 | -39.2 | -0.15 | -2.82 |
| ? " | ? 2, -4 | ? " | | 1-8-1 | 14 | 0.010 | 329.0 | -179.9 | -3.7 | -56.0 | 7.81 | 3.10 |
| ? " | ? 4, -4 | ? " | | 1-8-1 | 12 | 0.010 | 591.1 | -128.5 | 2.4 | -32.4 | -0.15 | 3.28 |
| ? North Wall | ? 4, -.6 | ? N/A | | 1-8-1 | | | 379.3 | 239.9 | 4.4 | 178.0 | -0.15 | -2.82 |
| ? East Wall | ? 2, -.6 | ? " | | 1-8-1 | | | 136.7 | -5.2 | -73.4 | -64.5 | -0.15 | -2.82 |
| ? " | ? 4, -.6 | ? " | | 1-8-1 | | | 214.1 | 136.7 | -71.1 | 33.5 | -0.15 | -2.82 |
| ? " | ? 6, -.6 | ? " | | 1-8-1 | | | 516.0 | 343.1 | -70.0 | 31.0 | -0.15 | -2.82 |
| ? South Wall | ? 2, -.6 | ? " | | 1-8-1 | | | 252.8 | 123.8 | -72.3 | 103.2 | -0.15 | -2.82 |
| ? " | ? 4, -.6 | ? " | | 1-8-1 | | | 1013.9 | 472.1 | -72.3 | -28.4 | -0.15 | 9.39 |
| ? West Wall | ? 2, -.6 | ? " | | 1-8-1 | | | 704.3 | 420.5 | -70.0 | 289.0 | -0.15 | 9.39 |
| ? " | ? 4, -.6 | ? " | | 1-8-1 | | | 216.7 | 98.0 | -68.9 | 33.5 | -0.15 | -2.82 |
| ? " | ? 6, -.6 | ? " | | 1-8-1 | | | 340.6 | 219.3 | -72.3 | 227.0 | -0.15 | 3.10 |
| ? Ceiling | ? 2, -2 | ? " | | 1-8-1 | | | 348.3 | 239.9 | -73.4 | -28.4 | -0.15 | 3.28 |
| ? " | ? 2, -4 | ? " | | 1-8-1 | | | 216.7 | 46.4 | -72.3 | -61.9 | -0.15 | -2.82 |
| ? " | ? 2, -6 | ? " | | 1-8-1 | | | 704.3 | 219.3 | -71.1 | -18.1 | -0.15 | 3.10 |
| ? " | ? 4, -2 | ? " | | 1-8-1 | | | 309.6 | 162.5 | -67.8 | -28.4 | -0.15 | -2.82 |
| ? " | ? 4, -4 | ? " | | 1-8-1 | | | 219.3 | 85.1 | -71.1 | -59.3 | -0.15 | 3.28 |
| ? " | ? 4, -6 | ? " | | 1-8-1 | | | 188.3 | 7.7 | -72.3 | -80.0 | -0.15 | 3.28 |
| ? North Wall | ? 2, 0 | ? N/A | | 1-8-2 | | | 506.3 | 208.2 | 4.4 | 231.3 | -0.15 | 9.39 |
| ? North Wall (#1) | ? 2, -.54 | ? N/A | | 1-8-3 | 12 | 0.010 | -406.1 | -431.8 | -8.8 | -588.5 | -0.15 | 3.28 |
| ? East Wall | ? 2, -.54 | ? " | | 1-8-3 | 12 | 0.010 | -539.7 | -688.8 | 4.4 | -683.6 | -0.15 | 9.39 |
| ? " | ? 4, -.54 | ? " | | 1-8-3 | 11 | 0.010 | -570.5 | -740.2 | 0.0 | -601.4 | -0.15 | -2.82 |
| ? North Wall (#2) | ? 2, -2 | ? " | | 1-8-3 | 13 | 0.020 | -347.0 | -483.2 | -4.4 | -586.0 | -0.15 | -2.82 |
| ? Floor | ? 2, -2 | ? " | | 1-8-3 | 14 | 0.020 | -267.3 | -560.3 | 6.1 | -115.1 | -0.15 | 3.10 |

TABLE 7

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 8)

| ? | ? | ? | X, Y | LOCATION | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | |
|---|---|---------|-----------|----------|-----------------------------------|--------------------------------------|--|--|---------------------------------|--------------------------------|---------------------------------|--------------------------------|-------|
| | | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | |
| ? | ? | ? | REF POINT | CODE | | | | | | | | | |
| ? | ? | 2, -4 | ? | " | 1-8-3 | 12 | 0.020 | -385.5 | -560.3 | 9.5 | 3.1 | 7.81 | -2.82 |
| ? | ? | 2, -6 | ? | " | 1-8-3 | 12 | 0.020 | -354.7 | -624.5 | -1.2 | 22.4 | -0.15 | -2.82 |
| ? | ? | 2, -8 | ? | " | 1-8-3 | 13 | 0.010 | -377.8 | -637.4 | 2.4 | 150.6 | -0.15 | -2.82 |
| ? | ? | 2, -10 | ? | " | 1-8-3 | 12 | 0.010 | -354.7 | -817.3 | 0.0 | -139.4 | -0.15 | 9.39 |
| ? | ? | 2, -2 | ? | N/A | 1-8-3 | | | 226.2 | -48.8 | 4.4 | -33.4 | -0.15 | 9.39 |
| ? | ? | 2, 0 | ? | " | 1-8-3 | | | 717.0 | 388.1 | 0.0 | 185.0 | -0.15 | -2.82 |
| ? | ? | 6, 0 | ? | " | 1-8-3 | | | 146.5 | 2.6 | 8.8 | 172.2 | -0.15 | -2.82 |
| ? | ? | 4, 0 | ? | " | 1-8-3 | | | 131.1 | 28.3 | 0.0 | 151.6 | 8.05 | -2.82 |
| ? | ? | 2, 0 | ? | " | 1-8-3 | | | 339.2 | 131.1 | 30.9 | 159.3 | -0.15 | 9.03 |
| ? | ? | 2, -2 | ? | " | 1-8-3 | | | 665.6 | 233.9 | 8.8 | 208.2 | -0.15 | -2.82 |
| ? | ? | 2, -2 | ? | N/A | 1-8-4 | 13 | 0.010 | -46.3 | -534.6 | 0.0 | 54.7 | -0.15 | -2.82 |
| ? | ? | 2, -.54 | ? | " | 1-8-4 | 12 | 0.010 | -547.4 | -624.5 | -8.8 | -560.3 | -0.15 | -2.82 |
| ? | ? | 2, 0 | ? | N/A | 1-8-4 | | | 1179.6 | 208.2 | -8.8 | 41.1 | -0.15 | 3.28 |
| ? | ? | 2, -.54 | ? | N/A | 1-8-2 | 12 | 0.010 | 395.8 | 169.6 | 0.0 | 197.9 | -0.15 | -2.82 |
| ? | ? | 2, -2 | ? | " | 1-8-2 | 12 | 0.010 | 439.5 | 285.3 | 1.2 | -104.5 | -0.15 | -2.82 |
| ? | ? | 2, -.54 | ? | N/A | 1-8-5 | 13 | 0.010 | -485.7 | -586.0 | 8.8 | -550.0 | -0.15 | -2.82 |
| ? | ? | 2, -2 | ? | " | 1-8-5 | 12 | 0.010 | -511.4 | -611.7 | 1.2 | 62.2 | -0.15 | -2.82 |
| ? | ? | 2, -2 | ? | N/A | 1-8-5 | | | 439.5 | 2.6 | 8.8 | 64.3 | -0.15 | -2.82 |
| ? | ? | 2, 0 | ? | " | 1-8-5 | | | 537.1 | 336.7 | 0.0 | 179.9 | -0.15 | -2.82 |
| ? | ? | 2, -.43 | ? | N/A | 1-8-6 | 15 | 0.010 | -18.0 | -197.9 | -4.4 | -239.0 | -0.15 | -2.82 |
| ? | ? | 2, -2 | ? | " | 1-8-6 | 15 | 0.010 | -128.5 | -210.7 | 0.0 | 0.0 | -0.15 | -2.82 |
| ? | ? | 4, -2 | ? | " | 1-8-6 | 15 | 0.020 | -141.4 | -262.1 | 0.0 | -8.7 | -0.15 | 9.03 |
| ? | ? | 6, -2 | ? | " | 1-8-6 | 12 | 0.010 | -185.0 | -493.4 | -2.4 | -49.1 | -0.15 | 3.28 |
| ? | ? | 2, -1.2 | ? | " | 1-8-6 | 13 | 0.010 | -123.4 | -390.6 | 0.0 | -259.6 | -0.15 | 3.10 |
| ? | ? | 0, -1.2 | ? | " | 1-8-6 | 13 | 0.010 | -159.3 | -339.2 | -4.4 | -452.3 | -0.15 | 3.28 |
| ? | ? | 2, -1.2 | ? | " | 1-8-6 | 13 | 0.010 | -313.5 | -390.6 | -4.4 | -318.7 | -0.15 | 9.39 |
| ? | ? | 4, -1.2 | ? | " | 1-8-6 | 13 | 0.010 | -493.4 | -596.2 | 8.8 | -400.9 | -0.15 | -2.82 |
| ? | ? | 2, -.7 | ? | N/A | 1-8-6 | | | 1128.2 | 23.1 | -4.4 | -41.1 | -0.15 | -2.82 |

TABLE B

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 9)

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | LOCATION CODE | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------|-------------------|------------------|-----------------------------------|---------------------------------|--|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| | | | | SURVEY @1 METER (microR/hr) | SURVEY ON CONTACT (mR/hr) | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| Floor Tile | N/A | 2, -2 | 1-9-1 | 9 | 0.010 | 55.2 | 3.2 | 8.5 | 0.0 | -0.26 | -2.49 |
| West Wall | N/A | 1, -3.8 | 1-9-1 | | | 480.2 | 186.2 | 13.0 | 113.5 | -0.26 | -2.49 |
| South Wall | " | 2, -3.8 | 1-9-1 | | | 235.7 | 98.9 | 34.6 | 58.2 | 42.01 | 9.54 |
| Floor Tile | N/A | 1, -1 | 1-9-2 | 11 | 0.010 | 13.6 | -24.0 | 0.0 | 0.0 | -0.26 | -2.49 |
| East Wall | N/A | 1, -3.8 | 1-9-2 | | | 616.9 | 462.7 | 0.0 | 509.3 | -0.26 | 3.59 |
| Floor Tile | N/A | 8, +2 | 1-9-3 | 10 | 0.010 | 103.1 | 59.2 | 4.9 | 85.6 | -0.26 | -2.49 |
| " | " | 8, 0 | 1-9-3 | 9 | 0.010 | 140.7 | 79.2 | 1.2 | 77.6 | -0.26 | 3.41 |
| " | " | 10, 0 | 1-9-3 | 10 | 0.010 | 86.4 | 39.2 | -2.4 | 83.2 | -0.26 | -2.49 |
| " | " | 12, 0 | 1-9-3 | 12 | 0.010 | 126.3 | 39.2 | 2.4 | 80.0 | 7.74 | 3.59 |
| " | " | 8, -2 | 1-9-3 | 10 | 0.010 | 84.8 | 39.2 | 3.7 | 29.6 | -0.26 | 3.41 |
| " | " | 6, -2 | 1-9-3 | 8 | 0.010 | 76.8 | 19.2 | 0.0 | 69.6 | -0.26 | -2.49 |
| " | " | 4, -2 | 1-9-3 | 9 | 0.010 | 14.4 | -40.8 | 2.4 | 18.4 | 2.38 | 3.53 |
| " | " | 2, -2 | 1-9-3 | 9 | 0.010 | 66.4 | -0.8 | 6.1 | 32.8 | -0.26 | 3.41 |
| " | " | 2, -4 | 1-9-3 | 9 | 0.010 | 90.3 | 39.2 | 1.2 | 50.4 | -0.26 | -2.49 |
| " | " | 4, -4 | 1-9-3 | 8 | 0.010 | 134.3 | 63.2 | 1.2 | 49.6 | -0.26 | -2.49 |
| " | " | 6, -4 | 1-9-3 | 8 | 0.010 | 63.2 | 19.2 | 0.0 | 66.4 | -0.26 | -2.49 |
| " | " | 6, -6 | 1-9-3 | 8 | 0.020 | 95.1 | 39.2 | -2.4 | 26.4 | -0.26 | -2.49 |
| " | " | 4, -6 | 1-9-3 | 8 | 0.010 | 68.8 | -0.8 | 1.2 | 38.4 | -0.26 | 3.41 |
| " | " | 4, -8 | 1-9-3 | 9 | 0.010 | 134.3 | 79.2 | 0.0 | 73.6 | -0.26 | 3.41 |
| " | " | 6, -8 | 1-9-3 | 9 | 0.010 | 74.4 | 79.2 | 1.2 | 18.4 | -0.26 | 3.59 |
| Floor Tile | N/A | 6, -10 | 1-9-3 | 9 | 0.010 | 68.8 | -0.8 | 1.2 | 69.6 | -0.26 | -2.49 |
| " | " | 4, -10 | 1-9-3 | 8 | 0.010 | 166.3 | 59.2 | 1.2 | 40.0 | -0.26 | 9.31 |
| " | " | 2, -10 | 1-9-3 | 9 | 0.010 | 94.3 | 59.2 | -2.4 | 55.2 | -0.26 | 3.59 |
| " | " | 2, -12 | 1-9-3 | 10 | 0.010 | 157.5 | 111.1 | 1.2 | 127.1 | -0.26 | 3.41 |
| " | " | 4, -12 | 1-9-3 | 9 | 0.010 | 108.7 | 39.2 | -4.9 | 87.1 | -0.26 | 9.66 |
| " | " | 4, -14 | 1-9-3 | 8 | 0.010 | 56.8 | -0.8 | 0.0 | -8.0 | -0.26 | -2.49 |
| " | " | 2, -14 | 1-9-3 | 9 | 0.010 | 102.3 | 59.2 | 1.2 | 127.1 | -0.26 | -2.49 |
| " | " | 2, -16 | 1-9-3 | 9 | 0.010 | 198.3 | 119.1 | 4.9 | 108.7 | -0.26 | 3.59 |
| " | " | 2, -18 | 1-9-3 | 10 | 0.010 | 175.1 | 139.1 | 0.0 | 98.3 | -0.26 | 3.59 |

TABLE 8

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 9)

| ? | ? | ? | X, Y | LOCATION | GAMMA SURVEY @1 METER (microR/hr) | BETA/GAMMA SURVEY ON CONTACT (mR/hr) | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | | | |
|---|---------------------|---|------|----------|-----------------------------------|--------------------------------------|--|--|---------------------------------|--------------------------------|---------------------------------|--------------------------------|-------|-------|
| | | | | | | | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | | |
| ? | SURFACE DESCRIPTION | ? | GRID | ? | REF POINT | ? | CODE | | | | | | | |
| ? | " | ? | " | ? | 4, -18 | 1-9-3 | 9 | 0.010 | 68.0 | 19.2 | 3.7 | 71.2 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -18 | 1-9-3 | 9 | 0.010 | 67.2 | 19.2 | 1.2 | 63.2 | 2.38 | 2.80 |
| ? | " | ? | " | ? | 6, -14 | 1-9-3 | 8 | 0.010 | 78.4 | -0.8 | 2.4 | 4.0 | -0.26 | 3.59 |
| ? | Ceiling | ? | N/A | ? | 2, -18 | 1-9-3 | | | 142.6 | -20.4 | 8.7 | 8.7 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 4, -18 | 1-9-3 | | | 174.6 | -55.3 | 4.3 | -17.5 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -18 | 1-9-3 | | | 325.9 | 110.6 | 0.0 | -64.0 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 2, -16 | 1-9-3 | | | 241.5 | -34.9 | 4.3 | 2.9 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 2, -14 | 1-9-3 | | | 8.7 | -165.9 | 4.3 | -34.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -14 | 1-9-3 | | | 98.9 | -64.0 | 0.0 | -17.5 | 7.74 | 3.59 |
| ? | " | ? | " | ? | 2, -12 | 1-9-3 | | | 218.3 | -49.5 | 4.3 | -29.1 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -12 | 1-9-3 | | | 14.6 | -151.3 | 0.0 | -66.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 4, -10 | 1-9-3 | | | 282.3 | -17.5 | 8.7 | -34.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -10 | 1-9-3 | | | 69.8 | -107.7 | 4.3 | -81.5 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 4, -8 | 1-9-3 | | | 40.7 | -107.7 | 0.0 | -17.5 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -3 | 1-9-3 | | | 136.8 | -20.4 | 0.0 | -55.3 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 6, -10 | 1-9-3 | | | 52.4 | -34.9 | 30.3 | -37.8 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -2 | 1-9-3 | | | 264.8 | 52.4 | 0.0 | 49.5 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 4, -2 | 1-9-3 | | | 72.8 | -116.4 | 4.3 | -87.3 | -0.26 | 3.59 |
| ? | Ceiling | ? | N/A | ? | 6, -2 | 1-9-3 | | | 128.0 | -34.9 | 4.3 | -23.3 | -0.26 | 3.41 |
| ? | " | ? | " | ? | 8, -2 | 1-9-3 | | | 154.2 | 8.7 | 0.0 | 37.8 | -0.26 | 9.54 |
| ? | " | ? | " | ? | 8, 0 | 1-9-3 | | | 197.9 | -49.5 | 4.3 | -34.9 | -0.26 | -2.49 |
| ? | Light Fixture | ? | " | ? | 8, 2 | 1-9-3 | | | 247.4 | 145.5 | 8.7 | 215.3 | -0.26 | -2.49 |
| ? | Ceiling | ? | " | ? | 10, 0 | 1-9-3 | | | 136.8 | -5.8 | 0.0 | 17.5 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 12, 0 | 1-9-3 | | | 360.8 | 52.4 | 8.7 | -2.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 6, -4 | 1-9-3 | | | 58.2 | -93.1 | 0.0 | -116.4 | -0.26 | -2.49 |
| ? | Floor Tile | ? | N/A | ? | 2, -6 | 1-9-4 | 9 | 0.010 | 91.1 | 49.6 | 0.0 | 101.5 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -8 | 1-9-4 | 10 | 0.010 | 173.5 | 129.5 | -2.4 | 99.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -10 | 1-9-4 | 9 | 0.010 | 79.2 | 29.6 | 3.7 | 56.8 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 2, -12 | 1-9-4 | 9 | 0.010 | 33.6 | 9.6 | 0.0 | 40.8 | -0.26 | -2.49 |

TABLE 9

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 10)

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | LOCATION CODE | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------------|----------|---------------------|------------------|-----------------------------------|---------------------------------|--|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| | | | | SURVEY @1 METER (microR/hr) | SURVEY ON CONTACT (mR/hr) | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| Floor Tile | ? 4, -2 | ? N/A | 1-10-1 | 10 | 0.010 | 232.2 | 123.8 | -4.1 | 165.1 | -0.15 | -2.82 |
| " | ? 2, -2 | ? " | 1-10-1 | 10 | 0.010 | 528.9 | 110.9 | -8.3 | 136.7 | -0.15 | 3.28 |
| " | ? 2, -4 | ? " | 1-10-1 | 10 | 0.010 | 387.0 | 98.0 | -4.1 | 98.0 | -0.15 | -2.82 |
| " | ? 6, -2 | ? " | 1-10-1 | 10 | 0.010 | 224.5 | 85.1 | -4.1 | 221.9 | -0.15 | -2.82 |
| " | ? 8, -2 | ? " | 1-10-1 | 11 | 0.010 | 376.7 | 175.4 | -4.1 | 247.7 | -0.15 | -2.82 |
| " | ? 8, -4 | ? " | 1-10-1 | 10 | 0.010 | 474.7 | 227.0 | 0.0 | 190.9 | -0.15 | -2.82 |
| " | ? 6, -4 | ? " | 1-10-1 | 10 | 0.010 | 216.7 | 59.3 | -8.3 | 74.8 | -0.15 | 3.28 |
| " | ? 4, -4 | ? " | 1-10-1 | 10 | 0.010 | 224.5 | 98.0 | -4.1 | 134.2 | -0.15 | 15.49 |
| Concrete Floor | ? 2, -2 | ? " | 1-10-2 | 15 | 0.010 | 580.5 | 206.4 | -4.1 | 227.0 | -0.15 | 3.28 |
| " | ? 2, -4 | ? " | 1-10-2 | 10 | 0.010 | 304.4 | 193.5 | 8.3 | 258.0 | -0.15 | 3.28 |
| " | ? 2, -6 | ? " | 1-10-2 | 10 | 0.010 | 276.1 | -90.3 | 0.0 | 74.8 | -0.15 | 15.49 |
| Floor tile on Concrete | ? 1, -2 | ? " | 1-10-3 | 15 | 0.010 | 219.3 | -82.6 | 0.0 | -41.3 | -0.15 | 3.28 |
| " | ? 1, -4 | ? " | 1-10-3 | 10 | 0.010 | 232.2 | 46.4 | 4.1 | 77.4 | -0.15 | 15.49 |
| " | ? 1, -6 | ? " | 1-10-3 | 18 | 0.010 | 214.1 | -43.9 | 0.0 | 12.9 | -0.15 | -2.82 |
| " | ? 1, -8 | ? " | 1-10-3 | 18 | 0.010 | 190.9 | -5.2 | 4.1 | 80.0 | -0.15 | -2.82 |
| " | ? 2, -3 | ? " | 1-10-3 | 15 | 0.010 | 2.6 | -198.7 | 0.0 | 100.6 | -0.15 | 3.28 |
| " | ? 4, -3 | ? " | 1-10-3 | 14 | 0.010 | 67.1 | -160.0 | -4.1 | -126.4 | -0.15 | 3.10 |
| " | ? 6, -3 | ? " | 1-10-3 | 11 | 0.010 | 54.2 | -95.5 | 0.0 | -28.4 | -0.15 | -2.82 |
| " | ? 8, -3 | ? " | 1-10-3 | 11 | 0.010 | 250.3 | -108.4 | -4.1 | -157.4 | 8.05 | 9.39 |
| South Wall | ? 2, -5 | ? " | 1-10-3 | 14 | 0.010 | 278.6 | -147.1 | -4.1 | 1171.3 | -0.15 | -2.82 |
| East Wall | ? 2, -2 | ? " | 1-10-3 | 18 | 0.010 | 479.9 | -43.9 | 4.1 | 49.0 | -0.15 | -2.82 |
| West Wall | ? 4, -2 | ? " | 1-10-3 | 18 | 0.010 | 430.9 | 123.8 | 4.1 | 172.9 | -0.15 | -2.82 |
| West Wall | ? 6, -2 | ? " | 1-10-3 | 18 | 0.010 | 495.4 | 98.0 | 8.3 | 170.3 | -0.15 | 3.28 |
| Floor Tile on Concrete | ? 2, -2 | ? N/A | 1-10-4 | 11 | 0.010 | 170.3 | -7.7 | -9.2 | 5.2 | -0.15 | -2.82 |
| " | ? 4, -2 | ? " | 1-10-4 | 11 | 0.010 | 245.1 | 31.0 | 4.6 | 7.7 | -0.15 | 3.28 |
| " | ? 6, -2 | ? " | 1-10-4 | 11 | 0.010 | 358.6 | 5.2 | -9.2 | 51.6 | -0.15 | -2.82 |
| " | ? 8, -2 | ? " | 1-10-4 | 11 | 0.010 | 348.3 | -7.7 | 4.6 | 28.4 | -0.15 | -2.82 |
| " | ? 10, -2 | ? " | 1-10-4 | 11 | 0.010 | 196.1 | -201.2 | 0.0 | -118.7 | -0.15 | -2.82 |
| " | ? 12, -2 | ? " | 1-10-4 | 11 | 0.010 | 170.3 | -33.5 | 4.6 | 10.3 | -0.15 | 3.10 |
| " | ? 14, -2 | ? " | 1-10-4 | 15 | 0.010 | 392.2 | 56.8 | -4.6 | 172.9 | -0.15 | -2.82 |
| " | ? 14, -4 | ? " | 1-10-4 | 18 | 0.010 | 356.0 | 108.4 | 9.2 | 154.8 | -0.15 | -2.82 |

TABLE 10

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 13)

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | LOCATION CODE | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------|----------------------|------------------|-------------------------|-----------------------|--|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| | | | | @1 METER (microR/hr) | ON CONTACT (mR/hr) | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| Floor Tile | N/A | 1, -2 | 1-13-3 | 14 | 0.020 | 43.2 | -12.0 | 3.7 | 57.6 | -0.26 | -2.49 |
| " | " | 1, -4 | 1-13-3 | 12 | 0.020 | 90.3 | 28.0 | 3.7 | -3.2 | -0.26 | 9.66 |
| " | " | 1, -6 | 1-13-3 | 13 | 0.010 | 35.2 | 0.0 | -1.2 | 24.8 | -0.26 | -2.49 |
| Floor Tile | N/A | 2, -2 | 1-13-4 | 11 | 0.020 | 72.0 | 28.0 | 0.0 | 80.0 | -0.26 | 3.41 |
| " | " | 1, -3 | 1-13-4 | 12 | 0.020 | 142.3 | 68.0 | -1.2 | 39.2 | -0.26 | 9.66 |
| " | " | 2, -4 | 1-13-4 | 12 | 0.010 | 122.3 | 68.0 | 6.1 | 79.2 | -0.26 | 3.59 |
| " | " | 2, -6 | 1-13-4 | 10 | 0.010 | 59.2 | 8.0 | -2.4 | 2.4 | -0.26 | -2.49 |
| North Wall | N/A | 2, -7 | 1-13-4 | | | 180.4 | -2.9 | -4.3 | 55.3 | -0.26 | 9.31 |
| East Wall | " | 2, -1.7 | 1-13-4 | | | 163.0 | -2.9 | -8.7 | 55.3 | -0.26 | 9.31 |
| " | " | 4, -7 | 1-13-4 | | | 340.5 | 200.8 | -4.3 | 84.4 | -0.26 | -2.49 |
| " | " | 6, -1.7 | 1-13-4 | | | 81.5 | -90.2 | 4.3 | 8.7 | -0.26 | -2.49 |
| Floor Tile | N/A | 1, -2 | 1-13-5 | 12 | 0.010 | 152.7 | 96.7 | 2.4 | 56.0 | 7.51 | 3.41 |
| " | " | 1, -4 | 1-13-5 | 13 | 0.010 | 24.8 | -23.2 | 6.1 | -11.2 | -2.49 | -2.49 |
| " | " | 1, -6 | 1-13-5 | 10 | 0.010 | 71.2 | 16.8 | -4.9 | 0.0 | -0.26 | -2.49 |
| Floor | N/A | 2, -2 | 1-13-13 | 9 | 0.010 | 157.1 | 14.6 | -13.0 | 104.8 | -0.26 | -2.49 |
| " | " | 2, -4 | 1-13-13 | 10 | 0.010 | 142.6 | -72.8 | -4.3 | 26.2 | -0.26 | -2.49 |
| " | " | 4, -2 | 1-13-13 | 8 | 0.010 | 177.5 | -14.6 | -8.7 | 37.8 | -0.26 | -2.49 |
| " | " | 4, -4 | 1-13-13 | 11 | 0.012 | -23.3 | -131.0 | -8.7 | -52.4 | -0.26 | 3.59 |
| " | " | 6, -2 | 1-13-13 | 9 | 0.010 | 221.2 | 43.7 | -8.7 | -52.4 | -0.26 | -2.49 |
| " | " | 6, -4 | 1-13-13 | 9 | 0.015 | 107.7 | 14.6 | -8.7 | 5.8 | -0.26 | -2.49 |
| " | " | 8, -2 | 1-13-13 | 10 | 0.010 | 139.7 | -43.7 | -4.3 | 37.8 | -0.26 | -2.49 |
| " | " | 8, -4 | 1-13-13 | 10 | 0.010 | -43.7 | -160.1 | 4.3 | -81.5 | -0.26 | 3.41 |
| " | " | 6, -6 | 1-13-13 | 10 | 0.010 | 160.1 | 72.8 | -4.3 | -93.1 | -0.26 | -2.49 |
| " | " | 8, -6 | 1-13-13 | 7 | 0.010 | -58.2 | -189.2 | 17.3 | -84.4 | -0.26 | -2.49 |
| " | " | 4, -8 | 1-13-13 | 9 | 0.010 | 145.5 | -14.6 | 13.0 | -2.9 | -0.26 | -2.49 |
| " | " | 6, -8 | 1-13-13 | 12 | 0.015 | 49.5 | -14.6 | -8.7 | -66.9 | 7.51 | 3.41 |
| " | " | 8, -8 | 1-13-13 | 9 | 0.010 | -20.4 | -101.9 | -13.0 | -8.7 | -0.26 | 3.41 |

TABLE 11

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 14)

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | LOCATION CODE | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------|----------------------|------------------|-----------------------------------|---------------------------------|--|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| | | | | SURVEY @1 METER (microR/hr) | SURVEY ON CONTACT (mR/hr) | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| North Wall | N/A | 2, -4 | 1-14-1 | | | 797.3 | 407.4 | 8.7 | 395.8 | -0.26 | 3.41 |
| " | " | 2, -6 | 1-14-1 | | | 381.2 | 291.0 | 8.7 | 395.8 | -0.26 | -2.49 |
| " | " | 4, -4 | 1-14-1 | | | 503.4 | 349.2 | 13.0 | 471.4 | -0.26 | 3.41 |
| " | " | 4, -6 | 1-14-1 | | | 692.6 | 203.7 | 13.0 | 288.1 | -0.26 | -2.49 |
| " | " | 6, -3 | 1-14-1 | | | 448.1 | 320.1 | 8.7 | 445.2 | 7.74 | -2.49 |
| " | " | 8, -3 | 1-14-1 | | | 462.7 | 291.0 | 30.3 | 325.9 | -0.26 | -2.49 |
| " | " | 10, -3 | 1-14-1 | | | 372.5 | 174.6 | 13.0 | 261.9 | -0.26 | -2.49 |
| " | " | 12, -3 | 1-14-1 | | | 532.5 | 349.2 | 17.3 | 416.1 | -0.26 | -2.49 |
| " | " | 14, -3 | 1-14-1 | | | 535.4 | 261.9 | 13.0 | 308.5 | -0.26 | -2.49 |
| " | " | 16, -3 | 1-14-1 | | | 483.1 | 291.0 | 30.3 | 317.2 | -0.26 | -2.49 |
| East Wall | " | 2, -3 | 1-14-1 | | | 384.1 | 203.7 | 8.7 | 261.9 | -0.26 | -2.49 |
| " | " | 4, -3 | 1-14-1 | | | 491.8 | 261.9 | 8.7 | 325.9 | -0.26 | 3.59 |
| " | " | 26, -5 | 1-14-1 | | | 346.3 | 218.3 | 8.7 | 250.3 | -0.26 | -2.49 |
| " | " | 28, -5 | 1-14-1 | | | 314.3 | 261.9 | 0.0 | 244.4 | -0.26 | 3.59 |
| " | " | 30, -5 | 1-14-1 | | | 430.7 | 363.8 | 21.7 | 395.8 | 7.74 | 3.41 |
| South Wall | N/A | 2, -5 | 1-14-1 | | | 422.0 | 407.4 | 8.7 | 544.2 | 7.74 | -2.49 |
| " | " | 4, -5 | 1-14-1 | | | 596.6 | 392.9 | 0.0 | 360.8 | -0.26 | 3.59 |
| " | " | 6, -5 | 1-14-1 | | | 520.9 | 465.6 | 0.0 | 672.2 | -0.26 | -2.49 |
| " | " | 8, -5 | 1-14-1 | | | 552.9 | 480.2 | 0.0 | 509.3 | -0.26 | 3.59 |
| " | " | 10, -5 | 1-14-1 | | | 491.8 | 465.6 | 0.0 | 576.2 | -0.26 | 3.59 |
| " | " | 12, -5 | 1-14-1 | | | 389.9 | 305.6 | 21.7 | 325.9 | -0.26 | 3.59 |
| " | " | 14, -5 | 1-14-1 | | | 451.1 | 349.2 | 4.3 | 395.8 | -0.26 | -2.49 |
| West Wall | " | 2, -5.6 | 1-14-1 | | | 410.3 | 320.1 | 0.0 | 352.1 | -0.26 | 3.41 |
| " | " | 4, -5.6 | 1-14-1 | | | 497.6 | 305.6 | 0.0 | 337.6 | -0.26 | 3.59 |
| " | " | 6, -5.6 | 1-14-1 | | | 445.2 | 247.4 | 26.0 | 293.9 | -0.26 | 9.66 |
| " | " | 26, -4 | 1-14-1 | | | 555.8 | 320.1 | 8.7 | 302.6 | -0.26 | 3.41 |
| " | " | 28, -4 | 1-14-1 | | | 471.4 | 261.9 | 4.3 | 622.7 | -0.26 | -2.49 |

TABLE 11

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 14)

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | LOCATION CODE | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---------------------|------|----------------------|------------------|-----------------------------------|---------------------------------|--|--|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| | | | | SURVEY @1 METER (microR/hr) | SURVEY ON CONTACT (mR/hr) | MAXIMUM BETA (dpm/100cm ²) | AVERAGE BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) | ALPHA (dpm/100cm ²) | BETA (dpm/100cm ²) |
| " | " | ? 28, -6 | 1-14-1 | | | 212.4 | 29.1 | 17.3 | 72.8 | -0.26 | -2.49 |
| " | " | ? 30, -4 | 1-14-1 | | | 387.0 | 320.1 | 13.0 | 314.3 | -0.26 | -2.49 |
| " | " | ? 30, -6 | 1-14-1 | | | 299.7 | 203.7 | 8.7 | 343.4 | -0.26 | 3.59 |
| Ceiling | N/A | ? 16, -28 | 1-14-1 | | | 218.3 | 61.1 | 0.0 | 37.8 | -0.26 | 3.59 |
| " | " | ? 16, -30 | 1-14-1 | | | 317.2 | 90.2 | -8.7 | 75.7 | -0.26 | -2.49 |
| " | " | ? 14, -28 | 1-14-1 | | | 392.9 | 90.2 | -4.3 | -49.5 | -0.26 | -2.49 |
| " | " | ? 14, -30 | 1-14-1 | | | 267.7 | 119.3 | -13.0 | 87.3 | -0.26 | 3.41 |
| " | " | ? 12, -26 | 1-14-1 | | | 212.4 | -26.2 | -13.0 | -14.6 | -0.26 | 3.59 |
| " | " | ? 12, -28 | 1-14-1 | | | -75.7 | -171.7 | -8.7 | -212.4 | -0.26 | 9.31 |
| " | " | ? 12, -30 | 1-14-1 | | | 131.0 | 2.9 | -8.7 | 37.8 | -0.26 | -2.49 |
| " | " | ? 10, -28 | 1-14-1 | | | 128.0 | -55.3 | 0.0 | -66.9 | -0.26 | -2.49 |
| " | " | ? 10, -30 | 1-14-1 | | | 160.1 | -5.8 | 4.3 | -20.4 | -0.26 | -2.49 |
| " | " | ? 8, -28 | 1-14-1 | | | 224.1 | 49.5 | 0.0 | 23.3 | -0.26 | 3.59 |
| " | " | ? 8, -30 | 1-14-1 | | | 311.4 | -40.7 | -4.3 | -8.7 | -0.26 | -2.49 |
| " | " | ? 6, -28 | 1-14-1 | | | 227.0 | -26.2 | 8.7 | -11.6 | -0.26 | 3.41 |
| " | " | ? 6, -30 | 1-14-1 | | | 349.2 | 148.4 | -8.7 | 43.7 | -0.26 | -2.49 |
| " | " | ? 4, -26 | 1-14-1 | | | 75.7 | -26.2 | -8.7 | -72.8 | -0.26 | -2.49 |
| " | " | ? 4, -28 | 1-14-1 | | | 218.3 | 32.0 | -4.3 | 46.6 | -0.26 | 3.59 |
| Ceiling | N/A | ? 4, -30 | 1-14-1 | | | 355.0 | 177.5 | -8.7 | 113.5 | -0.26 | -2.49 |
| " | " | ? 2, -26 | 1-14-1 | | | 1.1 | -84.4 | 4.3 | 66.9 | -0.26 | 3.59 |
| " | " | ? 2, -28 | 1-14-1 | | | 72.8 | -26.2 | 13.0 | 104.8 | 7.74 | 3.59 |
| " | " | ? 2, -30 | 1-14-1 | | | 232.8 | 61.1 | 0.0 | 98.9 | -0.26 | 3.41 |
| " | " | ? 6, -4 | 1-14-1 | | | 212.4 | -26.2 | -13.0 | 14.6 | -0.26 | 3.59 |
| " | " | ? 6, -6 | 1-14-1 | | | 133.9 | -84.4 | -13.0 | -69.8 | -0.26 | 3.41 |
| " | " | ? 8, -4 | 1-14-1 | | | 250.3 | 8.7 | -8.7 | 32.0 | -0.26 | -2.49 |
| " | " | ? 10, -6 | 1-14-1 | | | 195.0 | -55.3 | -13.0 | -26.2 | -0.26 | 3.41 |
| " | " | ? 8, -6 | 1-14-1 | | | 227.0 | -98.9 | -4.3 | -11.6 | -0.26 | -2.49 |

TABLE 11

ANALYSIS OF SURVEY RESULTS AND COMPARISON AGAINST LIMITS FOR BUILDING #5, FIRST FLOOR (SECTION 1, UNIT 14)

| ? | ? | GRID | X, Y | LOCATION | ? | REF | POINT | CODE | GAMMA | BETA/GAMMA | SCAN RESULTS | | TOTAL FIXED ACTIVITY | | REMOVABLE ACTIVITY | |
|---|---|------|------|----------|-----|-----|--------|------|-------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | | | | | | | | | SURVEY | SURVEY | MAXIMUM | AVERAGE | ALPHA | BETA | ALPHA | BETA |
| ? | ? | ? | ? | ? | ? | ? | ? | ? | @1 METER | ON CONTACT | BETA | BETA | ALPHA | BETA | ALPHA | BETA |
| ? | ? | ? | ? | ? | ? | ? | ? | ? | (microR/hr) | (mR/hr) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) | (dpm/100cm ²) |
| ? | " | ? | " | ? | 6, | -8 | 1-14-1 | | | | 154.2 | -64.0 | 0.0 | -66.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 8, | -8 | 1-14-1 | | | | 352.1 | 75.7 | -4.3 | 87.3 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 10, | -8 | 1-14-1 | | | | 145.5 | -11.6 | 4.3 | -8.7 | -0.26 | 3.59 |
| ? | " | ? | " | ? | 6, | -10 | 1-14-1 | | | | 177.5 | 2.9 | -4.3 | -2.9 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 8, | -10 | 1-14-1 | | | | 104.8 | -84.4 | 8.7 | -43.7 | -0.26 | -2.49 |
| ? | " | ? | " | ? | 10, | -10 | 1-14-1 | | | | 325.9 | 52.4 | -8.7 | 84.4 | -0.26 | -2.49 |

STATISTICAL
ANALYSIS

| | | | | | | | | |
|--|----|-------|--------|--------|--------|--------|--------|--------|
| NUMBER OF SAMPLES | 0 | 0 | 60 | 60 | 60 | 60 | 60 | 60 |
| MINIMUM | | | -75.7 | -171.7 | -13.0 | -212.4 | -0.26 | -2.49 |
| MAXIMUM | | | 797.3 | 480.2 | 30.3 | 672.2 | 7.74 | 9.66 |
| AVERAGE | | | 334.0 | 153.5 | 3.3 | 189.9 | 0.27 | 0.51 |
| STANDARD DEVIATION | | | 167.9 | 173.4 | 10.7 | 206.3 | 2.00 | 3.38 |
| LIMIT | 15 | 0.200 | 15,000 | 5,000 | 5,000 | 5,000 | 1,000 | 1,000 |
| FACTOR FOR COMPARISON OF SURVEY DATA @95% CONFIDENCE: | | | 1.672 | 1.672 | 1.672 | 1.672 | 1.672 | 1.672 |
| DATA TEST PARAMETER | | | 370.21 | 190.89 | 5.63 | 234.45 | 0.70 | 1.24 |
| "NUMBER OF SAMPLES" FACTOR | | | 87.34 | 27.94 | 466.76 | 23.32 | 500.67 | 295.80 |
| DOES DATA SATISFY LIMIT CRITERIA? | | | YES | YES | YES | YES | YES | YES |
| WERE AN ADEQUATE NUMBER OF SAMPLES TAKEN? | | | YES | YES | YES | YES | YES | YES |

TABLE 12
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 1 - BUILDING 5, FIRST FLOOR)

| LOCATION CODE | NUMBER OF SURVEY POINTS | MINIMUM VALUE | MAXIMUM VALUE | AVERAGE VALUE | STANDARD DEVIATION | UNITS |
|---|-------------------------|---------------|---------------|---------------|--------------------|-------------------------|
| ** SURVEY TYPE = GAMMA DOSERATE AT 1 METER FROM SURFACE | | | | | | |
| 01 -01 | 41 | 9.000 | 17.000 | 10.900 | 1.920 | MicroR/hour |
| 01 -03 | 38 | 8.000 | 14.000 | 10.870 | 2.370 | MicroR/hour |
| 01 -04 | 23 | 10.000 | 15.000 | 12.870 | 1.700 | MicroR/hour |
| 01 -06 | 35 | 8.000 | 14.000 | 11.540 | 1.200 | MicroR/hour |
| 01 -07 | 30 | 15.000 | 15.000 | 15.000 | 0.000 | MicroR/hour |
| 01 -08 | 30 | 11.000 | 15.000 | 12.770 | 1.020 | MicroR/hour |
| 01 -09 | 33 | 8.000 | 12.000 | 9.090 | 0.900 | MicroR/hour |
| 01 -10 | 37 | 10.000 | 18.000 | 12.950 | 2.920 | MicroR/hour |
| 01 -13 | 27 | 7.000 | 14.000 | 10.410 | 1.620 | MicroR/hour |
| ** Subtotal ** | | | | | | |
| | 294 | | | | | |
| ** SURVEY TYPE = BETA/GAMMA DOSERATE ON CONTACT WITH SURFACE | | | | | | |
| 01 -01 | 41 | 0.010 | 0.020 | 0.012 | 0.003 | MilliRem/hour |
| 01 -03 | 38 | 0.010 | 0.020 | 0.011 | 0.003 | MilliRem/hour |
| 01 -04 | 23 | 0.009 | 0.022 | 0.015 | 0.004 | MilliRem/hour |
| 01 -06 | 35 | 0.010 | 0.020 | 0.013 | 0.005 | MilliRem/hour |
| 01 -07 | 30 | 0.002 | 0.026 | 0.016 | 0.006 | MilliRem/hour |
| 01 -08 | 30 | 0.010 | 0.020 | 0.012 | 0.004 | MilliRem/hour |
| 01 -09 | 33 | 0.010 | 0.020 | 0.010 | 0.002 | MilliRem/hour |
| 01 -10 | 37 | 0.010 | 0.010 | 0.010 | 0.000 | MilliRem/hour |
| 01 -13 | 27 | 0.010 | 0.020 | 0.012 | 0.004 | MilliRem/hour |
| ** Subtotal ** | | | | | | |
| | 294 | | | | | |
| ** SURVEY TYPE = MAXIMUM - BETA SCAN OF SURFACE NEAR SURVEY POINT | | | | | | |
| 01 -01 | 74 | -179.100 | 797.300 | 138.400 | 198.700 | DPM/100 cm ² |
| 01 -03 | 69 | -241.500 | 621.900 | 115.900 | 187.700 | DPM/100 cm ² |
| 01 -04 | 72 | -321.600 | 2182.400 | 213.600 | 472.000 | DPM/100 cm ² |
| 01 -06 | 35 | 12.800 | 218.300 | 90.300 | 45.500 | DPM/100 cm ² |
| 01 -07 | 30 | -20.600 | 1264.200 | 593.300 | 419.900 | DPM/100 cm ² |
| 01 -08 | 65 | -570.500 | 1207.900 | 185.400 | 449.500 | DPM/100 cm ² |
| 01 -09 | 63 | 8.700 | 616.900 | 138.400 | 106.900 | DPM/100 cm ² |
| 01 -10 | 37 | 2.600 | 712.100 | 310.600 | 154.200 | DPM/100 cm ² |
| 01 -13 | 31 | -58.200 | 340.500 | 106.400 | 86.800 | DPM/100 cm ² |
| 01 -14 | 60 | -75.700 | 797.300 | 334.000 | 167.900 | DPM/100 cm ² |
| ** Subtotal ** | | | | | | |
| | 536 | | | | | |
| ** SURVEY TYPE = AVERAGE - BETA SCAN OF SURFACE NEAR SURVEY POINT | | | | | | |
| 01 -01 | 74 | -222.300 | 547.100 | 16.600 | 143.400 | DPM/100 cm ² |
| 01 -03 | 69 | -848.100 | 282.700 | -38.600 | 159.800 | DPM/100 cm ² |
| 01 -04 | 72 | -393.600 | 1952.000 | 96.100 | 429.600 | DPM/100 cm ² |
| 01 -06 | 35 | -79.200 | 153.500 | 38.300 | 43.300 | DPM/100 cm ² |
| 01 -07 | 30 | -193.500 | 941.700 | 350.900 | 398.900 | DPM/100 cm ² |

TABLE 12
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 1 - BUILDING 5, FIRST FLOOR)

| LOCATION CODE | NUMBER OF SURVEY POINTS | MINIMUM VALUE | MAXIMUM VALUE | AVERAGE VALUE | STANDARD DEVIATION | UNITS |
|---|-------------------------|---------------|---------------|---------------|--------------------|-------------------------|
| 01 -08 | 65 | -817.300 | 472.100 | -102.600 | 334.200 | DPM/100 cm ² |
| 01 -09 | 63 | -165.900 | 462.700 | 23.700 | 89.400 | DPM/100 cm ² |
| 01 -10 | 37 | -201.200 | 304.400 | 39.300 | 123.800 | DPM/100 cm ² |
| 01 -13 | 31 | -189.200 | 200.800 | -6.900 | 75.500 | DPM/100 cm ² |
| 01 -14 | 60 | -171.700 | 480.200 | 153.500 | 173.400 | DPM/100 cm ² |
| ** Subtotal ** | | | | | | |
| 536 | | | | | | |
| ** SURVEY TYPE = FIXED ALPHA SURVEY AT SURVEY POINT | | | | | | |
| 01 -01 | 74 | -13.000 | 30.300 | 2.100 | 7.800 | DPM/100 cm ² |
| 01 -03 | 69 | -13.200 | 30.300 | 3.700 | 7.300 | DPM/100 cm ² |
| 01 -04 | 67 | -22.000 | 243.800 | 11.500 | 42.200 | DPM/100 cm ² |
| 01 -06 | 35 | -2.400 | 11.000 | 3.100 | 3.400 | DPM/100 cm ² |
| 01 -07 | 29 | -8.300 | 20.800 | 1.300 | 8.500 | DPM/100 cm ² |
| 01 -08 | 65 | -73.400 | 30.900 | -14.700 | 30.400 | DPM/100 cm ² |
| 01 -09 | 63 | -4.900 | 34.600 | 2.900 | 6.400 | DPM/100 cm ² |
| 01 -10 | 37 | -9.200 | 9.200 | 0.100 | 5.200 | DPM/100 cm ² |
| 01 -13 | 31 | -13.000 | 17.300 | -1.800 | 6.900 | DPM/100 cm ² |
| 01 -14 | 60 | -13.000 | 30.300 | 3.300 | 10.700 | DPM/100 cm ² |
| ** Subtotal ** | | | | | | |
| 530 | | | | | | |
| ** SURVEY TYPE = FIXED BETA SURVEY AT SURVEY POINT | | | | | | |
| 01 -01 | 74 | -181.500 | 759.500 | 51.100 | 167.500 | DPM/100 cm ² |
| 01 -03 | 69 | -346.300 | 226.200 | -9.200 | 98.100 | DPM/100 cm ² |
| 01 -04 | 67 | -238.600 | 2230.400 | 119.000 | 414.200 | DPM/100 cm ² |
| 01 -06 | 35 | -87.900 | 131.900 | 55.900 | 47.300 | DPM/100 cm ² |
| 01 -07 | 30 | -221.900 | 754.000 | 270.300 | 377.100 | DPM/100 cm ² |
| 01 -08 | 65 | -683.600 | 289.000 | -56.300 | 229.600 | DPM/100 cm ² |
| 01 -09 | 63 | -116.400 | 509.300 | 38.400 | 84.800 | DPM/100 cm ² |
| 01 -10 | 37 | -157.400 | 1171.300 | 128.000 | 224.400 | DPM/100 cm ² |
| 01 -13 | 31 | -93.100 | 104.800 | 16.700 | 53.400 | DPM/100 cm ² |
| 01 -14 | 60 | -212.400 | 672.200 | 189.900 | 206.300 | DPM/100 cm ² |
| ** Subtotal ** | | | | | | |
| 531 | | | | | | |
| ** SURVEY TYPE = REMOVABLE ALPHA SMEAR SURVEY AT SURVEY POINT | | | | | | |
| 01 -01 | 74 | -0.260 | 7.740 | -0.160 | 0.920 | DPM/100 cm ² |
| 01 -03 | 69 | -0.260 | 8.050 | 0.010 | 1.360 | DPM/100 cm ² |
| 01 -04 | 71 | -0.260 | 7.740 | 0.040 | 1.450 | DPM/100 cm ² |
| 01 -06 | 35 | -0.260 | 2.380 | -0.190 | 0.440 | DPM/100 cm ² |
| 01 -07 | 30 | -0.150 | 8.050 | 0.120 | 1.470 | DPM/100 cm ² |
| 01 -08 | 65 | -0.150 | 8.050 | 0.220 | 1.690 | DPM/100 cm ² |
| 01 -09 | 63 | -0.260 | 42.010 | 0.740 | 5.440 | DPM/100 cm ² |
| 01 -10 | 37 | -0.150 | 8.050 | 0.070 | 1.330 | DPM/100 cm ² |
| 01 -13 | 31 | -2.490 | 7.510 | 0.170 | 1.970 | DPM/100 cm ² |

TABLE 12
SUMMARY OF SURVEY RESULTS
(SURVEY SECTION 1 - BUILDING 5, FIRST FLOOR)

| LOCATION CODE | NUMBER OF SURVEY POINTS | MINIMUM VALUE | MAXIMUM VALUE | AVERAGE VALUE | STANDARD DEVIATION | UNITS |
|--|-------------------------|---------------|---------------|---------------|--------------------|-------------------------|
| 01 -14 | 60 | -0.260 | 7.740 | 0.270 | 2.000 | DPM/100 cm ² |
| ** Subtotal ** | 535 | | | | | |
| ** SURVEY TYPE = REMOVABLE BETA SMEAR SURVEY AT SURVEY POINT | | | | | | |
| 01 -01 | 74 | -2.490 | 9.660 | 0.380 | 4.010 | DPM/100 cm ² |
| 01 -03 | 69 | -2.820 | 9.660 | -0.070 | 4.010 | DPM/100 cm ² |
| 01 -04 | 71 | -2.490 | 9.660 | 0.040 | 3.630 | DPM/100 cm ² |
| 01 -06 | 35 | -2.490 | 9.660 | -0.090 | 3.850 | DPM/100 cm ² |
| 01 -07 | 30 | -2.820 | 15.490 | 1.640 | 5.210 | DPM/100 cm ² |
| 01 -08 | 65 | -2.820 | 9.390 | 0.530 | 4.390 | DPM/100 cm ² |
| 01 -09 | 63 | -2.490 | 9.660 | 0.740 | 3.670 | DPM/100 cm ² |
| 01 -10 | 37 | -2.820 | 15.490 | 0.800 | 5.390 | DPM/100 cm ² |
| 01 -14 | 60 | -2.490 | 9.660 | 0.510 | 3.380 | DPM/100 cm ² |
| 03 -13 | 31 | -2.490 | 9.660 | 1.170 | 4.730 | DPM/100 cm ² |
| ** Subtotal ** | 535 | | | | | |
| ** Total *** | 3791 | | | | | |

TABLE 13
SUMMARY OF RADIOLOGICAL SCAN DATA
(BUILDING 5, FIRST FLOOR, SURVEY SECTION 1)

| LOCATION CODE | SURFACE DESCRIPTION | EST % SCANNED | BETA SCAN SURVEY | | ACCEPTANCE CRITERIA | | UNITS | % OF ACCEPTANCE CRITERIA | |
|---------------|---------------------|---------------|------------------|---------|---------------------|---------|-------------------------|--------------------------|---------|
| | | | MAXIMUM | AVERAGE | MAXIMUM | AVERAGE | | MAXIMUM | AVERAGE |
| 1-1-1 | Floor | 80% | 292 | 148 | 15,000 | 5,000 | DPM/100 cm ² | 1.95% | 2.96% |
| 1-1-2 | Floor | 100% | 74 | 14 | 15,000 | 5,000 | DPM/100 cm ² | 0.49% | 0.27% |
| 1-1-3 | Floor | 60% | 134 | 34 | 15,000 | 5,000 | DPM/100 cm ² | 0.89% | 0.67% |
| 1-1-4 | Floor | 60% | 177 | -23 | 15,000 | 5,000 | DPM/100 cm ² | 1.18% | -0.46% |
| 1-1-5 | Floor | 60% | 146 | 22 | 15,000 | 5,000 | DPM/100 cm ² | 0.98% | 0.45% |
| 1-3-1 | Floor tile | 50% | 143 | 26 | 15,000 | 5,000 | DPM/100 cm ² | 0.95% | 0.53% |
| 1-3-2 | Floor tile | 100% | 199 | 6 | 15,000 | 5,000 | DPM/100 cm ² | 1.33% | 0.13% |
| 1-3-3 | Floor tile | 50% | 263 | 26 | 15,000 | 5,000 | DPM/100 cm ² | 1.75% | 0.53% |
| 1-3-4 | Tile on concrete | 90% | 395 | 90 | 15,000 | 5,000 | DPM/100 cm ² | 2.63% | 1.80% |
| 1-4-1 | Tile and concrete | 70% | 56 | -15 | 15,000 | 5,000 | DPM/100 cm ² | 0.38% | -0.30% |
| 1-4-3 | Floor tile | 60% | 453 | 196 | 15,000 | 5,000 | DPM/100 cm ² | 3.02% | 3.92% |
| 1-4-4 | Floor tile | 60% | 118 | 4 | 15,000 | 5,000 | DPM/100 cm ² | 0.78% | 0.08% |
| 1-5-2 | Tile on concrete | 60% | 353 | 152 | 15,000 | 5,000 | DPM/100 cm ² | 2.35% | 3.05% |
| 1-5-3 | Tile on concrete | 60% | 91 | 3 | 15,000 | 5,000 | DPM/100 cm ² | 0.61% | 0.06% |
| 1-6-1 | Floor tile | 60% | 165 | 70 | 15,000 | 5,000 | DPM/100 cm ² | 1.10% | 1.41% |
| 1-6-2 | Floor tile | 40% | 240 | 102 | 15,000 | 5,000 | DPM/100 cm ² | 1.60% | 2.05% |
| 1-6-3 | Tile on concrete | 80% | 268 | 90 | 15,000 | 5,000 | DPM/100 cm ² | 1.79% | 1.80% |
| 1-7-1 | Brick tile | 70% | 283 | -47 | 15,000 | 5,000 | DPM/100 cm ² | 1.89% | -0.93% |
| 1-8-1 | Tile on concrete | 90% | 264 | 0 | 15,000 | 5,000 | DPM/100 cm ² | 1.76% | 0.00% |
| 1-8-2 | Carpet on concrete | 80% | 193 | -3 | 15,000 | 5,000 | DPM/100 cm ² | 1.29% | -0.06% |
| 1-8-3 | Carpet on concrete | 90% | 463 | 140 | 15,000 | 5,000 | DPM/100 cm ² | 3.09% | 2.80% |
| 1-8-4 | Carpet on concrete | 100% | 348 | 215 | 15,000 | 5,000 | DPM/100 cm ² | 2.32% | 4.29% |
| 1-8-5 | Concrete | 100% | 370 | 152 | 15,000 | 5,000 | DPM/100 cm ² | 2.47% | 3.05% |
| 1-8-6 | Tile on concrete | 80% | 202 | 44 | 15,000 | 5,000 | DPM/100 cm ² | 1.35% | 0.87% |
| 1-9-1 | Tile on concrete | 50% | 954 | -3 | 15,000 | 5,000 | DPM/100 cm ² | 6.36% | -0.06% |
| 1-9-2 | Tile on concrete | 60% | 39 | -96 | 15,000 | 5,000 | DPM/100 cm ² | 0.26% | -1.93% |
| 1-9-3 | Tile on concrete | 75% | 207 | -34 | 15,000 | 5,000 | DPM/100 cm ² | 1.38% | -0.68% |
| 1-9-4 | Floor tile | 50% | 215 | 90 | 15,000 | 5,000 | DPM/100 cm ² | 1.43% | 1.79% |
| 1-10-1 | Tile on concrete | 70% | 201 | 18 | 15,000 | 5,000 | DPM/100 cm ² | 1.34% | 0.36% |
| 1-10-3 | Tile on concrete | 80% | 233 | 121 | 15,000 | 5,000 | DPM/100 cm ² | 1.55% | 2.43% |
| 1-10-4 | Tile on concrete | 70% | 220 | 56 | 15,000 | 5,000 | DPM/100 cm ² | 1.46% | 1.13% |
| 1-10-5 | Tile on concrete | 80% | 140 | 26 | 15,000 | 5,000 | DPM/100 cm ² | 0.93% | 0.52% |

TABLE 15
SUMMARY OF RADIOLOGICAL SCAN DATA
(BUILDING 5, FIRST FLOOR, SURVEY SECTION 1)

| LOCATION CODE | SURFACE DESCRIPTION | EST % SCANNED | BETA SCAN SURVEY | | ACCEPTANCE CRITERIA | | UNITS | % OF ACCEPTANCE CRITERIA | |
|---------------|---------------------|---------------|------------------|---------|---------------------|---------|-------------------------|--------------------------|---------|
| | | | MAXIMUM | AVERAGE | MAXIMUM | AVERAGE | | MAXIMUM | AVERAGE |
| 1-1-1 | Floor | 80% | 292 | 148 | 15,000 | 5,000 | DPM/100 cm ² | 1.95% | 2.96% |
| 1-1-2 | Floor | 100% | 74 | 14 | 15,000 | 5,000 | DPM/100 cm ² | 0.49% | 0.27% |
| 1-1-3 | Floor | 60% | 134 | 34 | 15,000 | 5,000 | DPM/100 cm ² | 0.89% | 0.67% |
| 1-1-4 | Floor | 60% | 177 | -23 | 15,000 | 5,000 | DPM/100 cm ² | 1.18% | -0.46% |
| 1-1-5 | Floor | 60% | 146 | 22 | 15,000 | 5,000 | DPM/100 cm ² | 0.98% | 0.45% |
| 1-3-1 | Floor tile | 50% | 143 | 26 | 15,000 | 5,000 | DPM/100 cm ² | 0.95% | 0.53% |
| 1-3-2 | Floor tile | 100% | 199 | 6 | 15,000 | 5,000 | DPM/100 cm ² | 1.33% | 0.13% |
| 1-3-3 | Floor tile | 50% | 263 | 26 | 15,000 | 5,000 | DPM/100 cm ² | 1.75% | 0.53% |
| 1-3-4 | Tile on concrete | 90% | 395 | 90 | 15,000 | 5,000 | DPM/100 cm ² | 2.63% | 1.80% |
| 1-4-1 | Tile and concrete | 70% | 56 | -15 | 15,000 | 5,000 | DPM/100 cm ² | 0.38% | -0.30% |
| 1-4-3 | Floor tile | 60% | 453 | 196 | 15,000 | 5,000 | DPM/100 cm ² | 3.02% | 3.92% |
| 1-4-4 | Floor tile | 60% | 118 | 4 | 15,000 | 5,000 | DPM/100 cm ² | 0.78% | 0.08% |
| 1-5-2 | Tile on concrete | 60% | 353 | 152 | 15,000 | 5,000 | DPM/100 cm ² | 2.35% | 3.05% |
| 1-5-3 | Tile on concrete | 60% | 91 | 3 | 15,000 | 5,000 | DPM/100 cm ² | 0.61% | 0.06% |
| 1-6-1 | Floor tile | 60% | 165 | 70 | 15,000 | 5,000 | DPM/100 cm ² | 1.10% | 1.41% |
| 1-6-2 | Floor tile | 40% | 240 | 102 | 15,000 | 5,000 | DPM/100 cm ² | 1.60% | 2.05% |
| 1-6-3 | Tile on concrete | 80% | 268 | 90 | 15,000 | 5,000 | DPM/100 cm ² | 1.79% | 1.80% |
| 1-7-1 | Brick tile | 70% | 283 | -47 | 15,000 | 5,000 | DPM/100 cm ² | 1.89% | -0.93% |
| 1-8-1 | Tile on concrete | 90% | 264 | 0 | 15,000 | 5,000 | DPM/100 cm ² | 1.76% | 0.00% |
| 1-8-2 | Carpet on concrete | 80% | 193 | -3 | 15,000 | 5,000 | DPM/100 cm ² | 1.29% | -0.06% |
| 1-8-3 | Carpet on concrete | 90% | 463 | 140 | 15,000 | 5,000 | DPM/100 cm ² | 3.09% | 2.80% |
| 1-8-4 | Carpet on concrete | 100% | 348 | 215 | 15,000 | 5,000 | DPM/100 cm ² | 2.32% | 4.29% |
| 1-8-5 | Concrete | 100% | 370 | 152 | 15,000 | 5,000 | DPM/100 cm ² | 2.47% | 3.05% |
| 1-8-6 | Tile on concrete | 80% | 202 | 44 | 15,000 | 5,000 | DPM/100 cm ² | 1.35% | 0.87% |
| 1-9-1 | Tile on concrete | 50% | 954 | -3 | 15,000 | 5,000 | DPM/100 cm ² | 6.36% | -0.06% |
| 1-9-2 | Tile on concrete | 60% | 39 | -96 | 15,000 | 5,000 | DPM/100 cm ² | 0.26% | -1.93% |
| 1-9-3 | Tile on concrete | 75% | 207 | -34 | 15,000 | 5,000 | DPM/100 cm ² | 1.38% | -0.68% |
| 1-9-4 | Floor tile | 50% | 215 | 90 | 15,000 | 5,000 | DPM/100 cm ² | 1.43% | 1.79% |
| 1-10-1 | Tile on concrete | 70% | 201 | 18 | 15,000 | 5,000 | DPM/100 cm ² | 1.34% | 0.36% |
| 1-10-3 | Tile on concrete | 80% | 233 | 121 | 15,000 | 5,000 | DPM/100 cm ² | 1.55% | 2.43% |
| 1-10-4 | Tile on concrete | 70% | 220 | 56 | 15,000 | 5,000 | DPM/100 cm ² | 1.46% | 1.13% |
| 1-10-5 | Tile on concrete | 80% | 140 | 26 | 15,000 | 5,000 | DPM/100 cm ² | 0.93% | 0.52% |

APPENDIX A

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 1

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 0 | * | ESP2:1588-L | 34.3% | 2.91 | 283 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/11/93 |
| COUNT DATE: 3/16/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SNEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall | N/A | 4, -3.3 | N/A | N/A | 477 | 350 | 5 | 314 | -0.264 | -2.49 | Concrete Block |
| " | " | 6, -3.3 | " | " | 356 | 320 | 0 | 335 | -0.264 | -2.49 | " |
| " | " | 8, -3.3 | " | " | 375 | 325 | 0 | 296 | -0.264 | 9.66 | " |
| " | " | 10, -3.3 | " | " | 360 | 340 | 1 | 336 | -0.264 | -2.49 | " |
| " | " | 12, -3.3 | " | " | 480 | 300 | 1 | 307 | -0.264 | 9.66 | " |
| " | " | 14, -3.3 | " | " | 313 | 280 | 1 | 316 | -0.264 | -2.49 | " |
| " | " | 16, -3.3 | " | " | 450 | 380 | 2 | 337 | -0.264 | -2.49 | " |
| East Wall | " | 2, -3.3 | " | " | 373 | 300 | 2 | 323 | 7.741 | 3.59 | " |
| " | " | 4, -3.3 | " | " | 305 | 260 | 0 | 338 | -0.264 | -2.49 | " |
| West Wall | " | 4, -3.3 | " | " | 356 | 300 | 0 | 270 | -0.264 | -2.49 | " |
| " | " | 6, -3.3 | " | " | 360 | 270 | 2 | 329 | -0.264 | -2.49 | " |
| " | " | 2, -3.3 | " | " | 342 | 260 | 1 | 355 | -0.264 | -2.49 | " |
| Light Fixture | " | 2, -4 | " | " | 384 | 330 | 5 | 243 | -0.264 | -2.49 | " |
| " | " | 4, -4 | " | " | 378 | 325 | 7 | 242 | -0.264 | -2.49 | " |
| " | " | 6, -4 | " | " | 316 | 300 | 7 | 245 | -0.264 | -2.49 | " |

FORM SERIAL #: 1-031
(Survey Section - Sequential survey #)

LOCATION # 1-1-1
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: IV
(Group I, II, III, IV)

DISK FILE CODE: FDS-0345

SURVEYOR SIGNATURE: TS/MS

[Handwritten Signature]


| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:447B | 18.5% | 5.4 | | | PAC4G:447B | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 4 | * | FLMON:91943 | 28.8% | 3.47 | 1308 |

SURVEY DATE: 3/11/93
 COUNT DATE: 3/16/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor | N/A | 2, -2 | 9 | .01 | 1238 | 1160 | 7 | 1203 | -0.264 | -2.49 | |
| " | " | 2, -4 | 11 | .01 | 1128 | 1060 | 6 | 1145 | -0.264 | -2.49 | |
| " | " | 2, -6 | 11 | .01 | 1321 | 1220 | 6 | 1246 | -0.264 | 3.59 | |
| " | " | 4, -2 | 10 | .01 | 1294 | 1160 | 10 | 1233 | -0.264 | -2.49 | |
| " | " | 4, -4 | 9 | .01 | 1325 | 1200 | 12 | 1241 | -0.264 | -2.49 | |
| " | " | 6, -2 | 10 | .015 | 1163 | 1100 | 5 | 1133 | -0.264 | 9.66 | |
| " | " | 6, -4 | 9 | .01 | 1260 | 1180 | 2 | 1086 | -0.264 | 3.41 | |
| " | " | 8, -2 | 9 | .01 | 1205 | 1120 | 2 | 1163 | -0.264 | -2.49 | |
| " | " | 8, -4 | 10 | .01 | 1331 | 1230 | 7 | 1154 | -0.264 | 3.59 | |
| " | " | 8, -6 | 10 | .015 | 1208 | 1100 | 4 | 1175 | -0.264 | -2.49 | |
| " | " | 10, -2 | 11 | .01 | 1329 | 1180 | 3 | 1133 | -0.264 | -2.49 | |
| " | " | 10, -4 | 10 | .015 | 1329 | 1140 | 2 | 1231 | -0.264 | -2.49 | |
| " | " | 10, -6 | 9 | .01 | 1084 | 1030 | 1 | 1081 | -0.264 | 3.59 | |
| " | " | 12, -2 | 10 | .01 | 1227 | 1150 | 4 | 1109 | -0.264 | -2.49 | |
| " | " | 12, -4 | 10 | .01 | 1237 | 1180 | 3 | 1172 | -0.264 | -2.49 | |

| | | | | |
|--|--|---|--------------------------|---|
| FORM SERIAL #: 1-035 (Survey Section - Sequential survey #) | LOCATION # 1-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0354 | SURVEYOR SIGNATURE:  |
|--|--|---|--------------------------|---|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 13.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 11 | * | FLMON:91943 | 28.8% | 3.47 | 1115 |

| |
|----------------------|
| SURVEY DATE: 3/16/93 |
| COUNT DATE: 3/16/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor | N/A | 12, -8 | 10 | .01 | 1125 | 1080 | 7 | 1081 | -0.264 | -2.49 | |
| " | " | 12, -10 | 10 | .01 | 1175 | 1100 | 10 | 1130 | -0.264 | -2.49 | |
| " | " | 14, -2 | 9 | .01 | 1155 | 1110 | 7 | 1099 | -0.264 | 3.41 | |
| " | " | 14, -6 | 10 | .01 | 1060 | 1025 | 6 | 1083 | -0.264 | 3.41 | |
| " | " | 14, -10 | 9 | .01 | 1282 | 1140 | 4 | 1186 | -0.264 | 3.41 | |
| " | " | 14, -14 | 10 | .01 | 1150 | 1080 | 15 | 1083 | -0.264 | -2.49 | |
| " | " | 16, -2 | 13 | .02 | 1280 | 1200 | 8 | 1192 | -0.264 | 3.41 | |
| " | " | 16, -6 | 13 | .01 | 1300 | 1200 | 3 | 1241 | -0.264 | -2.49 | |
| " | " | 16, -10 | 15 | .01 | 1250 | 1175 | 7 | 1206 | -0.264 | -2.49 | |
| " | " | 16, -14 | 12 | .02 | 1200 | 1125 | 4 | 1114 | -0.264 | 3.41 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|--------------------------|--|
| FORM SERIAL #: 1-035 (Survey Section - Sequential survey #) | LOCATION # 1-1-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group 1, II, III, IV) | DISK FILE CODE: FDS-0355 | SURVEYOR SIGNATURE: <i>[Signature]</i> |
|--|--|---|--------------------------|--|

LB5100W Low Background Counting System - Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 1435

Batch ID: 1SB-1-1-1 walls and floor

Crosstalk Correction: Not Applied

Beta efficiency log file: es137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

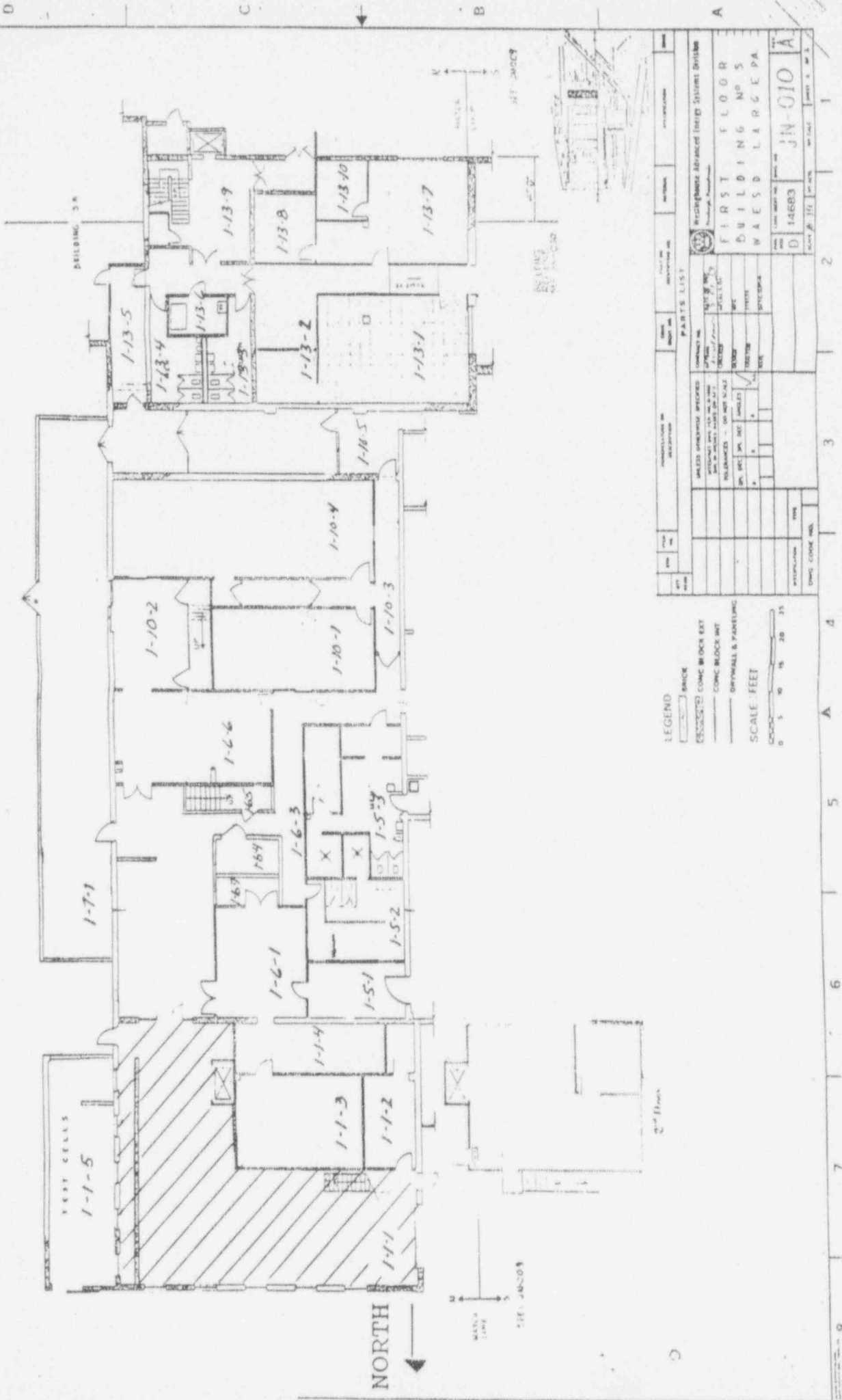
Application Revision: 2

Application Version: Standard

Batch ID: 1SB-1-1-1 walls and floor

| Carried | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 21 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/16/93 9:50 |
| 22 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 9:50 |
| 23 | -0.264 | 1.63 | <MDA | 28.84 | 3.50 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.70 | 3/16/93 10:00 |
| 24 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/16/93 10:00 |
| 25 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/16/93 10:01 |
| 26 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/16/93 10:01 |
| 27 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/16/93 10:02 |
| 28 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:02 |
| 29 | -0.264 | 1.63 | <MDA | 28.84 | 3.50 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.70 | 3/16/93 10:03 |
| 30 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:03 |
| 31 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:04 |
| 32 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/16/93 10:04 |
| 33 | -0.264 | 1.63 | <MDA | 28.84 | 3.50 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.70 | 3/16/93 10:05 |
| 34 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:05 |
| 35 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/16/93 10:06 |
| 36 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/16/93 10:06 |
| 37 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:07 |
| 38 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/16/93 10:08 |
| 38 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/16/93 10:08 |
| 40 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/16/93 10:09 |
| 41 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:09 |
| 42 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/16/93 10:10 |
| 43 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/16/93 10:10 |
| 44 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:11 |
| 45 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/16/93 10:11 |

BUILDING #5 FIRST FLOOR (Eastern portion)



LEGEND

- BRICK
- CONCRETE BLOCK EXTERIOR
- CONCRETE BLOCK INTERIOR
- DRYWALL & PANELING

SCALE: FEET

0 5 10 15 20 25 30

| REV | | DATE | BY | CHKD | DESCRIPTION |
|-----|--|------|----|------|-------------|
| | | | | | |
| | | | | | |

| PARTS LIST | | QUANTITY | UNIT | DESCRIPTION |
|------------|--|----------|------|-------------|
| | | | | |
| | | | | |
| | | | | |

| | |
|---|----------|
| WESTPHALIA Advanced Energy Systems Division | |
| FIRST FLOOR | |
| BUILDING NO 5 | |
| WAE50 LARGE PA | |
| DATE | 14883 |
| PROJECT NO | JN-G10 A |

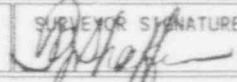
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 2 | * | ESP2:1588-L | 34.3% | 2.91 | 276 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/16/93 |
| COUNT DATE: 3/16/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|-----------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall | N/A | 2, -1.0 | N/A | N/A | 302 | 240 | 2 | 276 | -0.264 | -2.49 | Concrete Block |
| East Wall | " | 2, -1 | " | " | 295 | 250 | 3 | 282 | -0.264 | 3.41 | " |
| " | " | 4, -1 | " | " | 286 | 240 | 1 | 282 | -0.264 | 3.59 | " |
| South Wall | " | 2, -1 | " | " | 317 | 280 | 3 | 306 | -0.264 | 3.59 | " |
| West Wall | " | 2, -1 | " | " | 300 | 250 | 3 | 321 | -0.264 | -2.49 | " |
| " | " | 4, -1 | " | " | 298 | 250 | 2 | 276 | -0.264 | -2.49 | " |
| " | " | 6, -1 | " | " | 307 | 275 | 1 | 283 | -0.264 | 3.59 | " |
| " | " | 8, -1 | " | " | 453 | 300 | 2 | 412 | -0.264 | 3.59 | Brick |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|--------------------------|---|
| FORM SERIAL #: 1-032 (Survey Section - Sequential survey #) | LOCATION # 1-1-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0346 | SURVEYOR SIGNATURE: TS  |
|--|--|---|--------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/16/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010102UP.XLD
 Batch Ended: 3/16/93 14:26
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 1-1-2 upper surfaces

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 14:23 |
| 2 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/16/93 14:23 |
| 3 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 14:24 |
| 4 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 14:24 |
| 5 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 14:25 |
| 6 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 14:25 |
| 7 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 14:26 |
| 8 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 14:26 |

LB5100W Low Background Counting System – Smear Analysis

Date: 3/16/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010102.XLD
 Batch Ended: 3/16/93 10:12
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

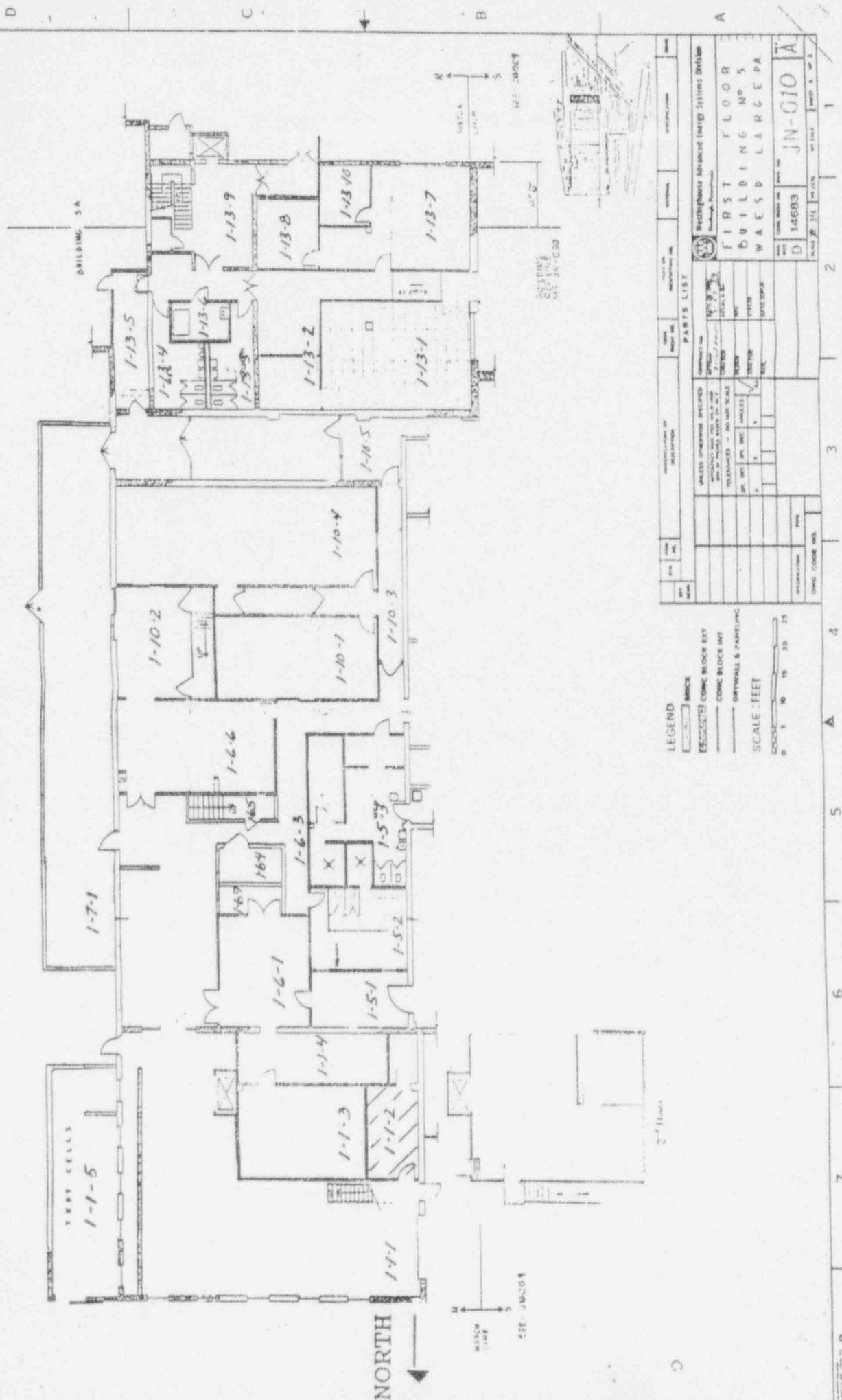
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 1-1-2 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOB |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 46 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/16/93 10:12 |
| 47 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 10:12 |

BUILDING #5 FIRST FLOOR (western portion)



LEGEND

- BRICK
- CONCRETE CONCRETE BLOCK EXT
- CONCRETE BLOCK INT
- GYP WALL & PARTITIONING

SCALE: FEET

0 5 10 15 20 25

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-------------------|----------------|------|-------|------------------|
| PARTS LIST | | | | |
| 1 | BRICK | 1000 | SQ YD | FOR WALLS |
| 2 | CONCRETE BLOCK | 500 | SQ YD | FOR WALLS |
| 3 | GYP WALL | 1000 | SQ YD | FOR PARTITIONING |

Rectification Advanced Energy Systems Division

FIRST FLOOR

BUILDING NO 5

VAESD LARGE PA

JN-010

DATE: 14683

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

LB5100W Low Background Counting System – Smear Analysis

Date: 3/16/93
 Counting Unit id: 1
 Data file name: C:\LBX\UNIT1\010103.XLD
 Batch Ended: 3/16/93 12:50
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

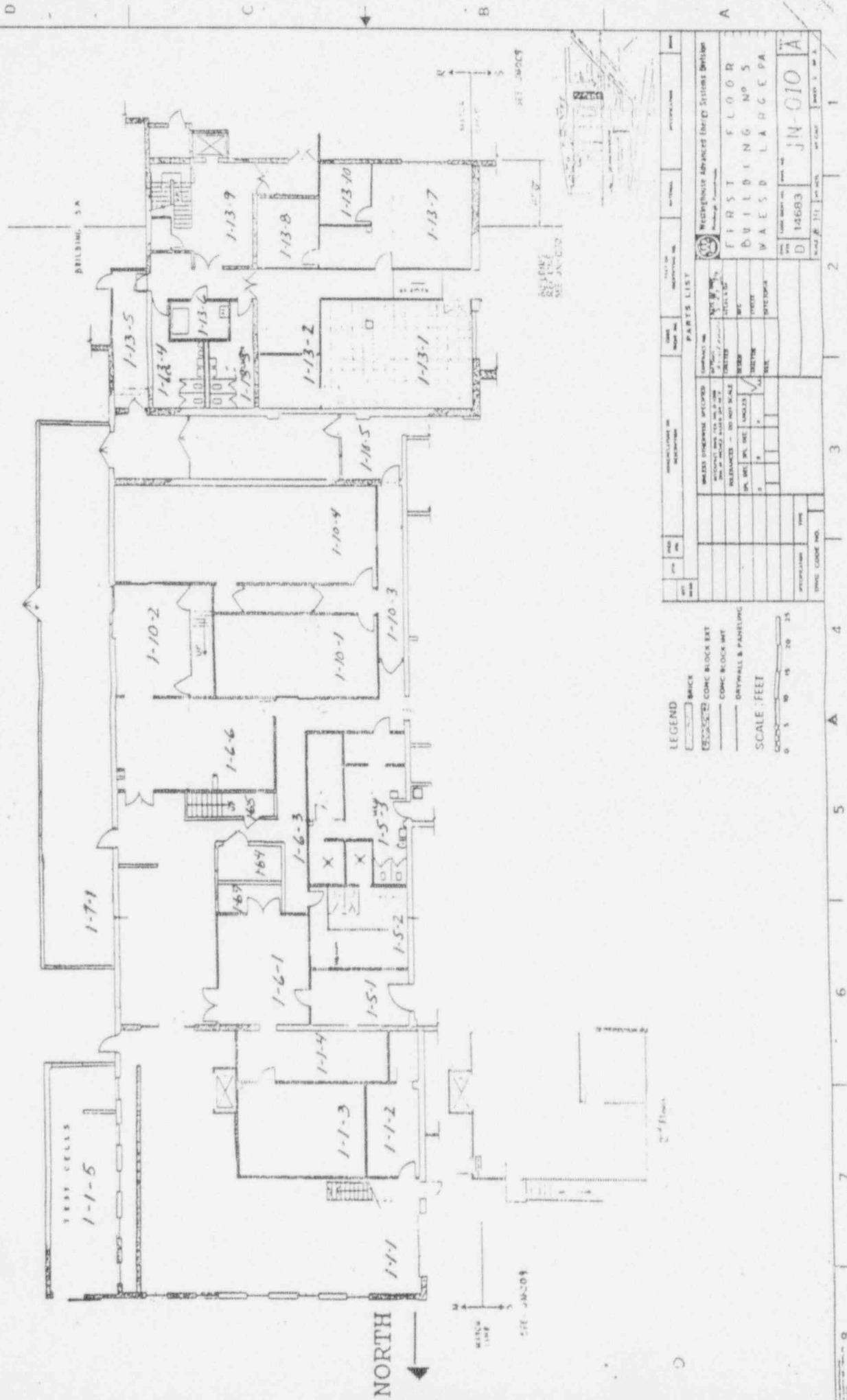
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 1-1-3 walls and floor

| Corner | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|--------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 1 | -0.264 | 1.63 | <MDA | 28.84 | | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/16/93 12:49 |
| 2 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/16/93 12:49 |
| 3 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/16/93 12:50 |
| 4 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/16/93 12:50 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

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

SCALE - FEET
0 5 10 15 20 25

| NO. | DESCRIPTION | QTY | UNIT | PRICE | TOTAL |
|------------------------|-------------|-----|------|-------|-------|
| PARTS LIST | | | | | |
| WEST ENGINEER SUPPLIED | | | | | |
| CONCRETE BLOCK EXT | | | | | |
| CONCRETE BLOCK INT | | | | | |
| DRYWALL & PANELING | | | | | |
| BRICK | | | | | |
| REBAR | | | | | |
| STEEL | | | | | |
| WOOD | | | | | |
| GLASS | | | | | |
| PAINT | | | | | |
| ELECTRICAL | | | | | |
| MECHANICAL | | | | | |
| PLUMBING | | | | | |
| OTHER | | | | | |
| TOTAL | | | | | |

| | | | |
|--------------|--|----------|--|
| PROJECT NO. | | 14683 | |
| DATE | | JN-010 | |
| DRAWN BY | | A | |
| CHECKED BY | | 1 | |
| SCALE | | AS SHOWN | |
| SHEET NO. | | 1 | |
| TOTAL SHEETS | | 1 | |

WEST ENGINEER ARCHITECTS
 607 WEST 10TH AVENUE
 DENVER, COLORADO

PROJECT NO. 14683
 DATE JN-010
 DRAWN BY A
 CHECKED BY 1
 SCALE AS SHOWN
 SHEET NO. 1
 TOTAL SHEETS 1

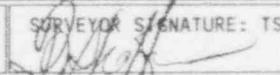
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 3 | * | ESP2:1588-L | 34.3% | 2.91 | 287 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

SURVEY DATE: 3/16/93
 COUNT DATE: 3/16/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| | | | | | | | | | | | |
| South Wall | N/A | 2, -1 | N/A | N/A | 561 | 475 | 2 | 457 | -0.264 | 9.66 | Brick |
| " | " | 4, -1 | " | " | 513 | 475 | 0 | 468 | -0.264 | -2.49 | " |
| " | " | 6, -1 | " | " | 542 | 425 | 0 | 481 | -0.264 | -2.49 | " |
| " | " | 8, -1 | " | " | 487 | 400 | 2 | 548 | -0.264 | -2.49 | " |
| West Wall | " | 2, -1 | " | " | 356 | 275 | 2 | 341 | -0.264 | -2.49 | Concrete Block |
| North Wall | " | 2, -1 | " | " | 355 | 325 | 5 | 392 | -0.264 | -2.49 | " |
| " | " | 4, -1 | " | " | 373 | 300 | 4 | 329 | -0.264 | 3.41 | " |
| " | " | 6, -1 | " | " | 397 | 300 | 3 | 303 | -0.264 | 3.59 | " |
| " | " | 8, -1 | " | " | 320 | 275 | 4 | 294 | -0.264 | -2.49 | " |
| East Wall | " | 2, -1 | " | " | 346 | 250 | 2 | 306 | -0.264 | 3.41 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|--------------------------|---|
| FORM SERIAL #: 1-034 (Survey Section - Sequential survey #) | LOCATION # 1-1-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0348 | SURVEYOR SIGNATURE: TS  |
|--|--|---|--------------------------|---|

LB5100W Low Background Counting System – Smear Analysis

Date: 3/16/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010104UP.XLD
 Batch Ended: 3/16/93 10:43
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 1-1-4 4975 surfaces

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 8 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/16/93 10:38 |
| 9 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/16/93 10:39 |
| 10 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:39 |
| 11 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:40 |
| 12 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:40 |
| 13 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:41 |
| 14 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/16/93 10:41 |
| 15 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/16/93 10:42 |
| 16 | -0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/16/93 10:42 |
| 17 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/16/93 10:43 |

LB5100W Low Background Counting System - Smear Analysis

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Date: 3/16/93
 Counting Unit id: 1
 Data file name: C:\LBX\UNIT1\010104.XLD
 Batch Ended: 3/16/93 12:52

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Application Revision: 2
 Application Version: Standard

Crosstalk Correction: Not Applied

Batch ID: TSB - 1.1.4 walls and floor

| Carrier | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|---------------|------|----------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | | | | |
| 5 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 4.64 | 3/16/93 12:51 |
| 6 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 1.24 | 3/16/93 12:51 |
| 7 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 1.24 | 3/16/93 12:52 |
| 8 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 1.24 | 3/16/93 12:52 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/16/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010105.XLD
 Batch Ended: 3/16/93 14:30
 Crosstalk Correction: Not Applied

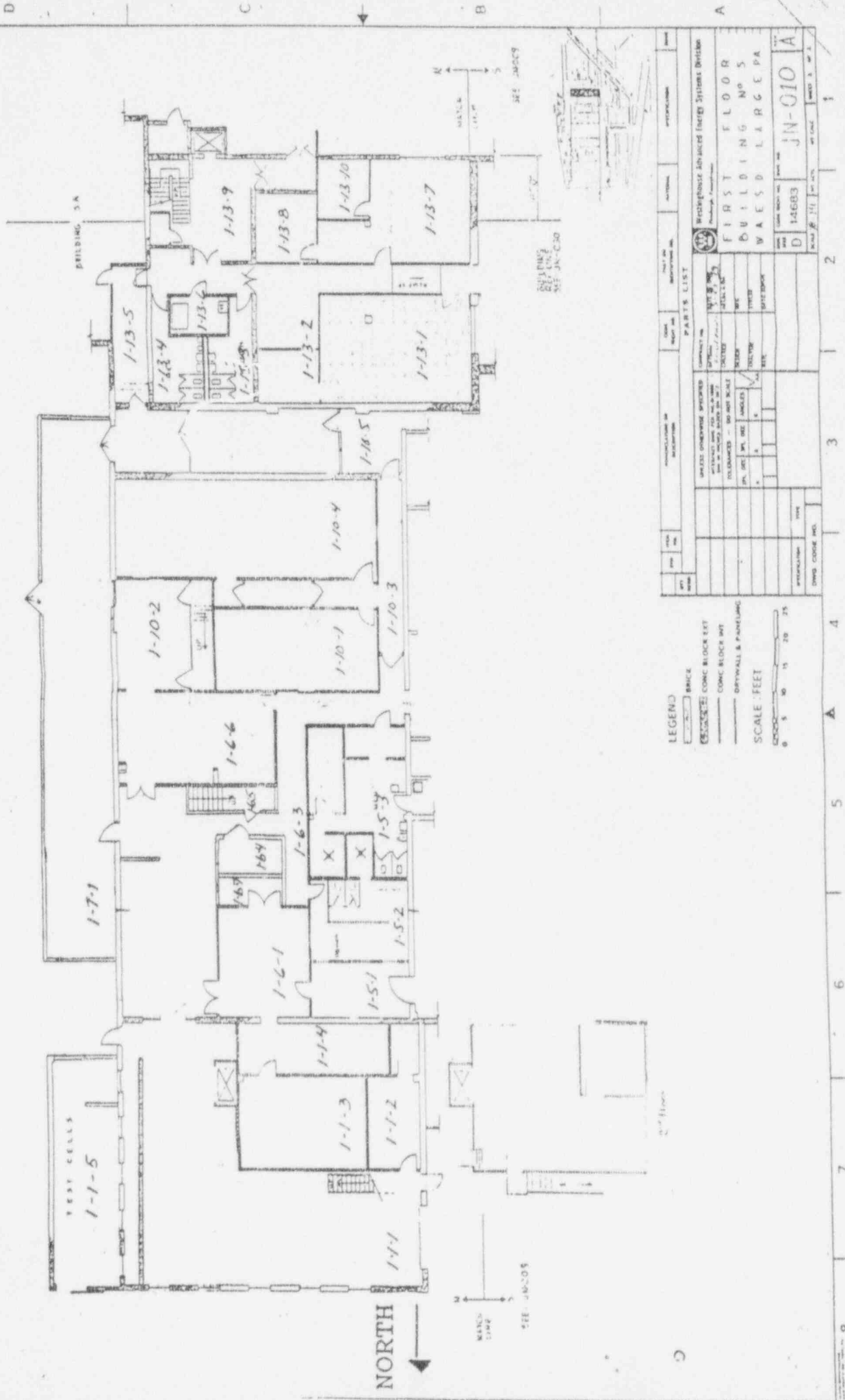
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 1-1-5 floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 9 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 3/16/93 14:27 |
| 10 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/16/93 14:27 |
| 11 | 0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | 0.100 | 4.82 | 3/16/93 14:28 |
| 12 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/16/93 14:28 |
| 13 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/16/93 14:29 |
| 14 | 0.264 | 0.93 | <MDA | 11.27 | 5.53 | 4.60 | <AL | 15.88 | 1.00 | 0.100 | 2.76 | 3/16/93 14:30 |

BUILDING #5 FIRST FLOOR (Eastern portion)



LEGEND
 BRICK
 CONCRETE
 CONCRETE BLOCK KEY
 CONCRETE BLOCK W/T
 DRYWALL & PANELING
 SCALE: FEET
 0 5 10 15 20 25

| NO. | DESCRIPTION | QUANTITY | UNIT | REMARKS |
|-----|--------------------|----------|---------|---------|
| 1 | BRICK | 1000 | SQ. YD. | |
| 2 | CONCRETE | 500 | CY. | |
| 3 | CONCRETE BLOCK KEY | 100 | SQ. YD. | |
| 4 | CONCRETE BLOCK W/T | 50 | SQ. YD. | |
| 5 | DRYWALL & PANELING | 200 | SQ. YD. | |

PARTS LIST

| NO. | DESCRIPTION | QUANTITY | UNIT | REMARKS |
|-----|-------------|----------|---------|---------|
| 1 | DOOR | 10 | EA. | |
| 2 | WINDOW | 20 | EA. | |
| 3 | STAIR | 2 | EA. | |
| 4 | CEILING | 100 | SQ. YD. | |
| 5 | FLOOR | 500 | SQ. YD. | |

WESTHOUSE Advanced Energy Systems Division
FIRST FLOOR
BUILDING NO 5
WAESD LARGE PA
D 14683 JN-010 A

APPENDIX B

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 3

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/24/93
 Counting Unit id: 1
 Data file name: C:\EXE\UNIT1\010301BP.XLD
 Batch Ended: 3/24/93 15:21
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB 1 3 1 upper surfaces

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/24/93 15:21 |
| 2 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:21 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\EXE\UNIT1\010301.XLD
 Batch Ended: 3/25/93 11:33
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: tjs 010301 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 4 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/25/93 11:33 |
| 5 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 11:33 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 0 | * | ESP2:1588-L | 34.3% | 2.91 | 310 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

SURVEY DATE: 3/24/93
 COUNT DATE: 3/24/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|---------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| East Wall | N/A | 2, -1 | N/A | N/A | 308 | 277 | 1 | 303 | -0.264 | -2.49 | ESP'S used for scans & |
| Vent-Top of N. Wall | " | 3, -.8 | " | " | 286 | 255 | 7 | 280 | -0.264 | 3.59 | 1 minute counts |
| Light Fixture | " | 3, -2 | " | " | 247 | 218 | 5 | 262 | -0.264 | -2.49 | " |
| East Wall | " | 4, -1 | " | " | 294 | 270 | 0 | 302 | -0.264 | -2.49 | " |
| " | " | 6, -1 | " | " | 372 | 305 | 3 | 255 | -0.264 | 3.41 | " |
| Light Fixture | " | 3, -5 | " | " | 352 | 310 | 5 | 266 | -0.264 | -2.49 | " |
| East Wall | " | 8, -1 | " | " | 304 | 268 | 2 | 273 | -0.264 | -2.49 | " |
| Beam | " | 3, -7 | " | " | 240 | 190 | 0 | 191 | -0.264 | -2.49 | " |
| East Wall | " | 10, -1 | " | " | 288 | 255 | 0 | 274 | -0.264 | -2.40 | " |
| Light Fixture | " | 3, -9 | " | " | 361 | 325 | 3 | 256 | -0.264 | -2.49 | " |
| East Wall | " | 9, -2 | " | " | 334 | 295 | 0 | 293 | -0.264 | 9.54 | " |
| " | " | 7, -2 | " | " | 227 | 218 | 2 | 268 | -0.264 | 3.59 | " |
| " | " | 5, -2 | " | " | 337 | 305 | 1 | 273 | -0.264 | -2.49 | " |
| " | " | 3, -2 | " | " | 325 | 270 | 1 | 265 | -0.264 | -2.49 | " |
| " | " | 1, -2 | " | " | 314 | 275 | 0 | 268 | -0.264 | -2.49 | " |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 041 (Survey Section - Sequential survey #) | LOCATION # 1-3-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0412 | SURVEYOR SIGNATURE: MS/LS <i>[Signature]</i> |
|--|--|---|----------------------------|---|

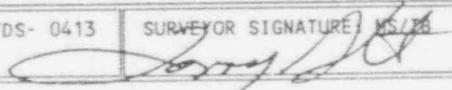
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 0 | * | ESP2:1588-L | 34.3% | 2.91 | 310 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

SURVEY DATE: 3/24/93
 COUNT DATE: 3/24/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| West Wall | N/A | 6, -1 | N/A | N/A | 293 | 240 | 2 | 323 | -0.264 | 3.41 | ESP's used for scans & 1 minute counts |
| Vent Top West Wall | " | 6, -3 | " | " | 297 | 230 | 2 | 245 | -0.264 | 9.66 | " |
| North Wall | " | 1, -2 | " | " | 360 | 310 | 4 | 274 | 7.741 | -2.49 | " |
| " | " | 2, -1 | " | " | 270 | 235 | 0 | 290 | -0.264 | 3.41 | " |
| " | " | 3, -2 | " | " | 353 | 300 | 1 | 303 | -0.264 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|---------------------------|---|
| FORM SERIAL #: 1 - 041 (Survey Section - Sequential survey #) | LOCATION # 1-3-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS- 0413 | SURVEYOR SIGNATURE:  |
|--|--|---|---------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/24/93
 Counting Unit id: 1
 Data file name: C:\400\UNIT1\010302HP.XLD
 Batch Ended: 3/24/93 15:32
 Crosstalk Correction: Not applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs13/ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: CSR 13 Z upper surfaces

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 3 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.07 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:22 |
| 4 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 3/24/93 15:22 |
| 5 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/24/93 15:23 |
| 6 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:23 |
| 7 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/24/93 15:24 |
| 8 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:24 |
| 9 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/24/93 15:25 |
| 10 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:25 |
| 11 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/24/93 15:26 |
| 12 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:26 |
| 13 | 0.264 | 0.93 | <MDA | 11.27 | 9.54 | 5.41 | <AL | 15.88 | 1.00 | -0.100 | 4.76 | 3/24/93 15:28 |
| 14 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/24/93 15:28 |
| 15 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:29 |
| 16 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:29 |
| 17 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:30 |
| 18 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/24/93 15:30 |
| 19 | 0.264 | 1.63 | <MDA | 28.84 | 0.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/24/93 15:31 |
| 20 | 7.741 | 0.17 | At AL | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 2.930 | -1.24 | 3/24/93 15:31 |
| 21 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/24/93 15:32 |
| 22 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:32 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 2 | * | FLMON:91943 | 28.8% | 3.47 | 1167 |

| |
|----------------------|
| SURVEY DATE: 3/24/93 |
| COUNT DATE: 3/24/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 8 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVEL, IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 3, -14 | 8 | .01 | 1243 | 1175 | 7 | 1173 | -0.264 | -2.49 | Floor monitor used for scans & 1 minute counts |
| " | " | 3, -12 | 11 | .01 | 1267 | 1200 | 10 | 1215 | -0.264 | -2.49 | |
| " | " | 3, -10 | 10 | .01 | 1234 | 1175 | 2 | 1167 | -0.264 | -2.49 | " |
| " | " | 3, -8 | 10 | .02 | 1203 | 1100 | 5 | 1165 | -0.264 | -2.49 | " |
| " | " | 3, -6 | 10 | .02 | 1214 | 1100 | 8 | 1153 | -0.264 | -2.49 | " |
| " | " | 3, -4 | 10 | .01 | 1257 | 1150 | 3 | 1227 | -0.264 | 9.31 | " |
| " | " | 2, -5 | 10 | .01 | 1367 | 1275 | 2 | 1278 | -0.264 | 3.41 | " |
| " | " | 1, -5 | 9 | .02 | 1271 | 1175 | 6 | 1160 | -0.264 | -2.49 | " |
| " | " | 0, -5 | 10 | .01 | 1241 | 1150 | 2 | 1206 | -0.264 | -2.49 | " |
| " | " | -2, -2 | 9 | .01 | 1322 | 1175 | 2 | 1365 | -0.264 | 9.66 | " |
| " | " | -2, -4 | 9 | .01 | 1380 | 1325 | 2 | 1333 | -0.264 | 3.59 | " |
| " | " | 2, -6 | 9 | .01 | 1141 | 1050 | 8 | 1105 | -0.264 | -2.49 | " |
| " | " | 2, -8 | 9 | .01 | 1200 | 1150 | 9 | 1168 | -0.264 | -2.49 | " |
| " | " | 1, -10 | 9 | .01 | 1111 | 1050 | 4 | 1139 | -0.264 | 9.31 | " |
| " | " | 1, -12 | 8 | .02 | 1266 | 1200 | 3 | 1189 | -0.264 | -2.49 | " |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 043 (Survey Section - Sequential survey #) | LOCATION # 1-3-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0415 | SURVEYOR SIGNATURE: TS <i>T. Shaff</i> |
|--|--|---|----------------------------|---|

DECOMMISSIONING FIBER DATA SHEET

SURVEY TYPE: Floors & Walls

| (*) IF USED | ALPHA SURVEY EQUIPMENT | | | BETA SURVEY EQUIPMENT | | | COUNTING EQUIPMENT (ALPHA) | | | |
|-------------|------------------------|-------|------|-----------------------|-------|------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | INST: S/N | EFF | C.F. | INST: S/N | EFF | C.F. | BKG |
| * | ESP2:1517 | 21.1% | 4.74 | ESP2:1595 | 34.2% | 2.92 | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | ESP2:1517-L | 21.7% | 4.60 | ESP2:1595-L | 31.3% | 3.20 | SAC4: 1128 | 40.6% | 2.46 | |
| | ESP2:1601-L | 23.1% | 4.33 | ESP2:1588-L | 34.3% | 2.91 | SAC4: 263 | 34.7% | 2.88 | |
| | ESP2: | | | ESP2: | | | | | | |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | ASP1: 1891 | 19.1% | 5.23 | E520: 5245 | | | MS-2: 1848 | 26.4% | 3.8 | |
| | PAC4G:4478 | 18.5% | 5.4 | PAC4G:4478 | 33.5% | 3.0 | AC-4: 808 | 16.9% | 5.92 | |
| * | FLMON:91943 | 18.8% | 5.3 | FLMON:91943 | 28.8% | 3.47 | | | | |

| |
|----------------------|
| SURVEY DATE: 3/24/93 |
| COUNT DATE: 3/24/93 |

| (*) IF USED | GAMMA OR BETA/GAMMA EQUIP | | R/S: L-2088 | ur/hr |
|-------------|---------------------------|-------|-------------|-------|
| | INST: S/N | BKG | | |
| * | PRM7: 234 | 8 | | ur/hr |
| | E520: 5242 | mr/hr | | |
| * | E520: 5245 | .01 | | mr/hr |
| | ESP2: 1522 | | | mr/hr |

| (*) IF USED | ALPHA SURVEY EQUIPMENT | | | BETA SURVEY EQUIPMENT | | | X, Y REF POINT | GRID | GAMMA @ 1 M. ur/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | COMMENTS | |
|-------------|------------------------|-------|------|-----------------------|-------|------|----------------|------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|----------|-------------------------|
| | INST: S/N | EFF | C.F. | INST: S/N | EFF | C.F. | | | | | MAX BETA | AVG BETA | ALPHA | BETA | | | ALPHA |
| | ESP2:1517 | 21.1% | 4.74 | ESP2:1595 | 34.2% | 2.92 | 1, -14 | N/A | 8 | .01 | 1135 | 1075 | 5 | 1082 | -0.264 | -2.49 | Floor monitor used for |
| | ESP2:1517-L | 21.7% | 4.60 | ESP2:1595-L | 31.3% | 3.20 | 3, -4 | " | 11 | .01 | 1260 | 1175 | 5 | 1231 | -0.264 | -2.49 | scans & 1 minute counts |
| | ESP2:1601-L | 23.1% | 4.33 | ESP2:1588-L | 34.3% | 2.91 | 3, -2 | " | 10 | .02 | 1262 | 1200 | 2 | 1219 | -0.264 | -2.49 | " |
| | ESP2: | | | ESP2: | | | 1, -2 | " | 9 | .01 | 1174 | 1100 | 3 | 1161 | -0.264 | -2.49 | " |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 | 1, -4 | " | 10 | .01 | 1181 | 1100 | 4 | 1180 | -0.264 | -2.49 | " |

| | | | | |
|--|--|---|----------------------------|----------------------|
| FORM SERIAL #: 1 743 (Survey Section Sequential survey #) | LOCATION # 1-3-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0416 | SURVEY SIGNATURE: TS |
|--|--|---|----------------------------|----------------------|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/24/93
 Counting Unit id: 1
 Data file name: C:\LBX\UNIT1\010302.XLD
 Batch Ended: 3/24/93 15:43
 Crosstalk Correction: Not Applied

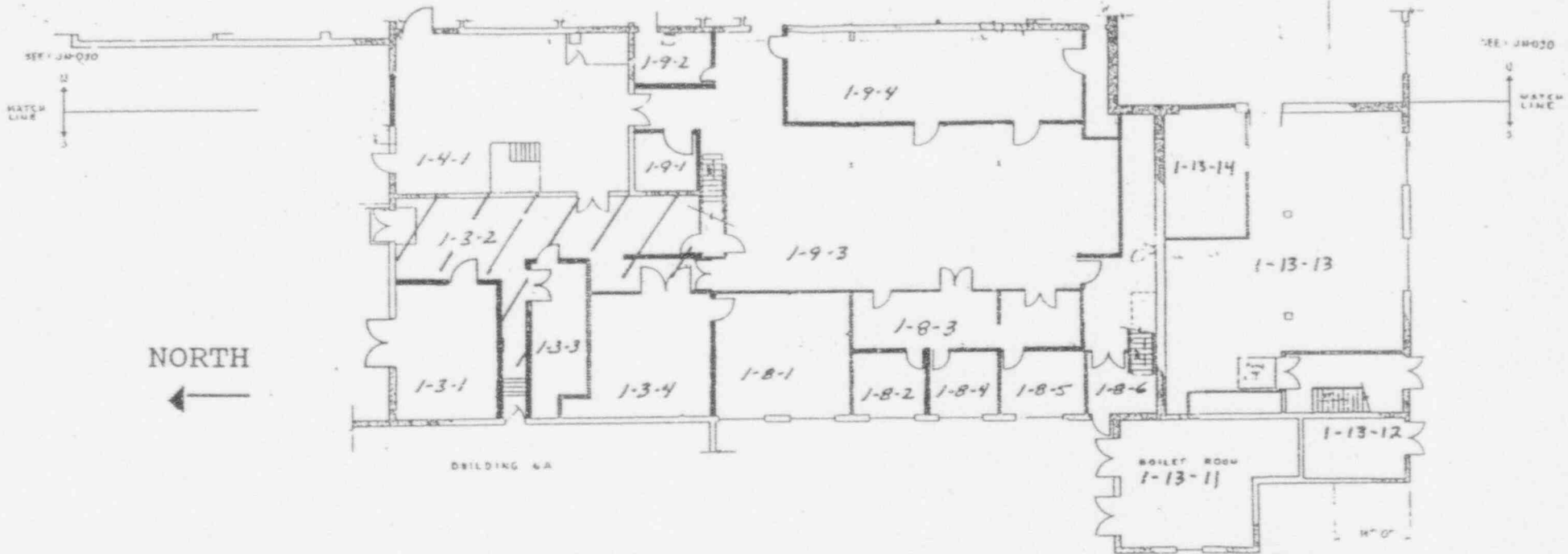
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: ISB 1 3.2 walls and floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOB |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 23 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:33 |
| 24 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:33 |
| 25 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:34 |
| 26 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:34 |
| 27 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:35 |
| 28 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/24/93 15:36 |
| 29 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/24/93 15:36 |
| 30 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:37 |
| 31 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:37 |
| 32 | 0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.46 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/24/93 15:38 |
| 33 | 0.264 | 1.63 | <MDA | 28.84 | 3.58 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/24/93 15:38 |
| 34 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:39 |
| 35 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:39 |
| 36 | 0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/24/93 15:40 |
| 37 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:40 |
| 38 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:41 |
| 39 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:41 |
| 40 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/24/93 15:42 |
| 41 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:42 |
| 42 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/24/93 15:43 |

BUILDING #5 FIRST FLOOR (Western portion)



NORTH

BUILDING #A

BUILDING REF. LINE SEE JN-030

LEGEND

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

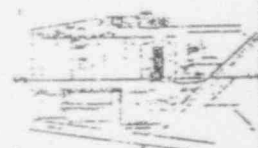
SCALE : FEET



| REV | DATE | DESCRIPTION | CONC | PART NO | MATERIAL | QUANTITY | UNIT |
|------------------------------|------|-------------|------|--------------------------|----------|----------|------|
| PARTS LIST | | | | | | | |
| UNLESS OTHERWISE SPECIFIED | | | | CONTRACT NO. | | | |
| WALLS: 8" CONC BLOCK | | | | DATE: 3-29-79 | | | |
| TOLERANCES - SEE DETAIL | | | | DRAWN BY: [Signature] | | | |
| DOOR: 1 1/2" x 6" x 2 1/2" | | | | CHECKED BY: [Signature] | | | |
| WINDOW: 1 1/2" x 6" x 2 1/2" | | | | APPROVED BY: [Signature] | | | |
| STAIR: 1 1/2" x 6" x 2 1/2" | | | | SCALE: AS SHOWN | | | |
| SPECIFICATION: FIVE | | | | PROJECT: WAESO LARGE PA | | | |
| DWG. CODE NO. | | | | SHEET: 1 OF 2 | | | |

Westinghouse Advanced Energy Systems Division
 Pittsburgh, Pennsylvania
FIRST FLOOR
BUILDING N° 5
WAESO LARGE PA

DATE: 3-29-79
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]
JN-009 A



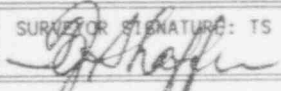
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 5 | * | FLMON:91943 | 28.8% | 3.47 | 1188 |

SURVEY DATE: 3/25/93
 COUNT DATE: 3/25/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 8 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|----------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor-Painted Cement | N/A | 2, -2 | 8 | .01 | 1372 | 1250 | 9 | 1357 | -0.264 | -2.49 | Floor monitor used for |
| " | " | 4, -2 | 8 | .01 | 1306 | 1200 | 5 | 1317 | -0.264 | -2.49 | scans & 1 minute counts |
| " | " | 6, -2 | 8 | .01 | 1299 | 1200 | 6 | 1285 | -0.264 | 3.59 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

FORM SERIAL #: 1 - 044 (Survey Section - Sequential survey #)
 LOCATION # 1-3-3 (Survey Section - Unit # - Sub Unit #)
 SURVEY CLASSIFICATION: IV (Group I, II, III, IV)
 DISK FILE CODE: FDS - 0417
 SURVEYOR SIGNATURE: TS 

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\LBX\WIN11\010303.XLD
 Batch Ended: 3/25/93 11:32
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

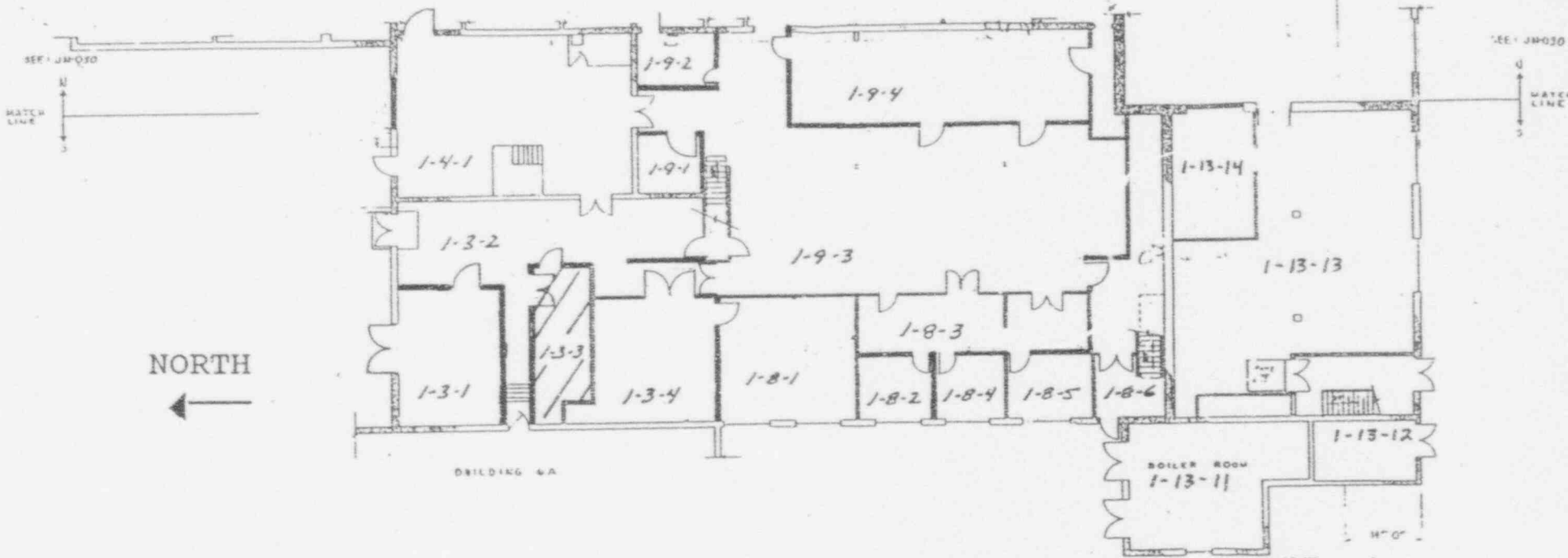
Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

010303
 Batch ID: ~~ts~~ floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | α | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | 0.264 | 1.00 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/25/93 11:31 |
| 2 | 0.264 | 1.03 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 11:32 |
| 3 | 0.264 | 1.03 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/25/93 11:32 |

BUILDING #5 FIRST FLOOR (Western portion)

D
C
B
A



NORTH
←

BUILDING #A

BUILDING REF LINE SEE JN-030

LEGEND

- BRICK
 - CONC BLOCK EXT
 - CONC BLOCK INT
 - DRYWALL & PANELING
- SCALE: FEET
-

| REV | DATE | DESCRIPTION | BY | CHKD | APP'D |
|-----|------|-------------|----|------|-------|
| | | | | | |
| | | | | | |

| PARTS LIST | | CONTRACT NO. | DATE OF REV. |
|------------|--|--------------|--------------|
| | | | |
| | | | |
| | | | |

| | | | |
|---|----------|---------------|--------------|
| Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | | |
| FIRST FLOOR BUILDING NO 5 WAESD LARGE.PA | | | |
| DRG NO. | CHKD. BY | DATE | REV. |
| D 14683 | JN-009 | A | |
| SCALE: 1/4" = 1'-0" | BY: JNL | DATE: 11/1/74 | SHEET 1 OF 2 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|------------------|----------------|---------|------------|-----------------------|------------------|----------------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 2.99 | | ESP2: 1510 | 38.7% | 2.58 | |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 370 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | | | | | PAC4G:4478 | | | |
| * | FLMON:91943 | 36.0% | 2.7 | 5 | * | FLMON:91943 | 38.9% | 5.3 | 1245 |

| |
|-----------------------|
| SURVEY DATE: 12/09/92 |
| COUNT DATE: 12/09/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| * | E520: 5242 | .01 mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

Y5B 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|----------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|--------|--|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall | 2, -1.25 | N/A | 14 | .01 | 455 | 400 | 0 | 391 | -0.149 | -2.82 | See Attached map |
| " | 4, -1.25 | " | 14 | .01 | 458 | 400 | 1.99 | 359 | -0.149 | -2.82 | " |
| West Wall | 2, -1.25 | " | 14 | .01 | 600 | 450 | 1.99 | 395 | -0.149 | -2.82 | " |
| " | 4, -1.25 | " | 14 | .01 | 612 | 450 | 2.99 | 372 | -0.149 | 3.28 | " |
| " | 6, -1.25 | " | 14 | .01 | 504 | 375 | .99 | 387 | -0.149 | 3.28 | " |
| East Wall | 2, -1.25 | " | 14 | .01 | 600 | 470 | .99 | 387 | -0.149 | -2.82 | " |
| Floor | 2, -2 | " | 14 | .01 | 352 | 300 | 8.0 * | 1210 * | -0.149 | -2.82 | " |
| " | 4, -2 | " | 14 | .01 | 400 | 300 | 7.0 * | 1215 * | -0.149 | -2.82 | " |
| " | 2, -4 | " | 14 | .01 | 377 | 300 | 2.0 * | 1193 * | -0.149 | -2.82 | " |
| " | 4, -4 | " | 14 | .01 | 600 | 415 | 2.0 * | 1214 * | -0.149 | -2.82 | " |
| " | 2, -6 | " | 14 | .01 | 453 | 380 | 5.0 * | 1292 * | -0.149 | 9.03 | " |
| " | 4, -6 | " | 14 | .01 | 375 | 330 | 3.0 * | 1177 * | -0.149 | -2.82 | " |
| South Wall | 4, -1.25 | " | 14 | .01 | 515 | 480 | 0 | 458 | -0.149 | -2.82 | " |
| | | | | | | | | | | | * used FLMON |
| | | | | | | | | | | | 4/20/93 A. Hardi |

FORM SERIAL #: 1-005
(Survey Section - Sequential survey #)

LOCATION # 1-3-4
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: IV
(Group I, II, III, IV)

DISK FILE CODE: FDS-0057

SURVEYOR SIGNATURE: T.B.

T.B. Hardy

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/10/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT11010304.XLD
 Batch Ended: 12/9/92 15:05
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.54%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315799

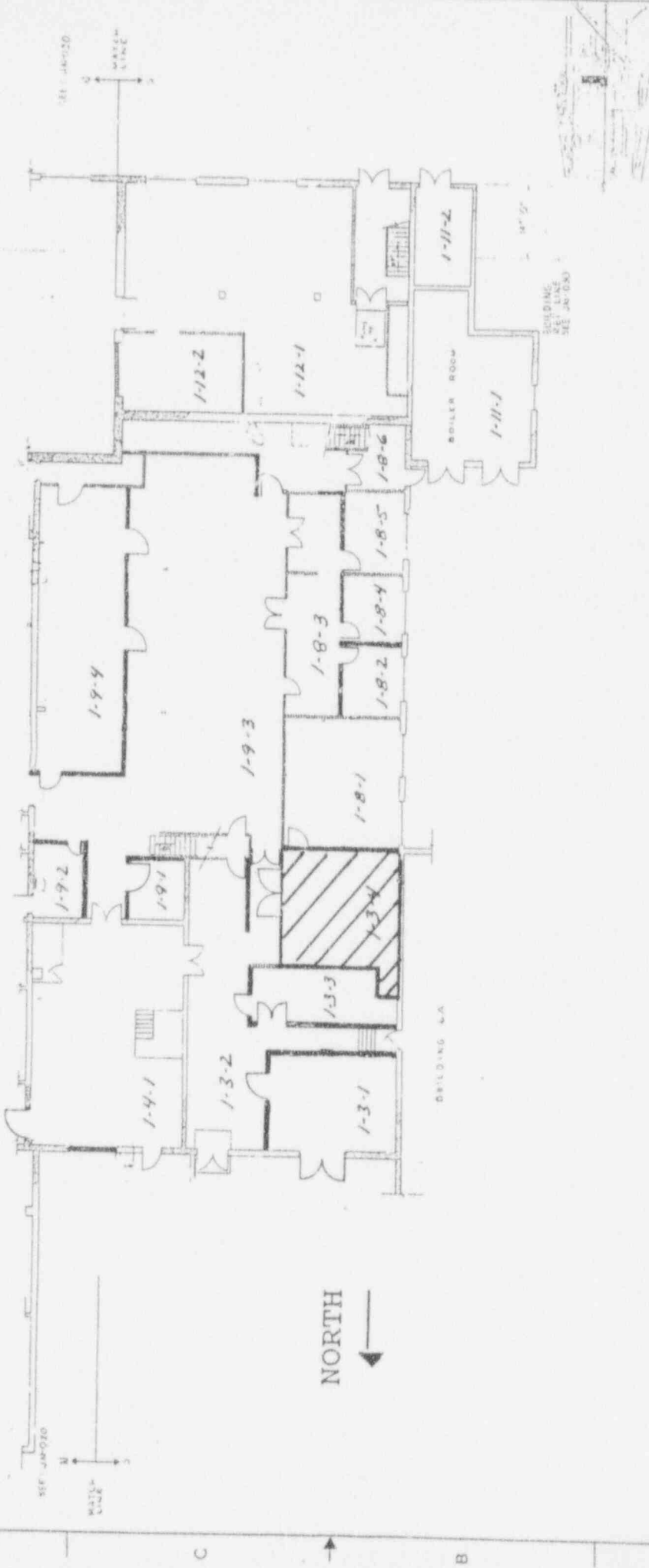
Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 14:58 |
| 2 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 14:59 |
| 3 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 14:59 |
| 4 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/9/92 15:00 |
| 5 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/9/92 15:00 |
| 6 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:01 |
| 7 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:01 |
| 8 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:02 |
| 9 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/9/92 15:02 |
| 10 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/9/92 15:03 |
| 11 | -0.149 | 1.35 | <MDA | 27.24 | 9.03 | 9.34 | <MDA | 35.16 | 0.34 | -0.055 | 4.48 | 12/9/92 15:03 |
| 12 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:04 |
| 13 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:04 |
| 14 | -0.149 | 1.07 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.88 | 12/9/92 15:05 |

TSB 12-10-92

BUILDING #5 FIRST FLOOR (Western portion)

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |



LEGEND
 BRICK
 CONCRETE
 CONCRETE BLOCK EXT
 CONCRETE BLOCK INT
 DRYWALL & PANELING

SCALE: FEET
 0 5 10 15 20 25

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

| DATE | BY | CHKD | APP'D | TITLE |
|------|----|------|-------|-------|
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |

PROJECT: **Recipients Advanced Energy Stream Division**
 BUILDING: **FIRST FLOOR**
 DRAWING: **BUILDING N° 5**
 SHEET: **WAESD LARG C DA**

DATE: **JUN-020**
 DRAWING NO.: **D 14683**
 PROJECT NO.: **JUN-009**

SCALE: **AS SHOWN**

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 0 | * | ESP2: 1510 | 38.7% | 2.58 | 327 |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 338 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | | | | | PAC4G:4478 | | | |
| | FLMON:91943 | 38.0% | 2.7 | | | FLMON:91943 | 36.0% | 2.7 | |

| |
|-----------------------|
| SURVEY DATE: 12/10/92 |
| COINT DATE: 12/10/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |

| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
|------------|---------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

95B 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|-------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall | 2, -6 | N/A | N/A | N/A | 501 | 350 | 0 | 373 | -0.149 | 9.39 | Behind Ductwork |
| West Wall | 4, -6 | " | " | " | 535 | 420 | 1.99 | 398 | -0.149 | 3.10 | |
| East Wall | 2, -6 | " | " | " | 461 | 360 | .997 | 385 | -0.149 | -2.82 | |
| South Wall | 4, -6 | " | " | " | 525 | 375 | 1.99 | 390 | -0.149 | -2.82 | Around East Side of duc |
| Ceiling | 4, -4 | " | " | " | 390 | 350 | 3.99 | 316 | -0.149 | 3.28 | |
| " | 2, -6 | " | " | " | 430 | 325 | 1.99 | 333 | -0.149 | 3.10 | |
| " | 4, -6 | " | " | " | 379 | 300 | 0 | 298 | -0.149 | -2.82 | |
| " | 4, -4 | " | " | " | 414 | 375 | .997 | 327 | -0.149 | -2.82 | |
| Light Fixture | 2, -6 | " | " | " | 351 | 250 | 2.99 | 352 | 8.048 | -2.82 | Above floor (@ 2, -6) |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|--------------------------|--|
| FORM SERIAL #: 1-006 (Survey Section - Sequential survey #) | LOCATION # 1-3-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0058 | SURVEYOR SIGNATURE: J. B. <i>[Signature]</i> |
|--|--|---|--------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/10/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010304U.XLD
 Batch Ended: 12/10/92 12:52
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

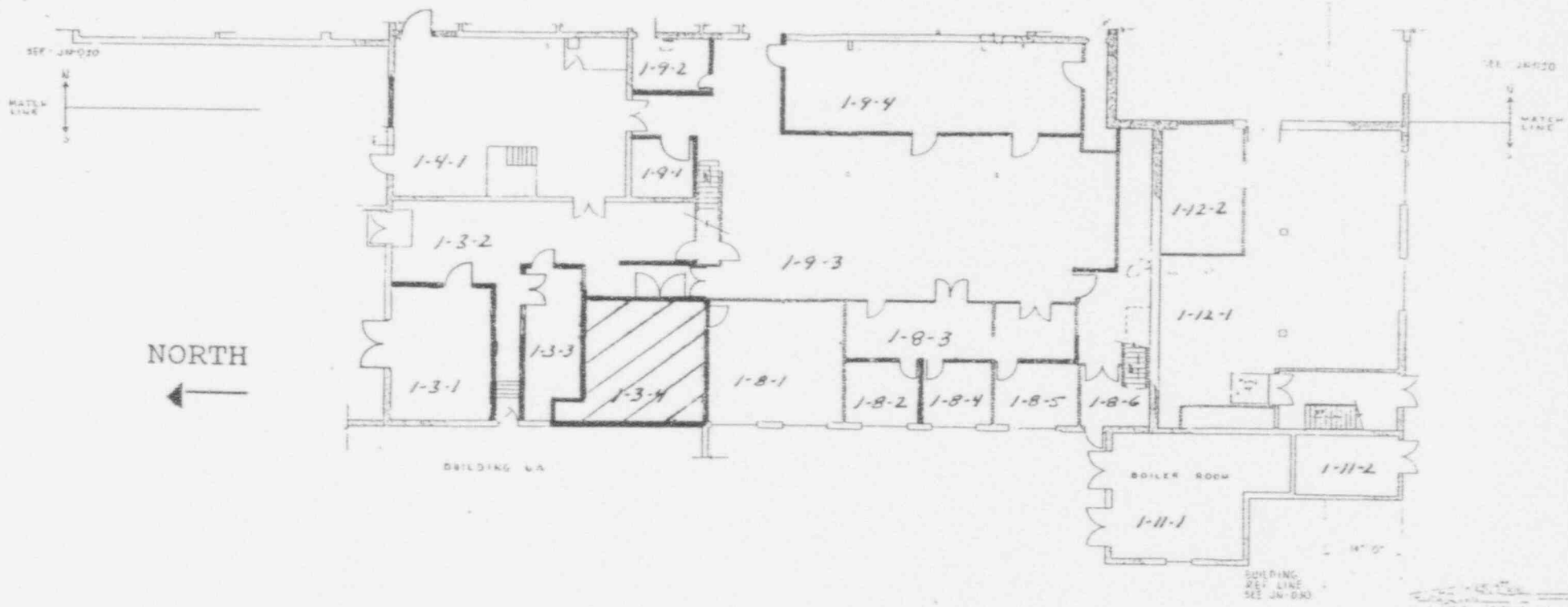
Batch ID: tsb

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/10/92 12:48 |
| 2 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/10/92 12:48 |
| 3 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:49 |
| 4 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:49 |
| 5 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/10/92 12:50 |
| 6 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/10/92 12:50 |
| 7 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:51 |
| 8 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:51 |
| 9 | 8.048 | 8.31 | AI AL | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | 2.975 | -1.40 | 12/10/92 12:52 |

BUILDING #5 FIRST FLOOR (Western portion)

| REV | DATE | BY | APP |
|-----|------|----|-----|
| | | | |

D
C
B
A



NORTH
←

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

| REV | REV NO. | DESCRIPTION | DATE | BY | APP |
|-----|---------|-------------|------|----|-----|
| | | | | | |

| CONTRACT NO. | DATE OF ORDER | REL. TO |
|--------------|---------------|---------|
| | | |

| DESIGN | DATE | BY | APP |
|--------|------|----|-----|
| | | | |

| CONTRACT NO. | DATE OF ORDER | REL. TO |
|--------------|---------------|---------|
| | | |

| DESIGN | DATE | BY | APP |
|--------|------|----|-----|
| | | | |

| CONTRACT NO. | DATE OF ORDER | REL. TO |
|--------------|---------------|---------|
| | | |

| DESIGN | DATE | BY | APP |
|--------|------|----|-----|
| | | | |

Westinghouse Advanced Energy Systems Division
 Pittsburgh, Pennsylvania
FIRST FLOOR
BUILDING NO 5
WAESD LARGC.0A

14683
 JN-009 A



APPENDIX C

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 4


| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 58 | * | FLMON:91943 | 28.8% | 3.47 | 1350 |

| |
|---------------------|
| SURVEY DATE: 2/3/93 |
| COUNT DATE: 2/4/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 15 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .01 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor | N/A | 2, -2 | 15 | .015 | 1543 | 1510 | 55 | 1517 | -0.264 | 3.59 | Floor monitor used for |
| " | " | 4, -2 | 15 | .016 | 1432 | 1400 | 62 | 1412 | -0.264 | 3.59 | scans & 1 minute |
| " | " | 6, -2 | 14 | .009 | 1258 | 1240 | 40 | 1257 | -0.264 | 3.41 | counts. |
| " | " | 4, -4 | 13 | .02 | 1497 | 1450 | 58 | 1358 | -0.264 | -2.49 | " |
| " | " | 4, -6 | 15 | .022 | 1314 | 1300 | 63 | 1395 | -0.264 | 3.41 | " |
| " | " | 6, -4 | 15 | .015 | 1382 | 1340 | 58 | 1388 | -0.264 | 9.31 | " |
| " | " | 6, -6 | 15 | .019 | 1442 | 1400 | 57 | 1344 | -0.264 | 3.41 | " |
| " | " | 4, -8 | 12 | .012 | 1160 | 1150 | 50 | 1210 | -0.264 | 3.59 | " |
| " | " | 4, -10 | 12 | .014 | 1161 | 1150 | 69 | 1141 | -0.264 | -2.49 | " |
| " | " | 2, -8 | 12 | .018 | 1164 | 1150 | 45 | 1151 | -0.264 | -2.49 | " |
| " | " | 2, -10 | 10 | .011 | 1138 | 1100 | 52 | 1098 | -0.264 | -2.49 | " |

| | | | | |
|--|--|---|--------------------------|---|
| FORM SERIAL #: 1-030 (Survey Section - Sequential survey #) | LOCATION # 1-4-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0305 | SURVEYOR SIGNATURE: TS  |
|--|--|---|--------------------------|---|

LB5100W Low Background Counting System – Smear Analysis

Date: 2/2/93
 Counting Unit id: 1
 Data file name: C:\BXL\UNIT1\010401.XLD
 Batch Ended: 2/4/93 8:15
 Crosstalk Correction: Not Applied

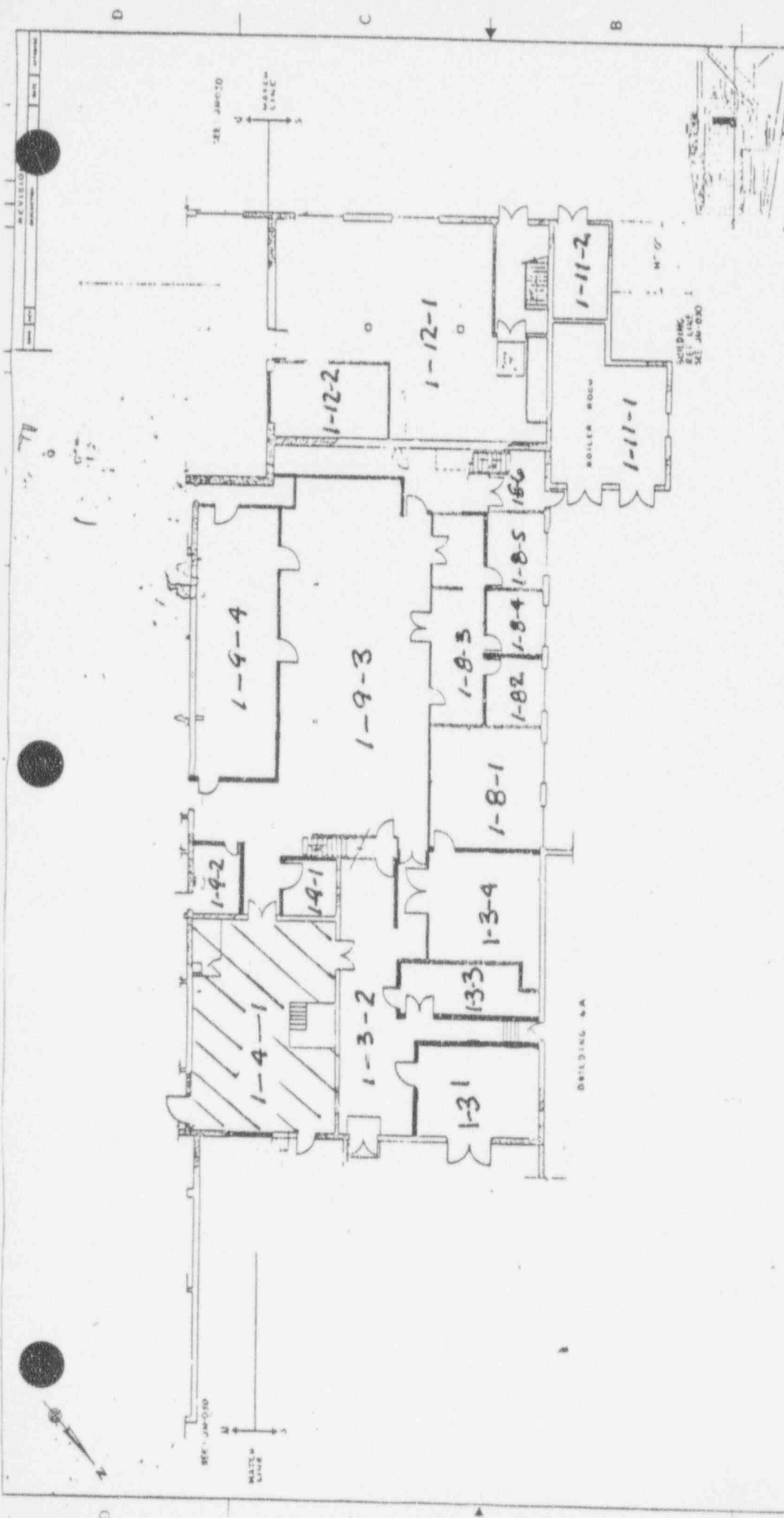
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 1-4-1 floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/4/93 8:10 |
| 2 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/4/93 8:11 |
| 3 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/4/93 8:11 |
| 4 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/4/93 8:12 |
| 5 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/4/93 8:12 |
| 6 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 2/4/93 8:13 |
| 7 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 2/4/93 8:13 |
| 8 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/4/93 8:14 |
| 9 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/4/93 8:14 |
| 10 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/4/93 8:15 |
| 11 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/4/93 8:15 |



REVISIONS

| NO. | DATE | BY | DESCRIPTION |
|-----|------|----|-------------|
| | | | |

PARTS LIST

| NO. | DESCRIPTION | QTY. | UNIT | REMARKS |
|-----|-------------|------|------|---------|
| | | | | |

WHEN SPECIFIED

| NO. | DESCRIPTION | QTY. | UNIT | REMARKS |
|-----|-------------|------|------|---------|
| | | | | |

PROJECT INFORMATION

| | |
|-------------|----------|
| PROJECT NO. | JN-009 |
| DATE | D 14683 |
| BY | JN |
| CHECKED BY | JN |
| SCALE | AS SHOWN |

GENERAL NOTES

- CONCRETE BLOCK EXTERIOR
- CONCRETE BLOCK INTERIOR
- DRYWALL & PANELING

SCALE: FEET

0 5 10 15 20 25

LEGEND

- BRICK
- CONCRETE BLOCK EXTERIOR
- CONCRETE BLOCK INTERIOR
- DRYWALL & PANELING

SCALE: FEET

0 5 10 15 20 25

PROJECT INFORMATION

PROJECT NO. JN-009
 DATE D 14683
 BY JN
 CHECKED BY JN
 SCALE AS SHOWN

GENERAL NOTES

- CONCRETE BLOCK EXTERIOR
- CONCRETE BLOCK INTERIOR
- DRYWALL & PANELING

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 1 | * | ESP2:1588-L | 34.3% | 2.91 | 254 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/24/93 |
| COUNT DATE: 3/25/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|-----|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |

| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
|------------|---------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Ceiling | N/A | 4, -2 | N/A | N/A | 267 | 200 | 0 | 216 | -0.264 | 7.54 | Steel |
| " | " | 6, -2 | " | " | 275 | 220 | 0 | 215 | -0.264 | -2.49 | " |
| " | " | 4, -4 | " | " | 206 | 170 | 1 | 200 | -0.264 | -2.49 | " |
| " | " | 6, -4 | " | " | 239 | 180 | 0 | 229 | -0.264 | 3.59 | " |
| Light Fixture | " | 7, -4 | " | " | 343 | 270 | 22 | 336 | -0.264 | 3.41 | " |
| Ceiling | " | 4, -6 | " | " | 195 | 140 | 0 | 180 | -0.264 | -2.49 | " |
| " | " | 6, -6 | " | " | 239 | 190 | 0 | 184 | -0.264 | -2.49 | " |
| " | " | 4, -8 | " | " | 222 | 170 | 1 | 186 | -0.264 | -2.49 | " |
| " | " | 6, -8 | " | " | 217 | 180 | 1 | 188 | -0.264 | -2.49 | " |
| Main "I" Beam | " | @ Midpoint | " | " | 185 | 130 | 0 | 187 | -0.264 | -2.49 | " |
| Ceiling | " | 2, -8 | " | " | 261 | 210 | 0 | 224 | -0.264 | -2.49 | " |
| " | " | 2, -10 | " | " | 282 | 228 | 2 | 180 | -0.264 | 3.41 | " |
| " | " | 4, -10 | " | " | 273 | 231 | 0 | 228 | -0.264 | 3.53 | " |
| Light Fixture | " | 4, -9 | " | " | 300 | 252 | 14 | 238 | -0.264 | -2.49 | " |
| " | " | 1, -9 | " | " | 272 | 255 | 40 | 267 | -0.264 | -2.49 | " |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 045 (Survey Section - Sequential survey #) | LOCATION # 1-4-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0418 | SURVEYOR SIGNATURE: MS/TB <i>M. Schaffer</i> |
|--|--|---|----------------------------|---|

Handwritten signature and notes at bottom right.

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 1 | * | ESP2:1588-L | 34.3% | 2.91 | 245 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/25/93 |
| COUNT DATE: 3/25/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS R.H.C.T. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|------------------------|------|----------------------------|-------|----------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| West Wall | N/A | 3, -1 | N/A | N/A | 327 | 270 | 2 | 290 | 7.741 | -2.49 | Concrete Block |
| Main "I" Beam | " | 1, -1 | " | " | 263 | 225 | 3 | 163 | -0.264 | -2.49 | " |
| West Wall | " | 4, -2 | " | " | 256 | 208 | 1 | 183 | -0.264 | -2.49 | " |
| " | " | 2, -2 | " | " | 281 | 245 | 1 | 258 | -0.264 | 3.41 | " |
| East Wall | " | 2, -1 | " | " | 350 | 295 | 3 | 296 | -0.264 | -2.49 | " /Brick |
| " | " | 4, -1 | " | " | 447 | 395 | 2 | 431 | -0.264 | -2.49 | Brick |
| " | " | 6, -1 | " | " | 462 | 380 | 3 | 362 | -0.264 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|---------------------------|---|
| FORM SERIAL #: 1 - 045 (Survey Section - Sequential survey #) | LOCATION # 1-4-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS -0419 | DATE/TIME FOR SIGNATURE: MS/TB <i>M. Shaffer</i> |
|--|--|---|---------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: ps210ab

Alpha Efficiency 37.85%

Alpha to Beta Crosstalk 4.92%

Alpha Background (CPM) 0.1

Beta efficiency log file: es137ab

Beta Efficiency 49.68%

Beta into Alpha Crosstalk 0.36%

Beta Background (CPM) 1.24

Alpha activity action level (DLAL) 10.00

Beta activity action level (DLBL) 260.00

Confidence level for MDA and Blaps: 95.00%

High Voltage Setting 14.5

Application Revision: 2

Application Version: Standard

Date: 3/25/93

Counting Unit: 1

Data file name: C:\LBN\WPH\101040100.XLD

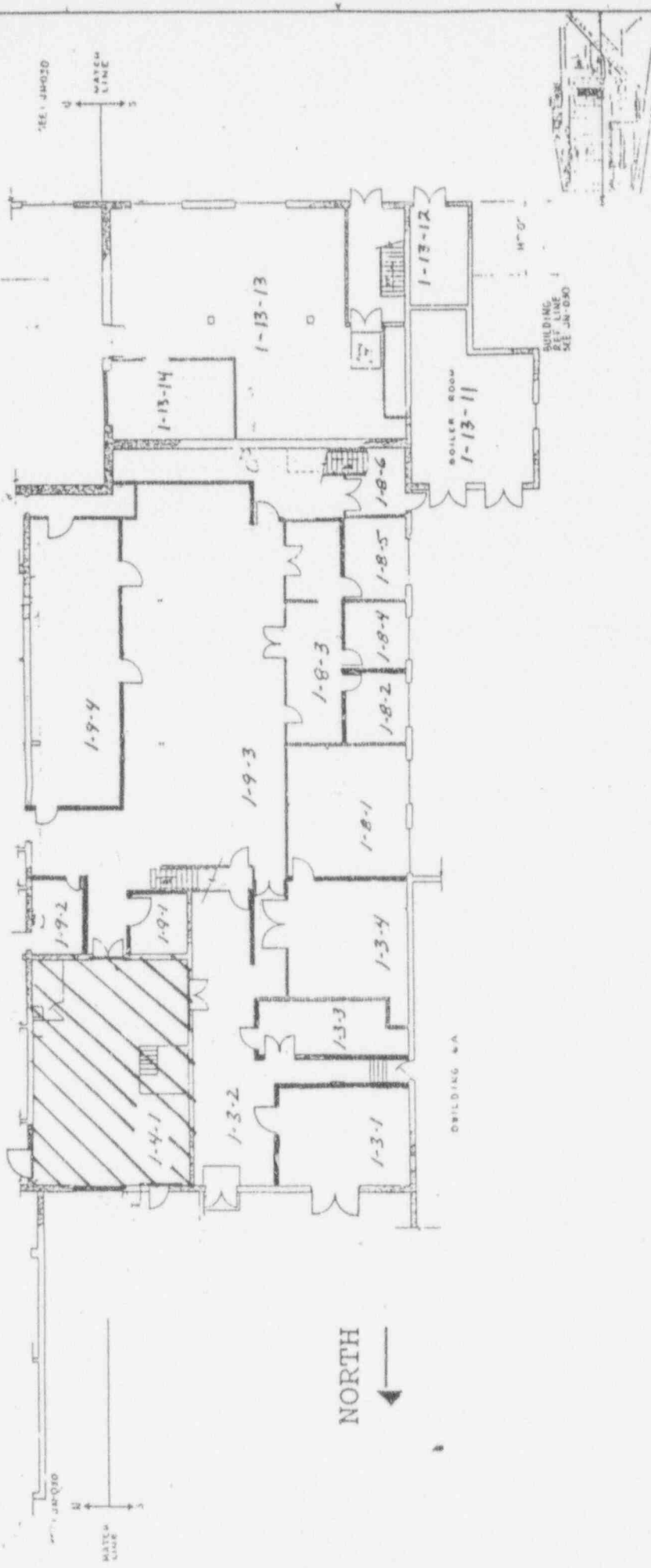
Data Entered: 3/25/93 13:00

Crosstalk Correction: Not Applied

Batch ID: ISB 1 4 1 upper surfaces

| Count | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion 100 |
|-------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | LAL | σ | Blaps | MDA | DLAL | σ | Blaps | MDA | | | | |
| 1 | 0.2e4 | 0.03 | <MDA | 11.27 | 7.54 | 5.07 | <AL | 15.88 | 1.00 | 0.100 | 3.76 | 3/25/93 12:58 |
| 2 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 12:58 |
| 3 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 33.88 | 0.34 | 0.100 | 1.24 | 3/25/93 12:59 |
| 4 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.76 | 3/25/93 12:59 |
| 5 | 0.2e4 | 1.00 | <MDA | 26.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 1.70 | 3/25/93 13:00 |
| 6 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 33.88 | 0.34 | 0.100 | 1.24 | 3/25/93 13:00 |
| 7 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:01 |
| 8 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:01 |
| 9 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:02 |
| 10 | 0.2e4 | 1.00 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 33.88 | 0.34 | 0.100 | 1.24 | 3/25/93 13:02 |
| 11 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:03 |
| 12 | 0.2e4 | 1.00 | <MDA | 26.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 1.70 | 3/25/93 13:04 |
| 13 | 0.2e4 | 0.93 | <MDA | 11.27 | 3.53 | 4.14 | <MDA | 15.88 | 1.00 | 0.100 | 1.76 | 3/25/93 13:05 |
| 14 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:05 |
| 15 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:06 |
| 16 | 7.741 | 8.17 | AL/AL | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 2.938 | 1.24 | 3/25/93 13:06 |
| 17 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:07 |
| 18 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:07 |
| 19 | 0.2e4 | 1.00 | <MDA | 26.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 1.70 | 3/25/93 13:08 |
| 20 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:08 |
| 21 | 0.2e4 | 1.00 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 33.88 | 0.34 | 0.100 | 1.24 | 3/25/93 13:09 |
| 22 | 0.2e4 | 1.03 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 13:09 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

- BRICK
- CONCRETE
- CONC BLOCK EXT
- CONC BLOCK INT
- DRYWALL & PARTING

SCALE: FEET

0 5 10 15 20 25

PARTS LIST

WESTINGHOUSE Advanced Energy Systems Division
 BUILDING #5
 FIRST FLOOR
 DRAWING NO. 5
 WAESP LARG.C.P.A.

DATE: JUN 1964
 DRAWN BY: D 14683
 CHECKED BY: JN-009 A



| (*) IIF USED | ALPHA SURVEY EQUIPMENT | | BETA SURVEY EQUIPMENT | | COUNTING EQUIPMENT (ALPHA) | | | | | |
|--------------|------------------------|-------|-----------------------|--------------|----------------------------|------|---------------------------|-------|------|------|
| | INST: S/N | EFF | INST: S/N | EFF | INST: S/N | EFF | C.F. | BKG | | |
| * | ESP2: 1517 | 21.1% | 4.74 | ESP2: 1595 | 34.2% | 2.92 | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | ESP2: 1517-L | 21.7% | 4.60 | ESP2: 1595-L | 31.3% | 3.20 | SAC4: 1128 | 40.6% | 2.46 | |
| * | ESP2: 1601-L | 23.1% | 4.33 | ESP2: 1588-L | 34.3% | 2.91 | SAC4: 263 | 34.7% | 2.88 | |
| | ESP2: | | | ESP2: | | | COUNTING EQUIPMENT (BETA) | | | |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 | INST: S/N | EFF | C.F. | BKG |
| | ASP1: 1891 | 19.1% | 5.23 | E520: 5245 | | | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | PAC4G: 4478 | 18.5% | 5.4 | PAC4G: 4478 | 33.5% | 3.0 | MS-2: 1848 | 26.4% | 3.8 | |
| | FLMON: 91943 | 18.8% | 5.3 | FLMON: 91943 | 28.8% | 3.47 | BC-4: 808 | 16.9% | 5.92 | |

| |
|----------------------|
| SURVEY DATE: 3/25/93 |
| COUNT DATE: 3/25/93 |

| (*) IIF USED | GAMMA OR BETA/GAMMA EQUIP | | R/S: L-2088 | UR/hr |
|--------------|---------------------------|-----|-------------|-------|
| | INST: S/N | BKG | | |
| | PRM7: 234 | | | UR/hr |
| | E520: 5242 | | | mr/hr |
| | E520: 5245 | | | mr/hr |
| | ESP2: 1522 | | | mr/hr |

| (*) IIF USED | ALPHA SURVEY EQUIPMENT | | BETA SURVEY EQUIPMENT | | X, Y REF POINT | GRID | GAMMA @ 1 M. UR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|--------------|------------------------|-------|-----------------------|--------------|----------------|------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------------|
| | INST: S/N | EFF | INST: S/N | EFF | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| | ESP2: 1517 | 21.1% | 4.74 | ESP2: 1595 | 34.2% | 2.92 | N/A | N/A | 491 | 420 | 1 | 396 | -0.264 | -2.49 | Brick |
| | ESP2: 1517-L | 21.7% | 4.60 | ESP2: 1595-L | 31.3% | 3.20 | " | " | 501 | 450 | 2 | 455 | -0.264 | 3.59 | " |
| * | ESP2: 1601-L | 23.1% | 4.33 | ESP2: 1588-L | 34.3% | 2.91 | " | " | 416 | 380 | 0 | 421 | -0.264 | 3.41 | " |
| | ESP2: | | | ESP2: | | | " | " | 433 | 415 | 0 | 428 | -0.264 | -2.49 | " |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 | " | " | 355 | 285 | 0 | 292 | -0.264 | -2.49 | Concrete Block |
| | ASP1: 1891 | 19.1% | 5.23 | E520: 5245 | | | " | " | 328 | 295 | 0 | 313 | -0.264 | -2.49 | " |
| | PAC4G: 4478 | 18.5% | 5.4 | PAC4G: 4478 | 33.5% | 3.0 | " | " | 396 | 300 | 1 | 272 | -0.264 | -2.49 | " |
| | FLMON: 91943 | 18.8% | 5.3 | FLMON: 91943 | 28.8% | 3.47 | " | " | | | | | | | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. UR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| East Wall | N/A | 1, -5.8 | N/A | N/A | 491 | 420 | 1 | 396 | -0.264 | -2.49 | Brick |
| " | " | 4, -4.8 | " | " | 501 | 450 | 2 | 455 | -0.264 | 3.59 | " |
| " | " | 6, -4.8 | " | " | 416 | 380 | 0 | 421 | -0.264 | 3.41 | " |
| " | " | 7, -5.8 | " | " | 433 | 415 | 0 | 428 | -0.264 | -2.49 | " |
| " | " | 8, -4.8 | " | " | 355 | 285 | 0 | 292 | -0.264 | -2.49 | Concrete Block |
| West Wall | " | 3, -5.8 | " | " | 328 | 295 | 0 | 313 | -0.264 | -2.49 | " |
| " | " | 10, -4.8 | " | " | 396 | 300 | 1 | 272 | -0.264 | -2.49 | " |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 057 (Survey Section - Sequential survey #) | LOCATION # 1-4-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0430 | SURVEY SIGNATURE: MS/TB <i>[Signature]</i> |
|--|--|---|----------------------------|---|

[Handwritten Signature]

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\LIXI\UNIT1\0104010P.XLD
 Batch Ended: 3/25/93 14:45
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 14.35

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: MFS 1.4.1 Upper surfaces

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 1 | 0.264 | 1.60 | <MDA | 26.10 | 2.49 | 3.07 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/25/93 14:42 |
| 2 | 0.264 | 1.63 | <MDA | 26.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 3/25/93 14:43 |
| 3 | 0.264 | 1.60 | <MDA | 26.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/25/93 14:43 |
| 4 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.03 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 14:44 |
| 5 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.03 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 14:44 |
| 6 | 0.264 | 1.60 | <MDA | 26.10 | 2.49 | 3.07 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/25/93 14:45 |
| 7 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.03 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 14:45 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\LEXI\UNIT1\010402.XLD
 Batch Ended: 3/25/93 11:34
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: tjs 010402 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 6 | -0.264 | 1.00 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/25/93 11:34 |
| 7 | -0.264 | 1.03 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/25/93 11:34 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 1 | * | ESP2:1588-L | 34.3% | 2.91 | 296 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

SURVEY DATE: 3/25/93
 COUNT DATE: 3/25/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|-----------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| West Wall | N/A | 2, -1 | N/A | N/A | 479 | 400 | 0 | 396 | -0.264 | 3.59 | Brick (ESP's used for |
| North Wall | " | 1, -1 | " | " | 412 | 340 | 0 | 369 | -0.264 | 9.66 | " scans & 1 min |
| " | " | 3, 0 | " | " | 419 | 370 | 0 | 425 | -0.264 | -2.49 | " counts) |
| " | " | 5, -1 | " | " | 432 | 350 | 2 | 359 | -0.264 | 3.59 | " " |
| Ceiling | " | 2, -2 | " | " | 333 | 310 | 2 | 263 | -0.264 | 9.31 | Steel Plate " |
| " | " | 4, -2 | " | " | 364 | 300 | 1 | 293 | -0.264 | -2.49 | " " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

FORM SERIAL #: 1 - 047 (Survey Section - Sequential survey #)
 LOCATION # 1-4-2 (Survey Section - Unit # - Sub Unit #)
 SURVEY CLASSIFICATION: IV (Group I, II, III, IV)
 DISK FILE CODE: FDS - 0421
 SURVEYOR SIGNATURE: MS/TB

MS/TB

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: pro210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 14.5kV

Application Revision: 2

Application Version: Standard

Date: 3/25/93

Counting Unit ID: 1

Data file name: C:\EXE3\BHE11010402UP.XLD

Batch Ended: 3/25/93 13:13

Crosstalk Correction: Not Applied

Batch ID: TSB-147 upper surfaces

| Count | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|-------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 23 | 0.264 | 1.03 | <MDA | 6.84 | 3.59 | 7.74 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 3/25/93 13:10 |
| 24 | 0.264 | 1.03 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | 0.100 | 4.82 | 3/25/93 13:10 |
| 25 | 0.264 | 1.03 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 3.63 | 0.33 | 0.100 | -1.24 | 3/25/93 13:11 |
| 26 | 0.264 | 1.03 | <MDA | 28.84 | 3.59 | 7.74 | <MDA | 34.65 | 0.33 | 0.100 | 1.79 | 3/25/93 13:12 |
| 27 | 0.264 | 1.00 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | 0.100 | 4.64 | 3/25/93 13:12 |
| 28 | 0.264 | 1.00 | <MDA | 28.10 | 7.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/25/93 13:13 |

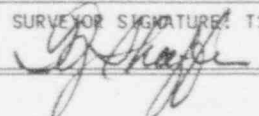
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 7 | * | FLMON:91943 | 28.8% | 3.47 | 1274 |

| |
|----------------------|
| SURVEY DATE: 3/25/93 |
| COUNT DATE: 3/25/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 12 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | FS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 4, -3 | 12 | .01 | 1331 | 1250 | 8 | 1253 | -0.264 | -2.49 | Floor monitor use |
| " | " | 2, -3 | 12 | .01 | 1484 | 1410 | 9 | 1365 | -0.264 | -2.49 | scans & 1 minute counts |
| " | " | 2, -1 | 13 | .01 | 1331 | 1250 | 7 | 1290 | -0.264 | -2.49 | " |
| " | " | 4, -1 | 13 | .01 | 1420 | 1310 | 10 | 1274 | -0.264 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 048 (Survey Section - Sequential survey #) | LOCATION # 1-4-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0422 | SURVEYOR SIGNATURE: TS  |
|--|--|---|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\LBXI\UNIF1\016403.XLD
 Batch Ended: 3/25/93 11:36
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 14.35

Application Revision: 2
 Application Version: Standard

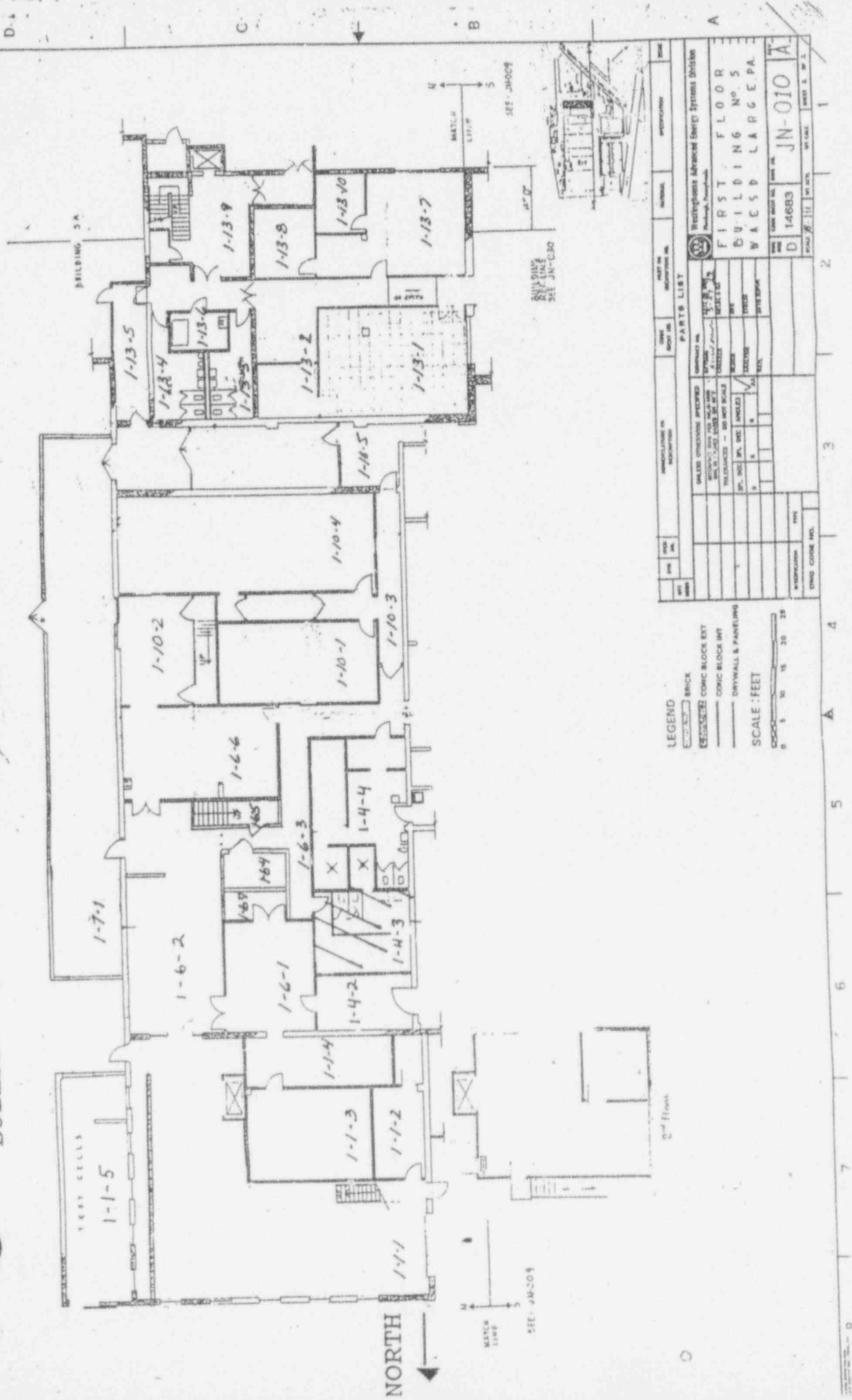
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.68%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: ijs 016403 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 8 | 0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 7.34 | -0.100 | -1.24 | 3/25/93 11:35 |
| 9 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 11:35 |
| 10 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 11:36 |
| 11 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 11:36 |

BUILDING #5 FIRST FLOOR (Northern portion)



LEGEND

- BRICK
- CONCRETE
- CONCRETE BLOCK EXT
- CONCRETE BLOCK INT
- DAYWALL & PANELING

SCALE: FEET

0 5 10 15 20 25

PARTS LIST

| ITEM NO. | DESCRIPTION | QUANTITY | UNIT | PRICE | TOTAL |
|----------|--------------------|----------|------|-------|-------|
| 1 | BRICK | | | | |
| 2 | CONCRETE | | | | |
| 3 | CONCRETE BLOCK EXT | | | | |
| 4 | CONCRETE BLOCK INT | | | | |
| 5 | DAYWALL & PANELING | | | | |

Electrophysics Advanced Energy Systems Division

FIRST FLOOR

BUILDING NO. 5

WACSD LARGE PA.

DATE: 10/11/68

BY: JN-010

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

GRID

| | | |
|------|-----|-------------|
| LINE | NO. | DESCRIPTION |
| A | 1 | |
| A | 2 | |
| A | 3 | |
| A | 4 | |
| A | 5 | |
| A | 6 | |
| A | 7 | |

| (*) IF USED | ALPHA SURVEY EQUIPMENT | | | (*) IF USED | BETA SURVEY EQUIPMENT | | |
|-------------|------------------------|-------|------|-------------|-----------------------|-------|------|
| | INST: S/N | EFF | C.F. | | INST: S/N | EFF | C.F. |
| | ESP2:1517 | 21.1% | 4.74 | | ESP2:1595 | 34.2% | 2.92 |
| | ESP2:1517-L | 21.7% | 4.60 | | ESP2:1595-L | 31.3% | 3.20 |
| * | ESP2:1601-L | 23.1% | 4.33 | * | ESP2:1588-L | 34.3% | 2.91 |
| | ESP2: | | | | ESP2: | | |
| | ESP2: | | | | E520: 5242 | 20.3% | 4.92 |
| | ASP1: 1891 | 19.1% | 5.23 | | E520: 5245 | 33.5% | 3.0 |
| | PAC46:4478 | 18.5% | 5.4 | | PAC46:4478 | | |
| | FLMON:91943 | 18.8% | 5.3 | | FLMON:91943 | 28.8% | 3.47 |

| |
|----------------------|
| SURVEY DATE: 3/25/93 |
| COUNT DATE: 3/25/93 |

| (*) IF USED | GAMMA OR BETA/GAMMA EQUIP | | |
|-------------|---------------------------|-----|-------|
| | INST: S/N | BKG | UR/hr |
| | R/S: L-2088 | | ur/hr |
| | PRM7: 234 | | ur/hr |
| | E520: 5242 | | mr/hr |
| | E520: 5245 | | mr/hr |
| | ESP2: 1522 | | mr/hr |

| (*) IF USED | COUNTING EQUIPMENT (ALPHA) | | |
|-------------|----------------------------|-------|------|
| | INST: S/N | EFF | C.F. |
| * | TENN: 13295 | 37.8% | 2.64 |
| | SAC4: 1128 | 40.6% | 2.46 |
| | SAC4: 263 | 34.7% | 2.88 |
| (*) IF USED | COUNTING EQUIPMENT (BETA) | | |
| | INST: S/N | EFF | C.F. |
| * | TENN: 13295 | 49.9% | 2.0 |
| | MS-2: 1848 | 26.4% | 3.8 |
| | BC-4: 808 | 16.9% | 5.92 |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. UR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | | CONTACT GROSS 1 MIN. CT. | | | SMEAR LEVELS IN DPM/100cm2 | | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|-----|--------------------------|------|-----|----------------------------|-------|-----|----------|
| | | | | | MAX BETA | AVG BETA | BKG | ALPHA | BETA | BKG | ALPHA | BETA | BKG | |
| Ceiling | N/A | 2, -4 | N/A | N/A | 252 | 220 | | 0 | 274 | | -0.264 | -2.49 | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| | | | | |
|--|--|---|----------------------------|--|
| FORM SERIAL #: 1 - 069 (Survey Section - Sequential survey #) | LOCATION # 1-4-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0423 | DATE OF SURVEY SIGNATURE MS/TB <i>[Signature]</i> |
|--|--|---|----------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\L101\WIND\930104030P.XLD
 Batch Ended: 3/25/93 13:13
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

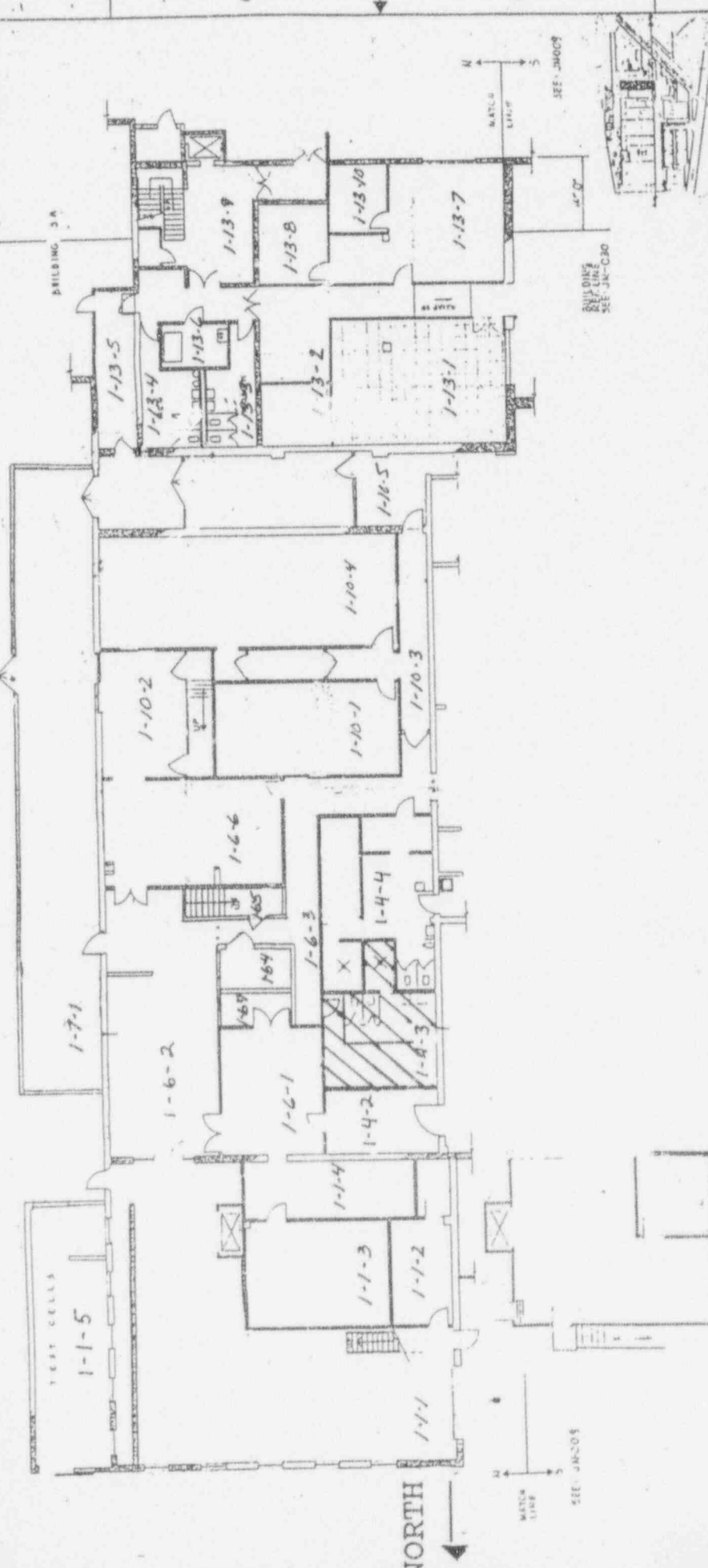
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSE 143 upper surfaces

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 29 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 13:13 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

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

SCALE: FEET
0 5 10 15 20 25

| SYMBOL | DESCRIPTION |
|---------|--------------------|
| WALLS | CONCRETE BLOCK EXT |
| WALLS | CONCRETE BLOCK INT |
| WALLS | DRYWALL & PANELING |
| DOORS | ... |
| WINDOWS | ... |
| STAIRS | ... |
| ... | ... |

PARTS LIST

CONTRACT NO. _____
 PROJECT NO. _____
 DRAWING NO. _____
 SHEET NO. _____

Washington Advanced Energy Systems Division
FIRST FLOOR
BUILDING NO. 5
W A E S D L A R G E P A

DATE: 14683
 DRAWN BY: JN-010
 CHECKED BY: _____
 APPROVED BY: _____

GRID: A 1 2 3 4 5 6 7

GRID: 1 2 3

DATE: 14683
 DRAWN BY: JN-010
 CHECKED BY: _____
 APPROVED BY: _____

W A E S D L A R G E P A

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 2 | * | FLMON:91943 | 28.8% | 3.47 | 1227 |

| |
|----------------------|
| SURVEY DATE: 3/25/93 |
| COUNT DATE: 3/25/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 4, -6 | 10 | .02 | 1278 | 1250 | 5 | 1246 | -0.264 | 9.31 | Floor monitor used for |
| " | " | 4, -4 | 10 | .01 | 1218 | 1175 | 2 | 1244 | -0.264 | 3.41 | scans & 1 minute counts |
| " | " | 2, -4 | 10 | .02 | 1320 | 1275 | 8 | 1220 | -0.264 | -2.49 | " |
| " | " | 1, -2 | 14 | .02 | 1374 | 1275 | 8 | 1380 | -0.264 | -2.49 | " |
| " | " | 1, -4 | 12 | .02 | 1366 | 1275 | 5 | 1292 | -0.264 | -2.49 | " |
| " | " | 1, -6 | 14 | .02 | 1266 | 1175 | 2 | 1258 | -0.264 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|---------------------------|--|
| FORM SERIAL #: 1 - 050 (Survey Section - Sequential survey #) | LOCATION # 1-4-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS -0424 | SURVEYOR SIGNATURE: TS <i>[Signature]</i> |
|--|--|---|---------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\LBX\UNIT1\010404.XLD
 Batch Ended: 3/25/93 11:40
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: tjs 010404 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 12 | 0.264 | 1.00 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/25/93 11:37 |
| 13 | 0.264 | 1.00 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/25/93 11:37 |
| 14 | 0.264 | 1.00 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/25/93 11:38 |
| 15 | 0.264 | 1.03 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 11:39 |
| 16 | 0.264 | 1.03 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 11:39 |
| 17 | 0.264 | 1.00 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.54 | -0.100 | -1.24 | 3/25/93 11:40 |

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.8%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Confidence level for MDA and flags: 95.00%

High Voltage Setting: 143v

Application Revision: 2

Application Version: Standard

Date: 3/25/93

Counting Unit ID: 1

Data file name: L:\LBI\010510\010510-01.XID

Batch Epoch: 3/25/93 03:11

Crosstalk Correction: Not Applied

Batch ID: TSI: 144 alpha surfaces

| Count | Alpha Activity | | | | Beta Activity | | | | Count Time (min) | Alpha CPM | Beta CPM | Completion TOD |
|-------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 30 | 0.264 | 1.03 | <MDA | 23.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 13:14 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | SP2:1595 | 34.2% | 2.92 | |
| * | ESP2:1517-L | 21.7% | 4.60 | 2 | * | ESP2:1595-L | 31.3% | 3.20 | 277 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:447B | 18.5% | 5.4 | | | PAC4G:447B | 33.5% | 3.0 | |
| | FLMON:91943 | 20.4% | 4.9 | | | FLMON:91943 | 30.3% | 3.3 | |

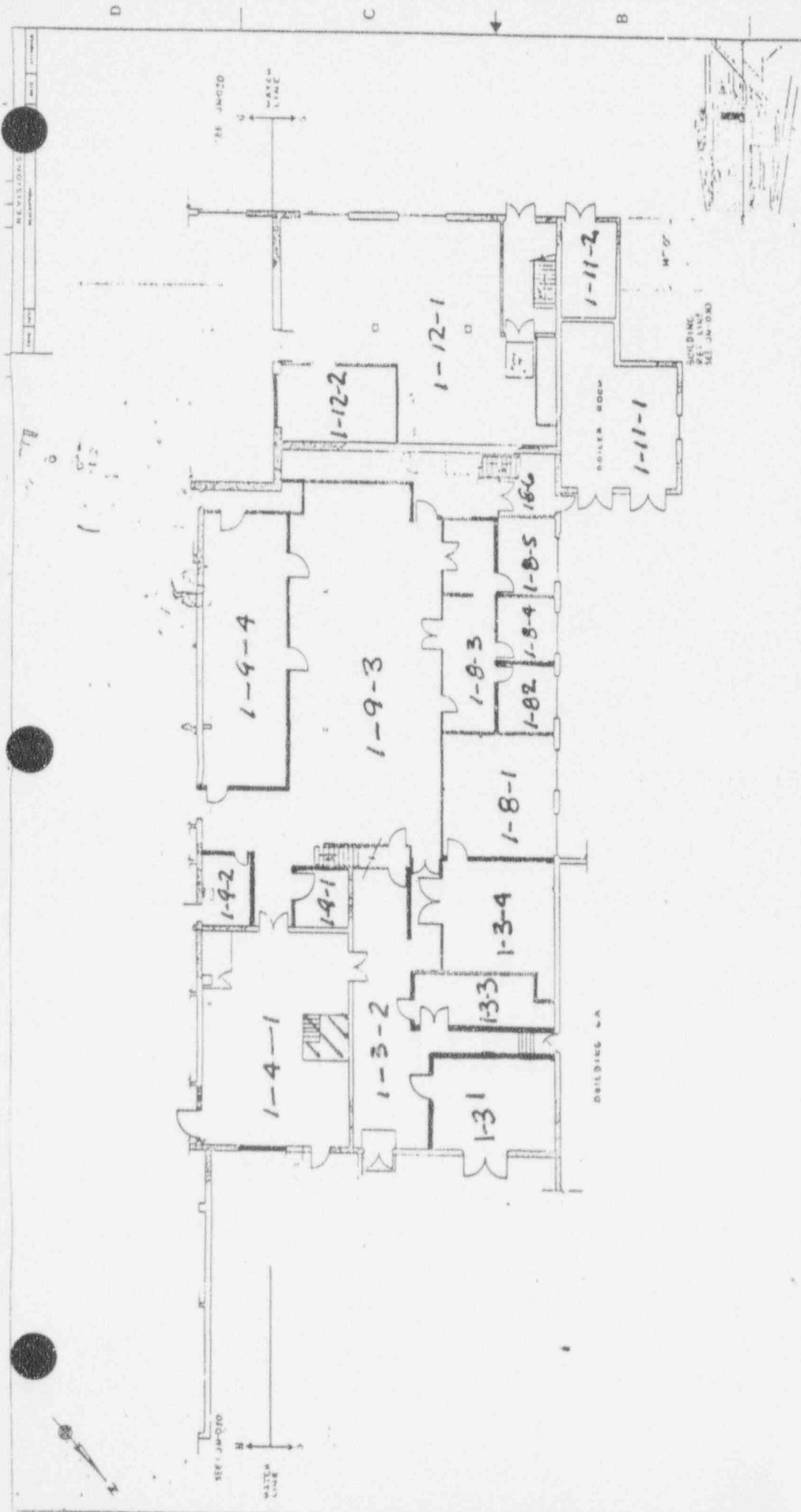
| |
|----------------------|
| SURVEY DATE: 1/26/93 |
| COUNT DATE: 1/23/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|------------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 28 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .007 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|-------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | 0.055 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|---------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|-----------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Old Furnace Pit | See Map | See Map 1. | 28 | .008 | 2390 | 1500 | 9.99 | 1920 | -0.149 | -2.82 | Survey point showed |
| " | " | " 2. | 32 | .003 | 406 | 380 | 6.99 | 496 | -0.149 | 9.03 | elevated levels-refer |
| " | " | " 3. | 30 | .001 | 210 | 175 | 5.00 | 180 | -0.149 | 9.39 | to survey of 2/3/93 & |
| " | " | " 4. | 30 | .007 | 380 | 260 | 6.00 | 343 | -0.149 | 3.28 | 2/4/93. Refer to |
| " | " | " 5. | 22 | .007 | 423 | 295 | 6.99 | 487 | -0.149 | 3.10 | sketch attached. |
| | | | | | | | | | | | Subsequent surveys |
| | | | | | | | | | | | performed to decon |
| | | | | | | | | | | | area: Refer to |
| | | | | | | | | | | | FDS-0225 |

| | | | | |
|--|--|---|--------------------------|---------------------------|
| FORM SERIAL #: 1-026 (Survey Section - Sequential survey #) | LOCATION # 1-4-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0224 | SURVEYOR SIGNATURE: TS/MS |
|--|--|---|--------------------------|---------------------------|



| NO. | DESCRIPTION | QTY. | UNIT | REMARKS |
|------------|----------------|------|------|---------|
| PARTS LIST | | | | |
| 1 | BRICKS | | | |
| 2 | CONCRETE BLOCK | | | |
| 3 | CEILING | | | |
| 4 | PAINT | | | |
| 5 | GLASS | | | |
| 6 | DOORS | | | |
| 7 | WINDOWS | | | |
| 8 | ROOFING | | | |
| 9 | MECHANICAL | | | |
| 10 | ELECTRICAL | | | |
| 11 | PLUMBING | | | |
| 12 | IRONWORK | | | |
| 13 | PAVING | | | |
| 14 | LANDSCAPE | | | |
| 15 | OTHER | | | |

LEGEND

- BRICK
- CONCRETE BLOCK
- CEILING
- PAINT
- GLASS
- DOORS
- WINDOWS
- ROOFING
- MECHANICAL
- ELECTRICAL
- PLUMBING
- IRONWORK
- PAVING
- LANDSCAPE
- OTHER

SCALE: FEET

0 5 10 15 20 25

REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |
| | | |
| | | |

PROJECT INFORMATION

PROJECT NO. **JN-009**

DATE **14683**

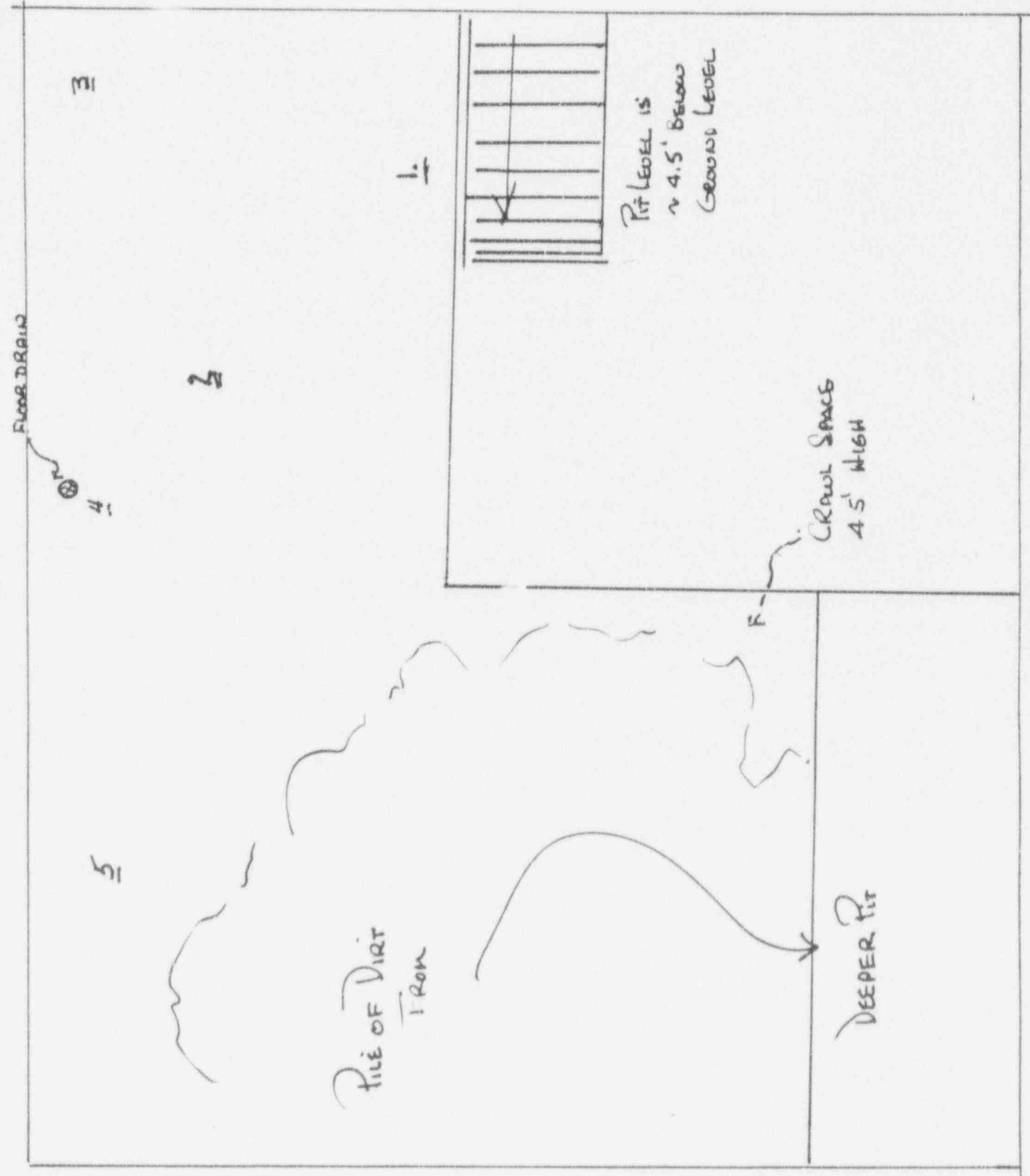
SCALE **1/4" = 1'-0"**

FIRST FLOOR

BUILDING NO. 5

WAESB LARG C. PA

BLDG 5 PIT BENEATH GROUND FLOOR
SURVEY SUBSECTION 1-4-1



LB5100W Low Background Counting System -- Smear Analysis

Date: 2/2/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\BLDG5PIT.XLD
 Batch Ended: 1/23/93 12:44
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB - Bldg 5 pit

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | 1.40 | 1/23/93 12:42 |
| 2 | -0.149 | 1.35 | <MDA | 27.24 | 9.03 | 9.34 | <MDA | 35.16 | 0.34 | -0.055 | 4.48 | 1/23/93 12:42 |
| 3 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 1/23/93 12:43 |
| 4 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 1/23/93 12:43 |
| 5 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 1/23/93 12:44 |
| 6 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 1/23/93 12:44 |

SURVEY POINT NOT NEEDED.

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | SP2:1595 | 34.2% | 2.92 | |
| * | ESP2:1517-L | 21.7% | 4.60 | 2 | * | ESP2:1595-L | 31.3% | 3.20 | 288 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 20.4% | 4.9 | | | FLMON:91943 | 30.3% | 3.3 | |

SURVEY DATE: 2/3/93
 COUNT DATE: 2/3 & 4/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| * | SAC4: 1128 | 40.6% | 2.46 | .35 |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| * | MS-2: 1848 | 25.0% | 4.0 | 21.2 |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|--------------------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor-(Pre-decon) | 1. See Map | See Map | N/A | N/A | 3,600 | 2750 | N/A | 3260 | 7.7 | 19.2 | Manual counters used |
| " | 2. " | " | " | " | 5,500 | 4380 | " | 5240 | 4.8 | - .8 | for smears-"Hot spots" |
| " | 3. " | " | " | " | 3,370 | 3000 | " | 3020 | 4.8 | 11.2 | " |
| " | 4. " | " | " | " | 2,730 | 2400 | " | 2150 | 7.7 | -4.8 | " |
| " | 5. " | " | " | " | 11,300 | 9875 | " | 9675 | 7.7 | 15.2 | " |
| Floor-(Post-decon) | 1. " | " | " | " | 881 | 750 | 6 | 919 | -.264 | -2.49 | TENNELEC USED FOR COUNTING (see log) |
| " | 2. " | " | " | " | 916 | 850 | 23 | 569 | -.264 | -2.49 | " |
| " | 3. " | " | " | " | 500 | 435 | 6 | 352 | -.264 | -2.49 | " |
| " | 4. " | " | " | " | 720 | 680 | 55 | 432 | -.264 | -2.49 | " |
| " | 5. " | " | " | " | 970 | 898 | 3 | 985 | -.264 | -2.49 | " |
| Deep Pit Walls | " | " | " | " | 201 | 190 | N/A | N/A | 5.019 | 3.53 | 15% scanned only - |
| " | " | " | " | " | 345 | 288 | " | " | -.264 | -2.49 | due to water and |
| " | " | " | " | " | 190 | 170 | " | " | 7.741 | 3.59 | debris in pit area. |
| " | " | " | " | " | 188 | 165 | " | " | -.264 | 3.59 | |
| " | " | " | " | " | 175 | 170 | " | " | N/A | N/A | |

| | | | | |
|--|--|---|--------------------------|--|
| FORM SERIAL #: 1-027 (Survey Section - Sequential survey #) | LOCATION # 1-4-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0225 | SURVEYOR SIGNATURE: MS. <i>W. Stoffer</i> |
|--|--|---|--------------------------|--|



Survey Section # 1-4-1

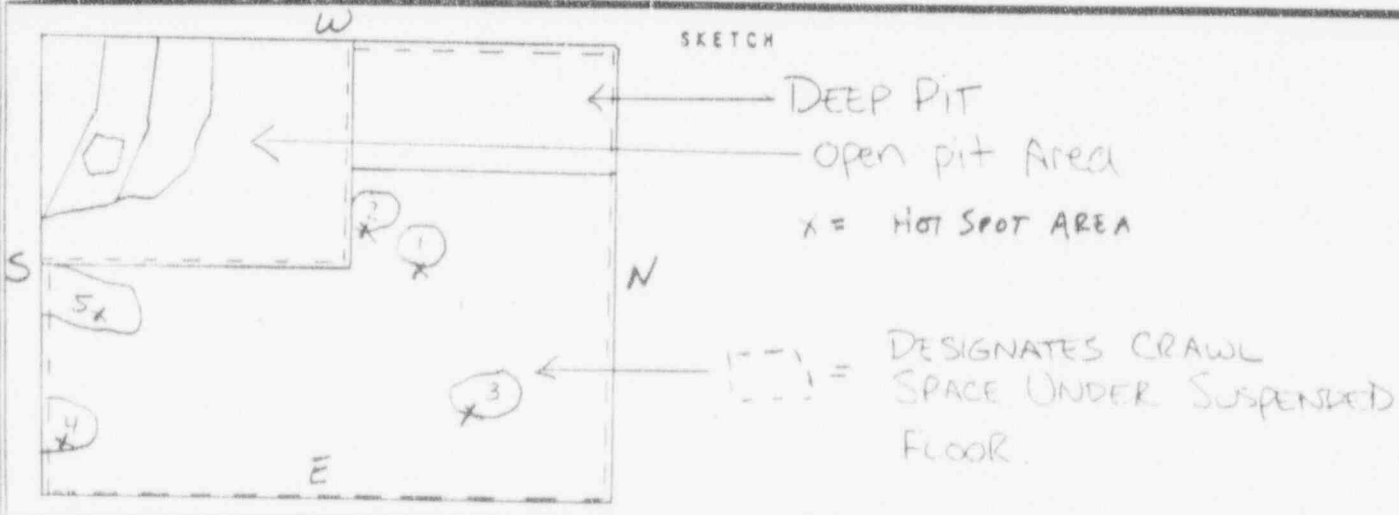
| | | |
|---|---------------|------------------------------------|
| SURVEY TYPE: ROUTINE <input checked="" type="checkbox"/> SPECIAL <input type="checkbox"/> RWP <input checked="" type="checkbox"/> (RWP #93-003) | | SURVEY DATE: 2/3/93 |
| LOCATION: BLDG 5 Old Furnace Pit (Floor) | | SURVEY TIME: 0745 |
| INSTRUMENT: ESP | SERIAL # 1517 | PROBE TYPE: HP-100A α |
| INSTRUMENT: ESP | SERIAL # 1595 | PROBE TYPE: HP-100A B ⁻ |

DESCRIPTION OF SURVEY

THIS SURVEY WAS PERFORM TO VERIFY ANY UNACCEPTABLE RADIATION LEVELS / CONTAMINATION LEVELS PRIOR TO BACK-FILLING OF PIT AREA.

| PRE-DECON | POST-DECON | Note |
|----------------------------|---------------------------|--|
| 1. 3260 cpm B ⁻ | 1. 919 cpm B ⁻ | All CPM values are + min. count rate MMS 2/3 |
| 2. 5240 cpm B ⁻ | 2. 569 cpm B ⁻ | |
| 3. 3020 cpm B ⁻ | 3. 352 cpm B ⁻ | |
| 4. 2150 cpm B ⁻ | 4. 432 cpm B ⁻ | |
| 5. 9675 cpm B ⁻ | 5. 985 cpm B ⁻ | |

Smears Counted for 1 minute



REMARKS

SEE ATTACHED SMEAR PRINT-OUT AND FORM # 1004
ALSO FDS Form for further information

MMS 2/3

H.P. SIGNATURE

Michael Schiff

DATE: 2/3/93

LB5100W Low Background Counting System – Smear Analysis

Date: 2/2/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT 1\B5PITDEC.XLD
 Batch Ended: 2/4/93 8:21
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - Bldg 5 pit post decon

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 12 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/4/93 8:16 |
| 13 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/4/93 8:17 |
| 14 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/4/93 8:17 |
| 15 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/4/93 8:18 |
| 16 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 2/4/93 8:18 |
| 17 | 5.019 | 3.85 | At AL | 11.27 | 3.53 | 4.14 | <MDA | 15.88 | 1.00 | 1.900 | 1.76 | 2/4/93 8:19 |
| 18 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 2/4/93 8:20 |
| 19 | 7.741 | 8.17 | At AL | 28.84 | 3.58 | 7.24 | <MDA | 34.63 | 0.33 | 2.930 | 1.79 | 2/4/93 8:20 |
| 20 | -0.264 | 1.63 | <MDA | 28.84 | 3.58 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 2/4/93 8:21 |



SURVEY SECTION #: 1-4-1

| | | |
|--------------------------------------|-------------------------|--------------------|
| LOCATION : BUDG.5 Old Furnace PIT | SURVEYOR : "HP STAFF" | SURVEY DATE 2/3/93 |
| | COUNTED BY : "HP STAFF" | COUNT DATE 2/3/93 |

| COUNTER NUMBER | BETA/GAMMA | | | ALPHA |
|------------------|------------|-----|-----|-----------|
| | GM - 1 | | | ALPHA α 3 |
| BACKGROUND (CPM) | 21.2 CPM | CPM | CPM | .35 CPM |
| EFFICIENCY (%) | 25 % | % | % | 40.6 % |

ACTIVITY IN: MICROCURIES DPM CPM GROSS

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

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

Smears

1-3 = Pre-job

4-6 = during work evolution

All Smears Counted
 for 1 minute

MIS
 2/3

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/29/93
 Counting Unit id: 1
 Data file name: C:\EXI\UNIT1\10401V.XLD
 Batch Ended: 3/29/93 10:30
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

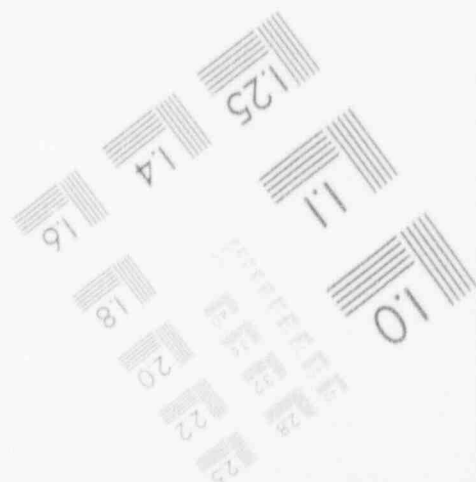
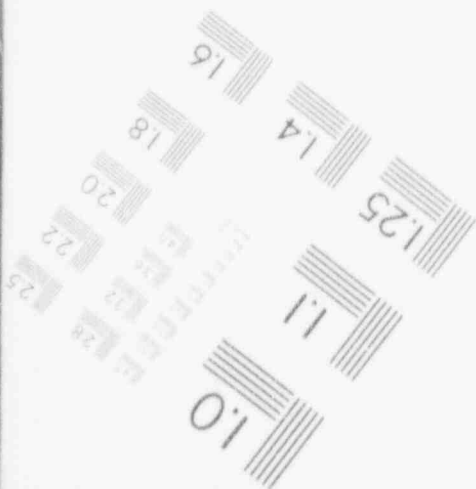
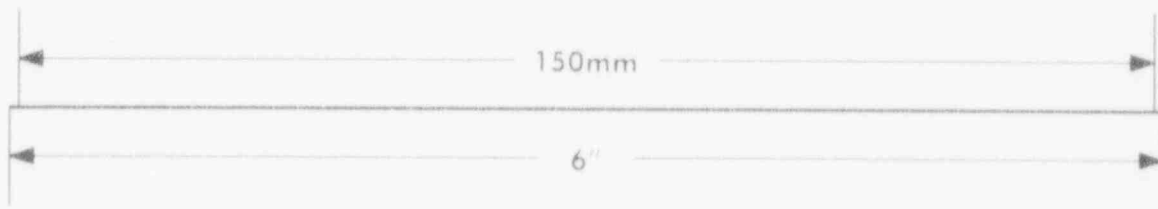
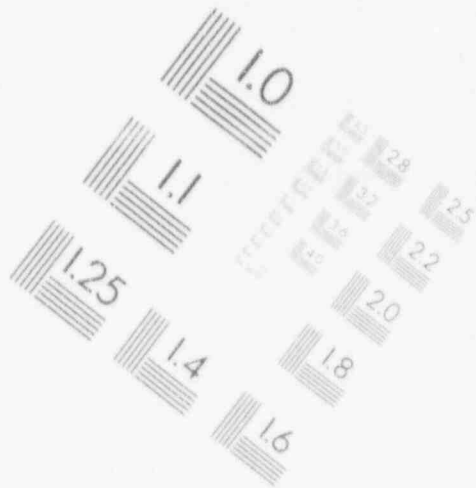
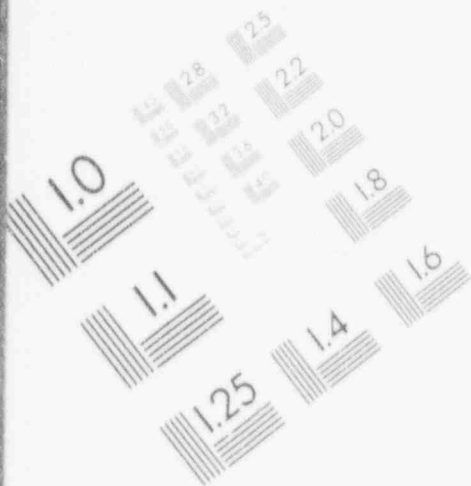
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: lb 010401 ventilation - *internals*

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 42 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 10:29 |
| 43 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.96 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/29/93 10:30 |

2

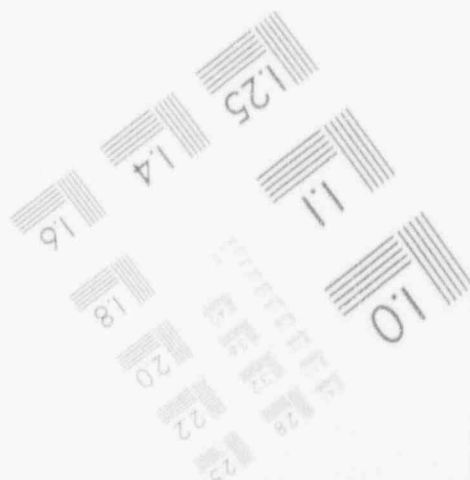
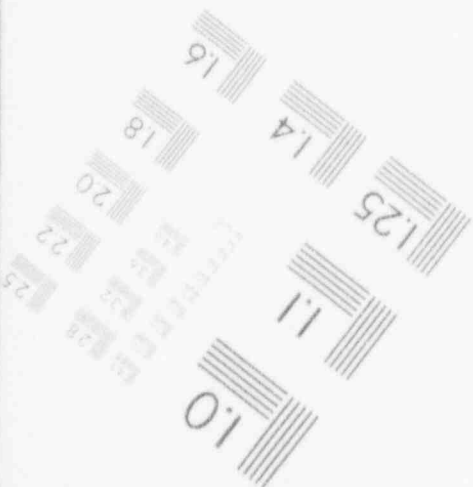
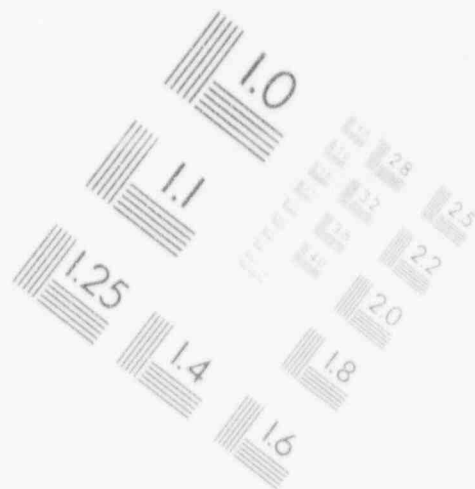
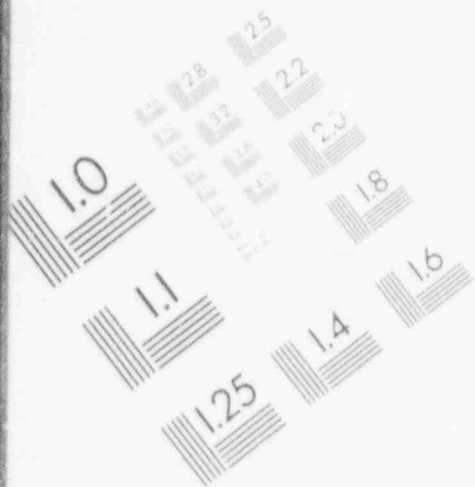
IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

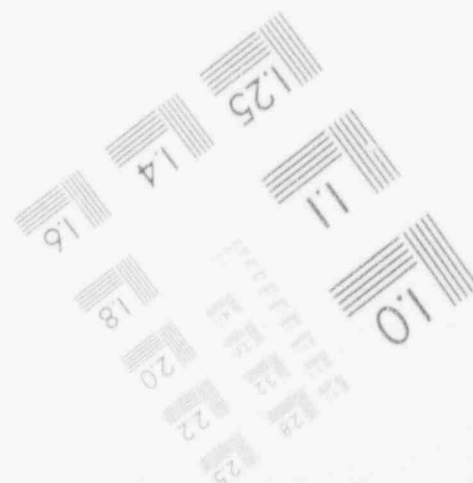
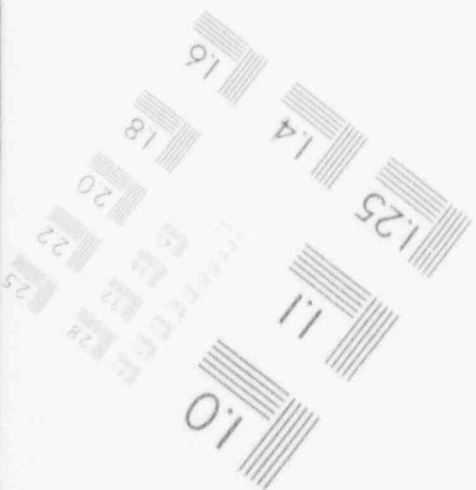
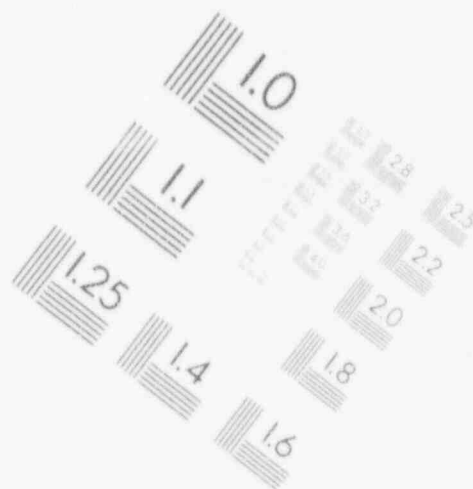
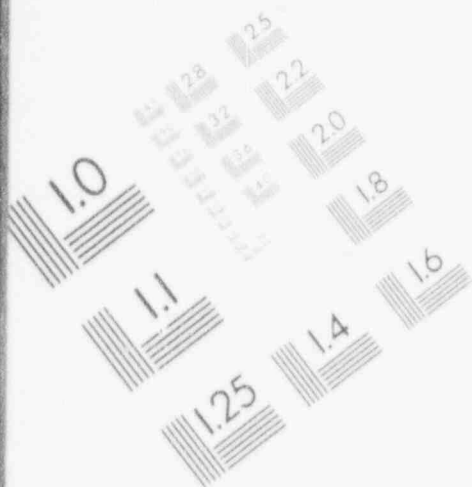
IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

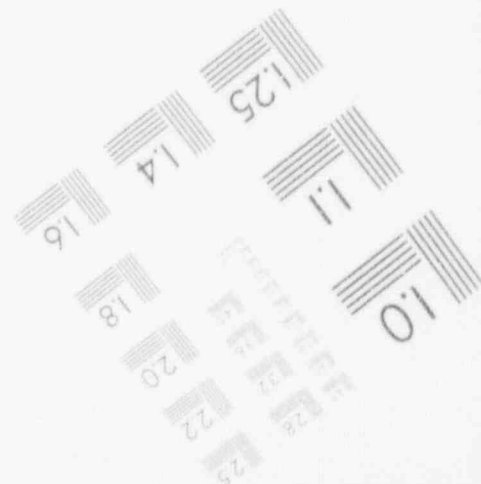
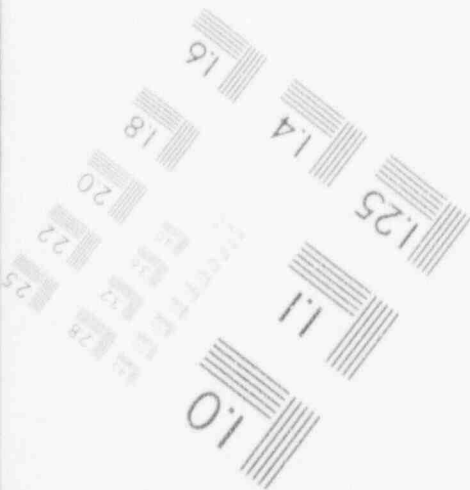
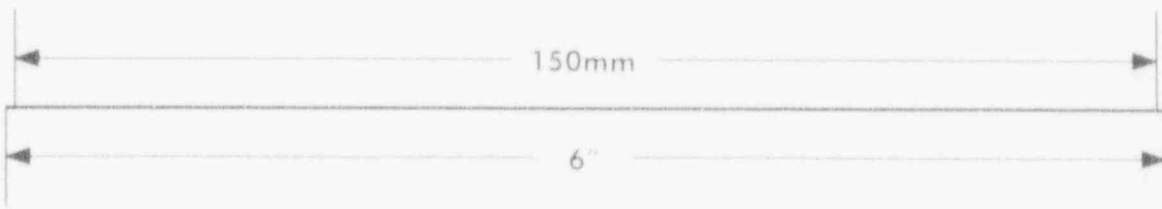
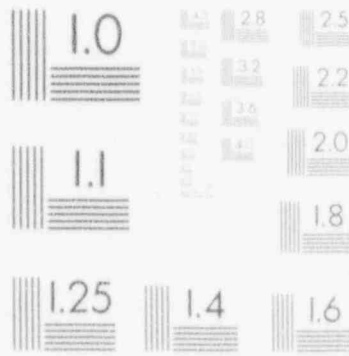
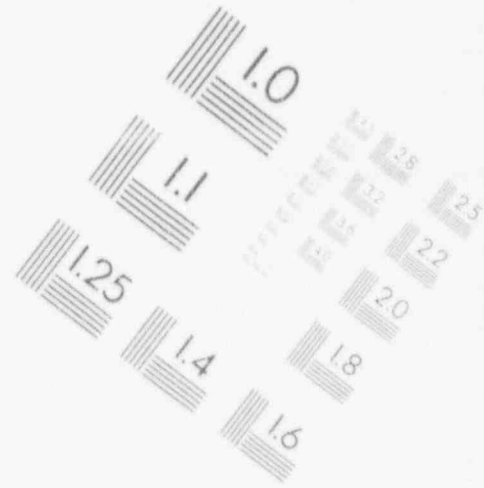
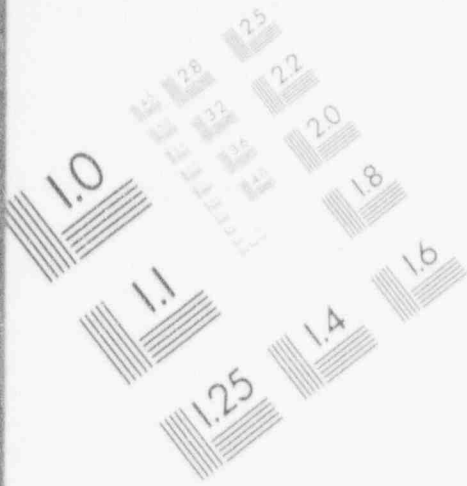
IMAGE EVALUATION TEST TARGET (MT-3)



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

BUILDING #5 FIRST FLOOR (Western portion)

D
C
B
A

SEE JN-020

MATCH LINE

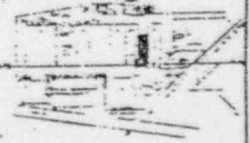
NORTH

BUILDING 5A

SEE JN-030

MATCH LINE

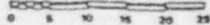
BUILDING
RET LINE
SEE JN-030



LEGEND

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

SCALE : FEET



| REV | DATE | DESCRIPTION | DATE | BY | CHKD | APPROVED |
|-------------------------------|------|-------------|---|---------|------|----------|
| PARTS LIST | | | | | | |
| UNLESS OTHERWISE SPECIFIED | | | DRAWING NO. | | | |
| WELDING SHALL BE PER AWS D1.1 | | | REV. NO. | | | |
| WELDED JOINTS - DO NOT SCALE | | | DATE | | | |
| SPL | REC | SPL | REC | AMOUNTS | BY | DATE |
| | | | | | | |
| SPECIFICATION | | | WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION | | | |
| DWD CODE NO. | | | Pittsburgh, Pennsylvania | | | |
| | | | FIRST FLOOR | | | |
| | | | BUILDING N° 5 | | | |
| | | | WAESD LARGE, PA | | | |
| | | | JN-009 A | | | |
| | | | 14683 | | | |

APPENDIX D

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 6

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 14.5k

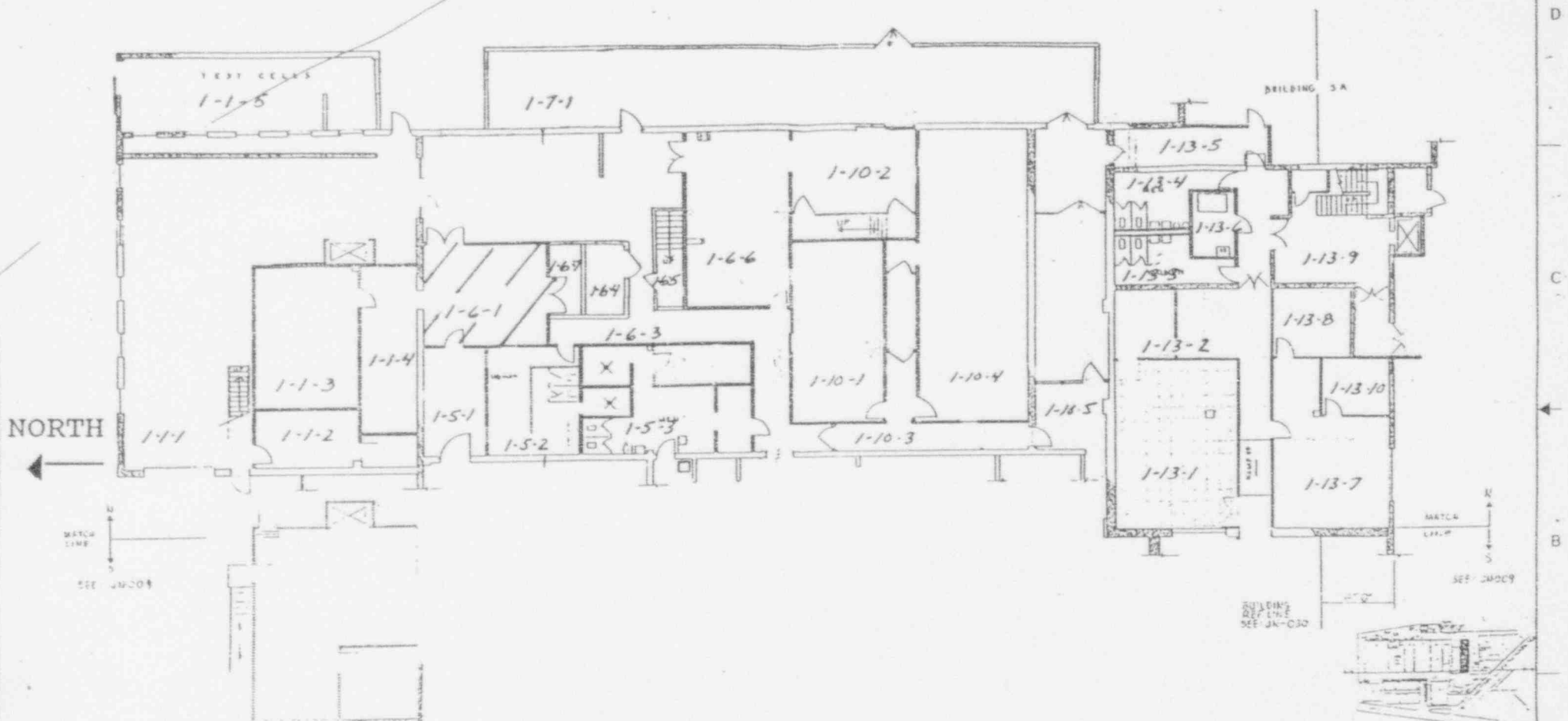
Application Revision: 2
 Application Version: Standard

Date: 3/29/93
 Counting Unit ID: 1
 Data file name: C:\EXL\MPRI\19710601.XLD
 Batch Ended: 3/29/93 10:10
 Crossstalk Correction: Not Applied

Batch ID: tjs floors walls 010601

| Carrier | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|---------------|-------|----------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | | | | |
| 1 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | -1.24 | 3/29/93 10:06 |
| 2 | 2.378 | 2.90 | <AL | 11.27 | 3.53 | 4.14 | <MDA | 15.88 | 1.76 | 3/29/93 10:08 |
| 3 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | -1.24 | 3/29/93 10:08 |
| 4 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | -1.24 | 3/29/93 10:09 |
| 5 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | -1.24 | 3/29/93 10:09 |
| 6 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | -1.24 | 3/29/93 10:10 |

BUILDING #5 FIRST FLOOR (Eastern portion)



LEGEND

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

SCALE: FEET



| QTY | REV | DESCRIPTION OR IDENTIFYING NO. | DATE | BY | REVISION NO. | PARTIAL | DESCRIPTION | DATE |
|------------------------------------|-----|--------------------------------|---------------------------|-----|--------------|---|-------------|----------------|
| PARTS LIST | | | | | | | | |
| UNLESS OTHERWISE SPECIFIED | | | COMPANY NO. | | | WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION | | |
| SPECIFY SIZE FOR HOLE-SIZES | | | SPECIFY | | | PITTSBURGH, PENNSYLVANIA | | |
| SEE IN NOTES BASED ON 1/8" = 1'-0" | | | TOLERANCES - DO NOT SCALE | | | FIRST FLOOR | | |
| INCH | DEC | MIL | INCH | DEC | MIL | FRAMES | FRAMES | BUILDING NO 5 |
| 0 | 0 | 0 | 0 | 0 | 0 | FRAMES | FRAMES | WAESD LARGE PA |
| 1 | 0 | 0 | 1 | 0 | 0 | FRAMES | FRAMES | |
| 2 | 0 | 0 | 2 | 0 | 0 | FRAMES | FRAMES | |
| 3 | 0 | 0 | 3 | 0 | 0 | FRAMES | FRAMES | |
| 4 | 0 | 0 | 4 | 0 | 0 | FRAMES | FRAMES | |
| 5 | 0 | 0 | 5 | 0 | 0 | FRAMES | FRAMES | |
| 6 | 0 | 0 | 6 | 0 | 0 | FRAMES | FRAMES | |
| 7 | 0 | 0 | 7 | 0 | 0 | FRAMES | FRAMES | |
| 8 | 0 | 0 | 8 | 0 | 0 | FRAMES | FRAMES | |
| 9 | 0 | 0 | 9 | 0 | 0 | FRAMES | FRAMES | |
| 10 | 0 | 0 | 10 | 0 | 0 | FRAMES | FRAMES | |
| 11 | 0 | 0 | 11 | 0 | 0 | FRAMES | FRAMES | |
| 12 | 0 | 0 | 12 | 0 | 0 | FRAMES | FRAMES | |
| 13 | 0 | 0 | 13 | 0 | 0 | FRAMES | FRAMES | |
| 14 | 0 | 0 | 14 | 0 | 0 | FRAMES | FRAMES | |
| 15 | 0 | 0 | 15 | 0 | 0 | FRAMES | FRAMES | |
| 16 | 0 | 0 | 16 | 0 | 0 | FRAMES | FRAMES | |
| 17 | 0 | 0 | 17 | 0 | 0 | FRAMES | FRAMES | |
| 18 | 0 | 0 | 18 | 0 | 0 | FRAMES | FRAMES | |
| 19 | 0 | 0 | 19 | 0 | 0 | FRAMES | FRAMES | |
| 20 | 0 | 0 | 20 | 0 | 0 | FRAMES | FRAMES | |
| 21 | 0 | 0 | 21 | 0 | 0 | FRAMES | FRAMES | |
| 22 | 0 | 0 | 22 | 0 | 0 | FRAMES | FRAMES | |
| 23 | 0 | 0 | 23 | 0 | 0 | FRAMES | FRAMES | |
| 24 | 0 | 0 | 24 | 0 | 0 | FRAMES | FRAMES | |
| 25 | 0 | 0 | 25 | 0 | 0 | FRAMES | FRAMES | |
| 26 | 0 | 0 | 26 | 0 | 0 | FRAMES | FRAMES | |
| 27 | 0 | 0 | 27 | 0 | 0 | FRAMES | FRAMES | |
| 28 | 0 | 0 | 28 | 0 | 0 | FRAMES | FRAMES | |
| 29 | 0 | 0 | 29 | 0 | 0 | FRAMES | FRAMES | |
| 30 | 0 | 0 | 30 | 0 | 0 | FRAMES | FRAMES | |
| 31 | 0 | 0 | 31 | 0 | 0 | FRAMES | FRAMES | |
| 32 | 0 | 0 | 32 | 0 | 0 | FRAMES | FRAMES | |
| 33 | 0 | 0 | 33 | 0 | 0 | FRAMES | FRAMES | |
| 34 | 0 | 0 | 34 | 0 | 0 | FRAMES | FRAMES | |
| 35 | 0 | 0 | 35 | 0 | 0 | FRAMES | FRAMES | |
| 36 | 0 | 0 | 36 | 0 | 0 | FRAMES | FRAMES | |
| 37 | 0 | 0 | 37 | 0 | 0 | FRAMES | FRAMES | |
| 38 | 0 | 0 | 38 | 0 | 0 | FRAMES | FRAMES | |
| 39 | 0 | 0 | 39 | 0 | 0 | FRAMES | FRAMES | |
| 40 | 0 | 0 | 40 | 0 | 0 | FRAMES | FRAMES | |
| 41 | 0 | 0 | 41 | 0 | 0 | FRAMES | FRAMES | |
| 42 | 0 | 0 | 42 | 0 | 0 | FRAMES | FRAMES | |
| 43 | 0 | 0 | 43 | 0 | 0 | FRAMES | FRAMES | |
| 44 | 0 | 0 | 44 | 0 | 0 | FRAMES | FRAMES | |
| 45 | 0 | 0 | 45 | 0 | 0 | FRAMES | FRAMES | |
| 46 | 0 | 0 | 46 | 0 | 0 | FRAMES | FRAMES | |
| 47 | 0 | 0 | 47 | 0 | 0 | FRAMES | FRAMES | |
| 48 | 0 | 0 | 48 | 0 | 0 | FRAMES | FRAMES | |
| 49 | 0 | 0 | 49 | 0 | 0 | FRAMES | FRAMES | |
| 50 | 0 | 0 | 50 | 0 | 0 | FRAMES | FRAMES | |
| 51 | 0 | 0 | 51 | 0 | 0 | FRAMES | FRAMES | |
| 52 | 0 | 0 | 52 | 0 | 0 | FRAMES | FRAMES | |
| 53 | 0 | 0 | 53 | 0 | 0 | FRAMES | FRAMES | |
| 54 | 0 | 0 | 54 | 0 | 0 | FRAMES | FRAMES | |
| 55 | 0 | 0 | 55 | 0 | 0 | FRAMES | FRAMES | |
| 56 | 0 | 0 | 56 | 0 | 0 | FRAMES | FRAMES | |
| 57 | 0 | 0 | 57 | 0 | 0 | FRAMES | FRAMES | |
| 58 | 0 | 0 | 58 | 0 | 0 | FRAMES | FRAMES | |
| 59 | 0 | 0 | 59 | 0 | 0 | FRAMES | FRAMES | |
| 60 | 0 | 0 | 60 | 0 | 0 | FRAMES | FRAMES | |
| 61 | 0 | 0 | 61 | 0 | 0 | FRAMES | FRAMES | |
| 62 | 0 | 0 | 62 | 0 | 0 | FRAMES | FRAMES | |
| 63 | 0 | 0 | 63 | 0 | 0 | FRAMES | FRAMES | |
| 64 | 0 | 0 | 64 | 0 | 0 | FRAMES | FRAMES | |
| 65 | 0 | 0 | 65 | 0 | 0 | FRAMES | FRAMES | |
| 66 | 0 | 0 | 66 | 0 | 0 | FRAMES | FRAMES | |
| 67 | 0 | 0 | 67 | 0 | 0 | FRAMES | FRAMES | |
| 68 | 0 | 0 | 68 | 0 | 0 | FRAMES | FRAMES | |
| 69 | 0 | 0 | 69 | 0 | 0 | FRAMES | FRAMES | |
| 70 | 0 | 0 | 70 | 0 | 0 | FRAMES | FRAMES | |
| 71 | 0 | 0 | 71 | 0 | 0 | FRAMES | FRAMES | |
| 72 | 0 | 0 | 72 | 0 | 0 | FRAMES | FRAMES | |
| 73 | 0 | 0 | 73 | 0 | 0 | FRAMES | FRAMES | |
| 74 | 0 | 0 | 74 | 0 | 0 | FRAMES | FRAMES | |
| 75 | 0 | 0 | 75 | 0 | 0 | FRAMES | FRAMES | |
| 76 | 0 | 0 | 76 | 0 | 0 | FRAMES | FRAMES | |
| 77 | 0 | 0 | 77 | 0 | 0 | FRAMES | FRAMES | |
| 78 | 0 | 0 | 78 | 0 | 0 | FRAMES | FRAMES | |
| 79 | 0 | 0 | 79 | 0 | 0 | FRAMES | FRAMES | |
| 80 | 0 | 0 | 80 | 0 | 0 | FRAMES | FRAMES | |
| 81 | 0 | 0 | 81 | 0 | 0 | FRAMES | FRAMES | |
| 82 | 0 | 0 | 82 | 0 | 0 | FRAMES | FRAMES | |
| 83 | 0 | 0 | 83 | 0 | 0 | FRAMES | FRAMES | |
| 84 | 0 | 0 | 84 | 0 | 0 | FRAMES | FRAMES | |
| 85 | 0 | 0 | 85 | 0 | 0 | FRAMES | FRAMES | |
| 86 | 0 | 0 | 86 | 0 | 0 | FRAMES | FRAMES | |
| 87 | 0 | 0 | 87 | 0 | 0 | FRAMES | FRAMES | |
| 88 | 0 | 0 | 88 | 0 | 0 | FRAMES | FRAMES | |
| 89 | 0 | 0 | 89 | 0 | 0 | FRAMES | FRAMES | |
| 90 | 0 | 0 | 90 | 0 | 0 | FRAMES | FRAMES | |
| 91 | 0 | 0 | 91 | 0 | 0 | FRAMES | FRAMES | |
| 92 | 0 | 0 | 92 | 0 | 0 | FRAMES | FRAMES | |
| 93 | 0 | 0 | 93 | 0 | 0 | FRAMES | FRAMES | |
| 94 | 0 | 0 | 94 | 0 | 0 | FRAMES | FRAMES | |
| 95 | 0 | 0 | 95 | 0 | 0 | FRAMES | FRAMES | |
| 96 | 0 | 0 | 96 | 0 | 0 | FRAMES | FRAMES | |
| 97 | 0 | 0 | 97 | 0 | 0 | FRAMES | FRAMES | |
| 98 | 0 | 0 | 98 | 0 | 0 | FRAMES | FRAMES | |
| 99 | 0 | 0 | 99 | 0 | 0 | FRAMES | FRAMES | |
| 100 | 0 | 0 | 100 | 0 | 0 | FRAMES | FRAMES | |

Westinghouse Advanced Energy Systems Division
Pittsburgh, Pennsylvania

FIRST FLOOR
BUILDING NO 5
WAESD LARGE PA

DATE: 14683
JN-010
REV: A

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1501-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5243 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 5 | * | FLMON:91943 | 28.8% | 3.47 | 1249 |

SURVEY DATE: 3/29/93

COUNT DATE: 3/29 /93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 12 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

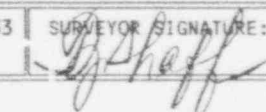
| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------------|--------------------------|---------------------------|------------------------|----------|--------------------------|------|--|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floors | N/A | -4, -10 | 12 | .01 | 1328 | 1275 | 10 | 1290 | -0.264 | -2.49 | |
| " | " | -2, -10 | 12 | .01 | 1265 | 1150 | 11 | 1139 | -0.264 | -2.49 | |
| " | " | 0, -10 | 11 | .01 | 1377 | 1260 | 8 | 1298 | -0.264 | -2.49 | |
| " | " | 2, -10 | 11 | .01 | 1339 | 1260 | 4 | 1331 | -0.264 | 3.59 | |
| " | " | 4, -10 | 12 | .02 | 1404 | 1330 | 7 | 1271 | -0.264 | 9.31 | |
| " | " | 4, -12 | 13 | .02 | 1422 | 1325 | 14 | 1373 | -0.264 | -2.49 | |
| " | " | 2, -12 | 13 | .02 | 1328 | 1275 | 7 | 1321 | -0.264 | 3.41 | |
| " | " | 3, -11 | 11 | .01 | 1358 | 1300 | 4 | 1330 | -0.264 | -2.49 | |
| " | " | 2, -8 | 13 | .01 | 1301 | 1275 | 3 | 1356 | -0.264 | -2.49 | |
| " | " | 3, -7 | 13 | .02 | 1304 | 1250 | 11 | 1256 | -0.264 | -2.49 | |
| " | " | 2, -6 | 12 | .02 | 1406 | 1275 | 6 | 1258 | -0.264 | -2.49 | |
| " | " | 3, -5 | 11 | .01 | 1336 | 1260 | 3 | 1304 | -0.264 | -2.49 | |
| " | " | 2, -4 | 12 | .01 | 1351 | 1275 | 5 | 1301 | -0.264 | -2.49 | |
| " | " | 3, -3 | 12 | .01 | 1312 | 1270 | 9 | 1282 | -0.264 | -2.49 | |
| " | " | 2, -2 | 12 | .01 | 1392 | 1300 | 7 | 1333 | -0.264 | 3.59 | |

FORM SERIAL #: 1 - 061
(Survey Section - Sequential survey #)LOCATION # 1-6-2
(Survey Section - Unit # - Sub Unit #)SURVEY CLASSIFICATION: IV
(Group I, II, III, IV)

DISK FILE CODE: FDS - 0433

SURVEYOR SIGNATURE: TS



LB5100W Low Background Counting System - Smear Analysis

Alpha efficiency log file: po210lab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 14.35

Application Revision: 2
 Application Version: Standard

Date: 3/29/93
 Counting Unit id: 1
 Data file name: C:\EX01\DATA\1010602.XLD
 Batch Entered: 3/29/93 10:46
 Crosstalk Correction: Not Applied

Batch ID: 4ps 010602 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 7 | 0.264 | 1.63 | <MDA | 26.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/29/93 10:10 |
| 8 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/29/93 10:11 |
| 9 | 0.264 | 1.63 | <MDA | 26.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/29/93 10:11 |
| 10 | 0.264 | 1.63 | <MDA | 26.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 10:12 |
| 11 | 0.264 | 1.60 | <MDA | 26.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/29/93 10:12 |
| 12 | 0.264 | 1.60 | <MDA | 26.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/29/93 10:13 |
| 13 | 0.264 | 1.60 | <MDA | 26.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/29/93 10:13 |
| 14 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/29/93 10:14 |
| 15 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/29/93 10:14 |
| 16 | 0.264 | 1.60 | <MDA | 26.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/29/93 10:15 |
| 17 | 0.264 | 1.60 | <MDA | 26.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | 1.24 | 3/29/93 10:15 |
| 18 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/29/93 10:16 |
| 19 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/29/93 10:16 |
| 20 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/29/93 10:17 |
| 21 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/29/93 10:17 |
| 22 | 0.264 | 1.63 | <MDA | 26.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 10:18 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:447B | 18.5% | 5.4 | | | PAC4G:447B | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 2 | * | FLMON:91943 | 28.8% | 3.47 | 1098 |

| |
|----------------------|
| SURVEY DATE: 3/25/93 |
| COUNT DATE: 3/29/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | -5, -9 | 12 | .01 | 1188 | 1135 | 6 | 1166 | -0.264 | 3.59 | Floor Monitor used for |
| " | " | -5, -11 | 11 | .02 | 1210 | 1160 | 8 | 1214 | -0.264 | 9.54 | scans & 1 minute counts |
| " | " | -5, -13 | 14 | .02 | 1293 | 1220 | 1 | 1257 | -0.264 | -2.49 | " |
| " | " | -3, -11 | 12 | .01 | 1309 | 1200 | 5 | 1170 | -0.264 | 3.41 | " |
| " | " | -1, -11 | 10 | .02 | 1203 | 1175 | 2 | 1185 | -0.264 | -2.49 | " |
| " | " | 1, -11 | 10 | .01 | 1257 | 1180 | 5 | 1155 | -0.264 | -2.49 | " |
| " | " | 1, -9 | 12 | .02 | 1239 | 1190 | 2 | 1228 | -0.264 | -2.49 | " |
| " | " | 1, -6 | 12 | .01 | 1303 | 1275 | 4 | 1263 | -0.264 | -2.49 | " |
| " | " | 1, -4 | 10 | .01 | 1371 | 1290 | 3 | 1244 | -0.264 | 9.66 | " |
| " | " | 1, -2 | 10 | .01 | 1183 | 1130 | 10 | 1150 | -0.264 | -2.49 | " |
| " | " | 0, -9 | 13 | .01 | 1207 | 1150 | 8 | 1197 | -0.264 | -2.49 | " |
| " | " | -5, -9 | 12 | .01 | 1246 | 1175 | 7 | 1254 | -0.264 | -2.49 | " |
| " | " | -5, -4 | 10 | .01 | 1143 | 1100 | 8 | 1169 | -0.264 | 3.41 | " |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 062 (Survey Section - Sequential survey #) | LOCATION # 1-6-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0435 | SURVEYOR SIGNATURE: TS <i>T. Shaff</i> |
|--|--|---|----------------------------|---|

LE5100W Low Background Counting System -- Smear Analysis

Date: 3/29/93
 Counting Unit id: 1
 Data file name: C:\EXE\WUNT\010603.XLD
 Batch Ended: 3/29/93 10:26
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

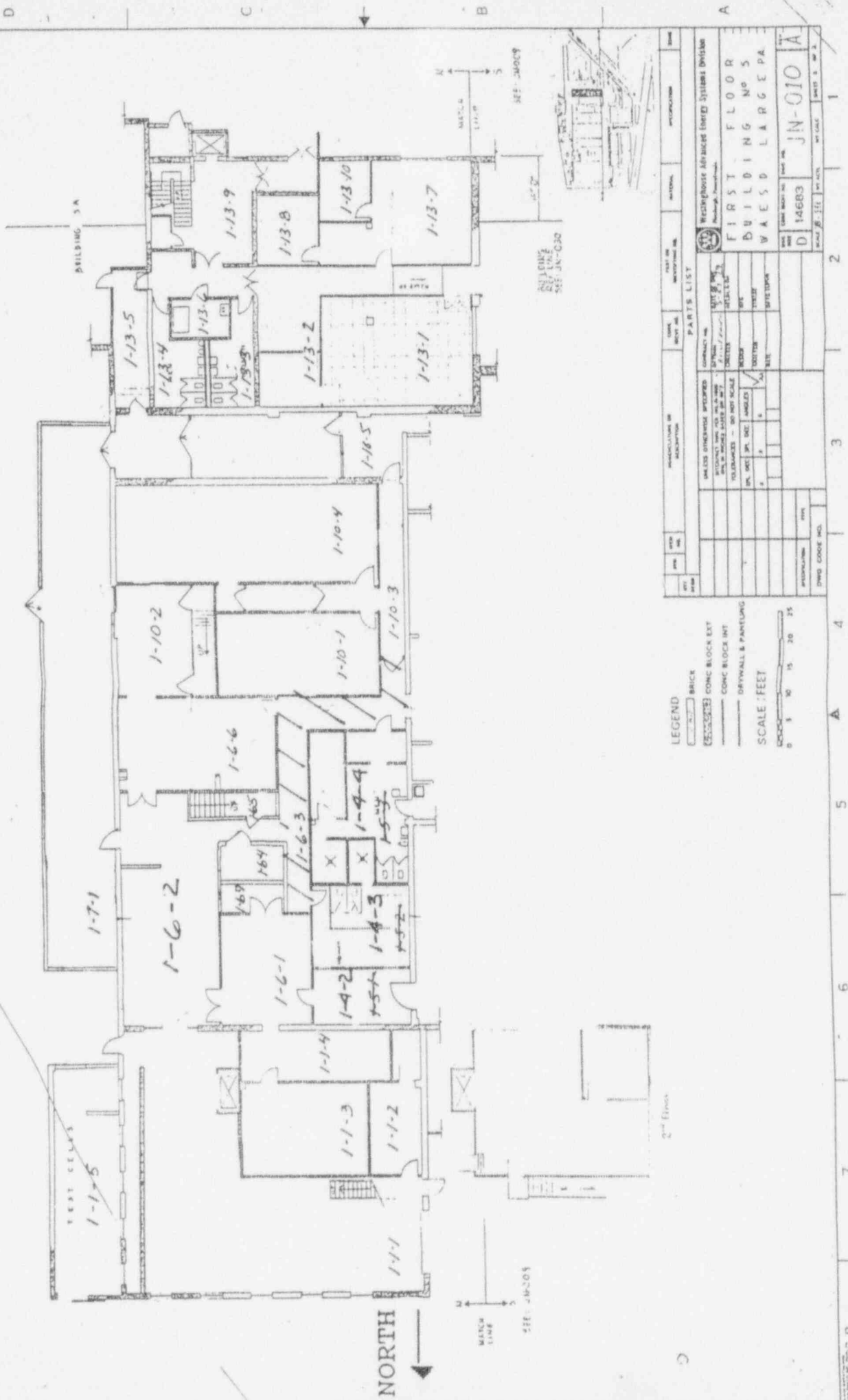
Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: tjs 010603 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 23 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 10:19 |
| 24 | 0.264 | 0.93 | <MDA | 11.27 | 9.54 | 5.41 | <AL | 15.88 | 1.00 | -0.100 | 4.76 | 3/29/93 10:20 |
| 25 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 10:20 |
| 26 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/29/93 10:21 |
| 27 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 10:21 |
| 28 | 0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 10:22 |
| 29 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 10:22 |
| 30 | 0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 10:23 |
| 31 | 0.264 | 1.63 | <MDA | 28.84 | 9.65 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/29/93 10:23 |
| 32 | 0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 10:24 |
| 33 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 10:24 |
| 34 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 10:25 |
| 35 | 0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/29/93 10:25 |
| 36 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 10:26 |
| 37 | 0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 10:26 |

SURVEY POINT NOT NEEDED

BUILDING #5 FIRST FLOOR (Eastern portion)



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

PARTS LIST

| ITEM NO. | DESCRIPTION | QUANTITY | UNIT | REMARKS |
|----------|--------------------|----------|------|---------|
| 1 | BRICK | | | |
| 2 | CONCRETE BLOCK EXT | | | |
| 3 | CONCRETE BLOCK INT | | | |
| 4 | DRYWALL & PARTING | | | |

WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION
 BUILDING NO 5
 WAESD LARGEP.A.

| ITEM NO. | DESCRIPTION | QUANTITY | UNIT | REMARKS |
|----------|--------------------|----------|------|---------|
| 1 | BRICK | | | |
| 2 | CONCRETE BLOCK EXT | | | |
| 3 | CONCRETE BLOCK INT | | | |
| 4 | DRYWALL & PARTING | | | |

SCALE: FEET
 0 5 10 15 20 25

APPENDIX E

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 7

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|------------------------------|---------------------------|---------|------------|-----------------------|------------------------------|---------------------------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2: 1510 | 22.6% | 4.42 | | * | ESP2: 1510 | 38.7% | 2.58 | 375 |
| * | ESP2: 1517 | 24.2% | 4.14 | 2 | | ESP2: 1517 | 38.9% | 2.57 | |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | | | | | PAC4G:4478 | | | |
| * | FLMON:91943 | 36.0% 18.9 | 2.7 5.3 | 8 | * | FLMON:91943 | 18.9% 36.0 | 5.3 2.7 | 1275 |

| |
|-----------------------|
| SURVEY DATE: 12/07/92 |
| COUNT DATE: 12/07/92 |

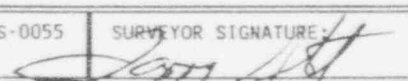
| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|------------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 15 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .010 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |

| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
|------------|---------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

95B 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|--------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|---|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| BRICK TILE FLOOR | 2, -2 | N/A | 15 | .022 | 758 | 660 | 12 | 2451 | -0.149 | 3.28 | Used Floor Monitor For Contact gross 1 min. count 4/20/93 A. J. Pardi |
| " | 2, -4 | " | " | .026 | 855 | 700 | 25 | 2365 | " | -2.82 | |
| " | 2, -6 | " | " | .016 | 740 | 690 | 16 | 2304 | " | 3.28 | |
| " | 2, -8 | " | " | .025 | 650 | 630 | 14 | 2347 | " | 9.39 | |
| " | 2, -10 | " | " | .018 | 865 | 675 | 12 | 2324 | " | 15.49 | |
| " | 2, -12 | " | " | .014 | 744 | 650 | 11 | 2293 | " | -2.82 | |
| " | 2, -14 | " | " | .011 | 721 | 700 | 19 | 2416 | " | -2.82 | |
| " | 2, -16 | " | " | .011 | 784 | 700 | 13 | 2377 | " | 3.28 | |
| " | 2, -18 | " | " | .014 | 836 | 740 | 12 | 2157 | " | -2.82 | |
| " | 2, -20 | " | " | .017 | 651 | 590 | 7 | 2361 | " | 3.10 | |
| " | 2, -22 | " | " | .015 | 813 | 700 | 14 | 2231 | " | 3.28 | |
| " | 2, -24 | " | " | .012 | 791 | 680 | 9 | 2402 | " | -2.82 | |
| " | 2, -26 | " | " | .018 | 721 | 610 | 16 | 2324 | " | -2.82 | |
| " | 2, -28 | " | " | .020 | 790 | 675 | 24 | 2487 | " | -2.82 | |
| South Wall | 2, -1 | " | " | .022 | 439 | 320 | N/A | 368 | " | 9.39 | USED ESP-2 # 1510 |

| | | | | |
|---|---|--|--------------------------|---|
| FORM SERIAL #: 01-004 (Survey Section - Sequential survey #) | LOCATION #: 1-7-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0055 | SURVEYOR SIGNATURE:  |
|---|---|--|--------------------------|---|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-----------------------|--------------------|---------|------------|-----------------------|-----------------------|--------------------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2: 1510 | 22.6% | 4.42 | | * | ESP2: 1510 | 38.7% | 2.58 | 375 |
| * | ESP2: 1517 | 24.2% | 4.14 | 2 | | ESP2: 1517 | 38.9% | 2.57 | |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | | | | | PAC4G:4478 | | | |
| * | FLMON:91943 | 36.0% 18.9 | 2.7 5.3 | 8 | * | FLMON:91943 | 38.9% 36.0 | 5.3 2.7 | 1275 |

SURVEY DATE: _____
 COUNT DATE: _____

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|------------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 15 uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| * | ESP2: 1522 | .010 mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

YSB 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|----------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| West Wall | 4, -1.6 | N/A | 15 | .024 | 425 | 380 | 0 | 320 | -0.149 | -2.82 | USED ESP-2 METERS |
| " | 6, -1.6 | " | " | .004 | 590 | 350 | 0 | 365 | " | 3.28 | " |
| " | 8, -1.6 | " | " | .021 | 466 | 340 | 0 | 298 | " | -2.82 | " |
| " | 12, -1.6 | " | " | .014 | 497 | 400 | 0 | 310 | " | " | " |
| " | 14, -1.6 | " | " | .020 | 438 | 400 | 0 | 328 | " | " | " |
| " | 16, -1.6 | " | " | .024 | 566 | 420 | 0 | 385 | " | " | " |
| " | 18, -1.6 | " | " | .010 | 547 | 430 | 1 | 399 | 8.048 | 3.28 | " |
| " | 20, -1.6 | " | " | .021 | 477 | 410 | 3 | 310 | -0.149 | 9.39 | " |
| " | 24, -1.6 | " | " | .014 | 501 | 380 | 1 | 382 | " | 3.10 | " |
| " | 26, -1.6 | " | " | .010 | 440 | 375 | 3 | 366 | " | -2.82 | " |
| " | 28, -1.6 | " | " | .002 | 449 | 360 | 3 | 327 | " | " | " |
| East Wall | 7, -1 | " | " | .013 | 367 | 330 | 0 | 348 | " | 9.39 | " |
| " | 10, -1 | " | " | .023 | 428 | 355 | 0 | 351 | " | -2.82 | " |
| " | 26, -1 | " | " | .010 | 390 | 300 | 0 | 289 | " | " | " |
| North Wall | 2, -1 | " | " | .019 | 410 | 380 | 1 | 383 | " | 3.28 | " |

| | | | | |
|---|--|--|--------------------------|--|
| FORM SERIAL #: 01-004 (Survey Section - Sequential survey #) | LOCATION # 1-7-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS-0056 | SURVEYOR SIGNATURE: <i>[Signature]</i> |
|---|--|--|--------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/7/92
 Counting Unit id: 1
 Data file name: C:\LB\CL\UNIT1\010701.XLD
 Batch Ended: 12/7/92 13:16
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 1 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/7/92 13:02 |
| 2 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:02 |
| 3 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/7/92 13:03 |
| 4 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/7/92 13:03 |
| 5 | -0.149 | 1.37 | <MDA | 27.98 | 15.49 | 11.38 | <AL | 35.93 | 0.33 | -0.055 | 7.69 | 12/7/92 13:04 |
| 6 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:04 |
| 7 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:05 |
| 8 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/7/92 13:05 |
| 9 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:06 |
| 10 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/7/92 13:06 |
| 11 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/7/92 13:07 |
| 12 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:07 |
| 13 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:08 |
| 14 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:08 |
| 15 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/7/92 13:09 |
| 16 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:09 |
| 17 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/7/92 13:10 |
| 18 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/7/92 13:10 |
| 19 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/7/92 13:11 |
| 20 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:11 |
| 21 | 8.048 | 8.31 | AI AL | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | 2.975 | 1.63 | 12/7/92 13:12 |
| 22 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/7/92 13:12 |
| 23 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/7/92 13:13 |
| 24 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:13 |
| 25 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:14 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/7/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010701.XLD
 Batch Ended: 12/7/92 13:16
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158
 Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 26 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/7/92 13:14 |
| 27 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/7/92 13:15 |
| 28 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:15 |
| 29 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/7/92 13:16 |
| 30 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/7/92 13:16 |

APPENDIX F

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 8

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|----------------------------------|-------------------------------|---------|------------|-----------------------|----------------------------------|-------------------------------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 2.99 | | ESP2: 1510 | 38.7% | 2.58 | |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 370 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | | | | | PAC4G:4478 | | | |
| * | FLMON:91943 | 36.0% ^{18.7} | 2.7 ^{5.3} | 5 | * | FLMON:91943 | 18.0% ^{36.0} | 5.3 ^{2.7} | 1245 |

| |
|-----------------------|
| SURVEY DATE: 12/09/92 |
| COUNT DATE: 12/09/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| INST: S/N | EFF | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| * | E520: 5242 | .01 mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| INST: S/N | EFF | C.F. | BKG | |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |

| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
|------------|---------------------------|-------|------|------|
| INST: S/N | EFF | C.F. | BKG | |
| * | TENW: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

T.S.B. 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|----------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|--------|----------------------------|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall | 2, -1.25 | N/A | 13 | .02 | 720 | 450 | 1.99 | 433 | -0.149 | 3.28 | See Attached map |
| East Wall | 2, -1.25 | " | 12 | .01 | 459 | 390 | 0 | 375 | -0.149 | -2.82 | " |
| West Wall | 4, -1.25 | " | 14 | .02 | 840 | 500 | .997 | 429 | -0.149 | 3.10 | " |
| Floor | 2, -2 | " | 12 | .01 | 496 | 380 | 6 * | 1241 * | -0.149 | -2.82 | " |
| " | 4, -2 | " | 12 | .01 | 462 | 350 | 3 * | 1182 * | -0.149 | -2.82 | " |
| " | 2, -4 | " | 14 | .01 | 498 | 300 | 2 * | 1155 * | 7.807 | 3.10 | " |
| " | 4, -4 | " | 12 | .01 | 600 | 320 | 7 * | 1193 * | -0.149 | 3.28 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

** used FLMON
4/20/93 A J Mardi*

| | | | | |
|--|--|---|--------------------------|---|
| FORM SERIAL #: 1-007 (Survey Section - Sequential survey #) | LOCATION # 1-8-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0059 | SURVEYOR SIGNATURE: T.B. <i>T.B. [Signature]</i> |
|--|--|---|--------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/10/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010801.XLD
 Batch Ended: 12/9/92 15:09
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450
 Application Revision: 2
 Application Version: Standard

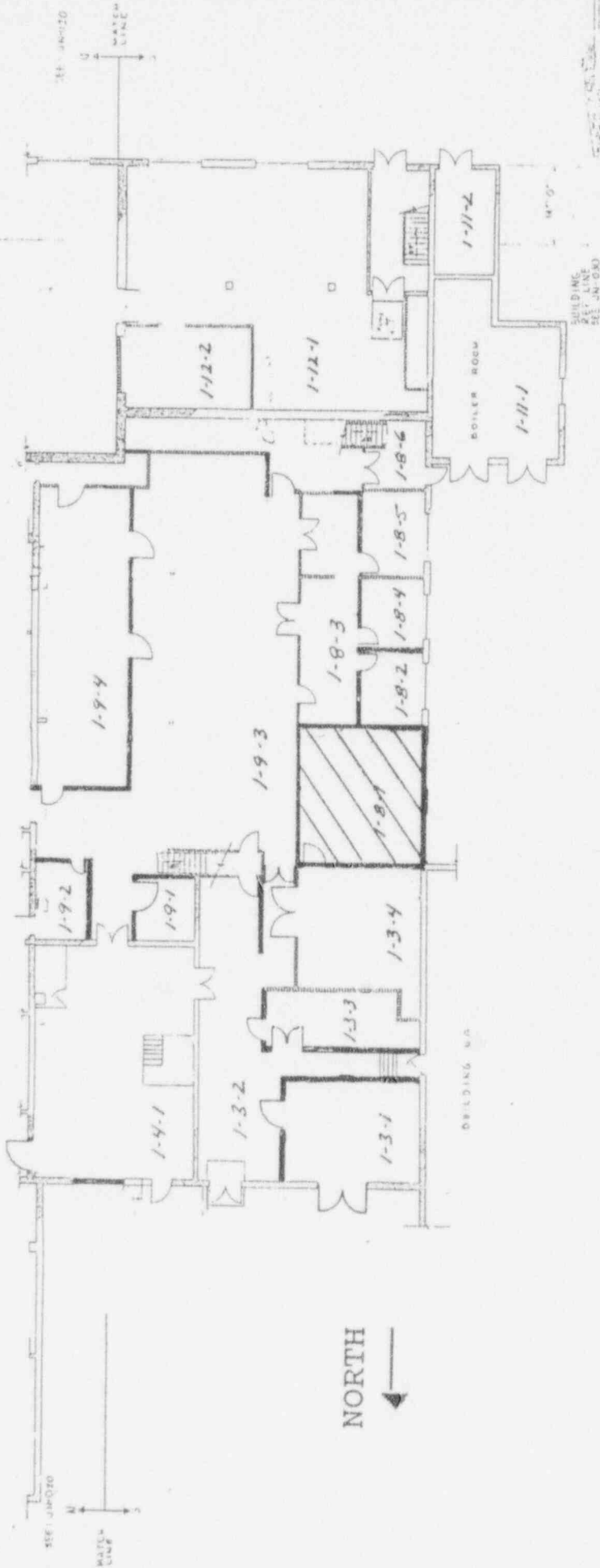
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158
 Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 15 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/9/92 15:06 |
| 16 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/9/92 15:06 |
| 17 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/9/92 15:06 |
| 18 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:07 |
| 19 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/9/92 15:07 |
| 20 | 7.807 | 8.07 | AI AL | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | 2.896 | 1.54 | 12/9/92 15:08 |
| 21 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/9/92 15:08 |
| 22 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:09 |

TSB 12-10-92

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

- BRICK
- CONCRETE BLOCK EXT.
- CONCRETE BLOCK INT.
- DRYWALL & PANELING

SCALE: FEET
0 5 10 15 20 25

| REV. | DATE | BY | CHKD. | DESCRIPTION |
|------|------|----|-------|-------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |
| 23 | | | | |
| 24 | | | | |
| 25 | | | | |

| | |
|----------------------------|-------------------------|
| UNLESS OTHERWISE SPECIFIED | CONTACT M. WEDGESS |
| CONCRETE BLOCK EXTERIOR | CONCRETE BLOCK INTERIOR |
| DRYWALL & PANELING | |
| SCALE: FEET | |
| 0 5 10 15 20 25 | |

| | | | |
|--|-------|---------|--------|
| DATE | 14683 | PROJECT | JN-009 |
| NO. | | SHEET | 1 |
| WEDGESS ADVANCED ENERGY SYSTEMS DIVISION FIRST FLOOR BUILDING No 5 WAESD LARGESDA | | | |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-----------------------|--------------------|---------|------------|-----------------------|-----------------------|--------------------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 0 | * | ESP2: 1510 | 38.7% | 2.58 | 327 |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 338 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | | | | | PAC4G:4478 | | | |
| | FLMON:91943 | 36.0% 18.9 | 2.7 5.3 | | | FLMON:91943 | 18.9% 36.0 | 5.3 2.7 | |

| |
|-----------------------|
| SURVEY DATE: 12/10/92 |
| COUNT DATE: 12/10/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP INST: S/N | BKG |
|------------|-------------------------------------|-------|
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |

| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
|------------|---------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

75A 12-22-92

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|--------|---------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall | 4, -.6 | N/A | N/A | N/A | 474 | 420 | .997 | 396 | -0.149 | -2.82 | See Attached Map |
| East Wall | 2, -.6 | " | " | " | 380 | 325 | 0 | 302 | -0.149 | -2.82 | " |
| " | 4, -.6 | " | " | " | 410 | 380 | 1.99 | 340 | -0.149 | -2.82 | " |
| " | 6, -.6 | " | " | " | 527 | 460 | 2.99 | 339 | -0.149 | -2.82 | " |
| South Wall | 2, -.6 | " | " | " | 425 | 375 | .997 | 367 | -0.149 | -2.82 | " |
| " | 4, -.6 | " | " | " | 720 | 510 | .997 | 316 | -0.149 | 9.39 | " |
| West Wall | 2, -.6 | " | " | " | 600 | 490 | 2.99 | 439 | -0.149 | 9.39 | " |
| " | 4, -.6 | " | " | " | 411 | 365 | 4 | 340 | -0.149 | -2.82 | " |
| " | 6, -.6 | " | " | " | 459 | 412 | .997 | 415 | -0.149 | 3.10 | " |
| Ceiling | 2, -2 | " | " | " | 462 | 420 | 0 | 316 | -0.149 | 3.28 | " |
| " | 2, -4 | " | " | " | 411 | 345 | .997 | 303 | -0.149 | -2.82 | " |
| " | 2, -6 | " | " | " | 600 | 412 | 1.99 | 320 | -0.149 | 3.10 | " |
| " | 4, -2 | " | " | " | 447 | 390 | 4.99 | 316 | -0.149 | -2.82 | " |
| " | 4, -4 | " | " | " | 412 | 360 | 1.99 | 304 | -0.149 | 3.28 | " |
| " | 4, -6 | " | " | " | 400 | 330 | .997 | 296 | -0.149 | 3.28 | " |

FORM SERIAL #: 1-008
(Survey Section - Sequential survey #)

LOCATION # 1-8-1
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: IV
(Group I, II, III, IV)

DISK FILE CODE: FDS-0060

SURVEYOR SIGNATURE: *[Signature]*

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/10/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010801U.XLD
 Batch Ended: 12/10/92 13:00
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

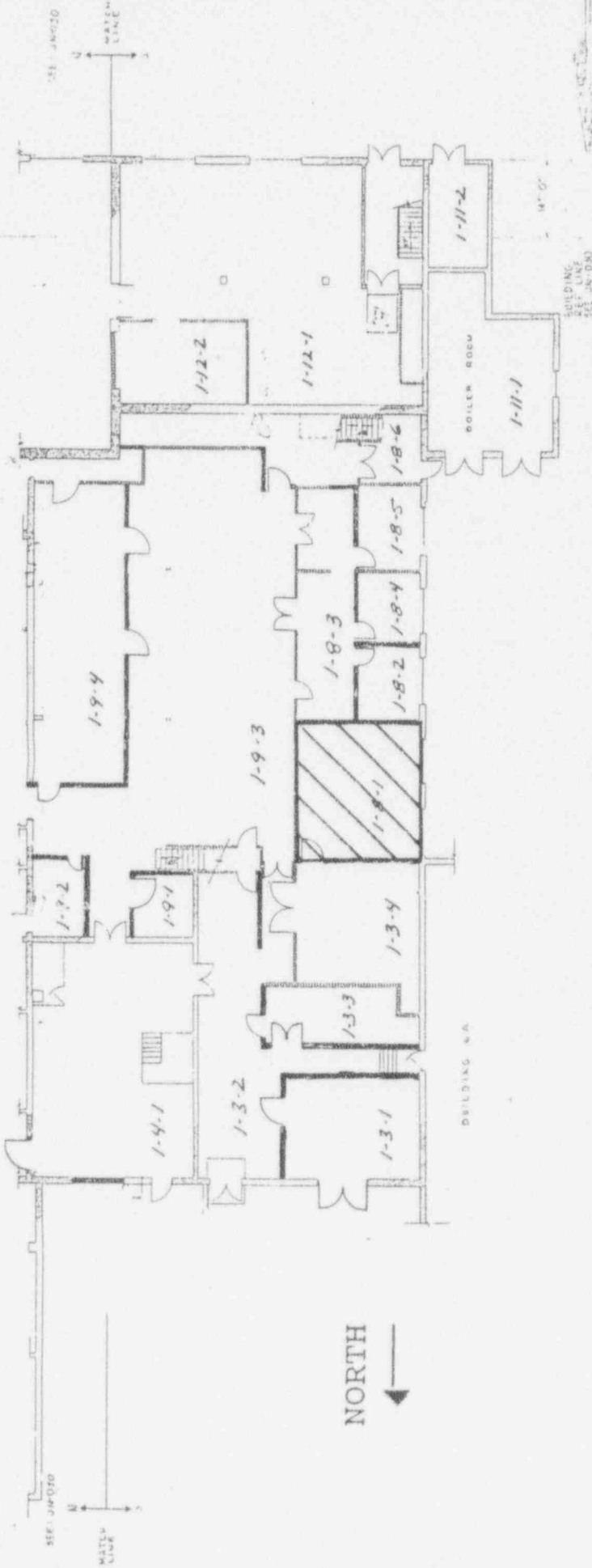
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: tsb

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 10 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:52 |
| 11 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:53 |
| 12 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:53 |
| 13 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:54 |
| 14 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:54 |
| 15 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/10/92 12:55 |
| 16 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/10/92 12:55 |
| 17 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/10/92 12:56 |
| 18 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/10/92 12:56 |
| 19 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/10/92 12:57 |
| 20 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:57 |
| 21 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/10/92 12:58 |
| 22 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 12:58 |
| 23 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/10/92 12:59 |
| 24 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/10/92 13:00 |

BUILDING #5 FIRST FLO (Western portion)



LEGEND

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

SCALE: FEET
0 5 10 15 20 25

| REV | DATE | BY | CHK | DESCRIPTION |
|-----|------|----|-----|-------------|
| | | | | |
| | | | | |
| | | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |
| | | | |

| NO. | QTY | DESCRIPTION | UNIT |
|-----|-----|-------------|------|
| | | | |
| | | | |

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/14/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010802U.XLD
 Batch Ended: 12/14/92 11:13
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158
 Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/14/92 11:13 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 1.99 | | ESP2: 1510 | 38.7% | 2.58 | |
| | ESP2: 1517 | 24.2% | 4.14 | | * | FSP2: 1517 | 38.9% | 2.57 | 518 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.9 | 5.3 | | | PAC4G:4478 | 36.0 | 3.7 | |
| * | FLMON:91943 | 38.0% | 2.7 | 7 | * | FLMON:91943 | 48.9% | 5.3 | 1423 |

| |
|-----------------------|
| SURVEY DATE: 12/09/92 |
| COUNT DATE: 12/09/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 12 uR/hr |
| * | E520: 5242 | .01 mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

YSD 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|---------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|--------|----------------------------|-------|--------------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall (#1) | 2, -.54 | N/A | 12 | .01 | 460 | 450 | 0 | 389 | -0.149 | 3.28 | See Attached map |
| East Wall | 2, -.54 | " | 12 | .01 | 408 | 350 | 2.99 | 352 | -0.149 | 9.39 | " |
| " | 4, -.54 | " | 11 | .01 | 396 | 330 | 1.99 | 384 | -0.149 | -2.82 | " |
| North Wall (#2) | 2, -2 | " | 13 | .02 | 483 | 430 | .99 | 390 | -0.149 | -2.82 | " |
| Floor | 2, -2 | " | 14 | .02 | 514 | 400 | 12 * | 1238 * | -0.149 | 3.10 | " |
| " | 2, -4 | " | 12 | .02 | 468 | 400 | 14 * | 1428 * | 7.807 | -2.82 | " |
| " | 2, -6 | " | 12 | .02 | 480 | 375 | 6 * | 1459 * | -0.149 | -2.82 | " |
| " | 2, -8 | " | 13 | .01 | 471 | 370 | 9 * | 1665 * | -0.149 | -2.82 | " |
| " | 2, -10 | " | 12 | .01 | 480 | 300 | 7 * | 1199 * | -0.149 | 9.39 | " |
| | | | | | | | | | | | * Used FLMON 4/20/93 A J Mardi |

| | | | | |
|--|--|---|--------------------------|---|
| FORM SERIAL #: 1-010 (Survey Section - Sequential survey #) | LOCATION # 1-8-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0062 | SURVEYOR SIGNATURE: T. B. <i>[Signature]</i> |
|--|--|---|--------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/10/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010903.XLD
 Batch Ended: 12/9/92 15:14
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

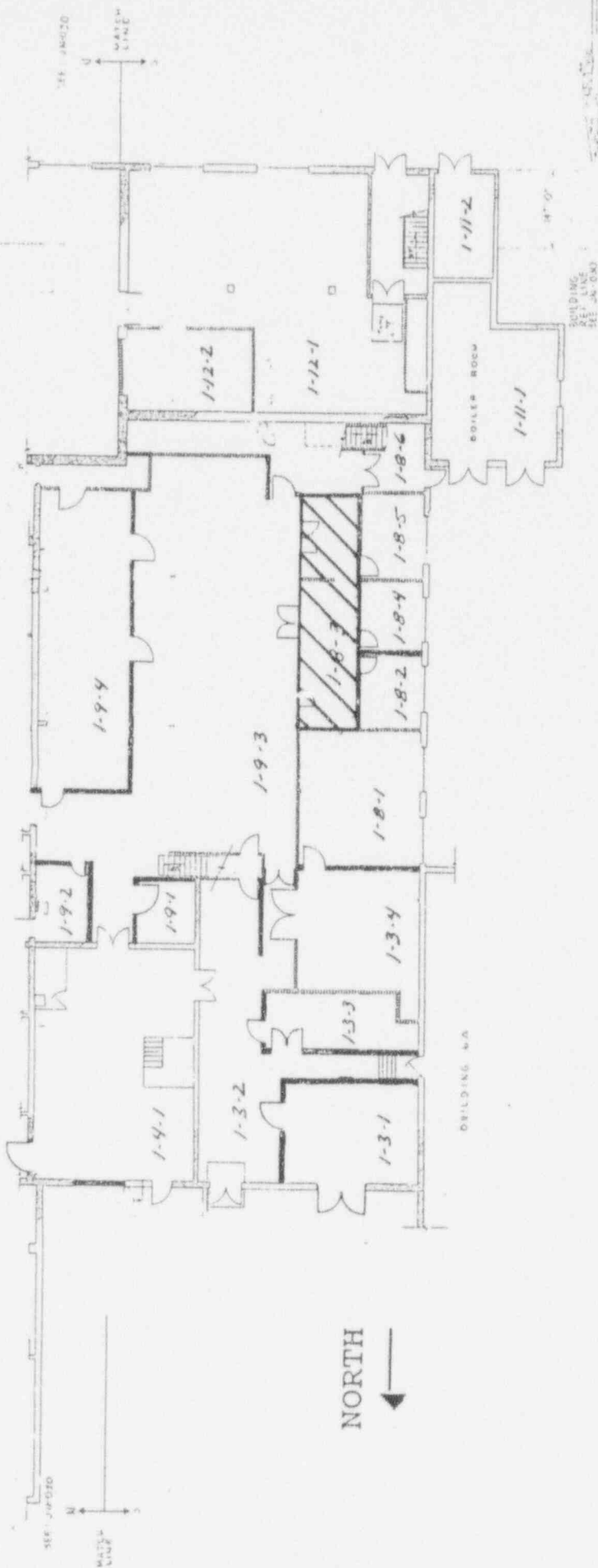
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Comparison TC) |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 25 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/9/92 15:10 |
| 26 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/9/92 15:11 |
| 27 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:11 |
| 28 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:12 |
| 29 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/9/92 15:12 |
| 30 | 7.807 | 8.07 | At AL | 27.24 | -2.82 | 4.19 | <MDA | 35.16 | 0.34 | 2.886 | -1.40 | 12/9/92 15:13 |
| 31 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:13 |
| 32 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:14 |
| 33 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/9/92 15:14 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

- BRICK
- CONIC BLOCK EXT
- CONIC BLOCK INT
- DRUMWALL & PANELING

SCALE: FEET
 0 5 10 15 20 25

| SYM | DESCRIPTION | QTY | UNIT | PRICE | TOTAL | REMARKS |
|------------|-------------|-----|------|-------|-------|---------|
| PARTS LIST | | | | | | |
| 1-11-1 | BOILER ROOM | | | | | |
| 1-11-2 | | | | | | |
| 1-12-1 | | | | | | |
| 1-12-2 | | | | | | |
| 1-8-1 | | | | | | |
| 1-8-2 | | | | | | |
| 1-8-3 | | | | | | |
| 1-8-4 | | | | | | |
| 1-8-5 | | | | | | |
| 1-8-6 | | | | | | |
| 1-9-1 | | | | | | |
| 1-9-2 | | | | | | |
| 1-9-3 | | | | | | |
| 1-9-4 | | | | | | |
| 1-3-1 | | | | | | |
| 1-3-2 | | | | | | |
| 1-3-3 | | | | | | |
| 1-3-4 | | | | | | |
| 1-3-5 | | | | | | |

WESTPHALE Advanced Energy Systems Division
 BUILDING No 5
 WAESDLARGC.DA
 FIRST FLOOR
 DWG CODE NO. IN-009
 D 14683
 SCALE 1/8" = 1'-0"
 SHEET 1 OF 3

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 1.99 | | ESP2: 1510 | 38.7% | 2.58 | |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 309 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.9 | 5.3 | | | PAC4G:4478 | 36.0 | 2.7 | |
| | FLMON:91943 | 36.0% | 2.7 | | | FLMON:91943 | 18.9% | 5.5 | |

| |
|-----------------------|
| SURVEY DATE: 12/10/92 |
| COUNT DATE: 12/10/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TEHM: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TEHM: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

YSD 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|-------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Ceiling above susp. | 2, -2 | N/A | N/A | N/A | 397 | 290 | 2.99 | 296 | -0.149 | 9.39 | See Attached map |
| North Wall (#2) | 2, 0 | " | " | " | 588 | 460 | 1.99 | 381 | -0.149 | -2.82 | " |
| East Wall | 6, 0 | " | " | " | 366 | 310 | 3.99 | 376 | -0.149 | -2.82 | " |
| " | 4, 0 | " | " | " | 360 | 320 | 1.99 | 368 | 8.048 | -2.82 | " |
| " | 2, 0 | " | " | " | 441 | 360 | 8.98 | 371 | -0.149 | 9.03 | " |
| North Wall (#1) | 2, | " | " | " | 568 | 400 | 3.99 | 390 | -0.149 | -2.82 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|---|--------------------------|---|
| FORM SERIAL #: 1-011 (Survey Section - Sequential survey #) | LOCATION # 1--8-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0063 | SURVEYOR SIGNATURE: M. S. <i>M. S. Shaffer</i> |
|--|---|---|--------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/14/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010803U.XLD
 Batch Ended: 12/10/92 14:47
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

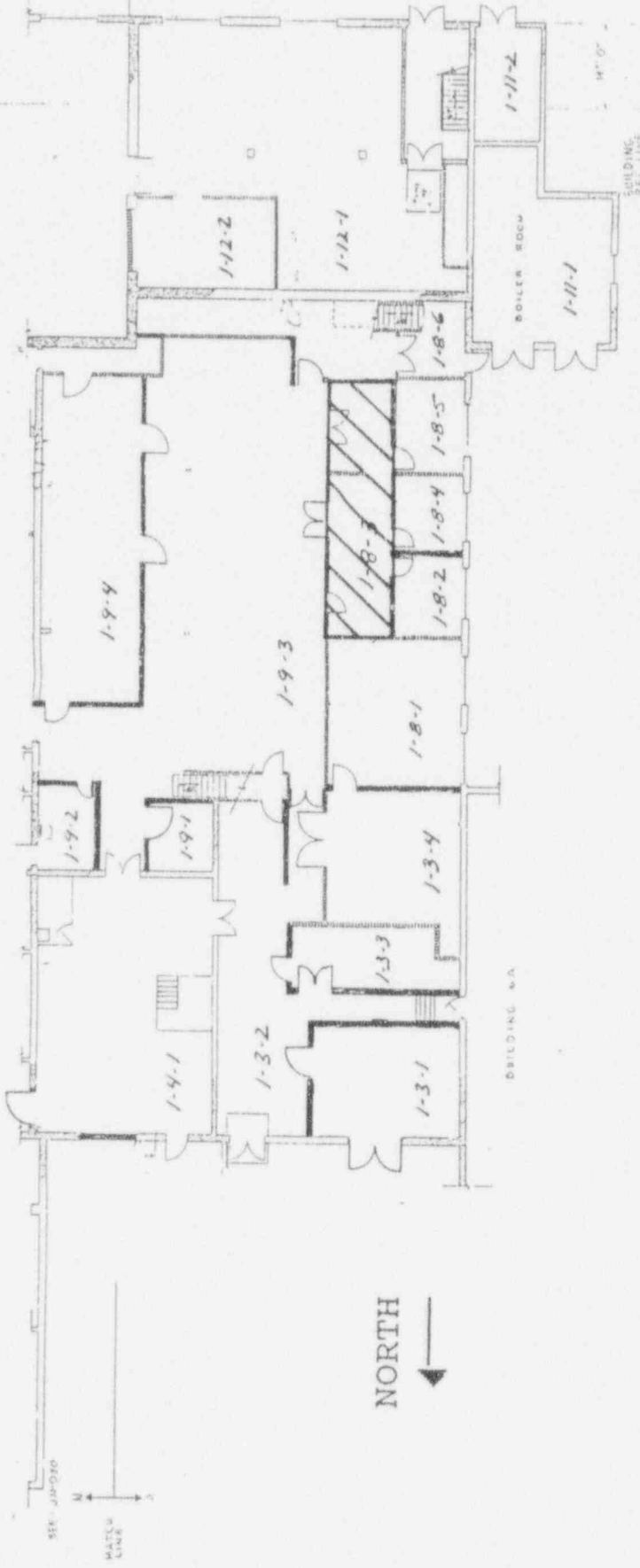
Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/10/92 14:44 |
| 2 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 14:45 |
| 3 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 14:45 |
| 4 | 8.048 | 8.31 | At AL | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | 2.975 | -1.40 | 12/10/92 14:46 |
| 5 | -0.149 | 1.35 | <MDA | 27.24 | 9.03 | 9.34 | <MDA | 35.16 | 0.34 | -0.055 | 4.48 | 12/10/92 14:46 |
| 6 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 14:47 |

BUILDING #5 FIRST FLOOR (Western portion)

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |



| REV. | DATE | DESCRIPTION | BY | CHKD. |
|------|------|-------------|----|-------|
| | | | | |

| MANUFACTURER OR MATERIAL | QUANTITY | UNIT | PAINTS LIST |
|--------------------------|----------|------|-------------|
| | | | |

| UNLESS OTHERWISE SPECIFIED | CONCRETE | STEEL | WOOD | GLASS | PAINTS |
|----------------------------|----------|-------|------|-------|--------|
| TOLERANCES - IN NOT SCALE | | | | | |
| FIN. BRK. FIN. BRK. ANGLES | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| PROJECT NO. | DATE | SCALE | BY | CHKD. |
|-------------|------|-------|----|-------|
| | | | | |

| CONTRACT NO. | PROJECT | FLOOR | SECTION |
|--------------|---------|-------|---------|
| | | | |

| DWG. CODE NO. | DATE | BY | CHKD. |
|---------------|------|----|-------|
| | | | |

LEGEND

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

SCALE - FEET

0 5 10 15 20 25

| PROJECT NO. | DATE | SCALE | BY | CHKD. |
|-------------|------|-------|----|-------|
| | | | | |

| CONTRACT NO. | PROJECT | FLOOR | SECTION |
|--------------|---------|-------|---------|
| | | | |

| DWG. CODE NO. | DATE | BY | CHKD. |
|---------------|------|----|-------|
| | | | |

WESTINGHOUSE Advanced Energy Systems Division
 BUILDING #5
 WAESD LARGS.DA

FIRST FLOOR

D 14683

JUN-009

1 2 3 4 5 6 7 8 9 10 11 12

A B C D

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|------------------|----------------|---------|------------|-----------------------|------------------|----------------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 1.99 | | ESP2: 1510 | 38.7% | 2.58 | |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 618 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5242 | 20.3% | 4.92 | |
| | PAC4G:4478 | | | | | E520: 5245 | | | |
| | FLMON:91943 | 36.0% | 2.7 | 7 | * | PAC4G:4478 | 36.0% | 2.7 | 1423 |

SURVEY DATE:
COUNT DATE:

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 12 uR/hr |
| * | E520: 5242 | .01 mR/hr |
| | E520: 5245 | mR/hr |
| | ESP2: 1522 | mR/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

75B 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mR/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|---------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|--------|--|-------|--------------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor | 2, -2 | N/A | 13 | .01 | 600 | 410 | 7 * | 1511 * | -0.149 | -2.82 | See Attached map |
| South wall | 2, -.54 | " | 12 | .01 | 405 | 375 | 0 | 400 | -0.149 | -2.82 | " |
| | | | | | | | | | | | * Used FLMON 4/20/93 A J Mardi |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|--------------------------|---|
| FORM SERIAL #: 1-012 (Survey Section - Sequential survey #) | LOCATION # 1-8-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0064 | SURVEYOR SIGNATURE: T. B. <i>T. B. Mardi</i> |
|--|--|---|--------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.065263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Alpha activity action level (LCPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

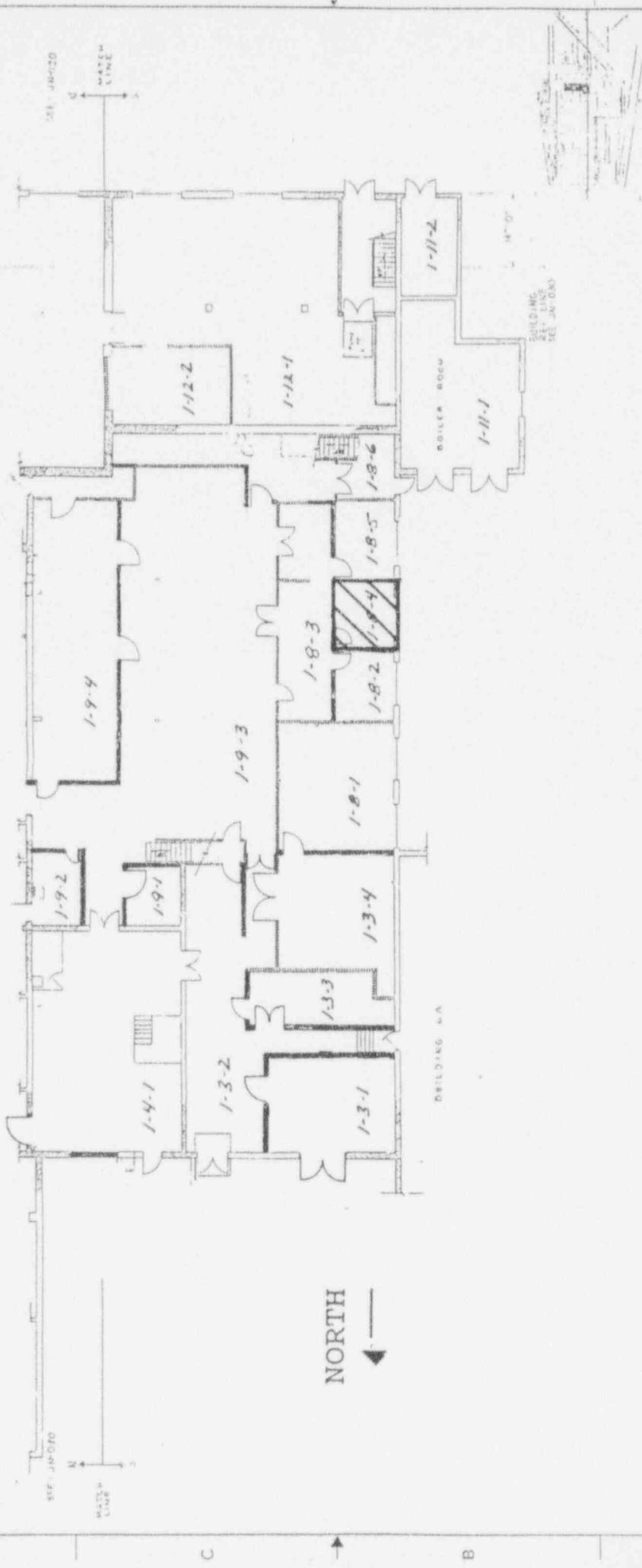
Application Revision: 2
 Application Version: Standard

Date: 12/10/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010804.XLD
 Batch Ended: 12/10/92 8:17
 Crosstalk Correction: Not Applied

Batch ID: TSB

| Carrier | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|---------------|-------|----------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | | | | |
| 1 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | -0.055 | -1.40 | 12/10/92 8:17 |
| 2 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | -0.055 | -1.40 | 12/10/92 8:17 |

BUILDING #5 FIRST FLO (Western portion)



| REV | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |
| | | |

| QTY | UNIT | DESCRIPTION | REMARKS |
|-----|------|-------------|---------|
| | | | |
| | | | |
| | | | |

| CONTRACT NO. | DATE | PROJECT |
|--------------|------|---------|
| | | |
| | | |
| | | |

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

LEGEND

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

SCALE - FEET
0 5 10 15 20 25

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

| UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | DATE | PROJECT |
|----------------------------|--------------|------|---------|
| | | | |
| | | | |
| | | | |

WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION
 FIRST FLOOR
 BUILDING NO 5
 WAESDLARGE.DWG

DWG CODE NO. JN-009
 DATE 14683
 SCALE 1/8" = 1'-0"

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 1.99 | | ESP2: 1510 | 38.7% | 2.58 | |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 309 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.9 | 5.3 | | | PAC4G:4478 | 36.0 | 2.7 | |
| | FLMON:91943 | 36.6% | 2.7 | | | FLMON:91943 | 18.0% | 5.3 | |

| |
|-----------------------|
| SURVEY DATE: 12/14/92 |
| COUNT DATE: 12/14/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |

| (*)IF USED | COUNTING EQUIPMENT (BETA) | | | |
|------------|---------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

95B 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------------|--------------------------|--------------------------|------------------------|----------|-------------------------|------|----------------------------|------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| | | | | | | | | | | | |
| South Wall | 2, 0 | N/A | N/A | N/A | 768 | 390 | 0 | 325 | -0.149 | 3.28 | See Attached map |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|--------------------------|--|
| FORM SERIAL #: 1-013 (Survey Section - Sequential survey #) | LOCATION # 1-8-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0065 | SURVEYOR SIGNATURE: M. S. <i>M. Schaffer</i> |
|--|--|---|--------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/14/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010804U.XLD
 Batch Ended: 12/14/92 11:14
 Crosstalk Correction: Not Applied

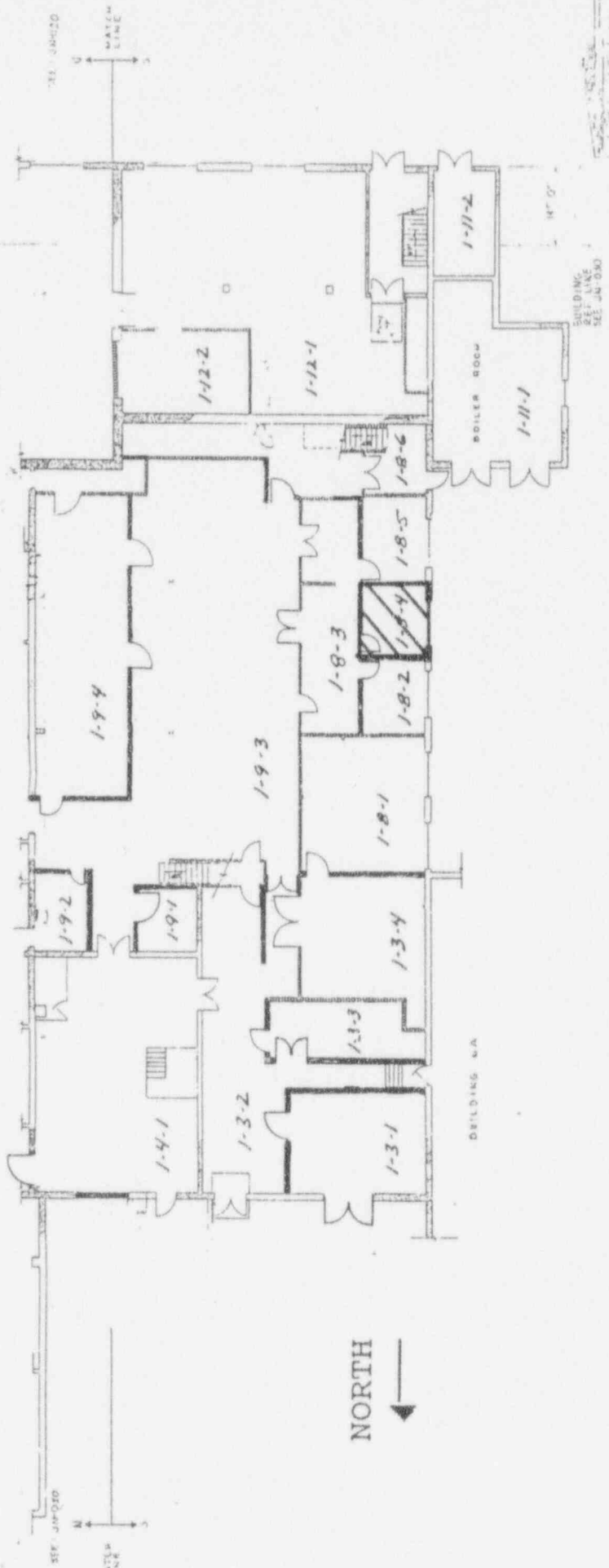
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158
 Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 2 | -0.148 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/14/92 11:14 |

BUILDING #5 FIRST FLOOR (Western portion)



- LEGEND**
- BRICK
 - CONCRETE BLOCK EXT
 - CONCRETE BLOCK INT
 - DRYWALL & PARTITION
- SCALE: FEET
0 5 10 15 20 25

| SYMBOL | | DESCRIPTION | QUANTITY | UNIT | REMARKS |
|--------|--|-------------|----------|------|---------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION
Pittsburgh, Pennsylvania

PROJECT NO. 1-11-1
DRAWING NO. 1-11-1-1
DATE: 12/20/50
BY: J. J. ...
CHECKED BY: ...
SCALE: AS SHOWN

DESIGNER: ...
DRAWN: ...
CHECKED: ...
DATE: ...

UNLESS OTHERWISE SPECIFIED:
ALL WALLS AND PARTITIONS SHALL BE CONCRETE BLOCK - DO NOT SCALE.
DRYWALL & PARTITION SHALL BE CONCRETE BLOCK - DO NOT SCALE.

CONTRACT NO. ...
JOB NO. ...
SHEET NO. 1 OF 1

DWG. CODE NO. ...
TITLE: ...
SCALE: 1/8" = 1'-0"

DATE: 1-11-1
BY: J. J. ...
CHECKED BY: ...
SCALE: AS SHOWN

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 1.99 | | ESP2: 1510 | 38.7% | 2.58 | |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 309 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.9 | 5.3 | | | PAC4G:4478 | 36.0 | 2.7 | |
| * | FLMON:91943 | 36.0% | 2.7 | 7 | * | FLMON:91943 | 18.9% | 5.3 | 1423 |

| |
|-----------------------|
| SURVEY DATE: 12/09/92 |
| COUNT DATE: 12/09/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 13 uR/hr |
| * | E520: 5242 | .01 mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

7515 12-22-92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|---------|----------------|--------------------|------------------------|------------------------|----------|------------------------------|--------|----------------------------|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall | 2, -.54 | N/A | 12 | .01 | 463 | 375 | 1.99 | 386 | -0.149 | -2.82 | See Attached map |
| Floor | 2, -2 | " | 12 | .01 | 480 | 420 | 8 * | 1255 * | -0.149 | -2.82 | " |
| | | | | | | | * USED FLMON 4/20/93 AJMerdi | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|--------------------------|--|
| FORM SERIAL #: 1-014 (Survey Section - Sequential survey #) | LOCATION # 1-8-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0066 | SURVEYOR SIGNATURE: T. B. <i>T. B. [Signature]</i> |
|--|--|---|--------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/10/92
 Counting Unit id: 1
 Data file name: C:\LB\CL\UNIT1\010802.XLD
 Batch Ended: 12/9/92 15:10
 Crosstalk Correction: Not Applied

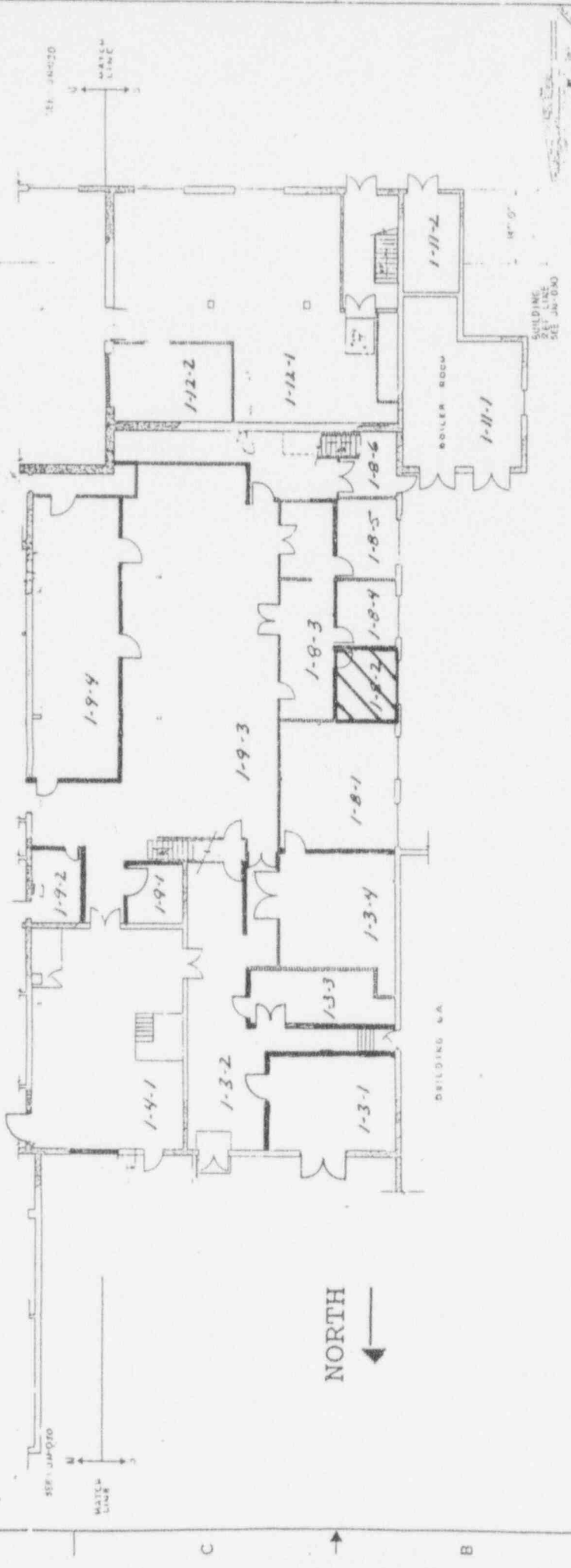
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.065263158
 Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 23 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:09 |
| 24 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:10 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

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

SCALE - FEET
0 5 10 15 20 25

PARTS LIST

UNLESS OTHERWISE SPECIFIED
ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING TOLERANCES - 3/8" NOT SCALE

| QTY | UNIT | DESCRIPTION | REMARKS |
|-----|------|--------------------|---------|
| 1 | EA | BRICK | |
| 1 | EA | CONCRETE BLOCK EXT | |
| 1 | EA | CONCRETE BLOCK INT | |
| 1 | EA | DRYWALL & PANELING | |

PROJECT NO. [] DRAWING NO. [] SHEET NO. [] OF []

DATE []

DWG CODE NO. []

CONTRACT NO. []

PROJECT NAME []

CLIENT NAME []

PROJECT LOCATION []

DATE OF ISSUE []

SCALE []

PROJECT NO. []

DWG NO. []

DATE []

SCALE []

PROJECT NO. []

DWG NO. []

DATE []

SCALE []

PROJECT NO. []

DWG NO. []

DATE []

SCALE []

PROJECT NO. []

DWG NO. []

DATE []

SCALE []

PROJECT NO. []

DWG NO. []

DATE []

SCALE []

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/10/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010805.XLD
 Batch Ended: 12/9/92 15:23
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

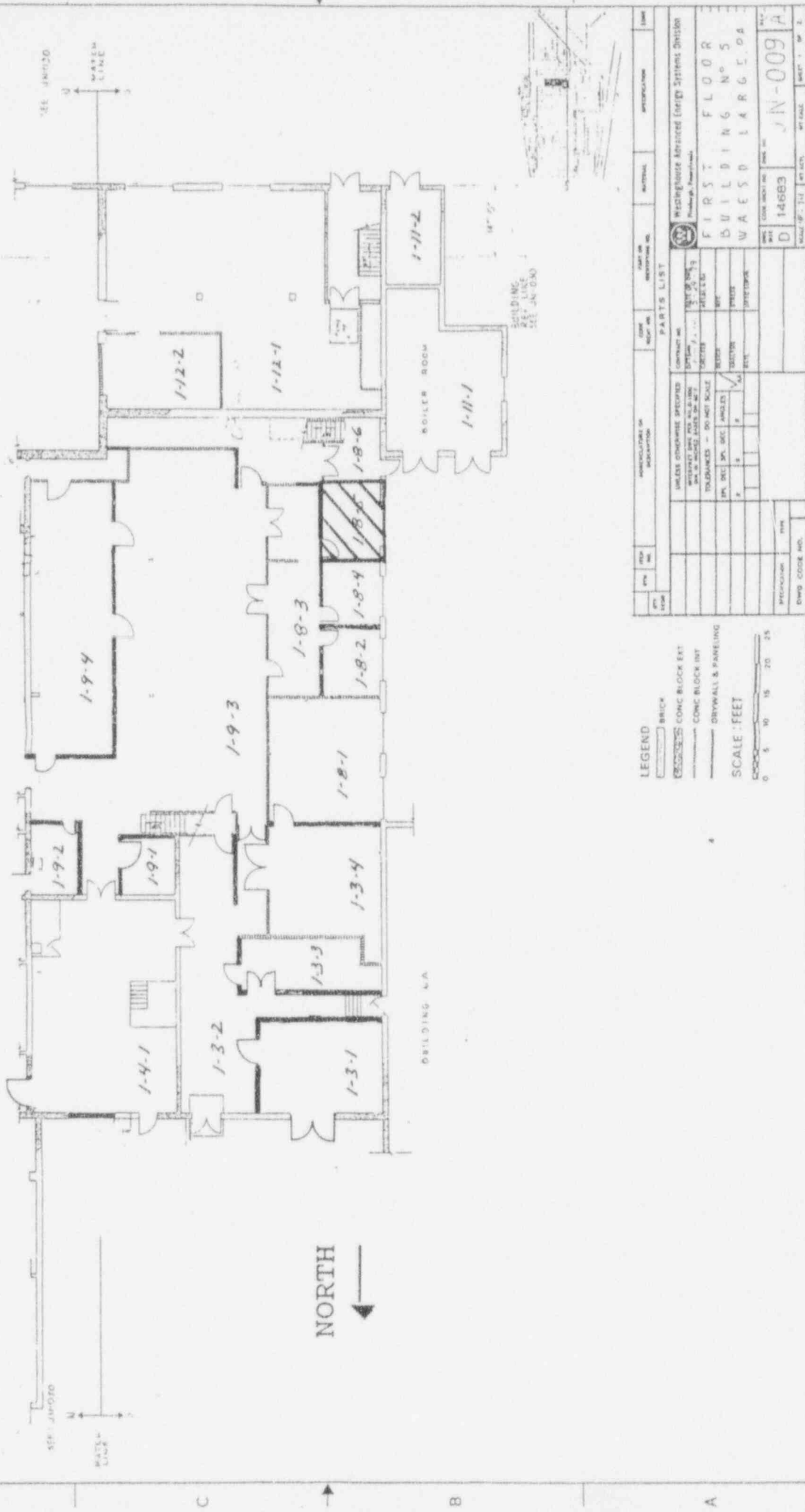
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.065263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 35 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:22 |
| 36 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/9/92 15:23 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

- BRICK
- CONCRETE BLOCK EXT
- CONCRETE BLOCK INT
- GYPSUM WALL & PANELING

SCALE: FEET
0 5 10 15 20 25

PARTS LIST

| QTY | ITEM NO. | DESCRIPTION | UNIT | AMOUNT | REMARKS |
|-----|----------|----------------------------|------|--------|---------|
| | | UNLESS OTHERWISE SPECIFIED | | | |
| | | WARRANTY PER PLAN | | | |
| | | TOLERANCES - DO NOT SCALE | | | |
| | | FIN. DET. INC. ANGLES | | | |
| | | TEXTURE | | | |
| | | FINISH | | | |

TITLE BLOCK

Washington Advanced Energy Systems Division
 Building #5
 WAESD LARG 5 DA
 FIRST FLOOR
 JN-009 A
 D 14683

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/14/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010805U.XLD
 Batch Ended: 12/10/92 14:48
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450
 Application Revision: 2
 Application Version: Standard

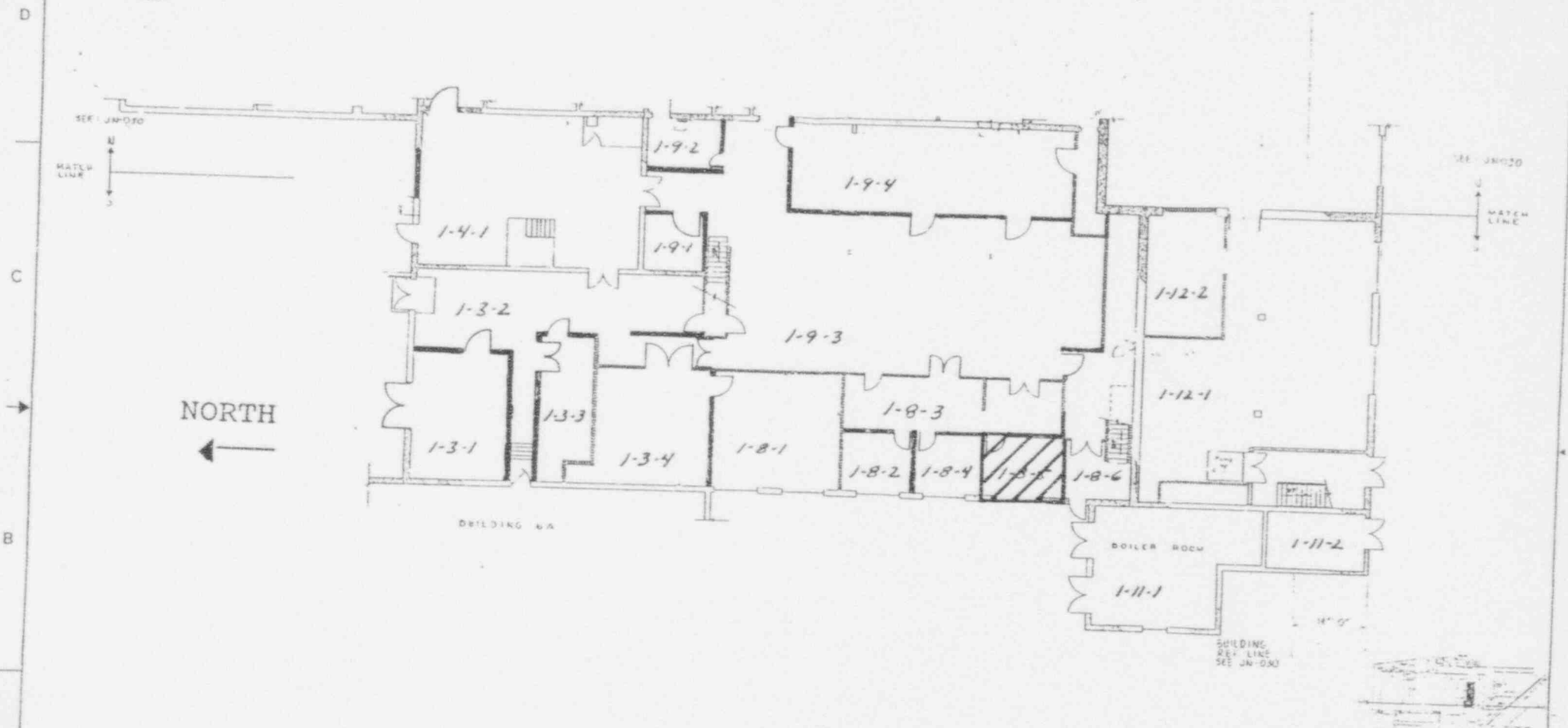
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158
 Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 7 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/10/92 14:47 |
| 8 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 14:48 |

BUILDING #5 FIRST FLOOR (Western portion)

| | | | |
|------|------|----|--------|
| DATE | REV. | BY | APP'D. |
| | | | |



NORTH
←

BUILDING 5A

BUILDING 5B
SEE JN-090

LEGEND

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

SCALE: FEET

| QTY | SYM | ITEM NO. | DESCRIPTION OR DIMENSIONS | CODE | PART OR IDENTIFYING NO. | MATERIAL | SPECIFICATION | DATE |
|-------------------|-----|----------|---|--------------|-------------------------|--|---------------|------|
| PARTS LIST | | | | | | | | |
| | | | UNLESS OTHERWISE SPECIFIED | CONTRACT NO. | | | | |
| | | | INTERPRET DIMS PER MIL-D-1000 | DATE OF DWS | | | | |
| | | | DWG. IS UNLESS NOTED OTHERWISE | REV. NO. | | | | |
| | | | TOLERANCES - DO NOT SCALE | DRAWN BY | | | | |
| | | | | CHECKED BY | | | | |
| | | | | DESIGN BY | | | | |
| | | | | ANALYSE BY | | | | |
| | | | | REV. BY | | | | |
| | | | | DATE | | | | |
| SPECIFICATION | | | TYPE | | | | | |
| DWG CODE NO. | | | | | | | | |
| | | | Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | | FIRST FLOOR BUILDING N° 5 WAESD LARGE DA | | |
| | | | DWG NO. | DATE | DWG NO. | | | |
| | | | D 14683 | JN-009 | | | | |
| | | | SCALE: 1/4" = 1'-0" | BY: ACV | BY: GLE | SHEET 1 OF 2 | | |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-----------------------------------|-------------------------------|---------|------------|-----------------------|-----------------------------------|-------------------------------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 1.0 | | ESP2: 1510 | 38.7% | 2.58 | |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 552 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | | | | | PAC4G:4478 | | | |
| * | FLMON:91943 | 36.6% ^{18.9%} | 2.7 ^{5.3} | 8 | * | FLMON:91943 | 18.9% ^{36.0%} | 5.5 ^{2.7} | 1228 |

| |
|-----------------------|
| SURVEY DATE: 12/09/92 |
| COUNT DATE: 12/10/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-7088 | uR/hr |
| * | PRM7: 234 | 15 uR/hr |
| * | E520: 5242 | .01 mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

12/22/92

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------------------|---------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|--------|--|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| South Wall | 2, -.43 | N/A | 15 | .01 | 545 | 475 | 0 | 459 | -0.149 | -2.82 | See Attached map |
| Floor | 2, -2 | " | 15 | .01 | 502 | 470 | 8 * | 1228 * | -0.149 | -2.82 | (Used Fimon for |
| " | 4, -2 | " | 15 | .02 | 497 | 450 | 8 * | 1214 * | -0.149 | 9.03 | Beta contact) |
| " | 6, -2 | " | 12 | .01 | 480 | 360 | 6 * | 1149 * | -0.149 | 3.28 | " |
| North Wall (#1) | 2, -1.2 | " | 13 | .01 | 504 | 400 | 1 | 451 | -0.149 | 3.10 | |
| North Wall (#2) | 0, -1.2 | " | 13 | .01 | 490 | 420 | 0 | 376 | -0.149 | 3.28 | |
| " | 2, -1.2 | " | 13 | .01 | 430 | 400 | 0 | 428 | -0.149 | 9.39 | |
| " | 4, -1.2 | " | 13 | .01 | 360 | 320 | 3 | 396 | -0.149 | -2.82 | |
| * Used FLMON 4/20/93 A.J. Nardi | | | | | | | | | | | |

| | | | | |
|--|--|---|--------------------------|--|
| FORM SERIAL #: 1-017 (Survey Section - Sequential survey #) | LOCATION # 1-8-6 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0069 | SURVEYOR SIGNATURE: T. B. <i>T. B. [Signature]</i> |
|--|--|---|--------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/10/92
 Counting Unit id: 1
 Data file name: C:\BXL\UNIT1\010806.XLD
 Batch Ended: 12/10/92 8:21
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 3 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 8:18 |
| 4 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 8:18 |
| 5 | -0.149 | 1.35 | <MDA | 27.24 | 9.03 | 9.34 | <MDA | 35.16 | 0.34 | -0.055 | 4.48 | 12/10/92 8:19 |
| 6 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/10/92 8:19 |
| 7 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/10/92 8:20 |
| 8 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/10/92 8:20 |
| 9 | -0.149 | 1.37 | <MDA | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | -0.055 | 4.66 | 12/10/92 8:21 |
| 10 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/10/92 8:21 |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------------------------------|---------------------------|---------|------------|-----------------------|-------------------------------|---------------------------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| * | ESP2: 1510 | 22.6% | 4.42 | 2.99 | | ESP2: 1510 | 38.7% | 2.58 | |
| | ESP2: 1517 | 24.2% | 4.14 | | * | ESP2: 1517 | 38.9% | 2.57 | 401 |
| | ESP2: 1522 | | | | | ESP2: 1522 | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | | | | | PAC4G:4478 | | | |
| | FLMON:91943 | 18.9% 18.9% | 5.3 5.3 | | | FLMON:91943 | 18.9% 36.0% | 5.3 2.7 | |

| |
|-----------------------|
| SURVEY DATE: 12/14/92 |
| COUNT DATE: 12/14/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP INST: S/N | BKG |
|------------|-------------------------------------|-------|
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| INST: S/N | EFF | C.F. | BKG | |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| INST: S/N | EFF | C.F. | BKG | |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 208 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|--------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall (#1) | 2, -.7 | N/A | N/A | N/A | 840 | 410 | 1.99 | 385 | -0.149 | -2.82 | See Attached map |
| " | 4, -.7 | " | " | " | 840 | 300 | 3.99 | 378 | -0.149 | -2.82 | " |
| North Wall (#2) | 0, -.7 | " | " | " | 480 | 400 | 0 | 392 | -0.149 | -2.82 | " |
| " | 2, -.7 | " | " | " | 455 | 380 | 1.99 | 410 | -0.149 | 3.28 | " |
| " | 4, -.7 | " | " | " | 476 | 400 | 5.98 | 402 | -0.149 | 3.28 | " |
| South Wall | 0, 0 | " | " | " | 577 | 450 | 1.99 | 463 | -0.149 | 3.28 | " |
| " | 2, 0 | " | " | " | 523 | 400 | .997 | 470 | -0.149 | -2.82 | " |
| Ceiling | 4, -2 | " | " | " | 391 | 325 | 5.98 | 300 | -0.149 | -2.82 | " |
| I-Beam | 6, -2 | " | " | " | 390 | 255 | 2.99 | 284 | -0.149 | -2.82 | " |
| Light Fixture | 4, -1 | " | " | " | 403 | 340 | 5.98 | 302 | -0.149 | -2.82 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|--------------------------|---|
| FORM SERIAL #: 1-018 (Survey Section - Sequential survey #) | LOCATION # 1-8-6 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0070 | SURVEYOR SIGNATURE: M. S. <i>M. Schaffer</i> |
|--|--|---|--------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 12/14/92
 Counting Unit id: 1
 Data file name: C:\BXL\UNIT1\010806U.XLD
 Batch Ended: 12/14/92 11:20
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

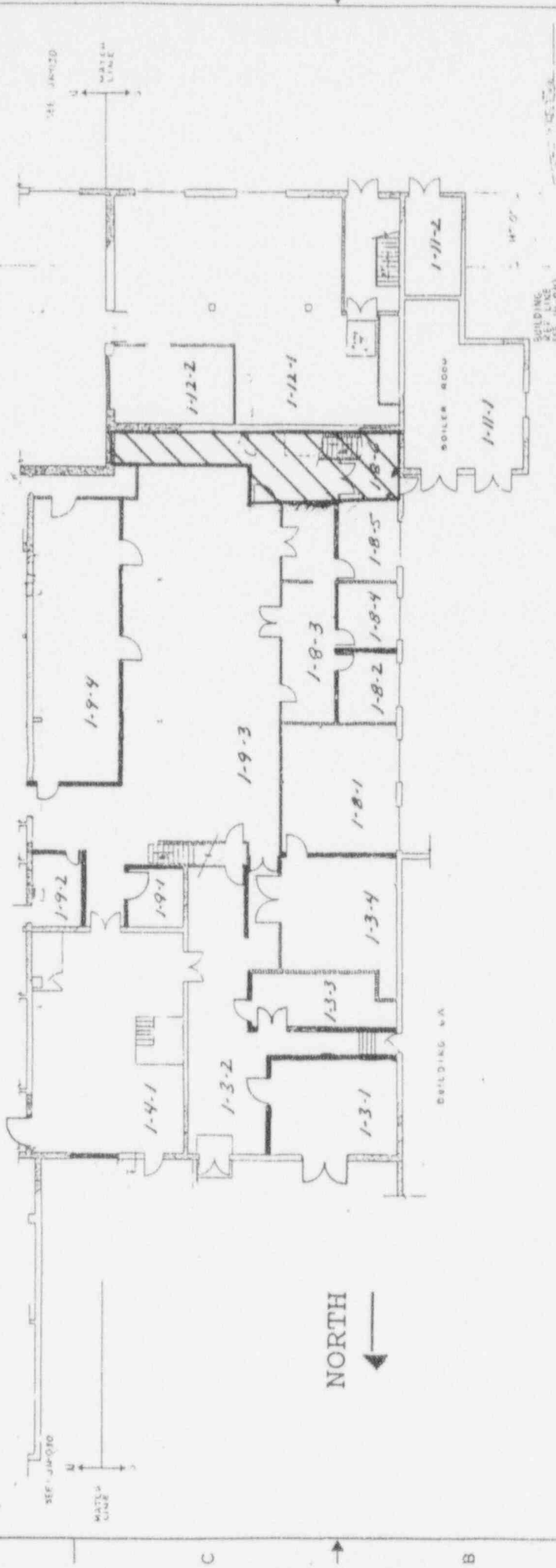
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CF% | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 3 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/14/92 11:15 |
| 4 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/14/92 11:16 |
| 5 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/14/92 11:16 |
| 6 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/14/92 11:17 |
| 7 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/14/92 11:17 |
| 8 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/14/92 11:18 |
| 9 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/14/92 11:18 |
| 10 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/14/92 11:19 |
| 11 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/14/92 11:19 |
| 12 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/14/92 11:20 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

BRICK
CONC BLOCK EXT
CONC BLOCK INT
DRYWALL & PANELING
SCALE: FEET
0 5 10 20 25

PARTS LIST

| SYMBOL | DESCRIPTION | QTY | UNIT |
|----------|--------------------|-----|------|
| [Symbol] | BRICK | | |
| [Symbol] | CONC BLOCK EXT | | |
| [Symbol] | CONC BLOCK INT | | |
| [Symbol] | DRYWALL & PANELING | | |

UNLESS OTHERWISE SPECIFIED

CONCRETE AND MASONRY TO BE PERFORMED BY CONTRACTOR.

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE.

TOLERANCES - AS NOTED OR AS PER STANDARD PRACTICE.

FINISHES - AS NOTED OR AS PER STANDARD PRACTICE.

DOOR CODE NO. JN-009

PROJECT NO. 14683

DATE: JUN 1963

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

BY: JN

WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION

FIRST FLOOR

BUILDING No 5

WAESD LARG CPA

DWG CODE NO. JN-009

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

DATE: JUN 1963

BY: JN

APPENDIX G

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 9

SURVEY TYPE: FLOORS & Walls

| ALPHA SURVEY EQUIPMENT | | BETA SURVEY EQUIPMENT | | COUNTING EQUIPMENT (ALPHA) INST: S/N | C.F. | BKG |
|------------------------|-------|-----------------------|-------|---|------|------|
| INST: S/N | EFF | INST: S/N | EFF | | | |
| ESP2:1517 | 21.1% | 4.74 | 34.2% | 13295 | 2.64 | 0.1 |
| ESP2:1517-L | 21.7% | 4.60 | 31.3% | 1128 | 2.46 | |
| ESP2:1601-L | 23.1% | 4.33 | 34.3% | 263 | 2.88 | |
| ESP2: | | | | | | |
| ESP2: | | | | | | |
| ASP1: 1891 | 19.1% | 5.23 | 49.9% | 13295 | 2.0 | 1.24 |
| PAC46:4:78 | 18.5% | 5.4 | 33.5% | 1848 | 3.8 | |
| FLMON:91543 | 18.8% | 5.3 | 28.8% | 808 | 5.92 | |

SURVEY DATE: 3/25/93
COUNT DATE: 3/25/93

| GAMMA OR BETA/GAMMA EQUIP | | SMEAR LEVELS IN DPM/100cm ² | |
|---------------------------|-----------|--|------|
| INST: S/N | BKG | ALPHA | BETA |
| R/S: L-2088 | ur/hr | | |
| PRM7: 234 | 8 ur/hr | | |
| E520: 5242 | mr/hr | 12 | 1196 |
| E520: 5245 | .01 mr/hr | | |
| ESP2: 1522 | mr/hr | | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. ur/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CP1 | | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|-------|--------------------------|-------|--|--|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | | |
| Floor Tile | N/A | 2, -2 | 9 | .01 | 1265 | 1200 | 12 | 1196 | | -2.49 | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

FORM SERIAL #: 1 - 052
(Survey Section - Sequential survey #)

LOCATION # 1-9-1
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: IV
(Group I, II, III, IV)

DISK FILE CODE: FDS - 0426

SURVEY SIGNATURE: TS
[Signature]

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Certainty level for MDA and flags: 95.00%

High Voltage Setting: 14.35

Batch Ended: 3/25/93 11:40

Crosstalk Correction: Not Applied

Beta efficiency log file: cs137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Application Revision: 2

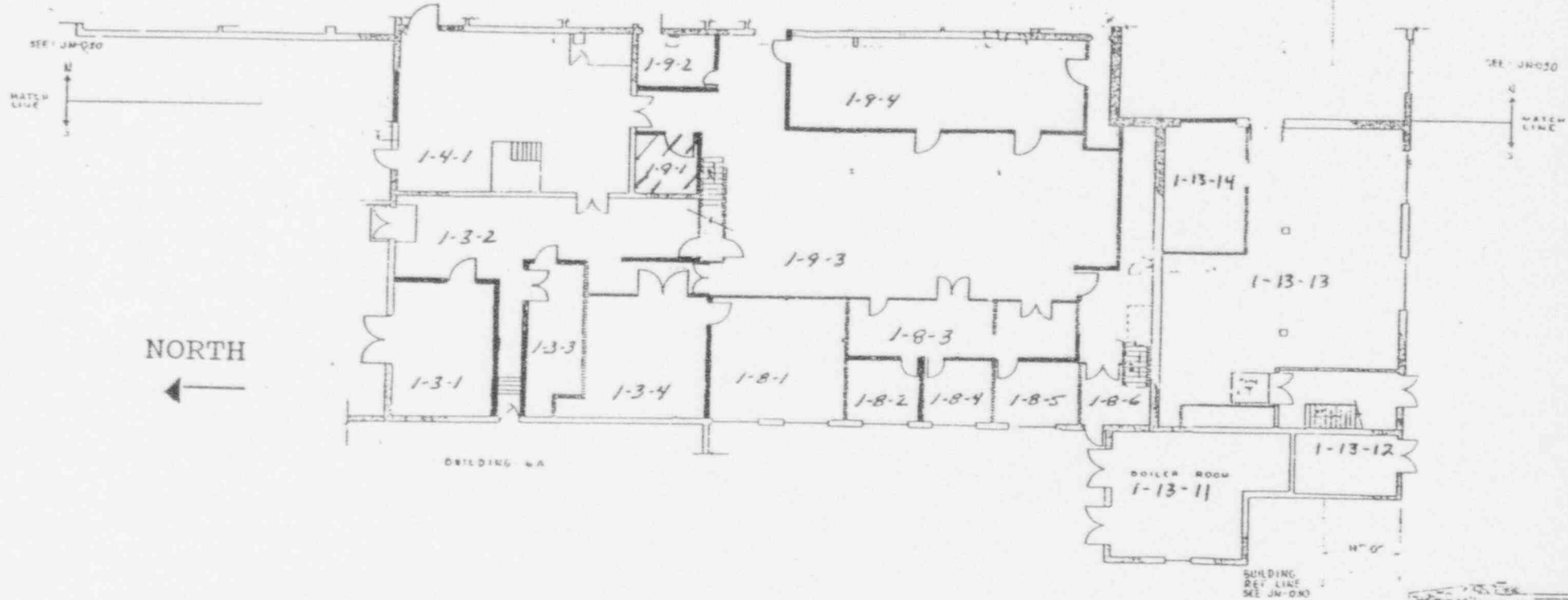
Application Version: Standard

Batch ID: Ijs 010901 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 4E | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/25/93 11:40 |

BUILDING #5 FIRST FLOOR (Western portion)

| REVISIONS | |
|-----------|------|
| NO. | DATE |
| | |



NORTH
←

BUILDING #A

BUILDING
REF LINE
SEE JN-DXO

LEGEND

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

SCALE: FEET

| REV | BY | CHK | DATE | DESCRIPTION OF REVISION | DATE | BY | CHK | DATE | PARTIAL | SPECIFICATION | DATE |
|--|----|-----|------|---|------|----|-----|--|---------|---------------|------|
| PARTS LIST | | | | | | | | | | | |
| UNLESS OTHERWISE SPECIFIED | | | | Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | | | | | | | |
| MATERIALS PER PERMISSIBLE | | | | SYSTEM NO. 5-29-79 DATE: 5-29-79 | | | | FIRST FLOOR BUILDING #5 WAESD LARGE PA | | | |
| TOLERANCES - DO NOT SCALE | | | | FINISHES: SEE SPECIFICATIONS DIMENSIONS: SEE DIMENSIONS | | | | DWG NO. 14683 JN-009 | | | |
| SP. DEC. SP. DEC. ANGLES | | | | SCALE: 1/4" = 1'-0" | | | | SHEET 1 OF 2 | | | |
| SPECIFICATION TYPE: _____ DWG CODE NO.: _____ | | | | | | | | | | | |

LB5100W Low Background Counting System – Smear Analysis

Date: 3/29/93
 Counting Unit id: 1
 Data file name: C:\EXE\UNIT1\010901\JP_XLD
 Batch Ended: 3/29/93 14:59
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

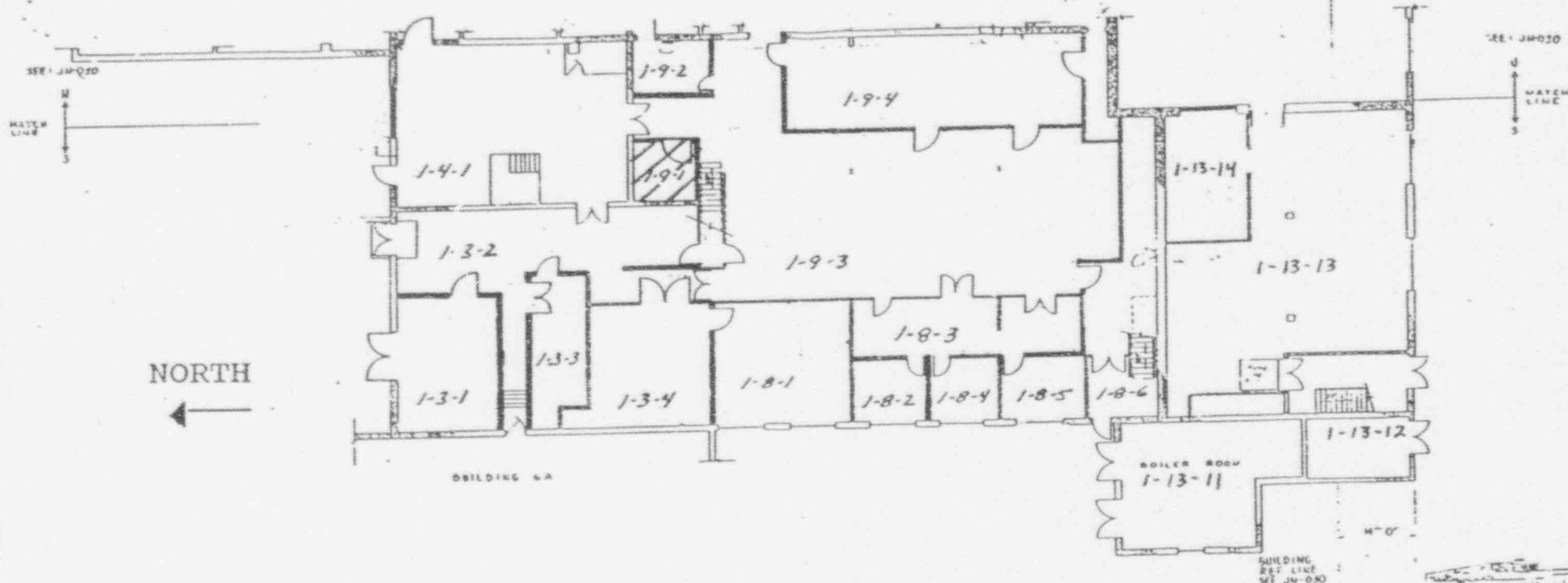
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: MTS 1-9-1 upper surfaces

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 14:57 |
| 2 | 42.005 | 10.66 | >AL | 11.27 | 9.54 | 5.41 | <AL | 15.88 | 1.00 | 15.900 | 4.76 | 3/29/93 14:59 |

BUILDING #5 FIRST FLOOR (Western portion)



NORTH
←

BUILDING 6A

BUILDING REF LINE SEE JN-090

LEGEND

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

SCALE: FEET

| REVISIONS BY | | DATE | BY | REASON | DESCRIPTION |
|--------------|--|------|----|--------|-------------|
| | | | | | |

| SPECIFICATION | | TYPE | QUANTITY | UNIT | PRICE | TOTAL |
|---------------|--|------|----------|------|-------|-------|
| | | | | | | |

| PARTS LIST | | CONTRACT NO. | DATE OF WORK |
|------------|--|--------------|--------------|
| | | | |

| | |
|---|--------------|
| Westinghouse Advanced Energy Systems Division Pittsburgh, Pennsylvania | |
| FIRST FLOOR | |
| BUILDING N° 5 | |
| WAESD LARGE.PA | |
| DATE PLOTTED | DATE |
| 0 14683 | JN-009 A |
| SCALE: 1/4" = 1'-0" | SHEET 1 OF 3 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\LIXI\UNF11\010902.XLD
 Batch Ended: 3/25/93 11:41
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

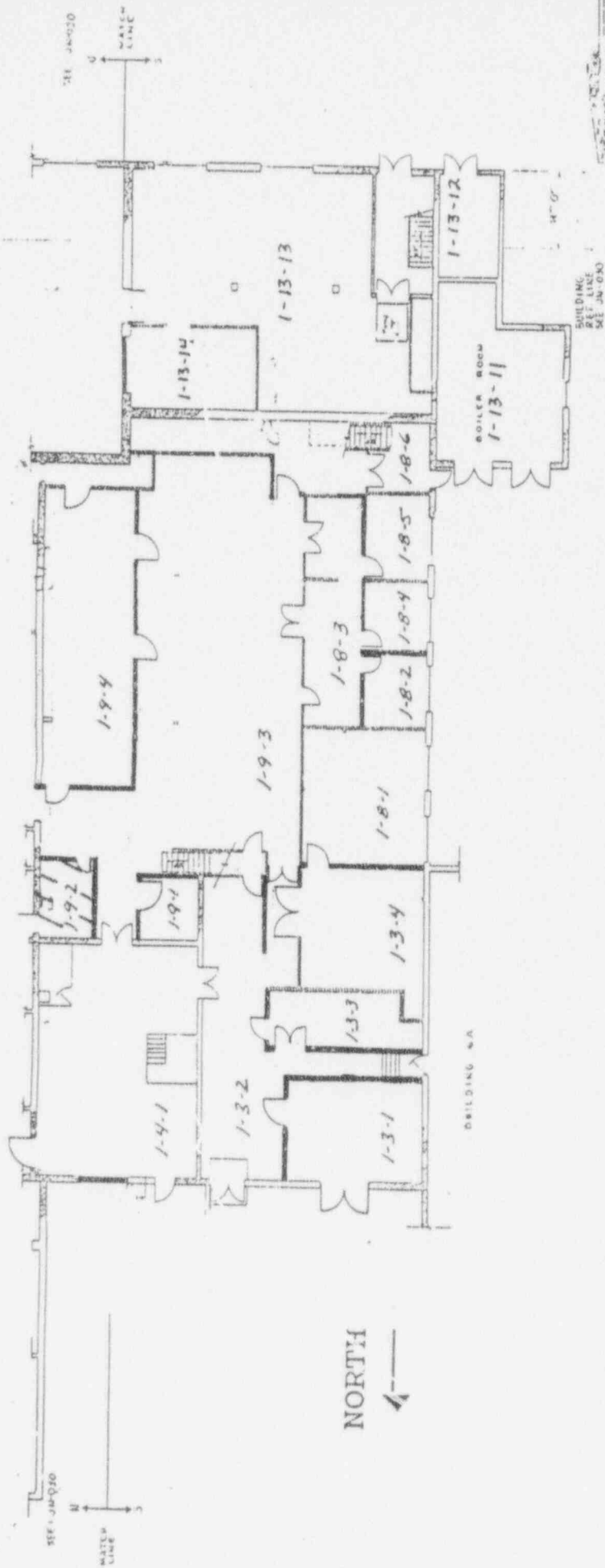
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.89%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: Ijs 010902 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 19 | -0.264 | 1.60 | <MDA | 26.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/25/93 11:41 |

BUILDING #5 FIRST FLOOR (Western portion)



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

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|------|-------------|----|------|
| | | | | |
| | | | | |
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |
| | | | | |
| | | | | |

| NO. | DESCRIPTION | QTY | UNIT | REMARKS |
|-----|-------------|-----|------|---------|
| | | | | |
| | | | | |
| | | | | |

WESTINGHOUSE MERCHANT ENERGY SYSTEMS DIVISION
 BUILDING NO. 5
 WAESD LARG 6 C DA
 JN-009 A
 D 14693

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Confidence level for MDA and flags: 95.00%

High Voltage Setting: 14.35

Application Revision: 2

Application Version: Standard

Date: 3/29/93

Counting Unit id: 1

Data file name: C:\LDX\UPRT\061699\210P.X1.D

Batch Ended: 3/29/93 14:50

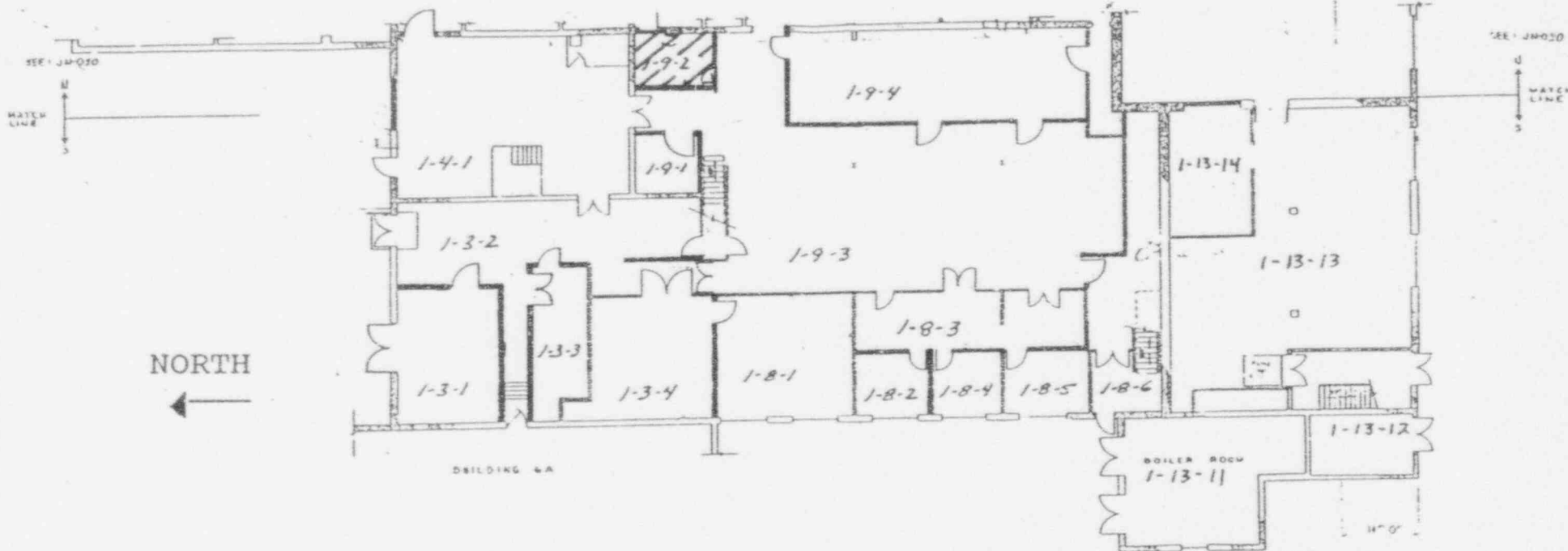
Crosstalk Correction: Not Applied

Batch ID: MTS 1-0-2 upper surfaces

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 3 | 0.264 | 1.03 | <MDA | 26.84 | 3.50 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 14:59 |

BUILDING #5 FIRST FLOOR (Western portion)

D
C
B
A



NORTH

BUILDING 4A

BUILDING
REF. LINE
SEE JN-030

LEGEND

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

SCALE: FEET



| REV | DATE | DESCRIPTION OF REVISION | DATE | BY | CHKD | APP'D |
|--------------------------------|------|-------------------------|-------------|----------|------------|---------|
| PARTS LIST | | | | | | |
| UNLESS OTHERWISE SPECIFIED | | | COMPANY NO. | QUANTITY | UNIT | REMARKS |
| SPECIFY SIZE FOR HOLE-DRILLING | | | STANDARD | PER 100 | 3/4" x 25' | |
| TOLERANCES - ON NOT SCALE | | | GRADE | PER | 1/2" | |
| SPL | SEC | SPL | SEC | ANGLES | | |
| | | | | | | |
| SPECIALLY | | | DATE | BY | CHKD | APP'D |
| DRAWING CODE NO. | | | | | | |

Westinghouse Advanced Energy Systems Division
Pittsburgh, Pennsylvania

FIRST FLOOR
BUILDING # 5
WAESD LARGE.PA

DATE: 14683
SCALE: 1/4" = 1'-0"
SHEET: 1 OF 3

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:447B | 18.5% | 5.4 | | | PAC4G:447B | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 4 | * | FLMON:91943 | 28.8% | 3.47 | 1001 |

| |
|----------------------|
| SURVEY DATE: 3/24/93 |
| COUNT DATE: 3/25/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 9 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|---------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 8, +2 | 10 | .01 | 1130 | 1075 | 8 | 1108 | -0.264 | -2.49 | Floor monitor used for |
| " | " | 8, 0 | 9 | .01 | 1177 | 1100 | 5 | 1098 | -0.264 | 3.41 | scans & 1 minute counts |
| " | " | 10, 0 | 10 | .01 | 1109 | 1050 | 2 | 1105 | -0.264 | -2.49 | " |
| " | " | 12, 0 | 12 | .01 | 1159 | 1050 | 6 | 1101 | 7.741 | 3.59 | " |
| " | " | 8, -2 | 10 | .01 | 1107 | 1050 | 7 | 1038 | -0.264 | 3.41 | " |
| " | " | 6, -2 | 8 | .01 | 1097 | 1025 | 4 | 1088 | -0.264 | -2.49 | " |
| " | " | 4, -2 | 9 | .01 | 1019 | 950 | 6 | 1024 | 2.378 | 3.53 | " |
| " | " | 2, -2 | 9 | .01 | 1084 | 1000 | 9 | 1042 | -0.264 | 3.41 | " |
| " | " | 2, -4 | 9 | .01 | 1114 | 1050 | 5 | 1064 | -0.264 | -2.49 | " |
| " | " | 4, -4 | 8 | .01 | 1169 | 1080 | 5 | 1063 | -0.264 | -2.49 | " |
| " | " | 6, -4 | 8 | .01 | 1080 | 1025 | 4 | 1084 | -0.264 | -2.49 | " |
| " | " | 6, -6 | 8 | .02 | 1120 | 1050 | 2 | 1034 | -0.264 | -2.49 | " |
| " | " | 4, -6 | 8 | .01 | 1087 | 1000 | 5 | 1049 | -0.264 | 3.41 | " |
| " | " | 4, -8 | 9 | .01 | 1169 | 1100 | 4 | 1093 | -0.264 | 3.41 | " |
| " | " | 6, -8 | 9 | .01 | 1094 | 1100 | 5 | 1024 | -0.264 | 3.59 | " |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 054 (Survey Section - Sequential survey #) | LOCATION # 1-9-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0428 | SURVEYOR SIGNATURE: TS <i>T. Shaffer</i> |
|--|--|---|----------------------------|---|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 4 | * | FLMON:91943 | 28.8% | 3.47 | 1001 |

SURVEY DATE: 3/24/93
 COUNT DATE: 3/25/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 9 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 6, -10 | 9 | .01 | 1087 | 1000 | 5 | 1088 | -0.264 | -2.49 | Floor monitor used for |
| " | " | 4, -10 | 8 | .01 | 1209 | 1075 | 5 | 1051 | -0.264 | 9.31 | scans & 1 minute counts |
| " | " | 2, -10 | 9 | .01 | 1119 | 1075 | 2 | 1070 | -0.264 | 3.59 | " |
| " | " | 2, -12 | 10 | .01 | 1198 | 1140 | 5 | 1160 | -0.264 | 3.41 | " |
| " | " | 4, -12 | 9 | .01 | 1137 | 1050 | 0 | 1110 | -0.264 | 9.66 | " |
| " | " | 4, -14 | 8 | .01 | 1072 | 1000 | 4 | 991 | -0.264 | -2.49 | " |
| " | " | 2, -14 | 9 | .01 | 1129 | 1075 | 5 | 1160 | -0.264 | -2.49 | " |
| " | " | 2, -16 | 9 | .01 | 1249 | 1150 | 8 | 1137 | -0.264 | 3.59 | " |
| " | " | 2, -18 | 10 | .01 | 1220 | 1175 | 4 | 1124 | -0.264 | 3.59 | " |
| " | " | 4, -18 | 9 | .01 | 1086 | 1025 | 7 | 1090 | -0.264 | -2.49 | " |
| " | " | 6, -18 | 9 | .01 | 1085 | 1025 | 5 | 1080 | 2.378 | 2.80 | " |
| " | " | 6, -14 | 8 | .01 | 1099 | 1000 | 6 | 1006 | -0.264 | 3.59 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 054 (Survey Section - Sequential survey #) | LOCATION # 1-9-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0429 | SURVEYOR SIGNATURE: TS <i>G. Shaffer</i> |
|--|--|---|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010903.XLD
 Batch Ended: 3/25/93 7:43
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 14.8
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 1-9-3 floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOB |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 7:28 |
| 2 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.76 | 3/25/93 7:28 |
| 3 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/25/93 7:29 |
| 4 | 7.741 | 8.17 | At AL | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 2.930 | 1.79 | 3/25/93 7:29 |
| 5 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 1.70 | 3/25/93 7:30 |
| 6 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 7:30 |
| 7 | 2.378 | 2.80 | <AL | 11.27 | 3.53 | 4.14 | <MDA | 15.89 | 1.00 | 0.900 | 1.76 | 3/25/93 7:32 |
| 8 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/25/93 7:32 |
| 9 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | -1.24 | 3/25/93 7:33 |
| 10 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 7:33 |
| 11 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/25/93 7:34 |
| 12 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 7:34 |
| 13 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/25/93 7:35 |
| 14 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/25/93 7:35 |
| 15 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 3/25/93 7:36 |
| 16 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 7:36 |
| 17 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/25/93 7:37 |
| 18 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/25/93 7:37 |
| 19 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 0.100 | 1.70 | 3/25/93 7:38 |
| 20 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | ... | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/25/93 7:38 |
| 21 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/25/93 7:39 |
| 22 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 7:39 |
| 23 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 3/25/93 7:40 |
| 24 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 3/25/93 7:40 |
| 25 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/25/93 7:41 |

LB5100W Low Background Counting System – Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\010903.XLD
 Batch Ended: 3/25/93 7:43
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 14.35
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

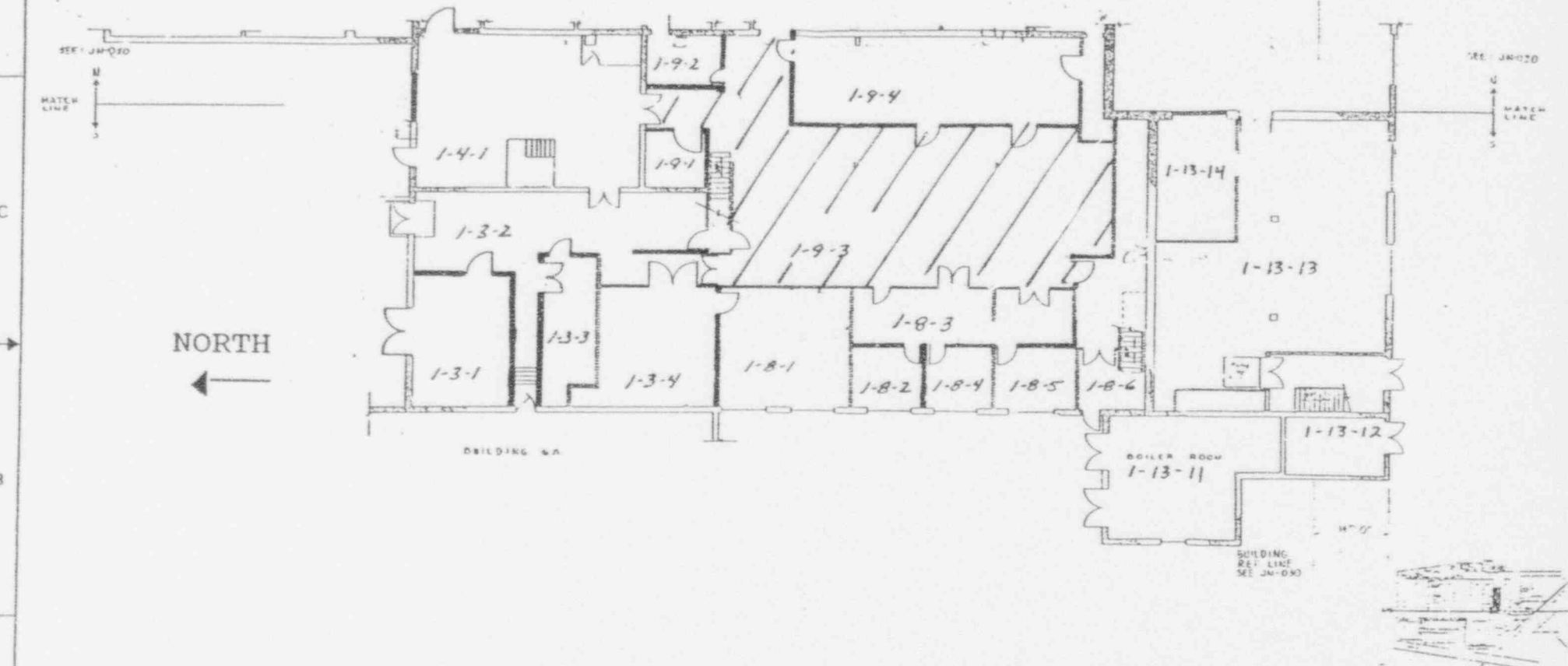
Batch ID: TSB - 1-9-3 floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 26 | 2.378 | 2.80 | <AL | 11.27 | 1.52 | 3.63 | <MDA | 15.88 | 1.00 | 0.900 | 0.76 | 3/25/93 7:42 |
| 27 | -0.264 | 1.63 | <MDA | 28.84 | 3.58 | 7.24 | <MDA | 34.63 | 0.33 | 0.100 | 1.79 | 3/25/93 7:43 |

BUILDING #5 FIRST FLOOR (Western portion)

REVISIONS

| REV. | DATE | APP'D. |
|------|------|--------|
|------|------|--------|



LEGEND

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

SCALE: FEET

0 5 10 15 20 25

| REV. | | REV. NO. | | DESCRIPTION OF MODIFICATION | DATE | BY | APP'D. | CHECKED |
|--|--|----------|--|---|------|----|--------|---------|
| PARTS LIST | | | | | | | | |
| UNLESS OTHERWISE SPECIFIED | | | | WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION | | | | |
| STANDARD DIMS PER MIL-D-883C | | | | SHEET NO. 10 OF 11 | | | | |
| DIMENSIONS ARE UNLESS OTHERWISE NOTED | | | | REVISIONS | | | | |
| TOLERANCES - DO NOT SCALE | | | | DRAWN BY | | | | |
| FRACTIONS ARE TO BE SHOWN AS DECIMALS | | | | CHECKED BY | | | | |
| ALL ANGLES ARE TO BE SHOWN AS DECIMALS | | | | DRAWN BY | | | | |
| ALL DIMENSIONS ARE TO BE SHOWN AS DECIMALS | | | | CHECKED BY | | | | |
| ALL DIMENSIONS ARE TO BE SHOWN AS DECIMALS | | | | DRAWN BY | | | | |
| ALL DIMENSIONS ARE TO BE SHOWN AS DECIMALS | | | | CHECKED BY | | | | |

Westinghouse Advanced Energy Systems Division
 Pittsburgh, Pennsylvania
FIRST FLOOR
BUILDING NO 5
WAESD LARGE PA
 DRAWING NO. **JN-009**
 SHEET NO. **2** OF **2**

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 0 | * | ESP2:1588-L | 34.3% | 2.91 | 227 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

SURVEY DATE: 3/29/93
 COUNT DATE: 3/29/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP INST: S/N | | BKG |
|------------|-------------------------------------|--|-------|
| | R/S: L-2088 | | uR/hr |
| | PRM7: 234 | | uR/hr |
| | E520: 5242 | | mr/hr |
| | E520: 5245 | | mr/hr |
| | ESP2: 1522 | | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-----------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Ceiling | N/A | 2, -18 | N/A | N/A | 276 | 220 | 2 | 230 | -0.264 | 3.59 | ESP's used for/Steel |
| " | " | 4, -18 | " | " | 287 | 208 | 1 | 221 | -0.264 | -2.49 | 1 minute counts/Plate |
| " | " | 6, -18 | " | " | 339 | 265 | 0 | 205 | -0.264 | 3.41 | " |
| " | " | 2, -16 | " | " | 310 | 215 | 1 | 228 | -0.264 | 3.41 | " |
| " | " | 2, -14 | " | " | 230 | 170 | 1 | 215 | -0.264 | -2.49 | " |
| " | " | 4, -14 | " | " | 261 | 205 | 0 | 221 | 7.741 | 3.59 | " |
| " | " | 2, -12 | " | " | 302 | 210 | 1 | 217 | -0.264 | -2.49 | " |
| " | " | 4, -12 | " | " | 232 | 175 | 0 | 204 | -0.264 | -2.49 | " |
| " | " | 4, -10 | " | " | 324 | 221 | 2 | 215 | -0.264 | -2.49 | " |
| " | " | 2, -10 | " | " | 251 | 190 | 1 | 199 | -0.264 | 3.59 | " |
| " | " | 4, -8 | " | " | 241 | 190 | 0 | 221 | -0.264 | -2.49 | " |
| " | " | 6, -8 | " | " | 274 | 220 | 0 | 208 | -0.264 | 3.59 | " |
| " | " | 6, -10 | " | " | 245 | 215 | 7 | 214 | -0.264 | -2.49 | " |
| " | " | 2, -2 | " | " | 318 | 245 | 0 | 244 | -0.264 | 3.59 | " |
| " | " | 4, -2 | " | " | 252 | 187 | 1 | 197 | -0.264 | 3.59 | " |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 069 (Survey Section - Sequential survey #) | LOCATION # 1-9-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0442 | SURVEYOR SIGNATURE: MS/TR <i>[Signature]</i> |
|--|--|---|----------------------------|---|

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 0 | * | ESP2:1588-L | 34.3% | 2.91 | 227 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/29/93 |
| COUNT DATE: 3/29/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT.mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN.CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|-----------------------|------------------------|----------|-------------------------|------|----------------------------|-------|------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Ceiling | N/A | 6, -2 | N/A | N/A | 271 | 215 | 1 | 219 | -0.264 | 3.41 | ESP's used for/ Steel |
| " | " | 8, -2 | " | " | 280 | 230 | 0 | 240 | -0.264 | 9.54 | scans & 1 minute/Plate |
| " | " | 8, 0 | " | " | 295 | 210 | 1 | 215 | -0.264 | -2.49 | counts " |
| Light Fixture | " | 8, 2 | " | " | 312 | 277 | 2 | 301 | -0.264 | -2.49 | " " |
| Ceiling | " | 10, 0 | " | " | 274 | 225 | 0 | 233 | -0.264 | -2.49 | " " |
| " | " | 12, 0 | " | " | 351 | 245 | 2 | 226 | -0.264 | -2.49 | " " |
| " | " | 6, -4 | " | " | 247 | 195 | 0 | 187 | -0.264 | -2.49 | " " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | |
|--|--|---|--|
| FORM SERIAL #: 1 - 069 (Survey Section - Sequential survey #) | LOCATION # 1-9-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0443 SURVEYOR SIGNATURE: MS/TB <i>M. Shaffer</i> |
|--|--|---|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/29/93
 Counting Unit: 1
 Data file name: C:\EXE1\UNIT1\010903HP.XLD
 Batch End: 3/29/93 15:14
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: MTS 193 upper surfaces

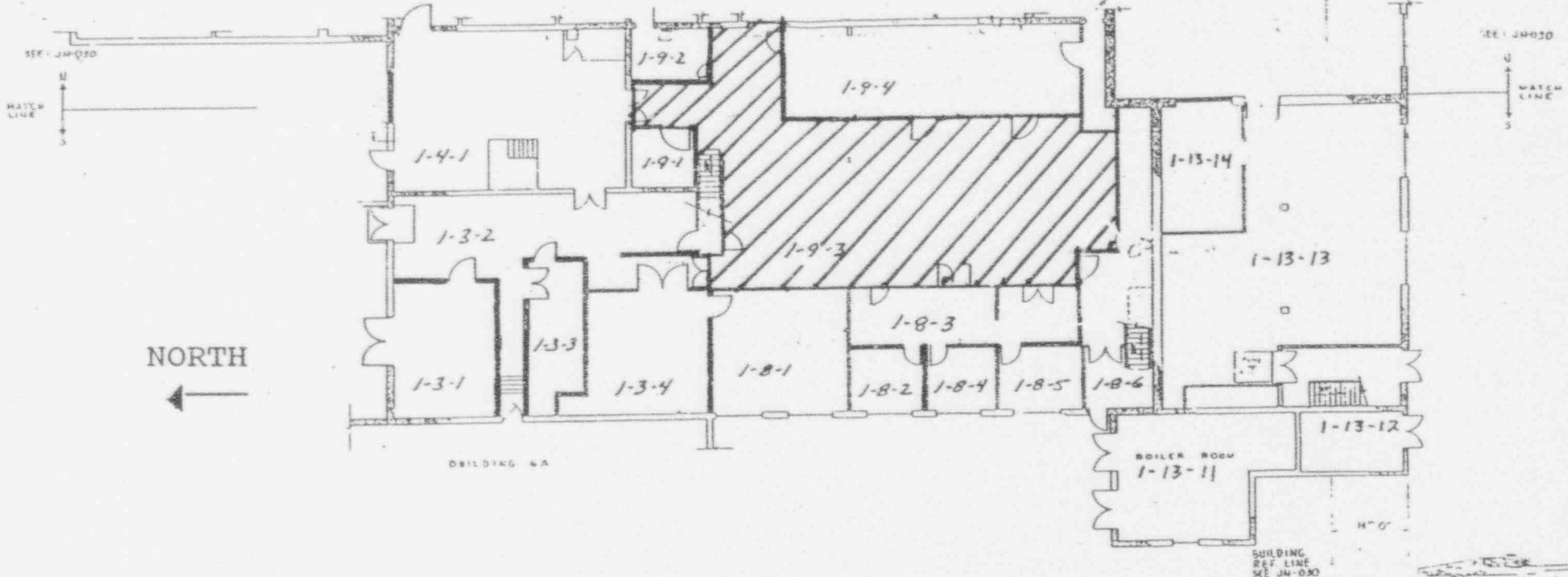
| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 4 | <0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 15:01 |
| 5 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:01 |
| 6 | <0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/29/93 15:02 |
| 7 | <0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/29/93 15:02 |
| 8 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:03 |
| 9 | 7.741 | 8.17 | AL AL | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 2.930 | 1.79 | 3/29/93 15:03 |
| 10 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:04 |
| 11 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:04 |
| 12 | <0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 15:05 |
| 13 | <0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 15:05 |
| 14 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:06 |
| 15 | <0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 15:06 |
| 16 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:07 |
| 17 | <0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 15:07 |
| 18 | <0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/29/93 15:08 |
| 19 | <0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/29/93 15:08 |
| 20 | <0.264 | 0.83 | <MDA | 11.27 | 9.54 | 5.41 | <AL | 15.88 | 1.00 | -0.100 | 4.76 | 3/29/93 15:10 |
| 21 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:10 |
| 22 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:11 |
| 23 | <0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 15:11 |
| 24 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:12 |
| 25 | <0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:12 |
| 26 | 1.19 | 3.05 | AL AL | 11.27 | 0.43 | 3.07 | <MDA | 15.88 | 1.00 | 1.900 | 0.24 | 3/29/93 15:13 |
| 27 | <0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 15:14 |

_____ = Survey point not needed

MS 3/29

BUILDING #5 FIRST FLOOR (Western portion)

D
C
B
A



NORTH
←

BUILDING 6A

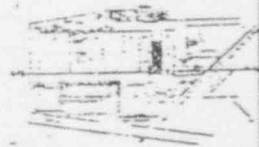
BUILDING REF LINE SEE JN-030

LEGEND

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

SCALE: FEET
0 5 10 15 20 25

| REV | DATE | DESCRIPTION | ISSUE | DATE | DESCRIPTION | REVISION | DATE | DESCRIPTION |
|--|------|-------------|---|------|-------------|--|------|-------------|
| PARTS LIST | | | | | | | | |
| BRICKS CONCRETE DRYWALL & PANELING | | | WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION Pittsburgh, Pennsylvania | | | FIRST FLOOR BUILDING N° 5 WAESD LARGE.PA | | |
| DWG CODE NO. | | | 14683 | | | JN-009 | | |
| SHEET NO. | | | 31 | | | 2 | | |



| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 3 | * | FLMON:91943 | 28.8% | 3.47 | 988 |

| |
|----------------------|
| SURVEY DATE: 3/25/93 |
| COUNT DATE: 3/29/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 9 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|-------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 2, -6 | 9 | .01 | 1102 | 1050 | 3 | 1115 | -0.264 | -2.49 | Floor monitor used for |
| " | " | 2, -8 | 10 | .01 | 1205 | 1150 | 1 | 1113 | -0.264 | -2.49 | scans & 1 minute counts |
| " | " | 2, -10 | 9 | .01 | 1087 | 1025 | 6 | 1059 | -0.264 | -2.49 | " |
| " | " | 2, -12 | 9 | .01 | 1030 | 1000 | 3 | 1039 | -0.264 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 - 064 (Survey Section - Sequential survey #) | LOCATION # 1-9-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0436 | SURVEYOR SIGNATURE: TS <i>T. Shaffer</i> |
|--|--|---|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210tab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

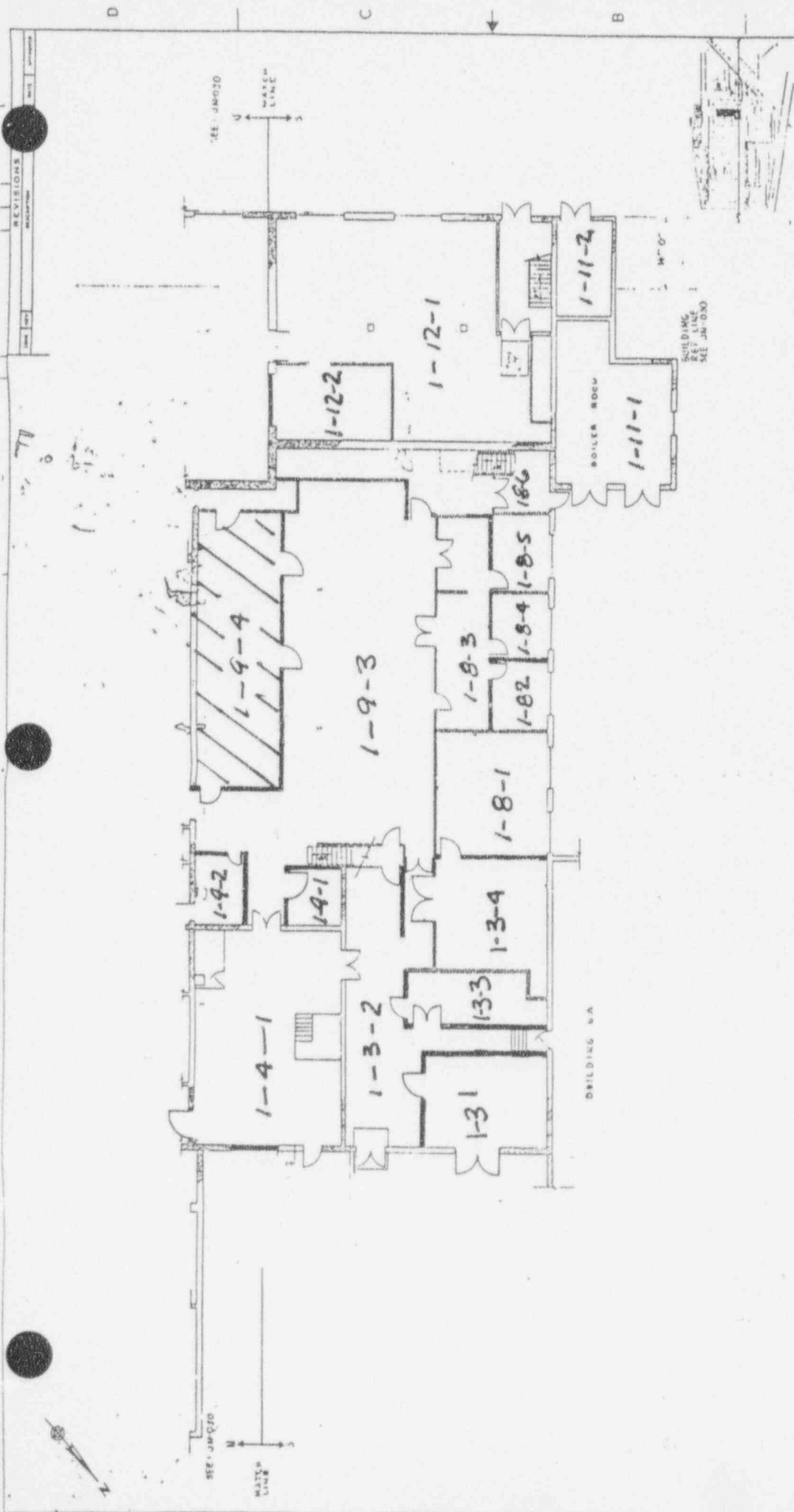
Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Date: 3/29/93
 Counting Unit id: 1
 Data file name: CHEBI UNIT 11010904 XLD
 Batch Label: 3/29/93 10 20
 Crossstalk Correction: Not Applied

Batch ID: ljs 010904 floors walls

| Carrier | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|---------------|------|----------|------------------|-----------|----------|----------------|
| | DPM | σ | Flags | MDA | DPM | σ | | | | |
| 38 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | -1.24 | 3/29/93 10 27 |
| 39 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | -1.24 | 3/29/93 10 27 |
| 40 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | -1.24 | 3/29/93 10 28 |
| 41 | -0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | -1.24 | 3/29/93 10 29 |



| REV. | DATE | DESCRIPTION | BY | CHKD. |
|------|------|-------------|----|-------|
| | | | | |
| | | | | |

| ITEM NO. | DESCRIPTION | QUANTITY | UNIT | PRICE | TOTAL |
|----------|-------------|----------|------|-------|-------|
| | | | | | |
| | | | | | |

| | | |
|---|--|---|
| LEGEND BRICK CONCRETE BLOCK ERT CONCRETE BLOCK INT DRYWALL & PANELING SCALE: FEET | | PARTS LIST PART NO. PART DESCRIPTION QUANTITY UNIT 1-11-1 BOILER ROOM 1 ROOM 1-11-2 1 ROOM 1-12-1 1 ROOM 1-12-2 1 ROOM 1-9-3 1 ROOM 1-9-4 1 ROOM 1-8-1 1 ROOM 1-8-2 1 ROOM 1-8-3 1 ROOM 1-8-4 1 ROOM 1-8-5 1 ROOM 1-3-1 1 ROOM 1-3-2 1 ROOM 1-3-3 1 ROOM 1-3-4 1 ROOM 1-3-5 1 ROOM 1-4-1 1 ROOM 1-4-2 1 ROOM 1-9-1 1 ROOM 1-9-2 1 ROOM |
|---|--|---|

| | |
|--|--|
| PROJECT NO. JN-009 DRAWING NO. 014683 SHEET NO. 1 OF 2 | CONTRACTOR PERFORMER DIVISION CODE NO. |
|--|--|

REVISIONS
 DATE
 BY
 CHECKED
 DATE
 BY

SEE JM020
 WATER LINE

SEE JM020
 WATER LINE

BUILDING 6A

REVISIONS ADVANCED ENERGY SYSTEMS DIVISION
 BUILDING NO. 5
 WAESD LARGE, PA

JN-009 A

| (*) IF USED | ALPHA SURVEY EQUIPMENT INST: S/N | EFF | C.F. | BETA SURVEY EQUIPMENT INST: S/N | EFF | C.F. | BKG CPM |
|-------------|----------------------------------|-------|------|---------------------------------|-------|------|---------|
| * | ESP2: 1517 | 21.1% | 4.74 | ESP2: 1595 | 34.2% | 2.92 | |
| | ESP2: 1517-L | 21.7% | 4.60 | ESP2: 1595-L | 31.3% | 3.20 | |
| * | ESP2: 1601-L | 23.1% | 4.33 | ESP2: 1588-L | 34.3% | 2.91 | 235 |
| | ESP2: | | | ESP2: | | | |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | E520: 5245 | | | |
| | PAC4G: 4478 | 18.5% | 5.4 | PAC4G: 4478 | 33.5% | 3.0 | |
| | FLMON: 91943 | 18.8% | 5.3 | FLMON: 91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/29/93 |
| COUNT DATE: 3/29/93 |

| (*) IF USED | GAMMA OR BETA/GAMMA EQUIPMENT INST: S/N | BKG | R/S: L-2088 | ur/hr |
|-------------|---|-----|-------------|-------|
| | PRM7: 234 | | | ur/hr |
| | E520: 5242 | | | mr/hr |
| | E520: 5245 | | | mr/hr |
| | ESP2: 1522 | | | mr/hr |

| (*) IF USED | ALPHA SURVEY EQUIPMENT INST: S/N | EFF | C.F. | BETA SURVEY EQUIPMENT INST: S/N | EFF | C.F. | BKG CPM |
|-------------|----------------------------------|-------|------|---------------------------------|-------|------|---------|
| * | ESP2: 1517 | 21.1% | 4.74 | ESP2: 1595 | 34.2% | 2.92 | |
| | ESP2: 1517-L | 21.7% | 4.60 | ESP2: 1595-L | 31.3% | 3.20 | |
| * | ESP2: 1601-L | 23.1% | 4.33 | ESP2: 1588-L | 34.3% | 2.91 | 235 |
| | ESP2: | | | ESP2: | | | |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | E520: 5245 | | | |
| | PAC4G: 4478 | 18.5% | 5.4 | PAC4G: 4478 | 33.5% | 3.0 | |
| | FLMON: 91943 | 18.8% | 5.3 | FLMON: 91943 | 28.8% | 3.47 | |

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | GAMMA @ 1 M. ur/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|---------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|-------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Ceiling | N/A | 2, -6 | N/A | N/A | 271 | 240 | 0 | 264 | -0.264 | 3.41 | Steel Plate |
| " | " | 2, -8 | " | " | 299 | 260 | 3 | 251 | -0.264 | -2.49 | " |
| " | " | 2, -10 | " | " | 272 | 220 | 0 | 248 | -0.264 | -2.49 | " |
| " | " | 2, -12 | " | " | 319 | 260 | 0 | 220 | -0.264 | -2.49 | " |
| " | " | 2, -14 | " | " | 293 | 240 | 1 | 256 | -0.264 | 3.41 | " |

| | | | | |
|--|--|---|----------------------------|---|
| FORM SERIAL #: 1 070 (Survey Section - Sequential survey #) | LOCATION # 1-9-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0444 | SURVEY SIGNATURE: MS+TS <i>[Signature]</i> |
|--|--|---|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/29/93
 Counting Unit id: 1
 Data file name: CALEXI\UNIT1\0109041IP.XLD
 Batch Ended: 3/29/93 15:17
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

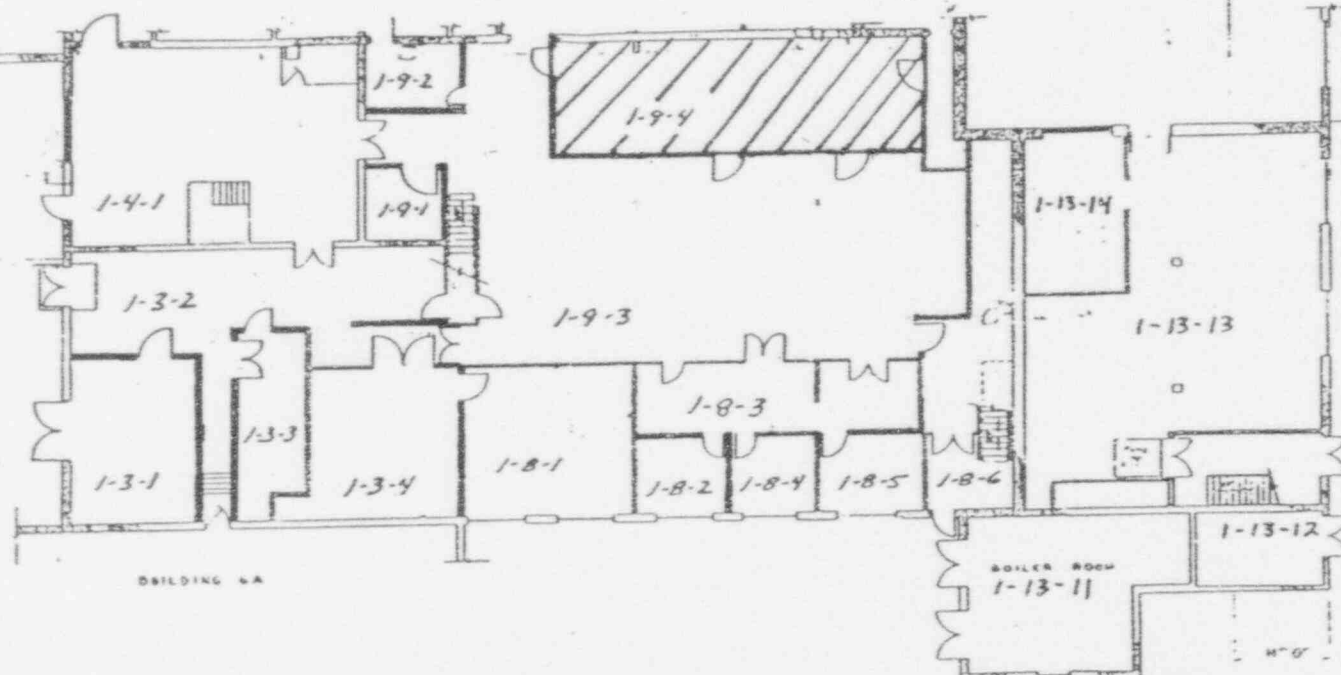
Batch ID: MTS 1-94 upper surfaces

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 28 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/29/93 15:14 |
| 29 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 15:15 |
| 30 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/29/93 15:15 |
| 31 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/29/93 15:16 |
| 32 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/29/93 15:17 |

BUILDING #5 FIRST FLOOR (Western portion)

D
C
B
A

NORTH



BUILDING 6A

BUILDING REF LINE
SEE JN-030

LEGEND

- BRICK
- CONCRETE BLOCK EXT
- CONCRETE BLOCK INT
- DRYWALL & PAPERING



| REVISIONS | | DATE | BY | DESCRIPTION |
|-----------|--|------|----|-------------|
| | | | | |

| PARTS LIST | | QUANTITY | DESCRIPTION | UNIT |
|------------|--|----------|-------------|------|
| | | | | |

| | |
|---|-----------------------|
| WESTINGHOUSE Advanced Energy Systems Division Pittsburgh, Pennsylvania | |
| FIRST FLOOR BUILDING N° 5 WAESD LARGE PA | |
| DRAWING NO. D 14683 | SHEET NO. JN-009 A |

APPENDIX H

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 10

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|-------------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2: | | | | * | ESP2:1510 | 38.7 | 322 2.57 | 322 |
| * | ESP2:1517 | 24.2 | 4.14 | 2.0 | | ESP2: | | 4/20/93 | AJY |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1 | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 20.4% | 4.9 | | | FLMON:91943 | 30.3% | 3.3 | |

| |
|-----------------------|
| SURVEY DATE: 12/22/92 |
| COUNT DATE: 12/21/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| * | E520: 5242 | .01 mR/hr |
| | E520: 5245 | mR/hr |
| | ESP2: 1522 | mR/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mR/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|-------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | 4, -2 | N/A | 10 | .01 | 412 | 370 | 1.0 | 386 | -0.149 | -2.82 | |
| " | 2, -2 | " | 10 | .01 | 527 | 365 | 0 | 375 | -0.149 | 3.28 | |
| " | 2, -4 | " | 10 | .01 | 472 | 360 | 1.0 | 360 | -0.149 | -2.82 | |
| " | 6, -2 | " | 10 | .01 | 409 | 355 | 1.0 | 408 | -0.149 | -2.82 | |
| " | 8, -2 | " | 11 | .01 | 468 | 390 | 1.0 | 418 | -0.149 | -2.82 | |
| " | 8, -4 | " | 10 | .01 | 506 | 410 | 2.0 | 396 | -0.149 | -2.82 | |
| " | 6, -4 | " | 10 | .01 | 406 | 345 | 0 | 351 | -0.149 | 3.28 | |
| " | 4, -4 | " | 10 | .01 | 409 | 360 | 1.0 | 374 | -0.149 | 15.49 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|---|--------------------------|---|
| FORM SERIAL #: 1-021 (Survey Section - Sequential survey #) | LOCATION # 1-10-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0108 | SURVEYOR SIGNATURE: M.S. <i>M. Shaffer</i> |
|--|---|---|--------------------------|---|

LB5100W Low Background Counting System – Smear Analysis

Date: 12/21/92
 Counting Unit id: 1
 Data file name: C:\LXL\UNIT1\011001.XLD
 Batch Ended: #####
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

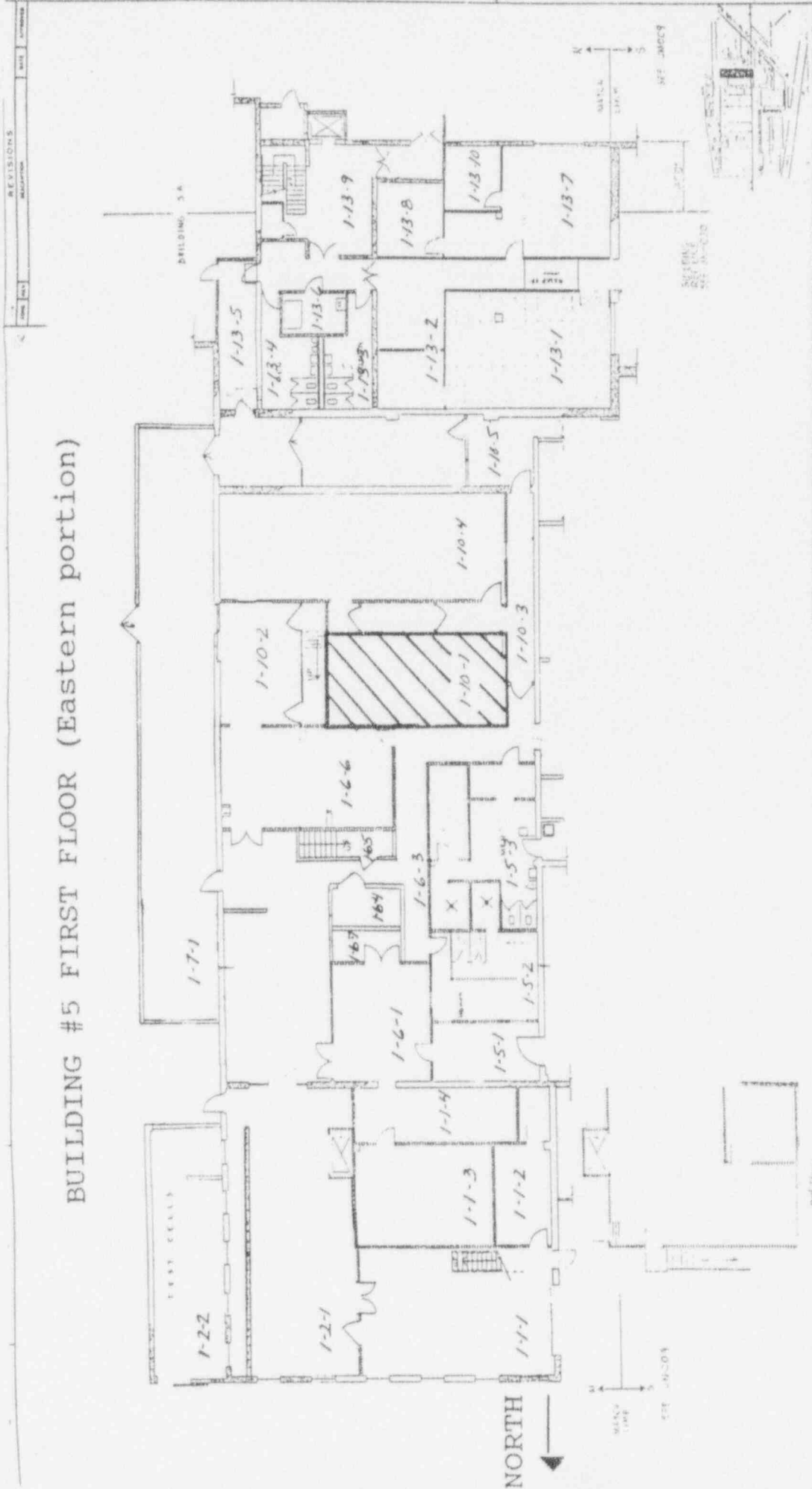
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/21/92 12:48 |
| 2 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/21/92 12:48 |
| 3 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/21/92 12:49 |
| 4 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:49 |
| 5 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:50 |
| 6 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:50 |
| 7 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/21/92 12:51 |
| 8 | -0.149 | 1.37 | <MDA | 27.98 | 15.49 | 11.36 | <AL | 35.93 | 0.33 | -0.055 | 7.69 | 12/21/92 12:51 |

BUILDING #5 FIRST FLOOR (Eastern portion)



| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

LEGEND

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

SCALE - FEET

0 5 10 15 20 25

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

REVISIONS

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2: | | | | * | ESP2:1510 | 38.7 | 2.58 | 405 |
| * | ESP2:1517 | 24.2 | 4.14 | 1.0 | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 20.4% | 4.9 | | | FLMON:91943 | 30.3% | 3.3 | |

| |
|-----------------------|
| SURVEY DATE: 12/22/92 |
| COUNT DATE: 12/21/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| * | E520: 5242 | .01 mR/hr |
| | E520: 5245 | mR/hr |
| | ESP2: 1522 | mR/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mR/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|-------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|----------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Concrete Floor | 2, -2 | N/A | 15 | .01 | 630 | 485 | 0 | 493 | -0.149 | 3.28 | Elevated Gamma due |
| " | 2, -4 | " | 15 | .01 | 523 | 480 | 3.0 | 505 | -0.149 | 3.10 | to East wall bricks. |
| " | 2, -6 | " | 15 | .01 | 512 | 370 | 1.0 | 434 | -0.149 | -2.82 | Brick contact levels |
| | | | | | | | | | | | 15-22 uR/hr. |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|---|--------------------------|--|
| FORM SERIAL #: 1-022 (Survey Section - Sequential survey #) | LOCATION # 1-10-2 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0109 | SURVEYOR SIGNATURE: M.S. <i>M. S. Blaffer</i> |
|--|---|---|--------------------------|--|

LB5100W Low Background Counting System – Smear Analysis

Date: 12/21/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\011002.XLD
 Batch Ended: #####
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

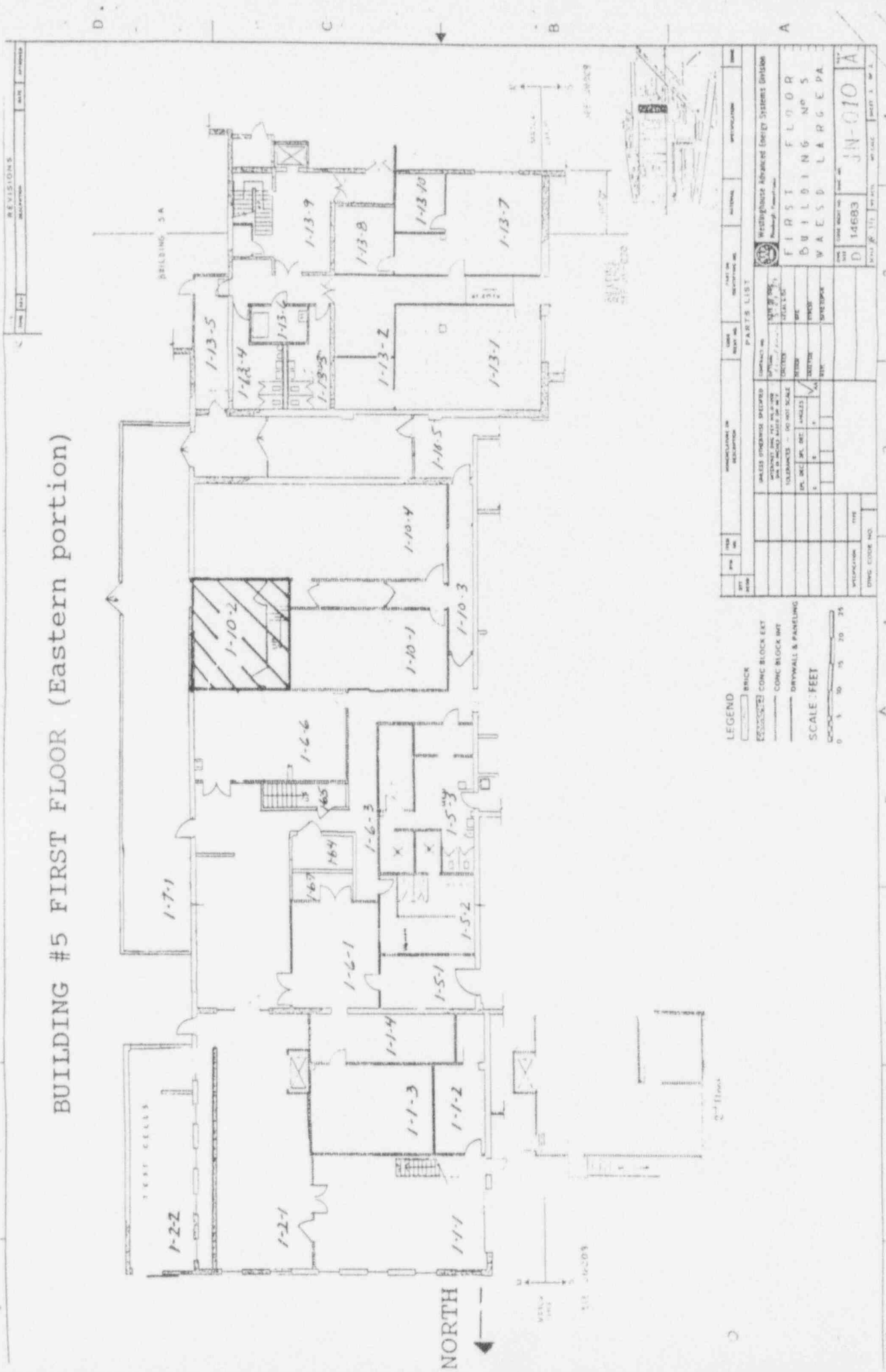
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 31 | 0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | 0.055 | 1.63 | 12/21/92 14:52 |
| 32 | 0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | 0.055 | 1.54 | 12/21/92 14:53 |
| 33 | 0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | 0.055 | -1.40 | 12/21/92 14:53 |

BUILDING #5 FIRST FLOOR (Eastern portion)



| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

LEGEND

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

SCALE: FEET

0 5 10 15 20 25

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2: | | | | * | ESP2:1510 | 38.7 | 2.58 | 442 |
| * | ESP2:1517 | 24.2 | 4.14 | 2.0 | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 20.4% | 4.9 | | | FLMON:91943 | 30.3% | 3.3 | |

| |
|-----------------------|
| SURVEY DATE: 12/22/92 |
| COUNT DATE: 12/21/92 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| * | E520: 5242 | .01 mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|------------------------|--------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor tile on Concrete | 1, -2 | N/A | 18 | .01 | 527 | 410 | 2.0 | 426 | -0.149 | -2.82 | Elevated Gamma due |
| " | 1, -4 | " | 18 | .01 | 532 | 460 | 3.0 | 472 | -0.149 | 3.28 | to East Wall bricks. |
| " | 1, -6 | " | 18 | .01 | 525 | 425 | 2.0 | 447 | -0.149 | -2.82 | Brick contact levels |
| " | 1, -8 | " | 18 | .01 | 516 | 440 | 3.0 | 473 | -0.149 | -2.82 | 15-22 uR/hr. |
| " | 2, -3 | " | 15 | .01 | 443 | 365 | 2.0 | 481 | -0.149 | 3.28 | |
| " | 4, -3 | " | 14 | .01 | 468 | 380 | 1.0 | 393 | -0.149 | 3.10 | |
| " | 6, -3 | " | 11 | .01 | 463 | 405 | 2.0 | 431 | -0.149 | -2.82 | |
| " | 8, -3 | " | 11 | .01 | 539 | 400 | 1.0 | 381 | 8.048 | 9.39 | |
| South Wall | 2, -.5 | " | 14 | .01 | 550 | 385 | 1.0 | 896 | -0.149 | -2.82 | |
| East Wall | 2, -.2 | " | 18 | .01 | 628 | 425 | 3.0 | 461 | -0.149 | -2.82 | |
| West Wall | 4, -.2 | " | 18 | .01 | 609 | 490 | 3.0 | 509 | -0.149 | -2.82 | |
| West Wall | 6, -.2 | " | 18 | .01 | 634 | 480 | 4.0 | 508 | -0.149 | 3.28 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|---|--------------------------|--|
| FORM SERIAL #: 1-023 (Survey Section - Sequential survey #) | LOCATION # 1-10-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0110 | SURVEYOR SIGNATURE: M.S. <i>M. S. Steffen</i> |
|--|---|---|--------------------------|--|

LB5100W Low Background Counting System – Smear Analysis

Date: 12/21/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\011003.XLD
 Batch Ended: #####
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

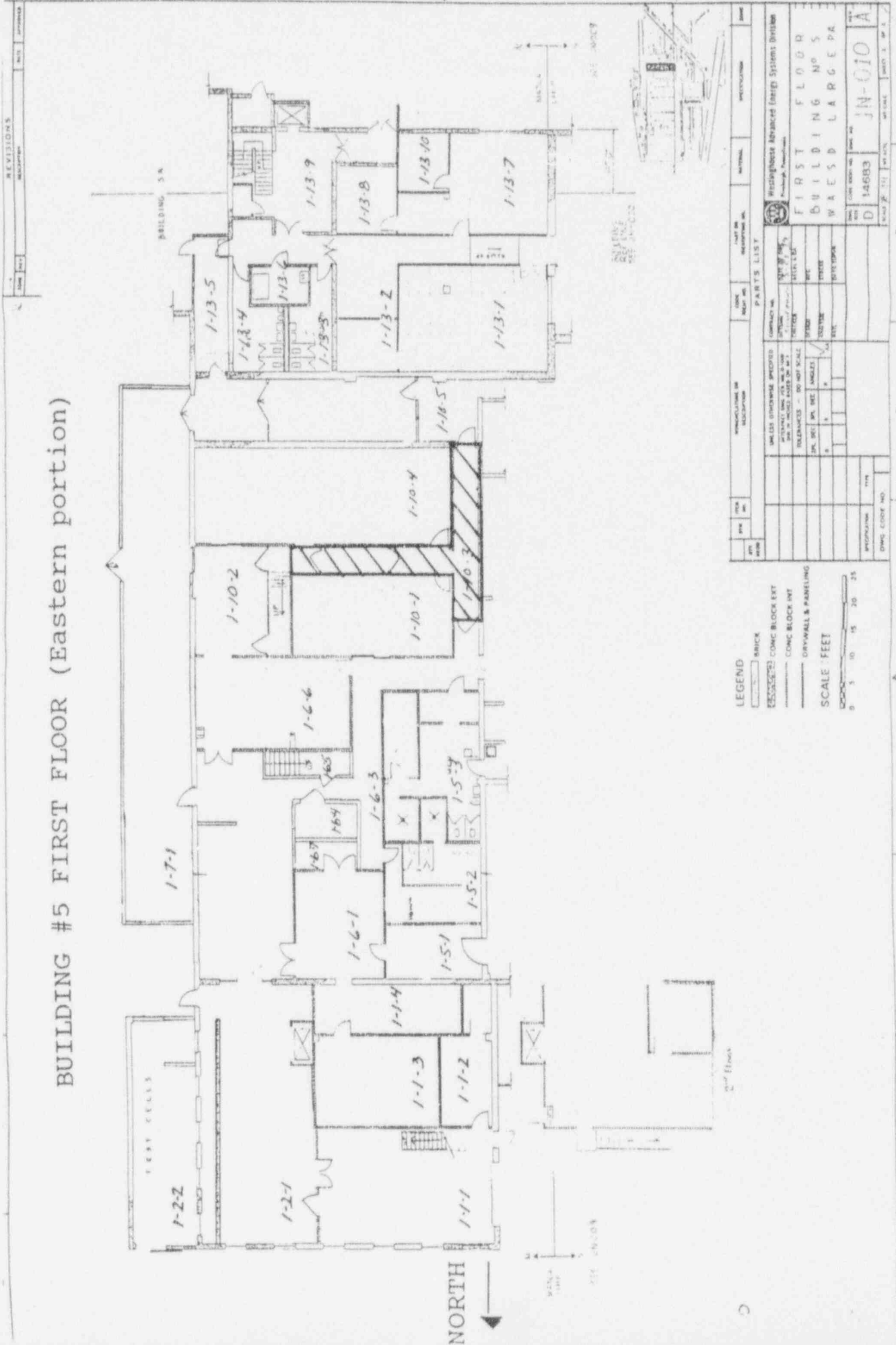
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 9 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:52 |
| 10 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/21/92 12:52 |
| 11 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/21/92 12:53 |
| 12 | -0.149 | 1.35 | <MDA | 27.24 | -2.82 | 4.13 | <MDA | 35.16 | 0.34 | -0.055 | -1.40 | 12/21/92 12:53 |
| 13 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/21/92 12:54 |
| 14 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/21/92 12:54 |
| 15 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:55 |
| 16 | 8.048 | 8.31 | At AL | 27.98 | 9.39 | 9.60 | <MDA | 35.93 | 0.33 | 2.975 | 4.66 | 12/21/92 12:55 |
| 17 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:56 |
| 18 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:56 |
| 19 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | 1.40 | 12/21/92 12:57 |
| 20 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/21/92 12:57 |

BUILDING #5 FIRST FLOOR (Eastern portion)



| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

| REV. | DATE | DESCRIPTION | BY | CHKD. |
|------|------|-------------|----|-------|
| | | | | |

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

| NO. | DATE | REVISIONS |
|-----|------|-----------|
| | | |

LEGEND

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

SCALE - FEET

0 5 10 15 20 25

PARTS LIST

| NO. | DESCRIPTION | QTY | UNIT |
|-----|-------------|-----|------|
| | | | |

TITLE BLOCK

PROJECT: **WISCONSIN ADVANCED ENERGY SYSTEMS DIVISION**

DATE: **FIRST FLOOR**

NO.: **BUILDING NO 5**

SCALE: **WASD LARGE PA**

DWG. CODE NO.: **JN-010**

DATE: **14883**

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2: | | | | * | ESP2:1510 | 38.7 | 2.58 | 388 |
| * | ESP2:1517-L | 21.7 | 4.60 | 2.0 | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 20.4% | 4.9 | | | FLMON:91943 | 30.3% | 3.3 | |

SURVEY DATE: 12-22-92
 COUNT DATE: 12-21-92

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 11 uR/hr |
| * | E520: 5242 | .01 mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 36.9% | 2.7 | .055 |
| | SAC4: 1128 | 40.5% | 2.47 | |
| | SAC4: 263 | 34.3% | 2.91 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.6% | 2.01 | 1.40 |
| | MS-2: 1848 | 25.0% | 4.0 | |
| | BC-4: 808 | 17.9% | 5.57 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|--------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|------------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile on | 2, -2 | N/A | 11 | .01 | 454 | 385 | 0 | 390 | -0.149 | -2.82 | Elevated Gamma due to |
| Concrete | 4, -2 | " | 11 | .01 | 483 | 400 | 3.0 | 391 | -0.149 | 3.28 | East & South wall |
| " | 6, -2 | " | 11 | .01 | 527 | 390 | 0 | 408 | -0.149 | -2.82 | bricks. Contact levels |
| " | 8, -2 | " | 11 | .01 | 523 | 385 | 3.0 | 399 | -0.149 | -2.82 | 15-22 uR/hr. |
| " | 10, -2 | " | 11 | .01 | 464 | 310 | 2.0 | 342 | -0.149 | -2.82 | |
| " | 12, -2 | " | 11 | .01 | 454 | 375 | 3.0 | 392 | -0.149 | 3.10 | |
| " | 14, -2 | " | 15 | .01 | 540 | 410 | 1.0 | 455 | -0.149 | -2.82 | |
| " | 14, -4 | " | 18 | .01 | 526 | 430 | 4.0 | 448 | -0.149 | -2.82 | |
| " | 8, -4 | " | 14 | .01 | 530 | 410 | 2.0 | 414 | -0.149 | -2.82 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|---|--------------------------|---|
| FORM SERIAL #: 1-024 (Survey Section - Sequential survey #) | LOCATION # 1-10-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS-0111 | SURVEYOR SIGNATURE <i>M. Slaffer</i> |
|--|---|---|--------------------------|---|

LB5100W Low Background Counting System – Smear Analysis

Date: 12/21/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\011004.XLD
 Batch Ended: #####
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: CS137AB
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 21 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:58 |
| 22 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/21/92 12:58 |
| 23 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:59 |
| 24 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 12:59 |
| 25 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 13:00 |
| 26 | -0.149 | 1.35 | <MDA | 27.24 | 3.10 | 7.22 | <MDA | 35.16 | 0.34 | -0.055 | 1.54 | 12/21/92 13:00 |
| 27 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 13:01 |
| 28 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 13:01 |
| 29 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/21/92 13:02 |

LB5100W Low Background Counting System – Smear Analysis

Date: 12/23/92
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\011005.XLD
 Batch Ended: #####
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1450

Application Revision: 2
 Application Version: Standard

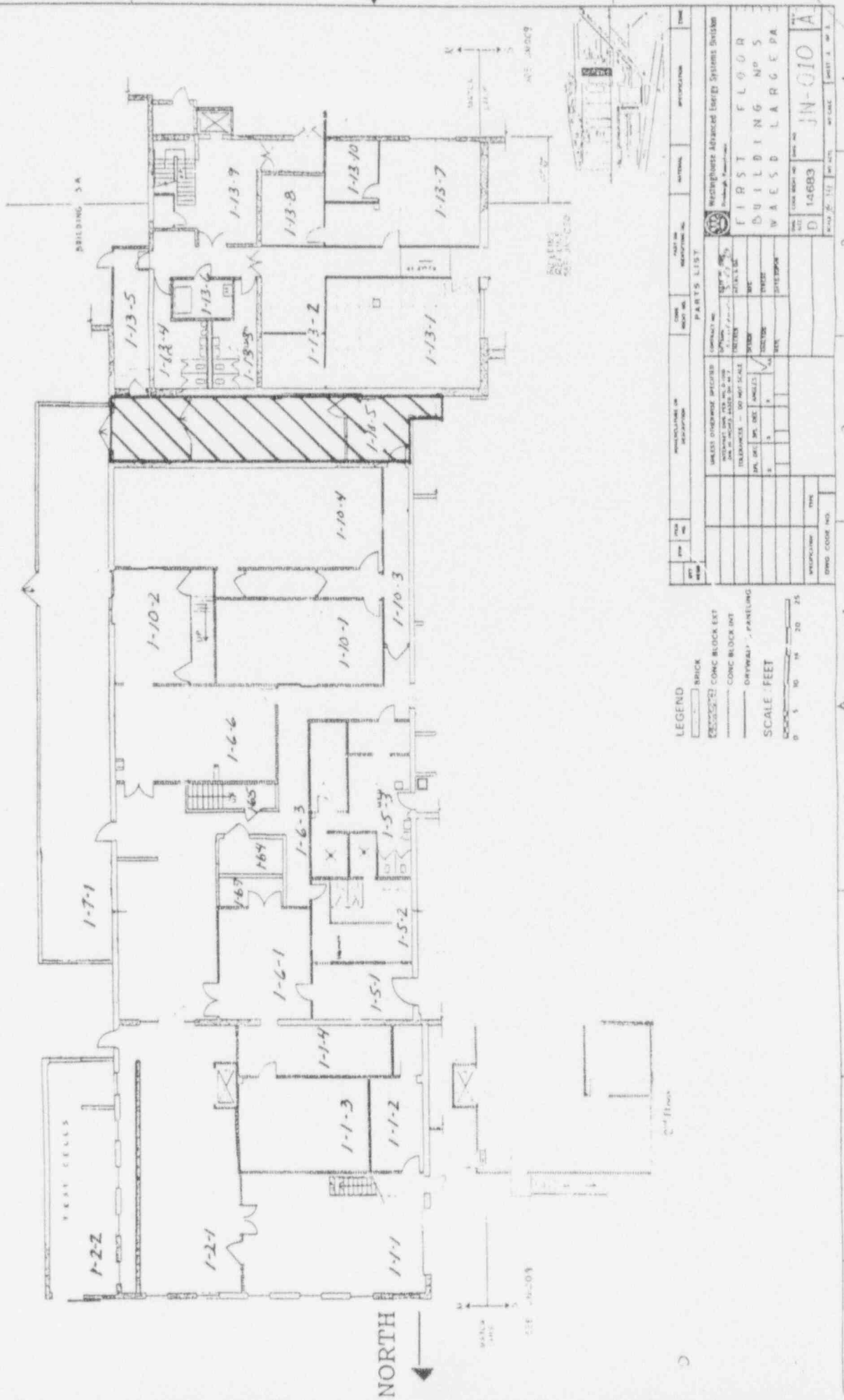
Alpha efficiency log file: po210ab
 Alpha Efficiency: 36.97%
 Alpha to Beta Crosstalk: 5.12%
 Alpha Background (CPM): 0.055263158

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.64%
 Beta into Alpha Crosstalk: 0.41%
 Beta Background (CPM): 1.401315789

Batch ID: TSB

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 38 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/23/92 11:36 |
| 39 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/23/92 11:37 |
| 40 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/23/92 11:37 |
| 41 | -0.149 | 1.37 | <MDA | 27.98 | -2.82 | 4.19 | <MDA | 35.93 | 0.33 | -0.055 | -1.40 | 12/23/92 11:38 |
| 42 | -0.149 | 1.37 | <MDA | 27.98 | 3.28 | 7.41 | <MDA | 35.93 | 0.33 | -0.055 | 1.63 | 12/23/92 11:38 |

BUILDING #5 FIRST FLOOR (Eastern portion)



REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

PARTS LIST

| NO. | QTY | DESCRIPTION | UNIT | REMARKS |
|-----|-----|-------------|------|---------|
| | | | | |

LEGEND

- BRICK
- CONC BLOCK EXT
- CONC BLOCK INT
- DRYWALL - PARTING

SCALE: FEET

0 5 10 15 20 25

WESTPHALEN ADVANCED ENERGY SYSTEMS DIVISION
FIRST FLOOR
BUILDING NO 5
WAESD LARGE PA
D 14683
JN-010

APPENDIX I

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 13

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 7 | * | FLMON:91943 | 28.8% | 3.47 | 1240 |

| |
|----------------------|
| SURVEY DATE: 3/22/93 |
| COUNT DATE: 3/25/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor Tile | N/A | 1, -2 | 14 | .02 | 1294 | 1225 | 10 | 1312 | -0.264 | -2.49 | |
| " | " | 1, -4 | 12 | .02 | 1353 | 1275 | 10 | 1236 | -0.264 | 9.66 | |
| " | " | 1, -6 | 13 | .01 | 1284 | 1240 | 6 | 1271 | -0.264 | -2.49 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|--|----------------------------|--|
| FORM SERIAL #: 1 - 071 (Survey Section - Sequential survey #) | LOCATION # 1-13-3 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0445 | SURVEYOR SIGNATURE: TS <i>[Signature]</i> |
|--|---|--|----------------------------|--|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\11X\JUNE\1011303.XLD
 Batch Ended: 3/25/93 11:44
 Crosstalk Correction: Not Applied

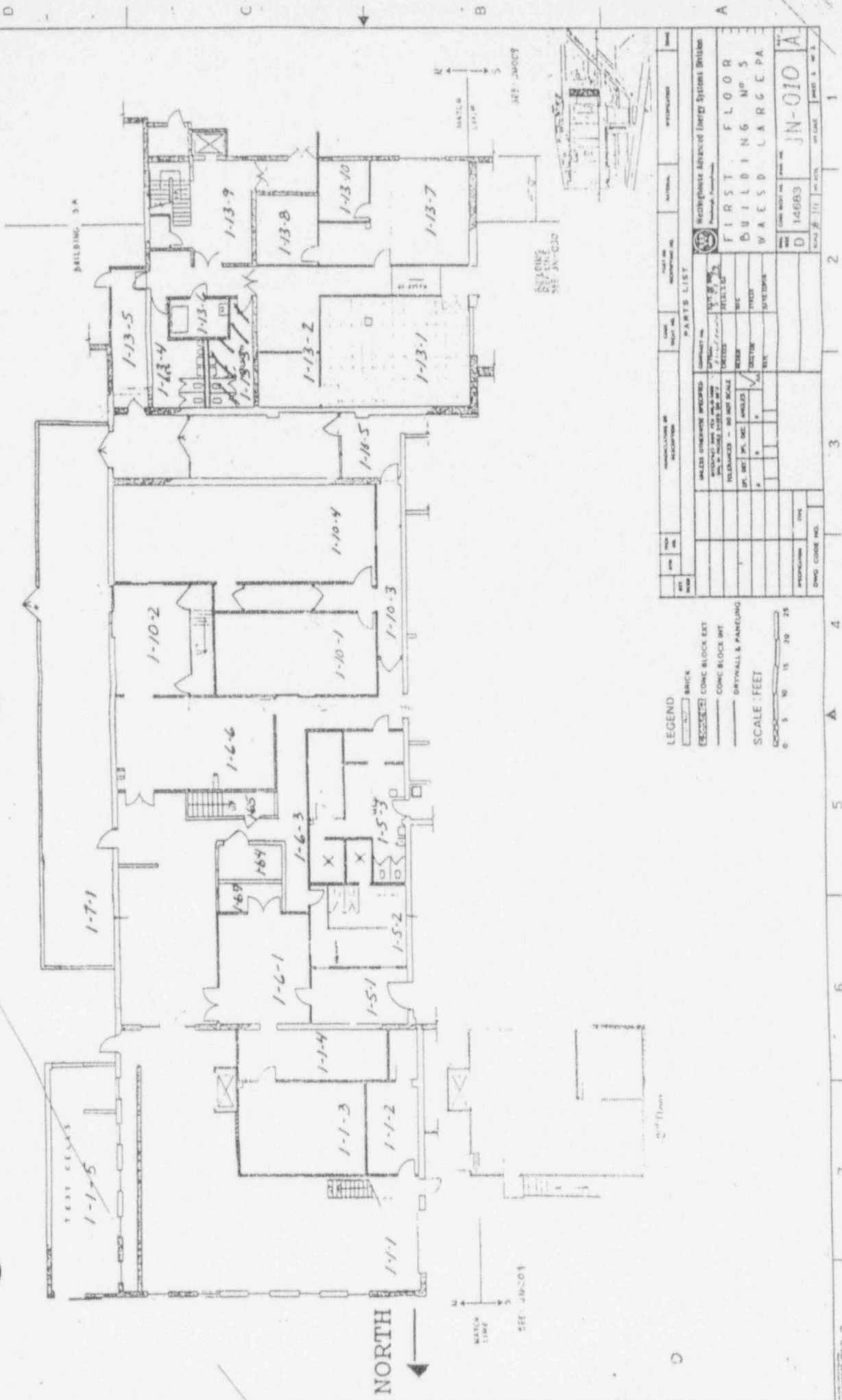
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: ljs 011303 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 24 | 0.264 | 1.63 | <MDA | 26.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | 0.100 | 1.24 | 3/25/93 11:43 |
| 25 | 0.264 | 1.63 | <MDA | 26.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | 0.100 | 4.82 | 3/25/93 11:44 |
| 26 | 0.264 | 1.60 | <MDA | 26.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | 1.24 | 3/25/93 11:44 |

BUILDING #5 FIRST FLOOR (Eastern portion)



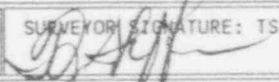
| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| | ESP2:1601-L | 23.1% | 4.33 | | | ESP2:1588-L | 34.3% | 2.91 | |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| * | FLMON:91943 | 18.8% | 5.3 | 7 | * | FLMON:91943 | 28.8% | 3.47 | 1165 |

| |
|----------------------|
| SURVEY DATE: 3/22/93 |
| COUNT DATE: 3/25/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-----------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| * | PRM7: 234 | 10 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | | | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|----------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| | | | | | Floor Tile | N/A | 2, -2 | 11 | .02 | 1255 | |
| " | " | 1, -3 | 12 | .02 | 1343 | 1250 | 6 | 1214 | -0.264 | 9.66 | |
| " | " | 2, -4 | 12 | .01 | 1318 | 1250 | 12 | 1264 | -0.264 | 3.59 | |
| " | " | 2, -6 | 10 | .01 | 1239 | 1175 | 5 | 1168 | -0.264 | -2.49 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|--|----------------------------|---|
| FORM SERIAL #: 1 - 072 (Survey Section - Sequential survey #) | LOCATION # 1-13-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0446 | SURVEYOR SIGNATURE: TS  |
|--|---|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po2710ab

Alpha Efficiency: 37.85%

Alpha to Beta Crosstalk: 4.92%

Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab

Beta Efficiency: 49.88%

Beta into Alpha Crosstalk: 0.36%

Beta Background (CPM): 1.24

Alpha activity action level (DPM): 10.00

Beta activity action level (DPM): 200.00

Confidence level for MDA and flags: 95.00%

High Voltage Setting: 14 kV

Application Revision: 2

Application Version: Standard

Date: 3/25/93

Counting Unit id: 1

Data file name: CALDEX\0PM11011304.XLD

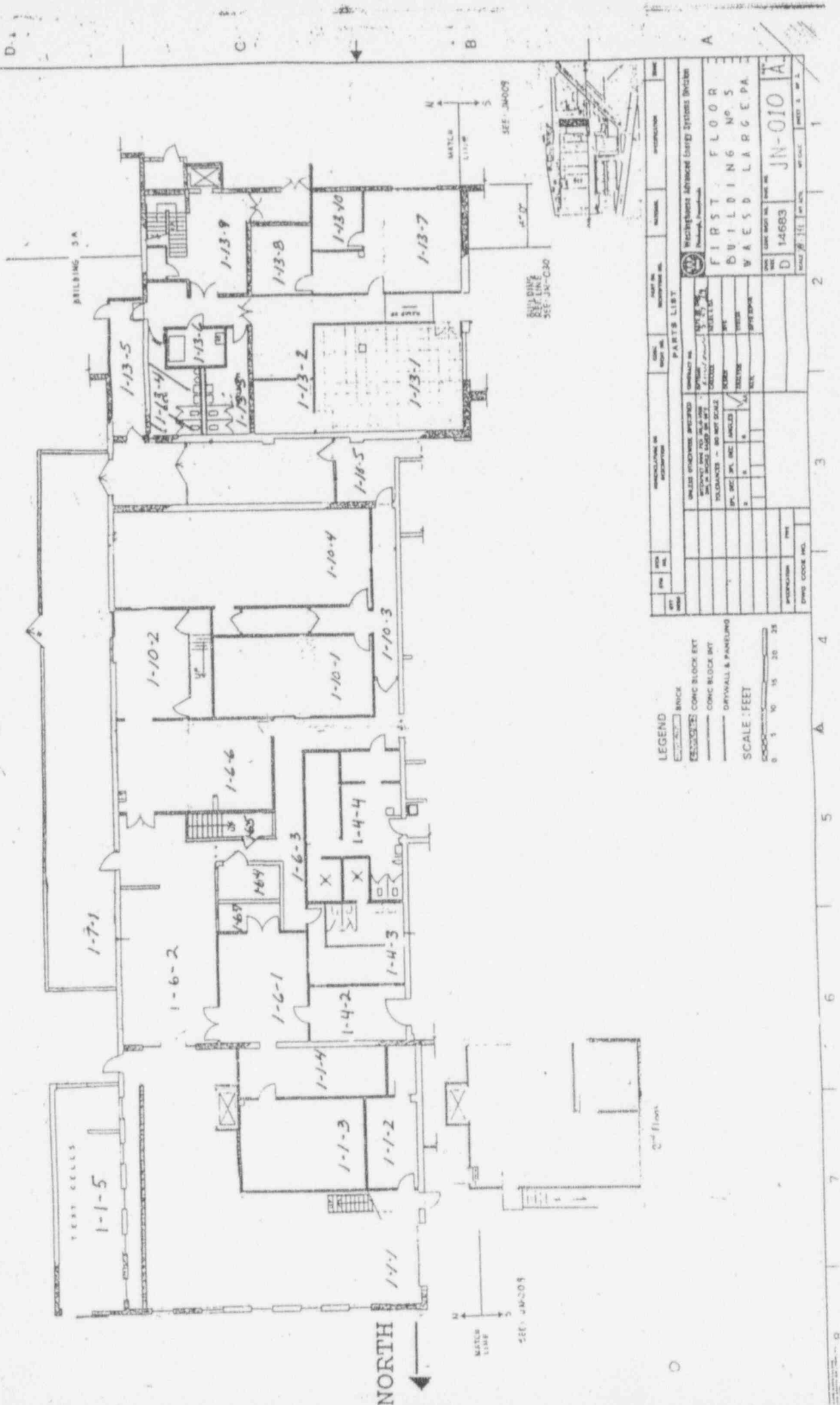
Batch Folder: 3/25/93 11:43

Crosstalk Correction: Not Applied

Batch ID: 11011304 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count | | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------|----------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | time (min) | Beta CPM | |
| 20 | 0.264 | 1.60 | <MDA | 20.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 1.70 | 3/25/93 11:41 |
| 21 | 0.264 | 1.63 | <MDA | 26.84 | 9.66 | 9.43 | <AL | 34.63 | 0.33 | 4.82 | 3/25/93 11:42 |
| 22 | 0.264 | 1.63 | <MDA | 26.84 | 3.00 | 7.74 | <MDA | 34.63 | 0.33 | 1.79 | 3/25/93 11:42 |
| 23 | 0.264 | 1.63 | <MDA | 26.84 | 2.40 | 3.93 | <MDA | 34.63 | 0.33 | -1.24 | 3/25/93 11:43 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

- BRICK
- CONCRETE
- CONCRETE BLOCK EXT
- CONCRETE BLOCK INT
- DRYWALL & PARTITION

SCALE: FEET

0 5 10 15 20 25

| PARTS LIST | | DESCRIPTION | | QUANTITY | | UNIT PRICE | | TOTAL | |
|------------|---------------------|-------------|-------|----------|---------|------------|---------|-------|----|
| NO. | DESCRIPTION | QTY | UNIT | PRICE | AMOUNT | TAX | TOTAL | DATE | BY |
| 1 | BRICK | 1000 | SQ YD | 1.50 | 1500.00 | | 1500.00 | | |
| 2 | CONCRETE | 100 | CY | 15.00 | 1500.00 | | 1500.00 | | |
| 3 | CONCRETE BLOCK EXT | 100 | SQ YD | 1.50 | 1500.00 | | 1500.00 | | |
| 4 | CONCRETE BLOCK INT | 100 | SQ YD | 1.50 | 1500.00 | | 1500.00 | | |
| 5 | DRYWALL & PARTITION | 100 | SQ YD | 1.50 | 1500.00 | | 1500.00 | | |

WESTINGHOUSE ADVANCED ENERGY SYSTEMS DIVISION
FIRST FLOOR
BUILDING NO. 5
VAESB LARGE PA

DATE: 11/14/54
 DRAWN BY: JN-010
 CHECKED BY: JN-010

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 2 | * | ESP2:1588-L | 34.3% | 2.91 | 301 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/30/93 |
| COUNT DATE: 3/30/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------------|-------|-----|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| (*)IF USED | INST: S/N | EFF | C.F. | BKG |
| | | TENN: 13295 | 49.9% | 2.0 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|--------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall | N/A | 2, -.7 | N/A | N/A | 363 | 300 | 1 | 320 | -0.264 | 9.31 | Cement Block |
| East Wall | " | 2, -1.7 | " | " | 357 | 300 | 0 | 320 | -0.264 | 9.31 | " |
| " | " | 4, -.7 | " | " | 418 | 370 | 1 | 330 | -0.264 | -2.49 | " |
| " | " | 6, -1.7 | " | " | 329 | 270 | 3 | 304 | -0.264 | -2.49 | " |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | |
|--|---|--|----------------------------|---|
| FORM SERIAL #: 1 - 073 (Survey Section - Sequential survey #) | LOCATION # 1-13-4 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0447 | SURVEYOR'S SIGNATURE: MS/TR <i>[Signature]</i> |
|--|---|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po210lab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 14.35

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.86%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

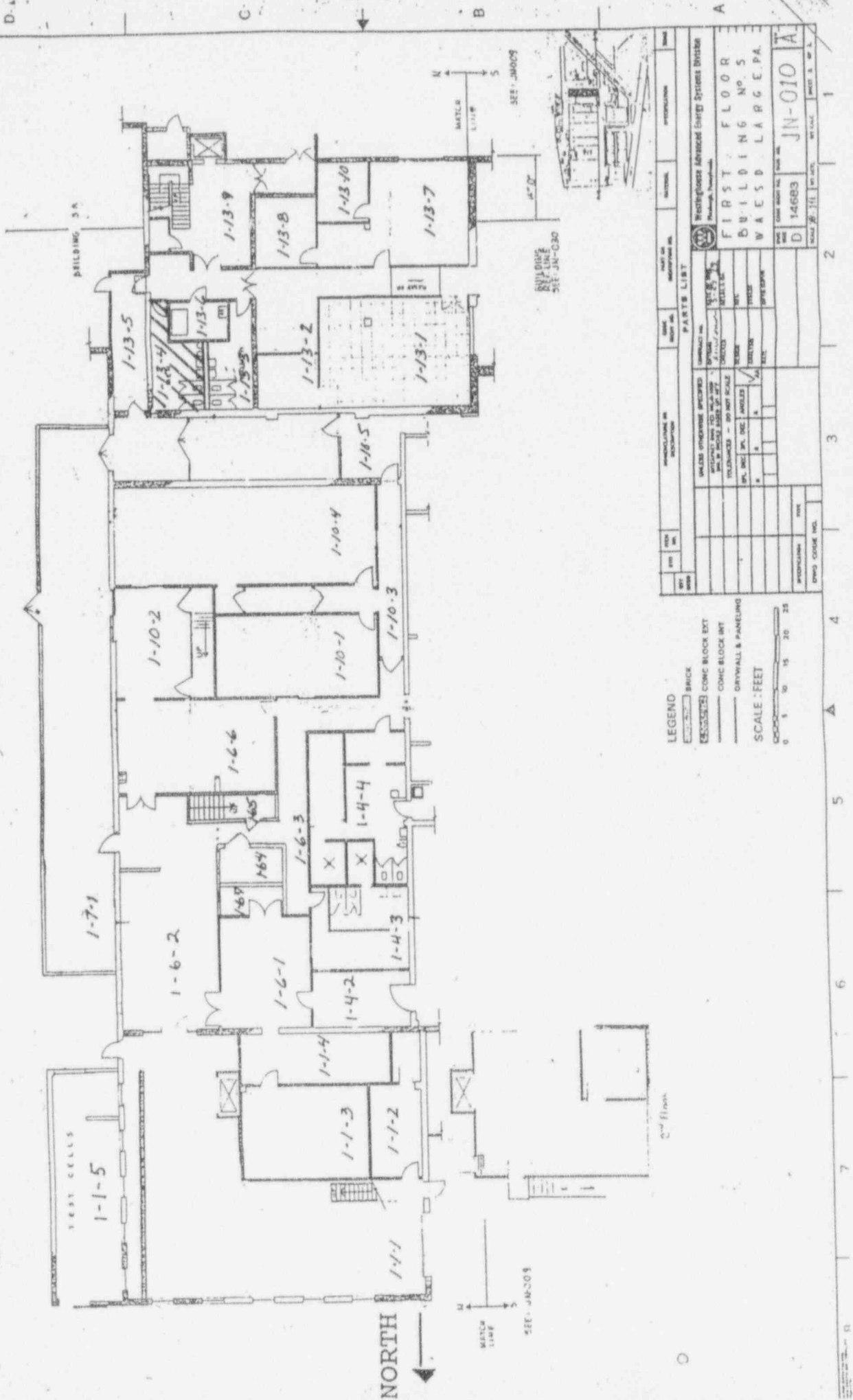
Application Revision: 2
 Application Version: Standard

Date: 3/30/93
 Counting Unit id: 1
 Data file name: C:\EXE\DIR1\1011304AD.XLD
 Batch Ended: 3/30/93 11:46
 Crossstalk Correction: Not Applied

Batch ID: INR 1 13 4 acs

| Channel | Alpha Activity | | | Beta Activity | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|---------------|-------|-------|------------------|-----------|----------|----------------|
| | CPM | σ | Flags | MDA | Flags | MDA | | | | |
| 1 | 0.264 | 1.03 | <MDA | 28.10 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 3/30/93 11:45 |
| 2 | 0.264 | 1.03 | <MDA | 28.10 | <AL | 33.88 | 0.34 | 0.100 | 4.64 | 3/30/93 11:45 |
| 3 | 0.264 | 1.03 | <MDA | 28.64 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/30/93 11:46 |
| 4 | 0.264 | 1.03 | <MDA | 28.64 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/30/93 11:46 |

BUILDING #5 FIRST FLOOR (Western portion)



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

| SY | NO | DESCRIPTION | QTY | UNIT | PRICE | TOTAL |
|---|-------|-------------|------|-------|-------|---------|
| PARTS LIST | | | | | | |
| CONTRACT NO. _____ PROJECT NO. _____ SHEET NO. _____ DATE _____ DRAWN BY _____ CHECKED BY _____ APPROVED BY _____ | | | | | | |
| WESTINGHOUSE Advanced Energy System Division | | | | | | |
| FIRST FLOOR | | | | | | |
| BUILDING NO. 5 | | | | | | |
| WAESD LARGE PA. | | | | | | |
| NO. | QTY | DESCRIPTION | UNIT | PRICE | TOTAL | REMARKS |
| D | 14683 | JN-010 | | | | |

DECOMMISSIONING DATA SHEET

SURVEY TYPE: F & W

| (*) IF USED | COUNTING EQUIPMENT (ALPHA) | | | BKG |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| |
|----------------------|
| SURVEY DATE: 3/22/93 |
| COUNT DATE: 3/25/93 |

| (*) IF USED | GAMMA OR BETA/GAMMA EQUIP | | | BKG |
|-------------|---------------------------|-------|-------|-----|
| | INST: S/N | UR/hr | mr/hr | |
| * | R/S: L-2088 | 10 | 10 | |
| * | PRM7: 234 | 10 | 10 | |
| | E520: 5242 | nr/hr | nr/hr | |
| * | E520: 5245 | .01 | nr/hr | |
| | ESP2: 1522 | nr/hr | nr/hr | |

| (*) IF USED | ALPHA SURVEY EQUIPMENT | | | BETA SURVEY EQUIPMENT | | | BKG CPM |
|-------------|------------------------|-------|------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | INST: S/N | EFF | C.F. | |
| | ESP2: 1517 | 21.1% | 4.74 | ESP2: 1595 | 34.2% | 2.92 | |
| | ESP2: 1517-L | 21.7% | 4.60 | ESP2: 1595-L | 31.3% | 3.20 | |
| | ESP2: 1601-L | 23.1% | 4.33 | ESP2: 1588-L | 34.3% | 2.91 | |
| | ESP2: | | | ESP2: | | | |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | E520: 5245 | | | |
| | PAC4G: 4478 | 18.5% | 5.4 | PAC4G: 4478 | 33.5% | 3.0 | |
| * | FLMON: 91943 | 18.8% | 5.3 | FLMON: 91943 | 28.8% | 3.47 | 1129 |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. UR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | | CONTACT GROSS 1 MIN. CT. | | | SMEAR LEVELS IN DPM/100CM2 | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--|--------------------------|------|--|----------------------------|----------|
| | | | | | MAX BETA | AVG BETA | | ALPHA | BETA | | | |
| Floor Tile | N/A | 1, -2 | 12 | .01 | 1320 | 1250 | | 9 | 1199 | | 7.506 | 3.41 |
| " | " | 1, -4 | 13 | .01 | 1160 | 1100 | | 12 | 1115 | | -2.49 | -2.49 |
| " | " | 1, -6 | 10 | .01 | 1218 | 1150 | | 3 | 1129 | | -0.264 | -2.49 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

| | | | | |
|--|---|--|----------------------------|---|
| FORM SERIAL #: 1 - 074 (Survey Section - Sequential survey #) | LOCATION # 1-13-5 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0448 | SURVEY SIGNATURE: TS  |
|--|---|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/25/93
 Counting Unit id: 1
 Data file name: C:\LXI\0411\011305.XLD
 Batch Ended: 3/25/93 11:46
 Crosstalk Correction: Not Applied

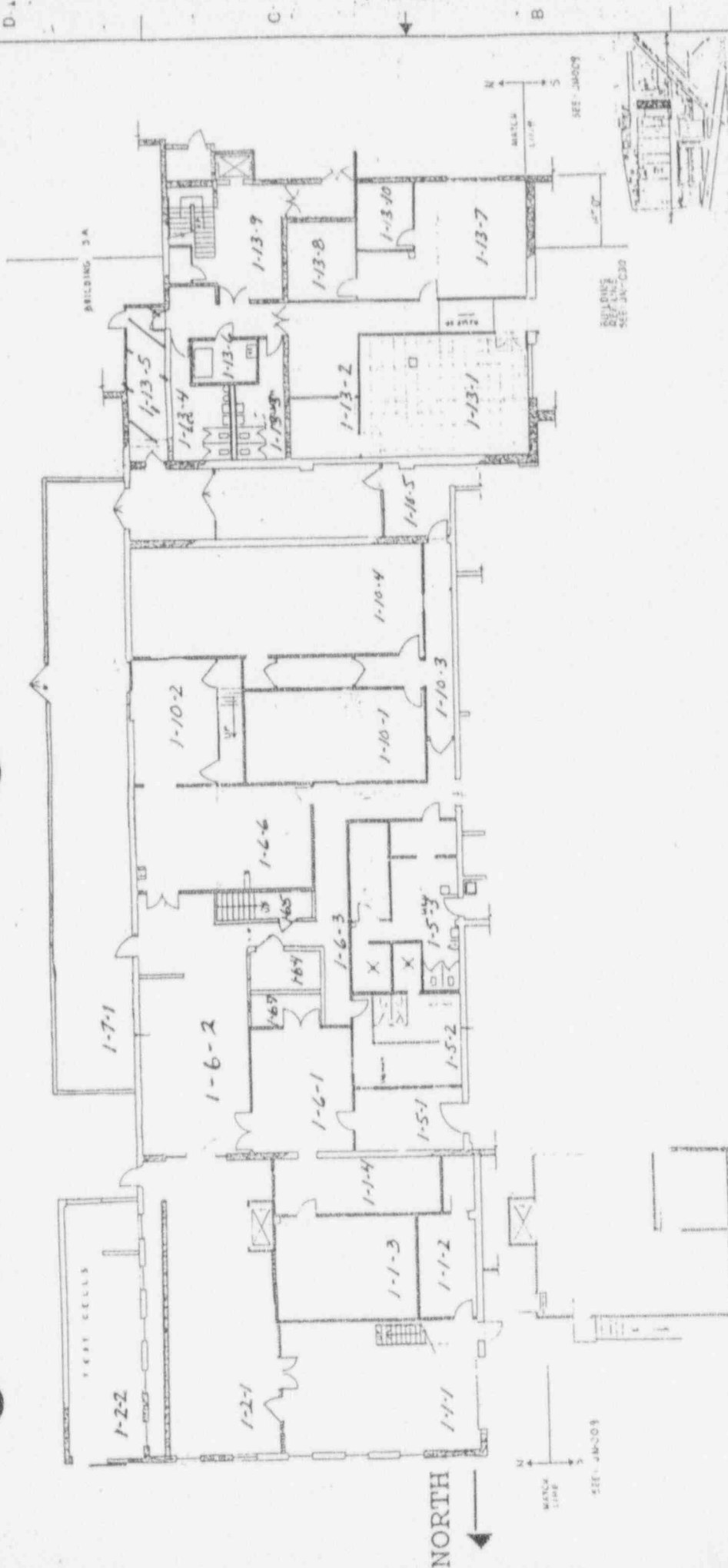
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: fjs 011305 floors walls

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 27 | 7.506 | 7.94 | At Al | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 2.841 | 1.70 | 3/25/93 11:45 |
| 28 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/25/93 11:46 |
| 29 | 0.264 | 1.60 | <MDA | 28.10 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | -1.24 | 3/25/93 11:46 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

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

SCALE : FEET

0 5 10 15 20 25

PARTS LIST

| ITEM NO | DESCRIPTION | QTY | UNIT |
|---------|--------------------|-----|------|
| 1 | BRICK | | |
| 2 | CONC BLOCK EXT | | |
| 3 | CONC BLOCK INT | | |
| 4 | DRYWALL & PANELING | | |

DESCRIPTION

Investigative Advanced Energy Systems Division
 FIRST FLOOR
 BUILDING NO 5
 WAESD LARGE PA

DATE 1-1-68
BY JN-010
SCALE 1/4" = 1'-0"



| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 3 | * | ESP2:1588-L | 34.3% | 2.91 | 235 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 3/30/93 |
| COUNT DATE: 3/30/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP INST: S/N | BKG |
|------------|-------------------------------------|-----------|
| | R/S: 2088 | uR/hr |
| * | PRM7: 234 | 9 uR/hr |
| | E520: 5242 | mr/hr |
| * | E520: 5245 | .01 mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| INST: S/N | EFF | C.F. | BKG | |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| INST: S/N | EFF | C.F. | BKG | |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|--|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Floor | N/A | 2, -2 | 9 | .01 | 289 | 240 | 0 | 271 | -0.264 | -2.49 | ESP's used for scans & one minute counts |
| " | " | 2, -4 | 10 | .01 | 284 | 210 | 2 | 244 | -0.264 | -2.49 | |
| " | " | 4, -2 | 8 | .01 | 296 | 230 | 1 | 248 | -0.264 | -2.49 | " |
| " | " | 4, -4 | 11 | .012 | 227 | 190 | 1 | 217 | -0.264 | 3.59 | " |
| " | " | 6, -2 | 9 | .01 | 311 | 250 | 1 | 217 | -0.264 | -2.49 | " |
| " | " | 6, -4 | 9 | .015 | 272 | 240 | 1 | 237 | -0.264 | -2.49 | " |
| " | " | 8, -2 | 10 | .01 | 283 | 220 | 2 | 248 | -0.264 | -2.49 | " |
| " | " | 8, -4 | 10 | .01 | 220 | 180 | 4 | 207 | -0.264 | 3.41 | " |
| " | " | 6, -6 | 10 | .01 | 290 | 260 | 2 | 203 | -0.264 | -2.49 | " |
| " | " | 8, -6 | 7 | .01 | 215 | 170 | 7 | 206 | -0.264 | -2.49 | " |
| " | " | 4, -8 | 9 | .01 | 285 | 230 | 6 | 234 | -0.264 | -2.49 | " |
| " | " | 6, -8 | 12 | .015 | 252 | 230 | 1 | 212 | 7.506 | 3.41 | " |
| " | " | 8, -8 | 9 | .01 | 228 | 200 | 0 | 232 | -0.264 | 3.41 | " |
| " | " | 10, -8 | 9 | .01 | 267 | 220 | 2 | 255 | -0.264 | 9.66 | " |
| " | " | 4, 10 | 10 | .01 | 332 | 250 | 2 | 263 | -0.264 | -2.49 | " |

| | | | | |
|--|--|--|----------------------------|---|
| FORM SERIAL #: 1 - 075 (Survey Section - Sequential survey #) | LOCATION # 1-13-13 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: I (Group I, II, III, IV) | DISK FILE CODE: FDS - 0449 | SURVEYOR SIGNATURE: MS/TB <i>[Signature]</i> |
|--|--|--|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Alpha efficiency log file: po211ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CF-1): 0.1

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Corbinity level for MDA and bags: 95.00%

High Voltage Setting: 14.35
 Application Revision: 2
 Application Version: Standard

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CFM): 1.24

Batch ID: TSB 11313 floor

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | LPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 5 | 0.264 | 1.60 | <MDA | 28.84 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 11:47 |
| 6 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 11:47 |
| 7 | 0.264 | 1.60 | <MDA | 28.84 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 11:48 |
| 8 | 0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 3/30/93 11:48 |
| 9 | 0.264 | 1.60 | <MDA | 28.84 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 11:49 |
| 10 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | 1.24 | 3/30/93 11:49 |
| 11 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 11:50 |
| 12 | 0.264 | 1.60 | <MDA | 28.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 11:50 |
| 13 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 11:51 |
| 14 | 0.264 | 1.60 | <MDA | 28.84 | 2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 3/30/93 11:51 |
| 15 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 11:52 |
| 16 | 7.506 | 7.94 | At/Al | 28.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | 2.841 | 1.70 | 3/30/93 11:52 |
| 17 | 0.264 | 1.60 | <MDA | 28.84 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 3/30/93 11:53 |
| 18 | 0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 3/30/93 11:53 |
| 19 | 0.264 | 1.63 | <MDA | 28.84 | 2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 3/30/93 11:54 |

LB5100W Low Background Counting System -- Smear Analysis

Date: 3/30/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\011314.XLD
 Batch Ended: 3/30/93 11:55
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

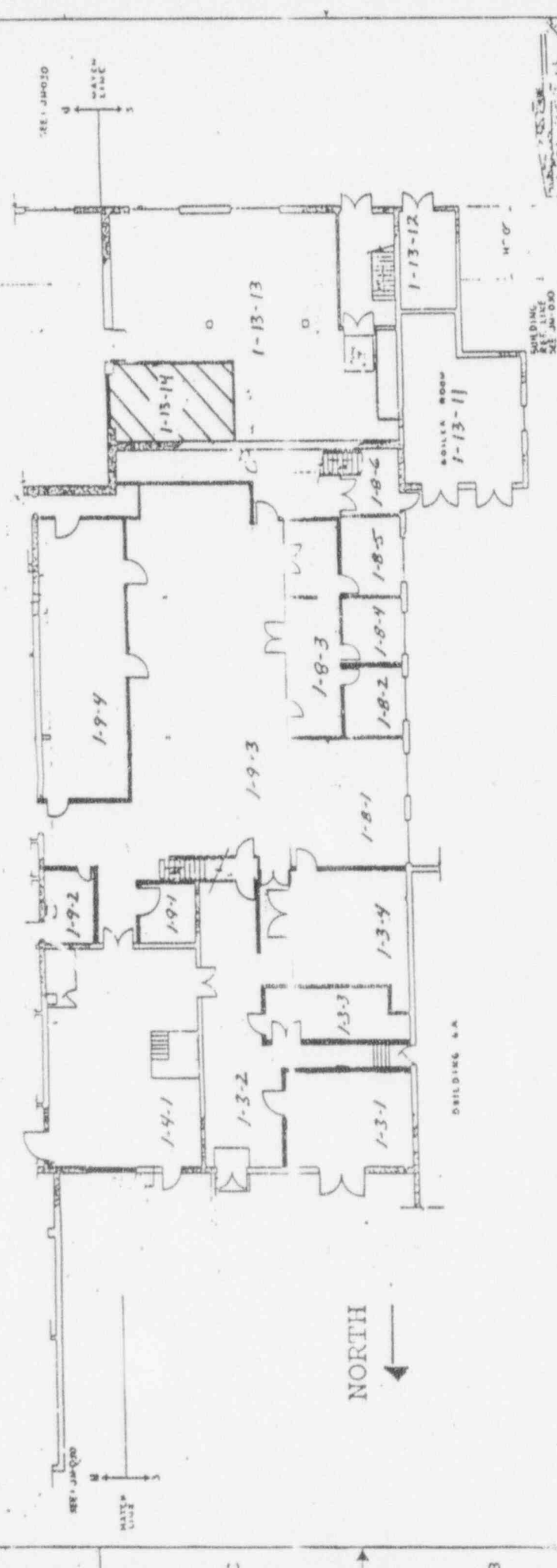
Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TS3 - 1-13-14 floor

| Card# | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|-------|----------------|----------|-------|-------|---------------|----------|-------|-------|---------------------|--------------|-------------|-------------------|
| | DPM | σ | Flags | MDA | DPM | σ | Flags | MDA | | | | |
| 20 | -0.264 | 1.60 | <MDA | 26.10 | 2.40 | 3.87 | <MDA | 33.88 | 0.34 | 0.100 | 1.24 | 3/30/93 11:54 |
| 21 | -0.264 | 1.60 | <MDA | 26.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | 0.100 | 4.64 | 3/30/93 11:55 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

- BRICK
- EXPOSED CONC BLOCK EXT
- CONC BLOCK INT
- STAIRWALL & PARTING

SCALE: FEET

0 5 10 15 20 25

SECTION LIST

| NO. | SECTION | DATE | BY | CHKD. | REVISIONS |
|-----|-----------------|------|----|-------|-----------|
| 1 | SECTION 1-13-11 | | | | |
| 2 | SECTION 1-13-12 | | | | |
| 3 | SECTION 1-13-13 | | | | |
| 4 | SECTION 1-13-14 | | | | |
| 5 | SECTION 1-13-15 | | | | |
| 6 | SECTION 1-13-16 | | | | |
| 7 | SECTION 1-13-17 | | | | |
| 8 | SECTION 1-13-18 | | | | |
| 9 | SECTION 1-13-19 | | | | |
| 10 | SECTION 1-13-20 | | | | |
| 11 | SECTION 1-13-21 | | | | |
| 12 | SECTION 1-13-22 | | | | |
| 13 | SECTION 1-13-23 | | | | |
| 14 | SECTION 1-13-24 | | | | |
| 15 | SECTION 1-13-25 | | | | |
| 16 | SECTION 1-13-26 | | | | |
| 17 | SECTION 1-13-27 | | | | |
| 18 | SECTION 1-13-28 | | | | |
| 19 | SECTION 1-13-29 | | | | |
| 20 | SECTION 1-13-30 | | | | |
| 21 | SECTION 1-13-31 | | | | |
| 22 | SECTION 1-13-32 | | | | |
| 23 | SECTION 1-13-33 | | | | |
| 24 | SECTION 1-13-34 | | | | |
| 25 | SECTION 1-13-35 | | | | |
| 26 | SECTION 1-13-36 | | | | |
| 27 | SECTION 1-13-37 | | | | |
| 28 | SECTION 1-13-38 | | | | |
| 29 | SECTION 1-13-39 | | | | |
| 30 | SECTION 1-13-40 | | | | |

WALSH ENGINEERING INCORPORATED
 1450 N. 10TH ST. PHOENIX, ARIZONA

PROJECT NO. 14583

DATE: JAN. 1950

SCALE: AS SHOWN

SECTION: JN-009 A

APPENDIX J

RADIOLOGICAL SURVEY DATA SHEETS FOR UNIT 14

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 0 | * | ESP2:1588-L | 34.3% | 2.91 | 210 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

SURVEY DATE: 4/06/93
 COUNT DATE: 4/06/93

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| North Wall | N/A | 2, -4 | N/A | N/A | 484 | 350 | 2 | 346 | -0.264 | 3.41 | Brick/ESP's used |
| " | " | 2, -6 | " | " | 341 | 310 | 2 | 346 | -0.264 | -2.49 | " |
| " | " | 4, -4 | " | " | 383 | 330 | 3 | 372 | -0.264 | 3.41 | " |
| " | " | 4, -6 | " | " | 448 | 280 | 3 | 309 | -0.264 | -2.49 | " |
| " | " | 6, -3 | " | " | 364 | 320 | 2 | 363 | 7.741 | -2.49 | " |
| " | " | 8, -3 | " | " | 369 | 310 | 7 | 322 | -0.264 | -2.49 | " |
| " | " | 10, -3 | " | " | 338 | 270 | 3 | 300 | -0.264 | -2.49 | " |
| " | " | 12, -3 | " | " | 393 | 330 | 4 | 353 | -0.264 | -2.49 | " |
| " | " | 14, -3 | " | " | 394 | 300 | 3 | 316 | -0.264 | -2.49 | " |
| " | " | 16, -3 | " | " | 376 | 310 | 7 | 319 | -0.264 | -2.49 | " |
| East Wall | " | 2, -3 | " | " | 342 | 280 | 2 | 300 | -0.264 | -2.49 | " |
| " | " | 4, -3 | " | " | 379 | 300 | 2 | 322 | -0.264 | 3.59 | " |
| " | " | 26, -5 | " | " | 329 | 285 | 2 | 296 | -0.264 | -2.49 | " |
| " | " | 28, -5 | " | " | 318 | 300 | 0 | 294 | -0.264 | 3.59 | " |
| " | " | 30, -5 | " | " | 358 | 335 | 5 | 346 | 7.741 | 3.41 | " |

FORM SERIAL #: 1 - 078 LOCATION # 1-14-1 SURVEY CLASSIFICATION: IV DISK FILE CODE: FDS - 0477 SURVEYOR SIGNATURE: M/TB

(Survey Section - Sequential survey #) (Survey Section - Unit # - Sub Unit #) (Group I, II, III, IV)

McLaffer

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | BETA SURVEY EQUIPMENT | | |
|------------|------------------------|-------|---------|-----------------------|-------|---------|
| | INST: S/N | EFF | BKG CPM | INST: S/N | EFF | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | ESP2:1595 | 34.2% | 2.92 |
| | ESP2:1517-L | 21.7% | 4.60 | ESP2:1595-L | 31.3% | 3.20 |
| * | ESP2:1601-L | 23.1% | 4.33 | ESP2:1588-L | 34.3% | 2.91 |
| | ESP2: | | | ESP2: | | |
| | ESP2: | | | E520: 5242 | 20.3% | 4.92 |
| | ASP1: 1891 | 19.1% | 5.23 | E520: 5245 | | |
| | PAC4G:4478 | 18.5% | 5.4 | PAC4G:4478 | 33.5% | 3.0 |
| | FLMON:91943 | 18.8% | 5.3 | FLMON:91943 | 28.8% | 3.47 |

| |
|----------------------|
| SURVEY DATE: 4/06/93 |
| COUNT DATE: 4/06/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | ur/hr |
| | PRM7: 234 | ur/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | |
|------------|----------------------------|-------|------|
| | INST: S/N | EFF | C.F. |
| * | TENN: 13295 | 37.8% | 2.64 |
| | SAC4: 1128 | 40.6% | 2.46 |
| | SAC4: 263 | 34.7% | 2.88 |
| (*)IF USED | COUNTING EQUIPMENT (BETA) | | |
| | INST: S/N | EFF | C.F. |
| * | TENN: 13295 | 49.9% | 2.0 |
| | MS-2: 1848 | 26.4% | 3.8 |
| | BC-4: 808 | 16.9% | 5.92 |

| SURFACE DESCRIPTION | GRID | X,Y REF POINT | GAMMA @ 1 M. UR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|---------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| South Wall | N/A | 2, -5 | N/A | N/A | 355 | 350 | 2 | 397 | 7.741 | -2.49 | Brick/ESP's used |
| " | " | 4, -5 | " | " | 415 | 345 | 0 | 334 | -0.264 | 3.59 | |
| " | " | 6, -5 | " | " | 389 | 370 | 0 | 441 | -0.264 | -2.49 | |
| " | " | 8, -5 | " | " | 400 | 375 | 0 | 385 | -0.264 | 3.59 | |
| " | " | 10, -5 | " | " | 379 | 370 | 0 | 408 | -0.264 | 3.59 | |
| " | " | 12, -5 | " | " | 344 | 315 | 5 | 322 | -0.264 | 3.59 | |
| " | " | 14, -5 | " | " | 365 | 330 | 1 | 346 | -0.264 | -2.49 | |
| West Wall | " | 2, -5.6 | " | " | 351 | 320 | 0 | 331 | -0.264 | 3.41 | |
| " | " | 4, -5.6 | " | " | 381 | 315 | 0 | 326 | -0.264 | 3.59 | |
| " | " | 6, -5.6 | " | " | 363 | 295 | 6 | 311 | -0.264 | 9.66 | |
| " | " | 26, -4 | " | " | 401 | 320 | 2 | 314 | -0.264 | 3.41 | |
| " | " | 28, -4 | " | " | 372 | 300 | 1 | 424 | -0.264 | -2.49 | |
| " | " | 28, -6 | " | " | 283 | 220 | 4 | 235 | -0.264 | -2.49 | |
| " | " | 30, -4 | " | " | 343 | 320 | 3 | 318 | -0.264 | -2.49 | |
| " | " | 30, -6 | " | " | 313 | 280 | 2 | 328 | -0.264 | 3.59 | |

| | | | | |
|--|---|---|----------------------------|--|
| FORM SERIAL #: 1 - 078 (Survey Section - Sequential survey #) | LOCATION # 1-14-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0478 | SURVEYOR SIGNATURE: MS/TB <i>M. Shaffer</i> |
|--|---|---|----------------------------|--|

LB5100W Low Background Counting System – Smear Analysis

Date: 4/3/93
 Counting Unit Id: 1
 Data file name: C:\LBXL\UNIT1\OVERHD-W.XLD
 Batch Ended: 4/6/93 13:30 (1-14-1)
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Application Revision: 2
 Application Version: Standard

Batch ID: TSB - Bldg 5 misc. overhead walls (1-14-1)

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 25 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/6/93 13:15 |
| 26 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/6/93 13:15 |
| 27 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/6/93 13:16 |
| 28 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:16 |
| 29 | 7.741 | 8.17 | At AL | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | 2.930 | -1.24 | 4/6/93 13:17 |
| 30 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:17 |
| 31 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:18 |
| 32 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:18 |
| 33 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/6/93 13:19 |
| 34 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:19 |
| 35 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:20 |
| 36 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/6/93 13:20 |
| 37 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:21 |
| 38 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/6/93 13:21 |
| 39 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/6/93 13:22 |
| 40 | 7.741 | 8.17 | At AL | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | 2.930 | -1.24 | 4/6/93 13:22 |
| 41 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/6/93 13:23 |
| 42 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:23 |
| 43 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/6/93 13:24 |
| 44 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/6/93 13:24 |
| 45 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/6/93 13:25 |
| 46 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:25 |
| 47 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/6/93 13:26 |
| 48 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/6/93 13:26 |
| 49 | -0.264 | 1.63 | <MDA | 28.84 | 9.66 | 9.45 | <AL | 34.63 | 0.33 | -0.100 | 4.82 | 4/6/93 13:27 |

LB5100W Low Background Counting System – Smear Analysis

Date: 4/3/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT 1\OVERHD-W.XLD
 Batch Ended: 4/6/93 13:30 (1-14-1)
 Crosstalk Correction: Not Applied

WTS 4/7

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - Bldg 5 misc. overhead walls (1-14-1)

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 50 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/6/93 13:27 |
| 51 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/6/93 13:28 |
| 52 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:29 |
| 53 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:29 |
| 54 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/6/93 13:30 |
| 55 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/6/93 13:30 |

BUILDING #5 FIRST FLOOR (western portion)



| NO. | DESCRIPTION | QTY | UNIT | PRICE | TOTAL |
|--|-------------------------|-----|------|-------|-------|
| PARTS LIST | | | | | |
| 1 | WALCOX OVERHEAD SPECIES | | | | |
| 2 | CONCRETE BLOCK EXTERIOR | | | | |
| 3 | CONCRETE BLOCK INTERIOR | | | | |
| 4 | DAYWALL & PARTITION | | | | |
| 5 | SCALE: FEET | | | | |
| <p>WALCOX OVERHEAD SPECIES</p> <p>CONCRETE BLOCK EXTERIOR</p> <p>CONCRETE BLOCK INTERIOR</p> <p>DAYWALL & PARTITION</p> <p>SCALE: FEET</p> | | | | | |

LEGEND

- BRICK
- CONCRETE BLOCK EXTERIOR
- CONCRETE BLOCK INTERIOR
- DAYWALL & PARTITION
- SCALE: FEET

Bldg 5 overhead area lay-out
 in Reference to entire Bldg 5 Area



BLDG 5 (OVERHEAD SURVEY)

ARIAL VIEW OF AREA ABOVE 1ST FLOOR CEILING (1-14-1)

OVERHEAD VIEW

↑ North

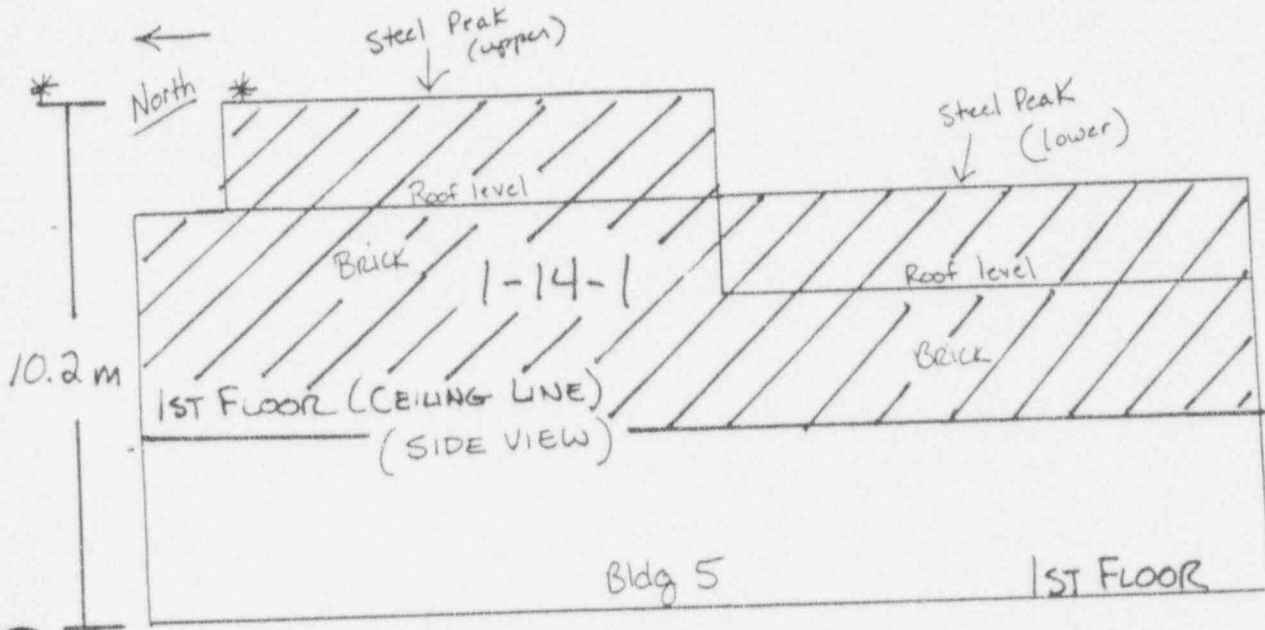
Bldg 5 (above 1st Fl.)



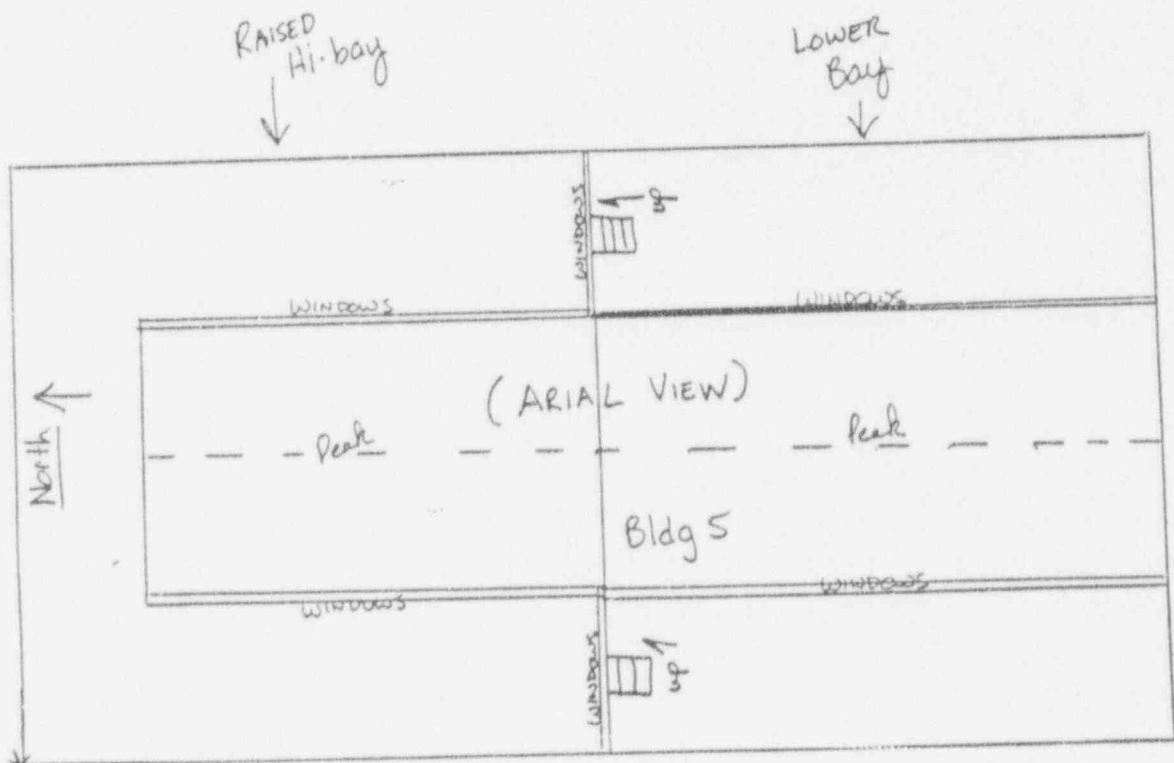
DO NOT SCALE

Bldg 5 (OVERHEAD SURVEY)

Bldg 5 BASIC STRUCTURAL DIMENSIONS



Work Points Reference from upper peak DO NOT SCALE



Building REF. POINT (NW corner)

1-14-1

DECOMMISSIONING OLD DATA SHEET

SURVEY TYPE: Upper Surfaces (Miscellaneous)

| (*)IF USED | ALPHA SURVEY EQUIPMENT INST: S/N | EFF | C.F. | BKG CPM | (*)IF USED | BETA SURVEY EQUIPMENT INST: S/N | EFF | C.F. | BKG CPM |
|------------|-------------------------------------|-------|------|---------|------------|------------------------------------|-------|------|---------|
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 3 | * | ESP2:1588-L | 34.3% | 2.91 | 249 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 4/07/93 |
| COUNT DATE: 4/08/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP INST: S/N | BKG |
|------------|--|-------|
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT INST: S/N | EFF | C.F. | BKG |
|------------|---------------------------------|-------|------|------|
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| (*)IF USED | COUNTING EQUIPMENT INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. UR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm ² | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|--|-------|---------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Ceiling | N/A | 16, -28 | N/A | N/A | 324 | 270 | 3 | 262 | -0.264 | 3.59 | Concrete/ESP's Used |
| " | " | 16, -30 | " | " | 358 | 280 | 1 | 275 | -0.264 | -2.49 | " |
| " | " | 14, -28 | " | " | 384 | 280 | 2 | 232 | -0.264 | -2.49 | " |
| " | " | 14, -30 | " | " | 341 | 290 | 0 | 279 | -0.264 | 3.41 | " |
| " | " | 12, -26 | " | " | 322 | 240 | 0 | 244 | -0.264 | 3.59 | " |
| " | " | 12, -28 | " | " | 223 | 190 | 1 | 176 | -0.264 | 9.31 | " |
| " | " | 12, -30 | " | " | 294 | 250 | 1 | 262 | -0.264 | -2.49 | " |
| " | " | 10, -28 | " | " | 293 | 230 | 3 | 226 | -0.264 | -2.49 | " |
| " | " | 10, -30 | " | " | 304 | 247 | 4 | 242 | -0.264 | -2.49 | " |
| " | " | 8, -28 | " | " | 326 | 266 | 3 | 257 | -0.264 | 3.59 | " |
| " | " | 8, -30 | " | " | 356 | 235 | 2 | 246 | -0.264 | -2.49 | " |
| " | " | 6, -28 | " | " | 327 | 240 | 5 | 245 | -0.264 | 3.41 | " |
| " | " | 6, -30 | " | " | 369 | 300 | 1 | 264 | -0.264 | -2.49 | " |
| " | " | 4, -26 | " | " | 275 | 240 | 1 | 224 | -0.264 | -2.49 | " |
| " | " | 4, -28 | " | " | 324 | 260 | 2 | 265 | -0.264 | 3.59 | " |

FORM SERIAL #: 1 - 077
(Survey Section - Sequential survey #)

LOCATION # 1-14-1
(Survey Section - Unit # - Sub Unit #)

SURVEY CLASSIFICATION: IV
(Group I, II, III, IV)

DISK FILE CODE: FDS - 0479

SURVEYOR SIGNATURE: *M. Shaffer*

| (*)IF USED | ALPHA SURVEY EQUIPMENT | | | | (*)IF USED | BETA SURVEY EQUIPMENT | | | |
|------------|------------------------|-------|------|---------|------------|-----------------------|-------|------|---------|
| | INST: S/N | EFF | C.F. | BKG CPM | | INST: S/N | EFF | C.F. | BKG CPM |
| | ESP2:1517 | 21.1% | 4.74 | | | ESP2:1595 | 34.2% | 2.92 | |
| | ESP2:1517-L | 21.7% | 4.60 | | | ESP2:1595-L | 31.3% | 3.20 | |
| * | ESP2:1601-L | 23.1% | 4.33 | 3 | * | ESP2:1588-L | 34.3% | 2.91 | 249 |
| | ESP2: | | | | | ESP2: | | | |
| | ESP2: | | | | | E520: 5242 | 20.3% | 4.92 | |
| | ASP1: 1891 | 19.1% | 5.23 | | | E520: 5245 | | | |
| | PAC4G:4478 | 18.5% | 5.4 | | | PAC4G:4478 | 33.5% | 3.0 | |
| | FLMON:91943 | 18.8% | 5.3 | | | FLMON:91943 | 28.8% | 3.47 | |

| |
|----------------------|
| SURVEY DATE: 4/07/93 |
| COUNT DATE: 4/08/93 |

| (*)IF USED | GAMMA OR BETA/GAMMA EQUIP | |
|------------|---------------------------|-------|
| | INST: S/N | BKG |
| | R/S: L-2088 | uR/hr |
| | PRM7: 234 | uR/hr |
| | E520: 5242 | mr/hr |
| | E520: 5245 | mr/hr |
| | ESP2: 1522 | mr/hr |

| (*)IF USED | COUNTING EQUIPMENT (ALPHA) | | | |
|---------------------------|----------------------------|-------|------|------|
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 37.8% | 2.64 | 0.1 |
| | SAC4: 1128 | 40.6% | 2.46 | |
| | SAC4: 263 | 34.7% | 2.88 | |
| COUNTING EQUIPMENT (BETA) | | | | |
| | INST: S/N | EFF | C.F. | BKG |
| * | TENN: 13295 | 49.9% | 2.0 | 1.24 |
| | MS-2: 1848 | 26.4% | 3.8 | |
| | BC-4: 808 | 16.9% | 5.92 | |

| SURFACE DESCRIPTION | GRID | X, Y REF POINT | GAMMA @ 1 M. uR/hr | BETA/GAMMA CONT. mr/hr | SCAN CONTACT GROSS CPM | | CONTACT GROSS 1 MIN. CT. | | SMEAR LEVELS IN DPM/100cm2 | | COMMENTS |
|---------------------|------|----------------|--------------------|------------------------|------------------------|----------|--------------------------|------|----------------------------|-------|---------------------|
| | | | | | MAX BETA | AVG BETA | ALPHA | BETA | ALPHA | BETA | |
| Ceiling | N/A | 4, -30 | N/A | N/A | 371 | 310 | 1 | 288 | -0.264 | -2.49 | Concrete/ESP's used |
| " | " | 2, -26 | " | " | 270 | 220 | 4 | 272 | -0.264 | 3.59 | " |
| " | " | 2, -28 | " | " | 274 | 240 | 6 | 285 | 7.741 | 3.59 | " |
| " | " | 2, -30 | " | " | 329 | 270 | 3 | 283 | -0.264 | 3.41 | " |
| " | " | 6, -4 | " | " | 322 | 240 | 0 | 254 | -0.264 | 3.59 | " |
| " | " | 6, -6 | " | " | 295 | 220 | 0 | 225 | -0.264 | 3.41 | " |
| " | " | 8, -4 | " | " | 335 | 252 | 1 | 260 | -0.264 | -2.49 | " |
| " | " | 10, -6 | " | " | 316 | 230 | 0 | 240 | -0.264 | 3.41 | " |
| " | " | 8, -6 | " | " | 327 | 215 | 2 | 245 | -0.264 | -2.49 | " |
| " | " | 6, -8 | " | " | 302 | 227 | 3 | 226 | -0.264 | -2.49 | " |
| " | " | 8, -8 | " | " | 370 | 275 | 2 | 279 | -0.264 | -2.49 | " |
| " | " | 10, -8 | " | " | 299 | 245 | 4 | 246 | -0.264 | 3.59 | " |
| " | " | 6, -10 | " | " | 310 | 250 | 2 | 248 | -0.264 | -2.49 | " |
| " | " | 8, -10 | " | " | 285 | 220 | 5 | 234 | -0.264 | -2.49 | " |
| " | " | 10, -10 | " | " | 361 | 267 | 1 | 278 | -0.264 | -2.49 | " |

| | | | | |
|--|---|---|----------------------------|---|
| FORM SERIAL #: 1 - 077 (Survey Section - Sequential survey #) | LOCATION # 1-14-1 (Survey Section - Unit # - Sub Unit #) | SURVEY CLASSIFICATION: IV (Group I, II, III, IV) | DISK FILE CODE: FDS - 0480 | SURVEYOR SIGNATURE: MS/TB <i>[Signature]</i> |
|--|---|---|----------------------------|---|

LB5100W Low Background Counting System -- Smear Analysis

Date: 4/8/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\011401C.XLD
 Batch Ended: 4/8/93 7:55
 Crosstalk Correction: Not Applied

Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435

Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1

Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 1-14-1 ceiling. Misc overhead surfaces in Bldg 5.

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 1 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/8/93 7:40 |
| 2 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:40 |
| 3 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/8/93 7:41 |
| 4 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/8/93 7:41 |
| 5 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/8/93 7:42 |
| 6 | -0.264 | 1.60 | <MDA | 28.10 | 9.31 | 9.20 | <AL | 33.88 | 0.34 | -0.100 | 4.64 | 4/8/93 7:42 |
| 7 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:43 |
| 8 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:43 |
| 9 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:44 |
| 10 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/8/93 7:44 |
| 11 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/8/93 7:45 |
| 12 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/8/93 7:45 |
| 13 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:46 |
| 14 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/8/93 7:46 |
| 15 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/8/93 7:47 |
| 16 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:47 |
| 17 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/8/93 7:48 |
| 18 | 7.741 | 8.17 | At AL | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | 2.930 | 1.79 | 4/8/93 7:48 |
| 19 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/8/93 7:49 |
| 20 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/8/93 7:50 |
| 21 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/8/93 7:50 |
| 22 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:51 |
| 23 | -0.264 | 1.60 | <MDA | 28.10 | 3.41 | 7.06 | <MDA | 33.88 | 0.34 | -0.100 | 1.70 | 4/8/93 7:51 |
| 24 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/8/93 7:52 |
| 25 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:52 |

LB5100W Low Background Counting System – Smear Analysis

Date: 4/8/93
 Counting Unit id: 1
 Data file name: C:\LBXL\UNIT1\011401C.XLD
 Batch Ended: 4/8/93 7:55
 Crosstalk Correction: Not Applied

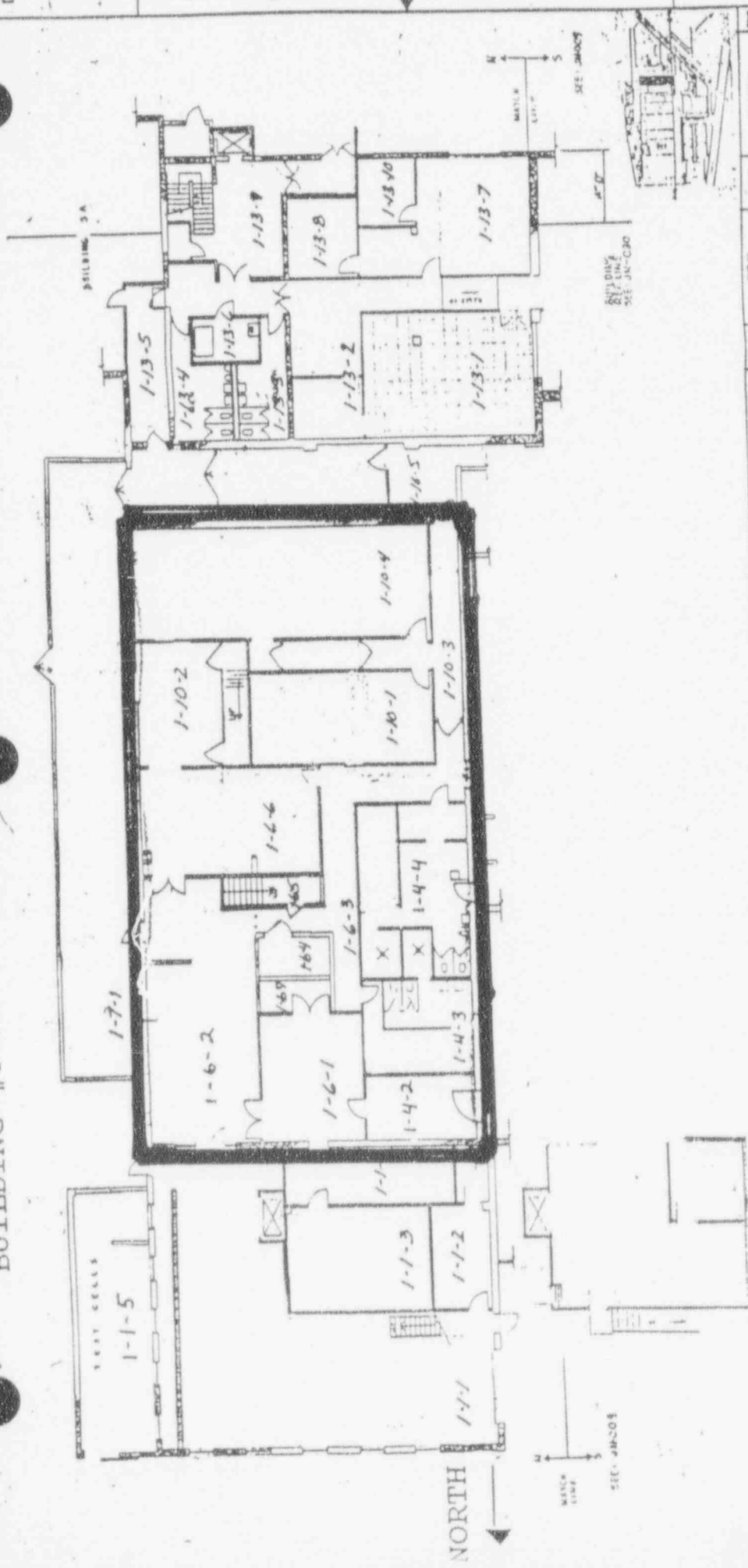
Alpha activity action level (DPM): 10.00
 Beta activity action level (DPM): 200.00
 Certainty level for MDA and flags: 95.00%
 High Voltage Setting: 1435
 Application Revision: 2
 Application Version: Standard

Alpha efficiency log file: po210ab
 Alpha Efficiency: 37.85%
 Alpha to Beta Crosstalk: 4.92%
 Alpha Background (CPM): 0.1
 Beta efficiency log file: cs137ab
 Beta Efficiency: 49.88%
 Beta into Alpha Crosstalk: 0.36%
 Beta Background (CPM): 1.24

Batch ID: TSB - 1-14-1 ceiling. Misc overhead surfaces in Bldg 5.

| Carrier | Alpha Activity | | | | Beta Activity | | | | Count time (min) | Alpha CPM | Beta CPM | Completion TOD |
|---------|----------------|----------|-------|-------|---------------|----------|-------|-------|------------------|-----------|----------|----------------|
| | DPM | σ | flags | MDA | DPM | σ | flags | MDA | | | | |
| 26 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/8/93 7:53 |
| 27 | -0.264 | 1.63 | <MDA | 28.84 | 3.59 | 7.24 | <MDA | 34.63 | 0.33 | -0.100 | 1.79 | 4/8/93 7:53 |
| 28 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:54 |
| 29 | -0.264 | 1.63 | <MDA | 28.84 | -2.49 | 3.93 | <MDA | 34.63 | 0.33 | -0.100 | -1.24 | 4/8/93 7:54 |
| 30 | -0.264 | 1.60 | <MDA | 28.10 | -2.49 | 3.87 | <MDA | 33.88 | 0.34 | -0.100 | -1.24 | 4/8/93 7:55 |

BUILDING #5 FIRST FLOOR (Western portion)



LEGEND

- BRICK
- CONCRETE
- CONCRETE BLOCK EXT
- CONCRETE BLOCK INT
- DAYWALL & PANELING

SCALE: FEET

0 5 10 15 20 25

PARTS LIST

Weightlight Advanced Energy Systems Division

FIRST FLOOR

BUILDING NO. 5

WACSD LARGE PA.

JN-010 A

Bldg 5 overhead
area lay-out
In Reference to
entire Bldg 5 Area

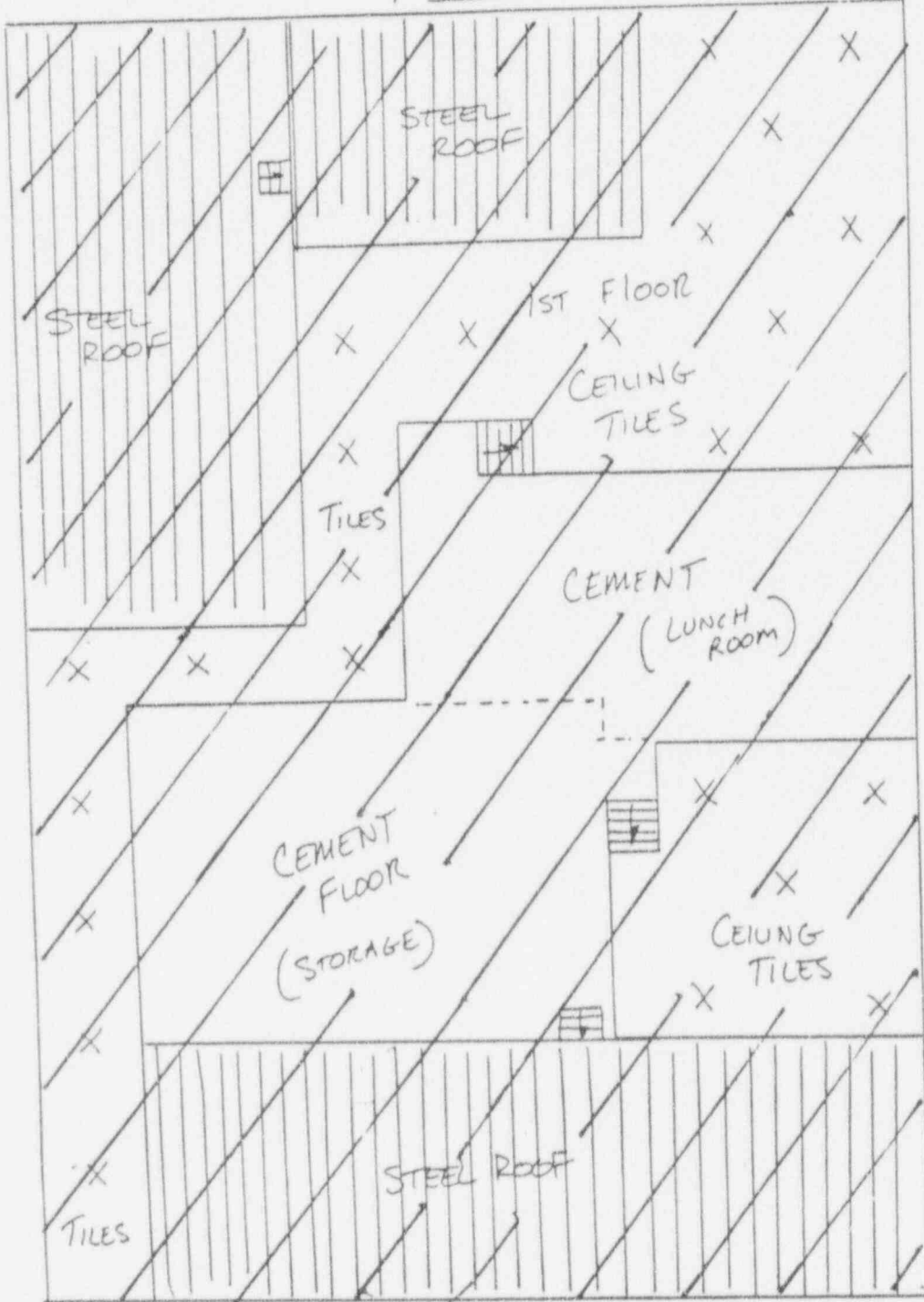
Bldg 5 (OVERHEAD SURVEY)

ARIAL VIEW OF AREA ABOVE 1ST FLOOR CEILING (1-14-1)

OVERHEAD VIEW

↑ North

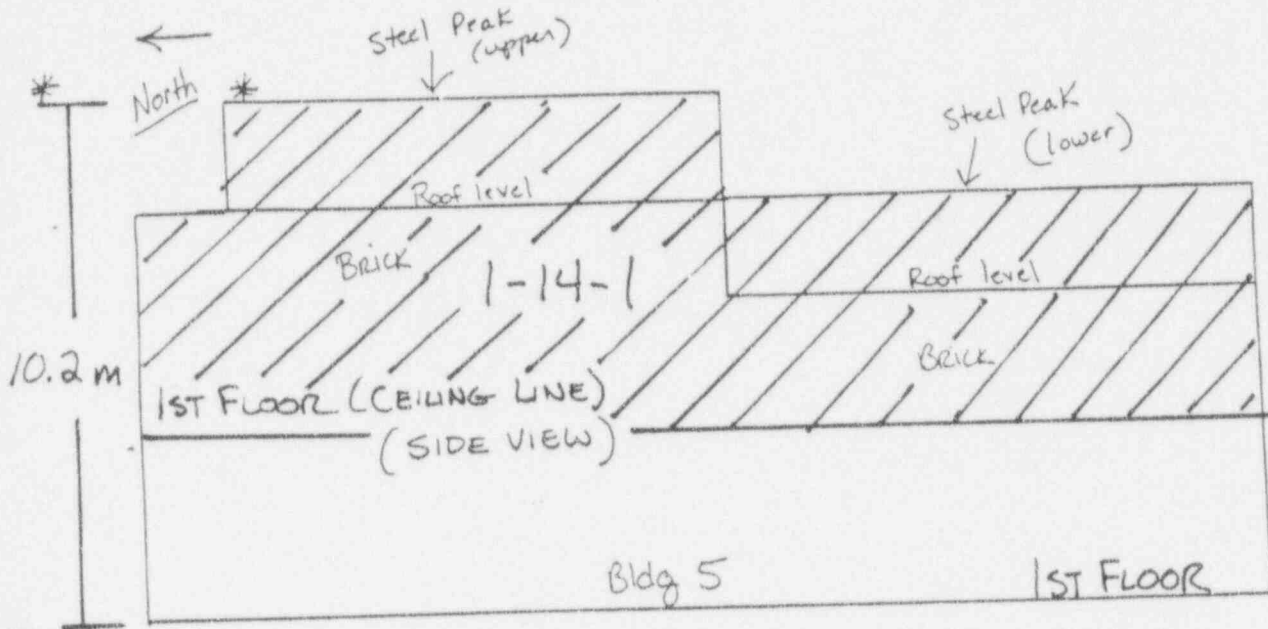
Bldg 5 (above 1st Fl.)



DO NOT SCALE

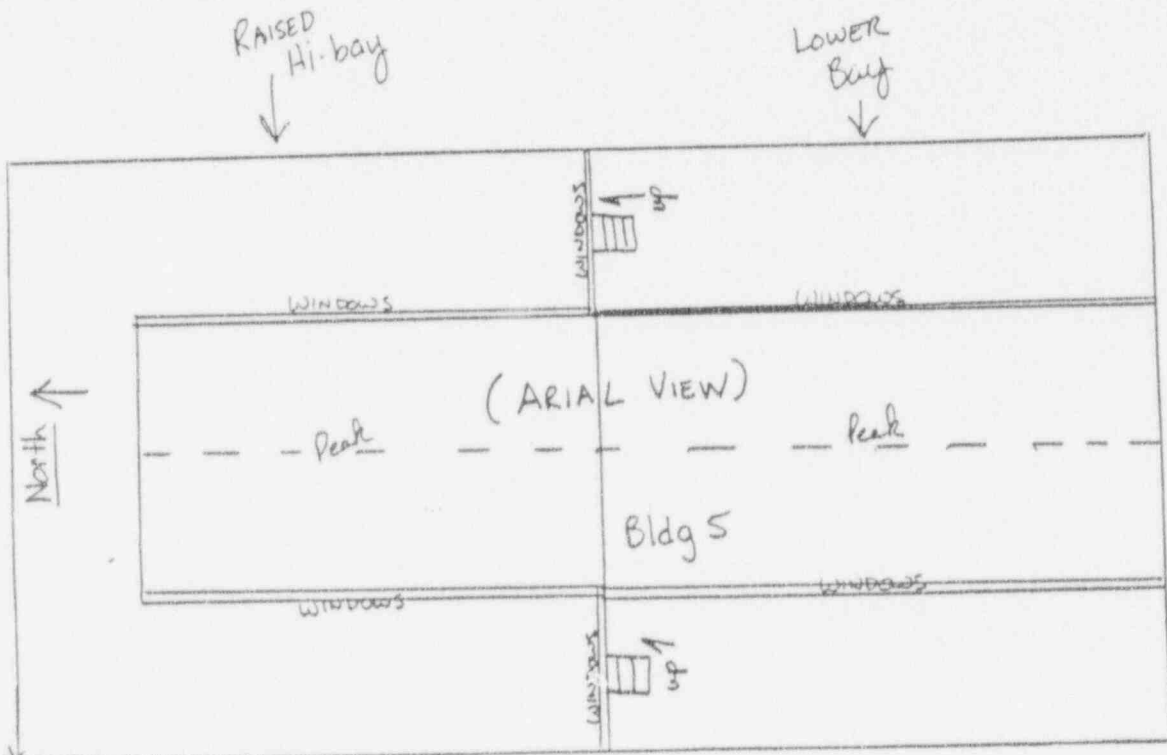
Bldg 5 (OVERHEAD SURVEY)

Bldg 5 BASIC STRUCTURAL DIMENSIONS



* Points Reference from upper peak

DO NOT SCALE



* REF. POINT (NW Corner)

1-14-1

APPENDIX K

RADIOLOGICAL SURVEY DATA SHEETS FOR FLOOR SCANS

IH & S FORM: SDS-REV0
LARGE SITE 12/92

| (#) IF USED | BETA SURVEY EQUIPMENT | | | | |
|-------------------|-----------------------|------|-------|-----|-------|
| | INST | S/N | EFF | BKG | C. F. |
| | ESP-2 | 1510 | 38.7% | | 2.58 |
| | ESP-2 | 1517 | 38.9% | | 2.57 |
| | ESP-2 | 00S | 00S | 00S | 00S |
| | ESP-2 | | | | |

| (#) IF USED | BETA SURVEY EQUIPMENT | | | | |
|-------------------|-----------------------|-------|-------|------|-------|
| | INST | S/N | EFF | BKG | C. F. |
| | PAC4G | 4478 | 00S | 00S | 00S |
| * | FLOOR MON. | 91943 | 36% | 1255 | 2.7 |
| | E-520 | 5242 | 20.3% | | 4.9 |
| | E-520 | 5245 | 00S | 00S | 00S |

| SURFACE DESCRIPTION | EST % SCANNED | CONTACT GROSS CPM | | LOCATION CODE (See Remarks) | SURVEY CLASSIFICATION (See Remarks) | COMMENTS |
|---------------------|---------------|-------------------|---------|--------------------------------|--|-----------------------|
| | | MAXIMUM | AVERAGE | | | |
| Tile on concrete | 90 | 1680 | 1255 | 1-8-1 | IV | See Attached Map |
| " | 90 | 1890 | 1400 | 1-3-4 | IV | " |
| Brick Tile | 70 | 3030 | 2500 | 1-7-1 | I | Background @ 2575 cpm |
| Tile on concrete | 60 | 1402 | 1260 | 1-5-3 | IV | See Attached Map |
| " | 75 | 1587 | 1200 | 1-9-3 | IV | " |
| " | 60 | 1317 | 1100 | 1-9-2 | IV | " |
| Carpet on concrete | 90 | 2000 | 1480 | 1-8-3 | IV | " |
| " | 80 | 1565 | 1250 | 1-8-2 | IV | " |
| " | 100 | 1914 | 1600 | 1-8-4 | IV | " |
| Concrete | 100 | 1850 | 1500 | 1-8-5 | IV | " |
| Tile on Concrete | 50 | 2789 | 1250 | 1-9-1 | IV | " |
| " | 80 | 1580 | 1325 | 1-8-6 | IV | " |
| " | 80 | 1629 | 1450 | 1-10-3 | IV | " |
| " | 60 | 1822 | 1500 | 1-5-2 | IV | " |
| " | 80 | 1686 | 1400 | 1-6-3 | IV | " |

REMARKS:

SURVEY CLASSIFICATION
(Group I, II, III, IV)
(Install in
Column above)

LOCATION CODE DEFINED
(Survey Sec - Unit - Subunit)
(Install in column above)

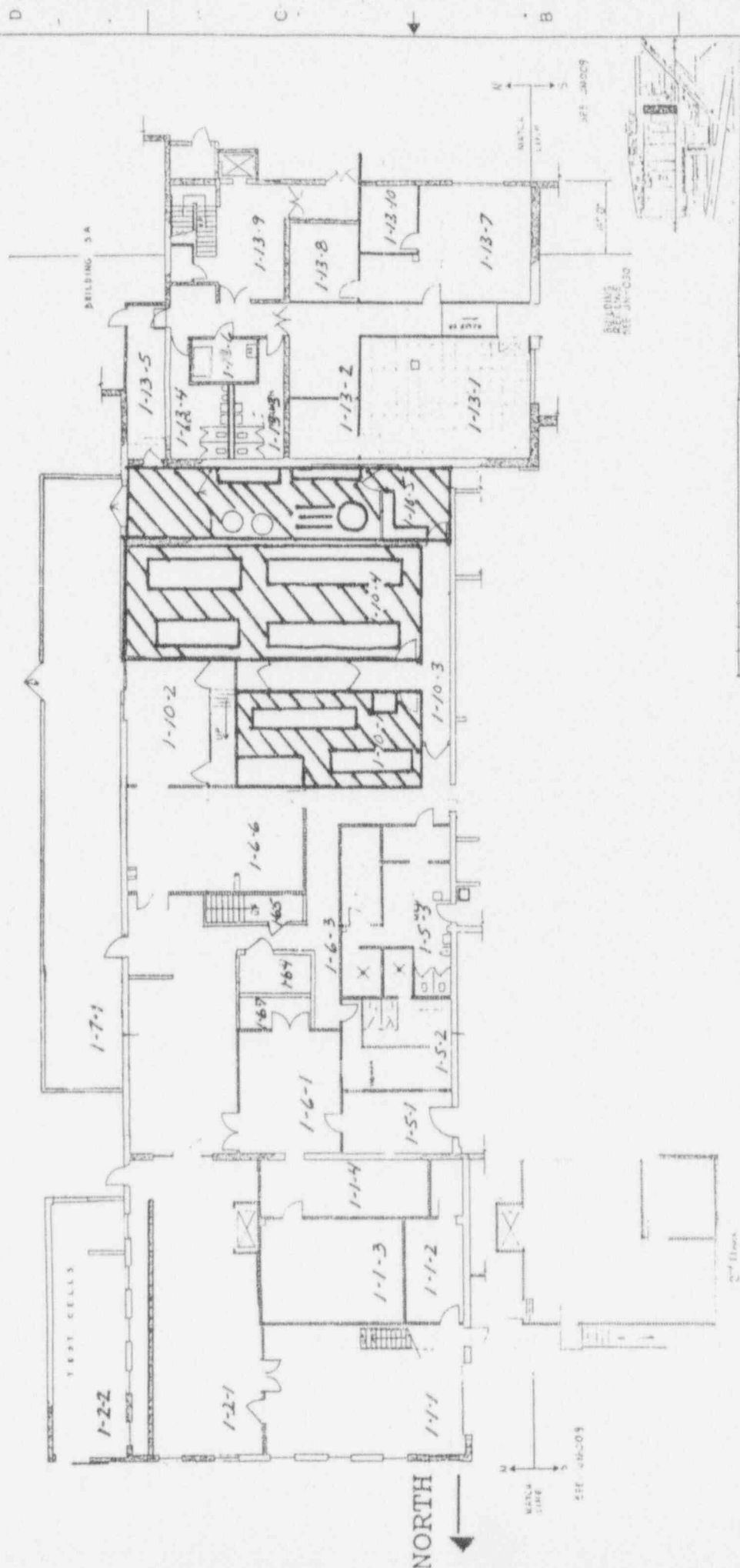
SURVEYOR: Todd Brantigan
SIGNATURE: *Todd Brantigan*

SURVEY DATE: 12/04/92

FORM S/N: 1019
(Survey Sec-Sequential #)

DISK FILE CODE: SDS-0003

BUILDING #5 FIRST FLOOR (Eastern portion)



REVISIONS

| REV | DATE | DESCRIPTION | DATE APPROVED |
|-------|------|-------------|---------------|
| REV 1 | | REVISIONS | |
| REV 2 | | | |

LEGEND

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

SCALE - FEET

0 5 10 15 20 25

PARTS LIST

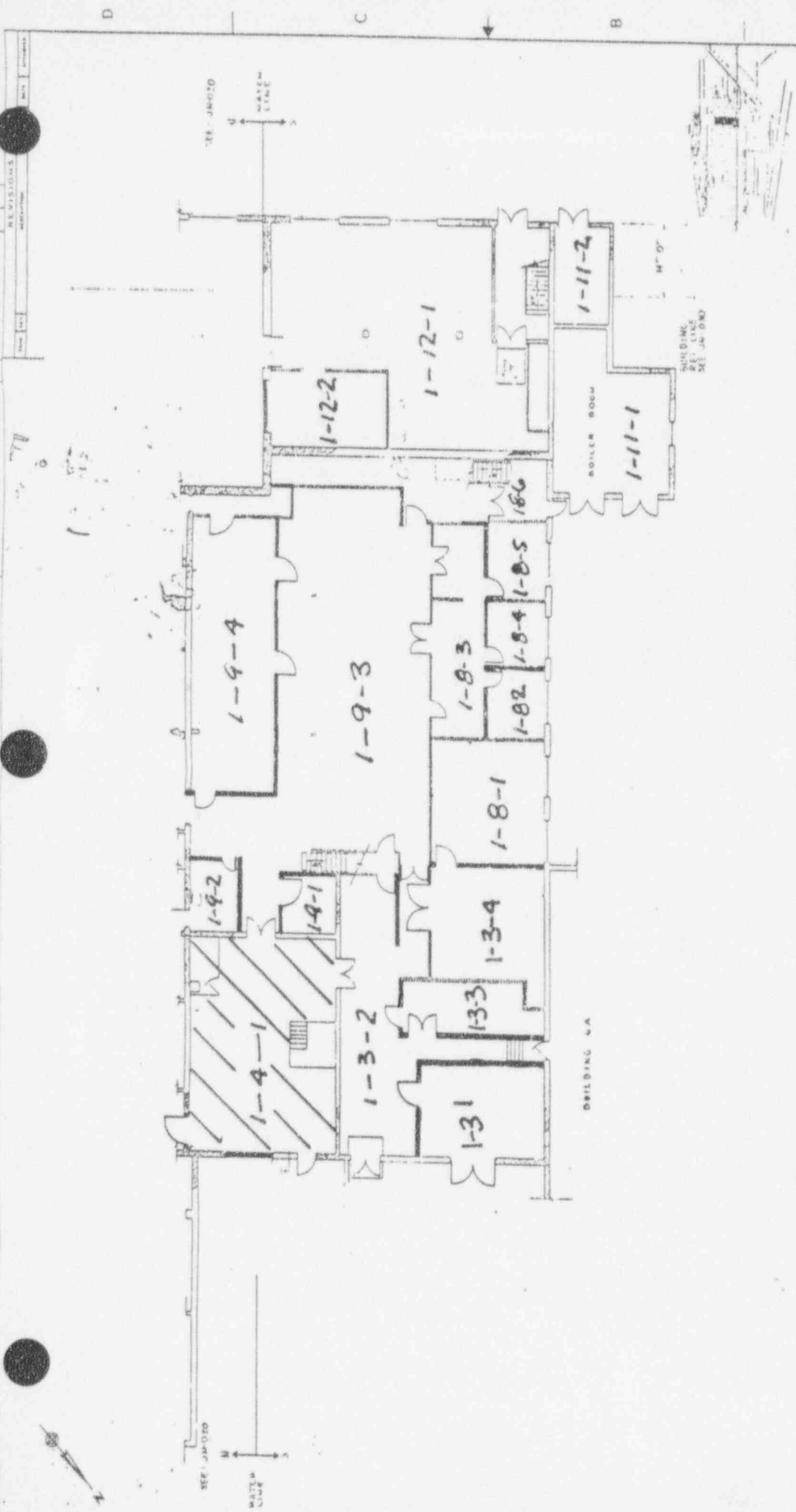
| QTY | ITEM NO. | DESCRIPTION | QTY | ITEM NO. | DESCRIPTION |
|-----|----------|-------------|-----|----------|-------------|
| | | | | | |

Wepthauser Advanced Energy System Division
 FIRST FLOOR
 BUILDING NO 5
 WAE50 LARGE PA

D 14663 JN-010 A

0 1 2 3 4 5 6 7 A

1 2 3 4 5 6 7



REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

LEGEND

- BRICK
- CONCRETE CORNER BLOCK EXT
- CONCRETE CORNER BLOCK INT
- CONCRETE WALL & PANELING

E. FEET

0 5 10 15 20 25

PARTS LIST

WESTINGHOUSE Advanced Energy Systems Division
 Mechanical Department
FIRST FLOOR
BUILDING No 5
WAESD LARG E.P.A.

DATE: JUN 1968
 DRAWN BY: JN-009A

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

DECOMMISSIONING SURVEY SCAN DATA SHEET

IH & S FORM: SDS-REVO
LARGE SITE 12/92

| (*) IF USED | BETA SURVEY EQUIPMENT | | | | |
|-------------------|-----------------------|---------|-------|-----|------|
| | INST | S/N | EFF | BKG | C.F. |
| | ESP-2 | 01595 | 34.2% | | 2.92 |
| | ESP-2 | 01595-L | 31.3% | | 3.20 |
| | ESP-2 | 1588-L | 34.3% | | 2.91 |
| | ESP-2 | | | | |

| (*) IF USED | BETA SURVEY EQUIPMENT | | | | |
|-------------------|-----------------------|-------|-------|-----|------|
| | INST | S/N | EFF | BKG | C.F. |
| | PAC4G | 4478 | 33.5% | | 3.0 |
| * | FLOOR MON. | 91943 | 28.8% | * | 3.47 |
| | E-520 | 5242 | OOS | OOS | OOS |
| | E-520 | 5245 | 20.5% | | 4.87 |

| SURFACE DESCRIPTION | EST % SCANNED | CONTACT GROSS CPM | | LOCATION CODE (See Remarks) | SURVEY CLASSIFICATION (See Remarks) | COMMENTS |
|---------------------|---------------|-------------------|---------|--------------------------------|---|-----------------|
| | | MAXIMUM | AVERAGE | | | |
| Floor | 100% | 1400 | 1325 | 1-1-2 | IV | * 1308 CPM Bkg. |
| " | 80% | 1480 | 1300 | 1-1-1 | IV | * 1115 CPM Bkg. |
| " | 60% | 1725 | 1475 | 1-1-4 | IV | * 1504 CPM Bkg. |
| " | 60% | 1275 | 1150 | 1-1-3 | IV | * 1108 CPM Bkg. |
| " | 60% | 1455 | 1300 | 1-1-5 | IV | * 1272 CPM Bkg. |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| | | | |
|---|---|--|--------------------------|
| REMARKS: SURVEY CLASSIFICATION (Group I, II, III, IV) (Install in column above) | LOCATION CODE DEFINED (Survey Sec - Unit - Subunit) (Install in column above) | SURVEYOR: LS SIGNATURE: | SURVEY DATE: 1/16/93 |
| | | FORM S/N: 1-038 (Survey Section-Sequential #) | DISK FILE CODE: SDS-0030 |

DECOMMISSIONING SURVEY SCAN DATA SHEET

IH & S FORM: SDS-REVO
LARGE SITE 12/92

| (*) IF USED | BETA SURVEY EQUIPMENT | | | | |
|-------------------|-----------------------|---------|-------|-----|------|
| | INST | S/N | EFF | BKG | C.F. |
| | ESP-2 | 01595 | 34.2% | | 2.92 |
| | ESP-2 | 01595-L | 31.3% | | 3.20 |
| | ESP-2 | 1588-L | 34.3% | | 2.91 |
| | ESP-2 | | | | |

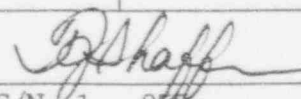
| (*) IF USED | BETA SURVEY EQUIPMENT | | | | |
|-------------------|-----------------------|-------|-------|--------|------|
| | INST | S/N | EFF | BKG | C.F. |
| | PAC4G | 4478 | 33.5% | | 3.0 |
| | FLOOR MON. | 91943 | 36.0% | **1255 | 3.47 |
| | E-520 | 5242 | OOS | OOS | OOS |
| | E-520 | 5245 | 20.5% | | 4.87 |

| SURFACE DESCRIPTION | EST % SCANNED | CONTACT GROSS CPM | | LOCATION CODE (See Remarks) | SURVEY CLASSIFICATION (See Remarks) | COMMENTS |
|---------------------|---------------|-------------------|---------|--------------------------------|--|---|
| | | MAXIMUM | AVERAGE | | | |
| Floor Tile | 60% | 1822 | 1500 | 1-4-3 | IV | *Previously No. 1-5-2 |
| | 60% | 1402 | 1260 | 1-4-4 | IV | *Previously No. 1-5-3 |
| | | | | | | *NOTE: Unit & Subunit number changed 3/23/93 to accomodate proper unit size of 300 m 2 |
| | | | | | | **Reflects background of 12/04/92 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

REMARKS:
SURVEY CLASSIFICATION
(Group I, II, III, IV)
(Install in
column above)

LOCATION CODE DEFINED
(Survey Sec - Unit - Subunit)
(Install in column above)

SURVEYOR: TS
SIGNATURE:

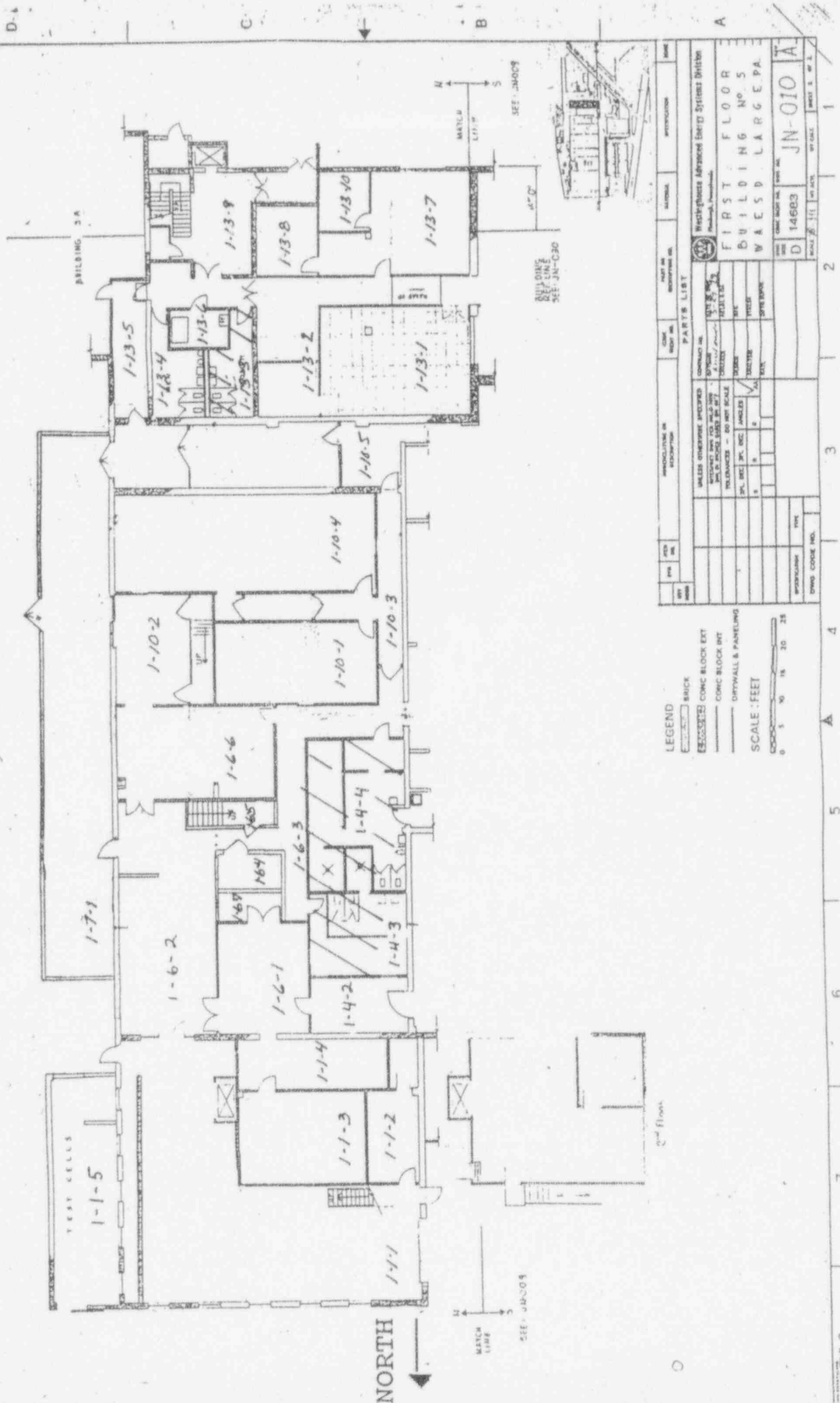


SURVEY DATE: 3/25/93
(*12/-4/92)

FORM S/N: 1 - 095
(Survey Section-Sequential #)

DISK FILE CODE: SDS - 0037

BUILDING #5 FIRST FLOOR (Western portion)



| NO. | QTY | UNIT | DESCRIPTION | MANUFACTURE OR IDENTIFICATION | DATE |
|-------------------|-----|------|--------------------|-------------------------------|------|
| PARTS LIST | | | | | |
| 1 | 1 | EA | BRICK | | |
| 2 | 1 | EA | CONCRETE BLOCK EXT | | |
| 3 | 1 | EA | CONCRETE BLOCK INT | | |
| 4 | 1 | EA | DRYWALL & PANELING | | |
| 5 | 1 | EA | SCALE: FEET | | |
| 6 | 1 | EA | SCALE: FEET | | |
| 7 | 1 | EA | SCALE: FEET | | |
| 8 | 1 | EA | SCALE: FEET | | |
| 9 | 1 | EA | SCALE: FEET | | |
| 10 | 1 | EA | SCALE: FEET | | |
| 11 | 1 | EA | SCALE: FEET | | |
| 12 | 1 | EA | SCALE: FEET | | |
| 13 | 1 | EA | SCALE: FEET | | |
| 14 | 1 | EA | SCALE: FEET | | |
| 15 | 1 | EA | SCALE: FEET | | |
| 16 | 1 | EA | SCALE: FEET | | |
| 17 | 1 | EA | SCALE: FEET | | |
| 18 | 1 | EA | SCALE: FEET | | |
| 19 | 1 | EA | SCALE: FEET | | |
| 20 | 1 | EA | SCALE: FEET | | |
| 21 | 1 | EA | SCALE: FEET | | |
| 22 | 1 | EA | SCALE: FEET | | |
| 23 | 1 | EA | SCALE: FEET | | |
| 24 | 1 | EA | SCALE: FEET | | |
| 25 | 1 | EA | SCALE: FEET | | |
| 26 | 1 | EA | SCALE: FEET | | |
| 27 | 1 | EA | SCALE: FEET | | |
| 28 | 1 | EA | SCALE: FEET | | |
| 29 | 1 | EA | SCALE: FEET | | |
| 30 | 1 | EA | SCALE: FEET | | |
| 31 | 1 | EA | SCALE: FEET | | |
| 32 | 1 | EA | SCALE: FEET | | |
| 33 | 1 | EA | SCALE: FEET | | |
| 34 | 1 | EA | SCALE: FEET | | |
| 35 | 1 | EA | SCALE: FEET | | |
| 36 | 1 | EA | SCALE: FEET | | |
| 37 | 1 | EA | SCALE: FEET | | |
| 38 | 1 | EA | SCALE: FEET | | |
| 39 | 1 | EA | SCALE: FEET | | |
| 40 | 1 | EA | SCALE: FEET | | |
| 41 | 1 | EA | SCALE: FEET | | |
| 42 | 1 | EA | SCALE: FEET | | |
| 43 | 1 | EA | SCALE: FEET | | |
| 44 | 1 | EA | SCALE: FEET | | |
| 45 | 1 | EA | SCALE: FEET | | |
| 46 | 1 | EA | SCALE: FEET | | |
| 47 | 1 | EA | SCALE: FEET | | |
| 48 | 1 | EA | SCALE: FEET | | |
| 49 | 1 | EA | SCALE: FEET | | |
| 50 | 1 | EA | SCALE: FEET | | |
| 51 | 1 | EA | SCALE: FEET | | |
| 52 | 1 | EA | SCALE: FEET | | |
| 53 | 1 | EA | SCALE: FEET | | |
| 54 | 1 | EA | SCALE: FEET | | |
| 55 | 1 | EA | SCALE: FEET | | |
| 56 | 1 | EA | SCALE: FEET | | |
| 57 | 1 | EA | SCALE: FEET | | |
| 58 | 1 | EA | SCALE: FEET | | |
| 59 | 1 | EA | SCALE: FEET | | |
| 60 | 1 | EA | SCALE: FEET | | |
| 61 | 1 | EA | SCALE: FEET | | |
| 62 | 1 | EA | SCALE: FEET | | |
| 63 | 1 | EA | SCALE: FEET | | |
| 64 | 1 | EA | SCALE: FEET | | |
| 65 | 1 | EA | SCALE: FEET | | |
| 66 | 1 | EA | SCALE: FEET | | |
| 67 | 1 | EA | SCALE: FEET | | |
| 68 | 1 | EA | SCALE: FEET | | |
| 69 | 1 | EA | SCALE: FEET | | |
| 70 | 1 | EA | SCALE: FEET | | |
| 71 | 1 | EA | SCALE: FEET | | |
| 72 | 1 | EA | SCALE: FEET | | |
| 73 | 1 | EA | SCALE: FEET | | |
| 74 | 1 | EA | SCALE: FEET | | |
| 75 | 1 | EA | SCALE: FEET | | |
| 76 | 1 | EA | SCALE: FEET | | |
| 77 | 1 | EA | SCALE: FEET | | |
| 78 | 1 | EA | SCALE: FEET | | |
| 79 | 1 | EA | SCALE: FEET | | |
| 80 | 1 | EA | SCALE: FEET | | |
| 81 | 1 | EA | SCALE: FEET | | |
| 82 | 1 | EA | SCALE: FEET | | |
| 83 | 1 | EA | SCALE: FEET | | |
| 84 | 1 | EA | SCALE: FEET | | |
| 85 | 1 | EA | SCALE: FEET | | |
| 86 | 1 | EA | SCALE: FEET | | |
| 87 | 1 | EA | SCALE: FEET | | |
| 88 | 1 | EA | SCALE: FEET | | |
| 89 | 1 | EA | SCALE: FEET | | |
| 90 | 1 | EA | SCALE: FEET | | |
| 91 | 1 | EA | SCALE: FEET | | |
| 92 | 1 | EA | SCALE: FEET | | |
| 93 | 1 | EA | SCALE: FEET | | |
| 94 | 1 | EA | SCALE: FEET | | |
| 95 | 1 | EA | SCALE: FEET | | |
| 96 | 1 | EA | SCALE: FEET | | |
| 97 | 1 | EA | SCALE: FEET | | |
| 98 | 1 | EA | SCALE: FEET | | |
| 99 | 1 | EA | SCALE: FEET | | |
| 100 | 1 | EA | SCALE: FEET | | |

LEGEND
 BRICK
 CONCRETE BLOCK EXT
 CONCRETE BLOCK INT
 DRYWALL & PANELING
 SCALE: FEET
 0 5 10 15 20 25

FIRST FLOOR
 BUILDING NO 5
 VAESD LARGE PA
 JN-010 A

DECOMMISSIONING SURVEY SCAN DATA SHEET

IH & S FORM: SDS-REVO
LARGE SITE 12/92

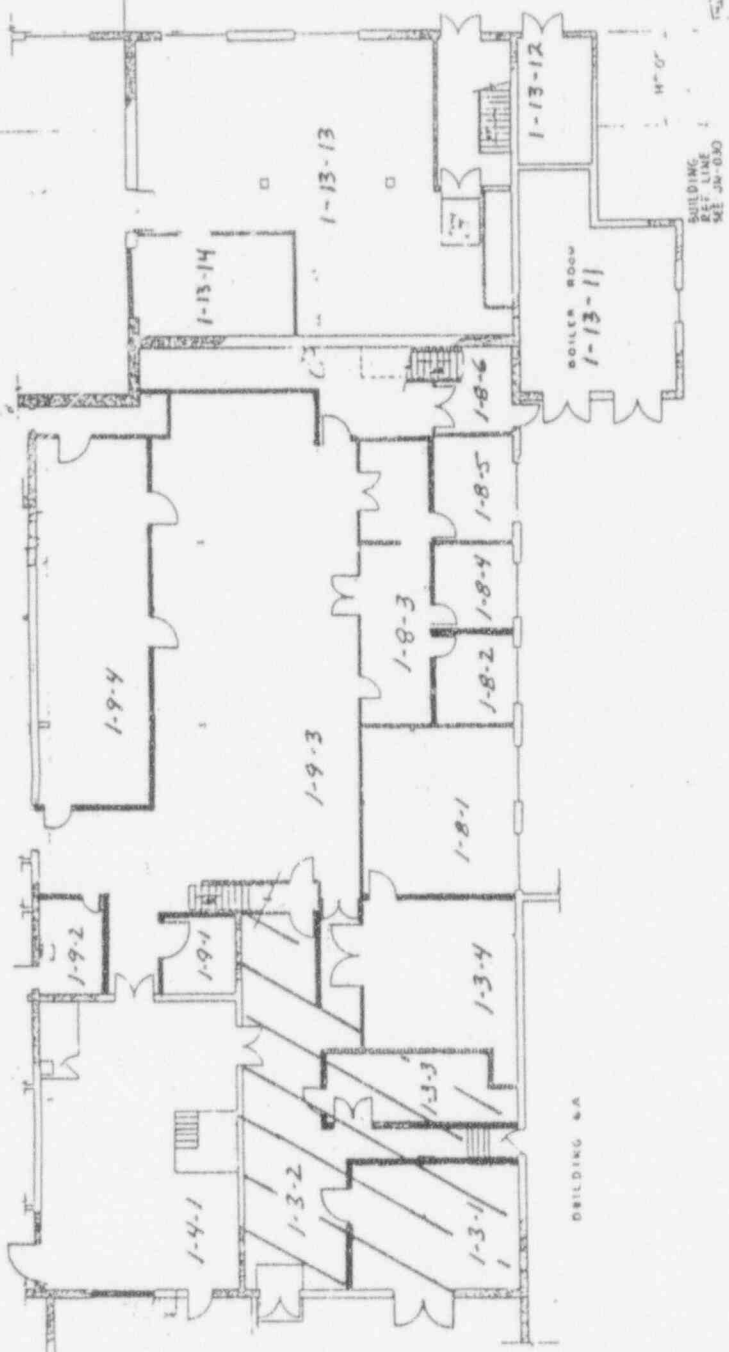
| (*) IF USED | BETA SURVEY EQUIPMENT | | | | |
|-------------------|-----------------------|---------|-------|-----|------|
| | INST | S/N | EFF | BKG | C.F. |
| | ESP-2 | 01595 | 34.2% | | 2.92 |
| | ESP-2 | 01595-L | 31.3% | | 3.20 |
| | ESP-2 | 1588-L | 34.3% | | 2.91 |
| | ESP-2 | | | | |

| (*) IF USED | BETA SURVEY EQUIPMENT | | | | |
|-------------------|-----------------------|-------|-------|------|------|
| | INST | S/N | EFF | BKG | C.F. |
| | PAC4G | 4478 | 33.5% | | 3.0 |
| * | FLOOR MON. | 91943 | 28.8% | 1167 | 3.47 |
| | E-520 | 5242 | OOS | OOS | OOS |
| | E-520 | 5245 | 20.5% | | 4.87 |

| SURFACE DESCRIPTION | EST % SCANNED | CONTACT GROSS CPM | | LOCATION CODE (See Remarks) | SURVEY CLASSIFICATION (See Remarks) | COMMENTS |
|---------------------|---------------|-------------------|---------|--------------------------------|--|----------|
| | | MAXIMUM | AVERAGE | | | |
| Floor Tile | 100% | 1416 | 1175 | 1-3-2 | IV | |
| | 50% | 1346 | 1200 | 1-3-1 | IV | |
| | 50% | 1496 | 1200 | 1-3-3 | IV | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| | | | |
|---|--|--|----------------------------|
| REMARKS: SURVEY CLASSIFICATION (Group I, II, III, IV) (Install in column above) | LOCATION CODE DEFINED (Survey Sec. - Unit - Subunit) (Install in column above) | SURVEYOR: TS SIGNATURE: <i>TS Sheff</i> | SURVEY DATE: 3/24/93 |
| | | FORM S/N: 1 - 056 (Survey Section-Sequential #) | DISK FILE CODE: SDS - 0038 |

BUILDING #5 FIRST FLOOR (Western portion)



NORTH

| NO. | QTY | UNIT | DESCRIPTION | DATE | BY |
|-----|-----|------|-------------------|------|----|
| 1 | 1 | EA | BRICK | | |
| 2 | 1 | EA | CONC BLOCK EXT | | |
| 3 | 1 | EA | CONC BLOCK INT | | |
| 4 | 1 | EA | DRYWALL & PARTUNG | | |

| NO. | QTY | UNIT | DESCRIPTION | DATE | BY |
|-----|-----|------|-------------------|------|----|
| 1 | 1 | EA | BRICK | | |
| 2 | 1 | EA | CONC BLOCK EXT | | |
| 3 | 1 | EA | CONC BLOCK INT | | |
| 4 | 1 | EA | DRYWALL & PARTUNG | | |

| PARTS LIST | | QUANTITY | DESCRIPTION |
|------------|---|----------|-------------------|
| 1 | 1 | EA | BRICK |
| 2 | 1 | EA | CONC BLOCK EXT |
| 3 | 1 | EA | CONC BLOCK INT |
| 4 | 1 | EA | DRYWALL & PARTUNG |

| | |
|-------------|----------|
| PROJECT NO. | 14683 |
| DATE | JUN 1963 |
| BY | JN-009 |
| CHECKED BY | |
| SCALE | AS SHOWN |

LEGEND

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

SCALE: FEET

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE FOR FINISHED SURF
 DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE
 TOLERANCES - DO NOT SCALE
 FIN. SURF. ACC. ANGLES
 SEE
 FIELD
 NOTES

WESTINGHOUSE Advanced Energy Systems Division
 Pittsburgh, Pennsylvania

FIRST FLOOR
 BUILDING #5
 WAESD LARGE, PA

DWG. NO. JN-009 A
 SHEET 1 OF 2

