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July 9, 2008

Mr. William Snell
Nuclear Materials Decommissioning Branch
Nuclear Regulatory Commission, Region III
2443 Warrenville Road STE 210
Lisle, IL 60532-4352

Subject: Submittal of the final report for Building 267 D&D project and a request for amendment to remove Building 267 from Radioactive Materials License 21-00182-03.

Dear Mr. Snell:

This letter is to notify you that Pharmacia & Upjohn Company LLC (P&U, a subsidiary of Pfizer Inc) has completed the decontamination and decommissioning (D&D) activities for Building 267 at 333 Portage Street, Kalamazoo, MI (Downtown Complex). The results of the D&D activities summarized in the enclosed final report, demonstrate that the impacted building is suitable to release for unrestricted use, in accordance with 10 CFR 20 Subpart E and P&U NRC license requirements Item 10.1.F. As documented in the Final Status Survey report, residual activity levels are essentially equal to natural background levels.

P&U contracted Safety and Ecology Corporation (SEC) to perform the D&D activities in accordance with the D&D Plan submitted to the NRC Region III – Decommissioning Branch dated April 8, 2008. The D&D Plan was based on the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) and P&U's decommission procedures. Accompanying this letter are two copies of the final report for your review and evaluation. The original supporting documents are available by contacting Dee Clement.

In addition, Pharmacia & Upjohn Company is requesting an amendment to eliminate Building 267 from the existing byproduct material license number 21-00182-03. Building 267 was approved by our Broad Scope Type A License as a location of use but not specifically named on the license.

We appreciate your time and effort in the completion of the D&D process and the initiation of an amendment to our license. Please contact Dee Clement at (269) 833-9431 if you have any questions concerning these requests.

Sincerely, 

Dee L. Clement Radiation Safety Officer - Kalamazoo Site

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cc: James R. Mullauer, NRC Materials Licensing Branch



Kalamazoo Facilities

Building 267

Decontamination and Decommissioning Final Report

NRC License No. 21-00182-03

**Pfizer Global Research and Development
333 Portage Street
Kalamazoo, MI 49007**

June 2008

**Prepared by:
Safety and Ecology Corporation
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ACRONYM LIST

AEC U.S.	Atomic Energy Commission
ALARA	As Low As Reasonably Achievable
CFR	Code of Federal Regulations
D&D	Decontamination and Decommissioning
DCGLW	Derived Concentration Guideline Level – Wilcoxon Rank Sum
DQO	Data Quality Objective
DSV	Default Screening Value
GSF	Gross Square Feet
HSA	Historical Site Assessment
HVAC	Heating , Ventilation, Air Conditioning
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDC	Minimum Detectable Concentration
NRC	U.S. Nuclear Regulatory Commission
QAPP	Quality Assurance Project Plan
RDRC	FDA Approved Radioactive Drug Research Committee
RSO	Radiation Safety Officer
RSC	Radiation Safety Committee
TEDE	Total Effective Dose Equivalent

1.0 Executive Summary

Pfizer Global Research and Development (PGRD), a unit of Pfizer, Inc. performed decontamination and decommissioning (D&D) of the Building 267 at the research campus located at 333 Portage Street, Kalamazoo, MI. The 333 Portage Street campus is pharmaceutical research and development campus consisting of a complex of buildings including office facilities, laboratory facilities, and animal facilities located in downtown Kalamazoo. A site map is included in Appendix A.

In previous decommissioning work at the 333 Portage Street campus Pfizer had decommissioned and achieved unrestricted release of Buildings 18, 25, 126, and approximately two-thirds of Building 209 in 2004. Approximately one-third of Building 209 remained on the license. The remaining portion of Building 209 is known as the Portage Road wing or, alternately, Building 267A as it abuts Building 267. Building 267A was decommissioned and achieved unrestricted release in 2005. Research activities will continue under the existing license in another building (Building 300) located at the downtown Kalamazoo site. This report addresses the decommissioning of Building 267. Detailed information concerning facility history and radionuclide use throughout the site is contained in the Decommissioning Plan prepared in November 2003. Detailed information concerning facility history and radionuclide use throughout the site is contained in the Decommissioning Plan prepared in November 2003. This document describes the facilities in Building 267 and the final status survey of these facilities.

Radioactive materials used in Building 267 consisted of small quantities (up to 10's of mCi) of a variety of radionuclides for research. These included H-3, C-14, I-125, P-32, P-33 and S-35.

Building 267 construction was completed in 1982, providing additional laboratories and research facilities at the Downtown site.

Based on an analysis of the radionuclides and quantities used, their physical forms and their half-lives, and receipt and distribution records, H-3 and C-14 are the only nuclides of concern with respect to the scope of the Building 267 final status survey.

This report demonstrates that building structural surfaces and associated facility systems included in the scope of this report are well below release criteria and are suitable to release for unrestricted use. Based on the results of the surface and structure final status surveys, the TEDE to a maximally exposed individual based on the occupancy scenario of the NRC DandD Version 2.1 is <0.01 mrem/year. The stated exposure rate is based on the survey unit with the highest average activity.

1.1 Management Approach

A facility historical site assessment (HSA) was performed in February and March of 2008 in order to classify impacted areas, estimate decommissioning costs and develop the D&D Plan addendum. PGRD retained Safety and Ecology Corporation (SEC) to characterize, remediate (if necessary), perform final status surveys and produce a final status report for submittal along with a license amendment request to remove Building 267 from the license. SEC mobilized to the site in May 2008 and began decommissioning activities. D&D activities were performed in accordance with the D&D plan addendum, Pfizer's Radiation Protection Program and Pfizer's USNRC Radioactive Materials License(s).

The supplemental D&D Plan was developed using the guidance provided in NUREG 1727, "NMSS Decommissioning Standard Review Plan"; NUREG 1757, "Consolidated NMSS Decommissioning Guidance"; and NUREG 1575, "Multi-Agency Radiation Survey and Site Investigation Manual" (MARSSIM). It provides the approach, methods, and techniques for the radiological D&D and final status survey of impacted areas of the facility.

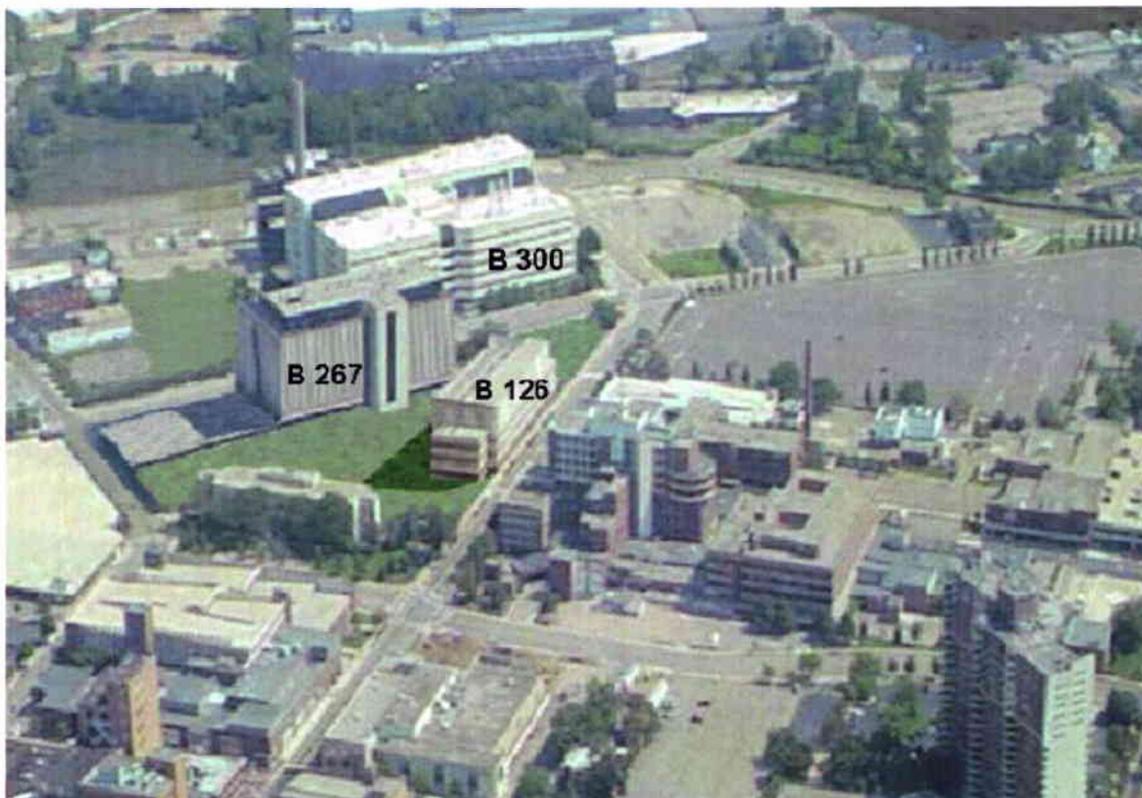
Final status surveys were designed to implement the protocols and guidance provided in MARSSIM to demonstrate compliance with the default screening values specified in NUREG 1757, Appendix B or generated using the default scenarios and parameters of the DandD code v.2.1. These methods ensured technically defensible data was generated to aid in determining whether or not these facilities meet the release criteria for unrestricted use specified in 10 CFR 20 Subpart E.

2.0 Site Description

The Pfizer Portage Road site located at 333 Portage St., Kalamazoo, MI is a 39 acre pharmaceutical research and development campus consisting of a complex of buildings including offices, laboratories and animal research facilities. Facilities have been added, upgraded and renovated over the years.

Building 267 is located within the area of the site bound by Portage Road to the North-East, Lovell Street to the South, Henrietta Street to the West and South Street to the North-West.

Figure 2.1 PGRD Henrietta Street Site Aerial View



2.1 Building 267 Description

This section describes the physical construction of the building and of the associated impacted mechanical systems. Building floor plan drawings of each elevation, are presented in Appendix A.

The exterior consists of a steel frame structure with cast-in-place concrete floors on composite metal decking. The exterior is pre-cast concrete panels with aluminum framed insulating glass windows. The penthouse has insulated metal siding. The roof is 3 or 4 layer built up roofing. The interior walls are masonry and stud/gypsum wallboard partitions. The floors are vinyl composite tile on a rubber base. Ceilings are perforated metal panels and doors are hollow steel in steel frames.

There are separate exhaust ventilation systems serving Building 267. Fume hoods are currently boosted into the main exhaust.

The main vacuum pumps for the Downtown site are housed in the Building 300 penthouse lower level. The exhaust goes directly to the atmosphere through a dedicated vent.

The laboratory drains join the sanitary drain system in the manhole outside Building 267 on the Portage Street side. The sanitary drain system is joined to the laboratory waste system in the process sampling manhole outside Building 267 on the Portage Street side. There is a sump in the basement of Building 267.

Major Additions or Renovations

Originally constructed in 1982, Building 267 was occupied on a rolling basis through 2007. Numerous minor renovations have occurred internally, mostly by replacing older steel prefabricated partitions with stud and gypsum wallboard partitions.

3.0 Current Use

At this time PGRD has ceased all licensed activities in Building 267. PGRD intends to remove this building from the license by unrestricted release per 10 CFR30.36. Research and production operations will continue under PGRD's radioactive material license in other areas of the Pfizer Downtown site (e.g., Building 300).

Laboratories and areas that radioactive materials were used in are listed in Table 3.1.

Table 3.1 Bldg. 267 Radioactive Materials Use Areas

Elevation	Area	Use	Status
Floor 0	011-1, 012, 038	Storage	Closed Out
Floor 1	118, 118-1, 118-2, 118-3, 118A, 118B, 118C, 118E, 118F, 118H, 118J, 118L, 118N, 118Q, 118R, 118S, 131, 132, 133	Research Lab	Closed Out
Floor 3	301, 302, 303, 304, 305, 306, 307, 308-1, 310, 311, 312, 315, 316, 317, 318, 319, 320, 324, 328-1, 331-2, 333-2,	Research Lab	Closed Out
Floor 4	401, 401-3, 402, 402A, 403, 403A, 403B, 404, 404A, 404B, 405, 405A, 405B, 406, 406-A, 406-B, 407, 409, 409-1, 409-2,	Research	Closed Out

Elevation	Area	Use	Status
	409A, 410, 410-1, 410A, 410B, 411, 411-1, 411A, 411B, 412, 412-1, 412A, 412B, 417, 419, 424, 424-3, 424-4, 429, 434, 434-1, 434-2, 435, 436, 436-1, 436-2, 436-3		
Floor 5	502, 503, 505, 505-1, 505-2A, 505-2B, 506, 506-1, 506-2A, 506-2B, 507, 507-1, 507-2A, 507-2B, 508-1, 509, 509-1, 509-2A, 509-2B, 510, 510-1, 510-2A, 510-2B, 511, 511-1, 511-2A, 511-2B, 512, 512-1, 511-2A, 512-2B, 514-2, 531, 531-2A, 532, 532-1, 532-2, 533, 533-2, 508-2, 534, 534-1, 535	Research	Closed Out
Floor 6	601-1, 626-1, 602, 602-1, 602A, 602B, 603, 603-1, 603A, 603B, 604, 604-1, 604A, 604-B, 606, 606-1, 606A, 607, 607-1, 607A, 607B, 610, 610-1, 610A, 610B, 616, 617, 618, 619, 620, 629, 629-1, 629-2, 630, 630-1, 631, 634	Research	Closed Out

Sealed sources were not used or stored in this building and there is no history of major spills of radioactive material.

3.1 PGRD Operational Radiological Surveys

During research operations, swipe and scan surveys were performed by the responsible researcher following any use of radioactive material. These surveys were generally documented as a logbook entry. These surveys generally consisted of direct scan and swipe surveys.

In addition, PGRD's Radiation Safety Department personnel performed monthly scan and swipe surveys of all laboratories currently using radioactive material focusing on work areas, fume hood baffles and vacuum system components. If any residual activity was detected during these surveys, either the Radiation

Safety group or the responsible researcher would be assigned to remediate the identified areas. Following any remediation, post remediation surveys were conducted and filed with the original survey.

4.0 Building 267 History

Between 1982 and 1985, Building 267 was constructed adjacent to the Portage Wing of Building 209 (Bldg. 267A) to provide more laboratory space as well as a site library containing some office space.

Only limited quantities of radioactive materials were used in Building 267. Laboratory limits by isotope are listed in Table 4.1

4.1 333 Portage St. Site HSA

A Historical Site Assessment (HSA) was performed in February and March of 2008. The purpose of the historical site assessment was to determine status of the site including potential, likely, or known sources of radioactive contamination by gathering data from various sources. This data includes physical characteristics and location of the site as well as information found in site operating records, including radiological surveys.

The records review included: commissioning and decommissioning survey records. Personnel interviews included the site radiation officer.

4.2 Potential Contaminants – Building 267

Table 4.1 is a list of radionuclides and quantities used, or authorized for use, in unsealed form in Building 267. This list was compiled through review of Radiation Safety Committee authorizations for radioactive material use (isotope and quantity) in individual laboratories and review of radionuclide receipt and distribution records.

The majority of these potential contaminants have very short half-lives. Calculations of possible remaining activity were performed based on the quantities of radionuclides used and date of distribution to each laboratory/area utilizing the information in the PGRD radionuclide receipt and distribution databases. These calculations were then used to eliminate survey requirements for these short lived isotopes by providing empirical evidence to support that there is no potential to exceed the established DSV after accounting for radioactive decay.

Nuclides were evaluated by 1) decaying each radionuclide delivery to each room to present activity levels, then, 2) summing the remaining activity as if it all of it was still present in the room, and 3) dividing the summed activity over a one square meter area. The resulting calculated surface activity was then compared to the Default Screening Values (DSV's) contained in NUREG 1757 or generated from a screening analysis using the default parameters contained in the DandD code v.2.1. Those nuclides whose possible remaining activities were greater than or equal to the DSV are carried forward as "nuclides of concern" for purposes of performing decommissioning surveys.

After considering amounts of radionuclides used, the locations of use, and the impact of radioactive decay as described above, the only nuclides of concern are ^3H and ^{14}C .

Table 4.1 Radionuclides Used in Building 267 in Unsealed Form

Isotope	Half-Life	Quantity (mCi)	DSV (dpm/100 cm ²)	DSV Basis
H-3	12.3 y	20	1.2E8	NUREG 1757
C-14	5730 y	5	3.7E6	NUREG 1757
P-32	14.3 d	1	9.5E6	DandD ¹
P-33	24.4 d	1	4.1E7	DandD
S-35	87.9 d	1	1.3E7	NUREG 1757
I-125	60.2 d	3.0	6.6E5	DandD

Note 1: These values were generated using DandD v.2.1; Bldg. Occupancy scenario and default parameters; 0.9 quantile ≤ 25 mrem/y.

4.3 License History

The facility license history is described in detail in the November 2003 decommissioning plan.

4.4 Previous Decommissioning Activities

Over the years, many labs were decommissioned under the facility closeout procedure. Typically this involved removal of all radioactive material and equipment from the laboratory, followed by final surveys performed by the authorized researcher. After certification by the authorized researcher that all radioactive materials had been removed and the lab was decontaminated, detailed confirmatory surveys were performed by the radiation safety staff and the laboratory was formally decommissioned from radioactive material use.

In 2004, a substantial portion of the Henrietta Street site was decommissioned. This included Buildings 18, 25, 126 and approximately two-thirds of Building 209. In 2005, the remainder of Building 209 (267A) was decommissioned. These facilities were removed from the radioactive materials license in 2005.

5.0 Derived Concentration Guideline Levels

DCGLs used for the project were those established in the D&D Plan. The NRC has published default screening values in NUREG 1757 for commonly used radionuclides. The isotopes of concern screening values for surfaces under default conditions (generic screening levels) from the NRC DandD software (or NUREG 1757) are provided in Table 5.1.

Table 5.1 – Default Screening Values for Nuclides of Concern

Isotope	Half-life	Radiation Type	Default Screening Value (dpm/100cm ²)
H-3	12.3 years	Beta	1.2E8
C-14	5730 years	Beta	3.7E6

The default screening values are the basis for developing the derived concentration guideline levels (DCGLs) for the project. The DCGL is the radionuclide specific surface area concentration that could result in a dose equal to the release criterion. DCGL_W is the concentration limit if the residual activity is essentially evenly distributed over a large area. For this project, DCGL_W is equal to the DSV.

In the case of non-uniform contamination, higher levels of activity are permissible over small areas. The DCGL_{EMC} is derived separately for these small areas. The DCGL_{EMC} is the DCGL_W increased by an area factor depending on the size of the elevated area. During the project, no DCGL_{EMC} was established or used since contamination levels throughout the facility were at background levels or a small percentage of the DCGLs.

6.0 ALARA Analysis

Due to the extremely low doses associated with the release criteria used for this D&D project, a quantitative ALARA analysis was not required. Default screening values were used to establish DCGLs. Furthermore, PGRD routinely maintained nearly all laboratory work areas of the facility to levels less than 1,000 dpm/100 cm² total activity and less than 100 dpm/100cm² removable activity.

NUREG 1727, Appendix N, states in part: “In light of the conservatism in the building surface and surface soil generic screening levels developed by the NRC staff, the staff presumes, absent information to the contrary, that licensees or responsible parties that remediate building surfaces or soil to the generic screening levels do not need to demonstrate that these levels are ALARA. However, licensees or responsible parties should remediate their facility below these levels through practices such as good housekeeping. In addition, licensees

or responsible parties should provide a description in the final status survey report of how these practices were employed to achieve the final activity levels.”

Based upon PGRD’s routine radiological surveillance program, strict implementation of low facility contamination limits, and the results of previous decommissioning activities, laboratory decontamination was not necessary. Pfizer has performed the laboratory closeout decommissioning procedure in each area where radionuclides had been authorized for use. This procedure included removable contamination surveys consisting of 100 – 150 wipes counted in a liquid scintillation counter plus direct radiation level measurements. Laboratories were then classified as MARSSIM Class 2 or 3 based upon the results of the laboratory closeout survey.

Based on the results of previous characterization surveys and operational radiological surveillance, and the final survey, no remediation was required.

7.0 Area Classifications

Based on the results of the historical site assessment and previous survey results, facility areas were classified as impacted areas or non-impacted areas. Non-impacted areas are areas without the potential for residual radioactivity from licensed activities and were not surveyed during final status surveys. Impacted areas are those areas that have some potential for residual radioactivity from licensed activities. Impacted areas were subdivided into Class 1, Class 2 or Class 3 areas. Class 1 areas have the greatest potential for contamination and therefore receive the highest degree of survey effort for the final status survey using a graded approach, followed by Class 2, and then by Class 3. Based upon characterization data gathered during the Historical Site assessment together with radiological survey results from routine operational surveillance, there were no Class 1 areas. Upper walls (>2m) and ceilings in all areas were classified as non-impacted since there is little or no potential to exceed even a small fraction of the DCGLs on these surfaces. Classifications are defined in Section 18.3 of the D&D Plan.

8.0 Establishing Survey Units

Survey units were established in accordance with Section 18.4 of the D&D Plan Addendum. The assigned survey units were homogeneous in construction and contamination potential.

The survey units established in the D&D Plan Addendum were used for final status surveys with a few minor modifications. This is depicted in the updated survey unit matrix provided in Appendix A. All changes and additions are presented with an explanation provided for each in the comments section.

9.0 Survey Instrumentation

9.1 Instrument Calibration

Laboratory instruments and portable field instruments were calibrated at least annually with National Institute of Standards and Technology (NIST) traceable sources.

9.2 Functional Checks

Functional checks were performed at least daily when an instrument was in use. The background and source readings were taken as part of the functionality check and compared with the acceptance range for the instrument. The background, source check and field measurement count times for radiation detection instrumentation were specified by procedure to ensure measurements were statistically valid. If an instrument failed a functional check, all data obtained with the instrument since the last satisfactory check was invalidated.

9.3 Determination of Counting Times and Minimum Detectable Concentrations

All minimum detectable concentrations (MDC) and associated count times were calculated in accordance with Section 16.3 of the D&D Plan Addendum. For all final status measurements, MDC values were less than 10% of the applicable DCGL.

9.4 Static Counting

Static counting Minimum Detectable Concentration at a 95% confidence level is calculated using the following equation, which is an expansion of NUREG 1507, "Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions", Table 3.1 (Strom & Stansbury, 1992).

$$MDC_{static} = \frac{3 + 3.29 \sqrt{B_r \cdot t_s \cdot \left(1 + \frac{t_s}{t_b}\right)}}{t_s \cdot E_{tot} \cdot \frac{A}{100cm^2}}$$

Where:

- MDC_{static} = minimum detectable concentration level in dpm/100cm²
- B_r = background count rate in counts per minute
- t_b = background count time in minutes
- t_s = sample count time in minutes
- E_{tot} = total detector efficiency for radionuclide emission of interest

(includes combination of instrument efficiency and 0.25 surface efficiency)
 A = detector probe area in cm^2

A typical static MDC calculation for the Ludlum 2350/43-68 is shown below:

$$MDC_{static} = \frac{3 + 3.29 \sqrt{300 \cdot 1 \cdot \left(1 + \frac{1}{1}\right)}}{1 \cdot 0.08 \cdot \frac{126}{100}} = 829 \text{dpm} / 100 \text{cm}^2$$

9.5 Beta Ratemeter Scanning

Beta Scanning Minimum Detectable Concentration at a 95% confidence level is calculated using the following equation which is a combination of MARSSIM equations 6-8, 6-9, and 6-10:

$$MDC_{scan} = \frac{d' \sqrt{b_i} \left(\frac{60}{i}\right)}{\sqrt{p} \cdot E_{tot} \cdot \frac{A}{100 \text{cm}^2}}$$

Where:

- MDC_{scan} = minimum detectable concentration level in $\text{dpm}/100 \text{cm}^2$
- d' = desired performance variable (1.38)
- b_i = background counts during the residence interval
- i = residence interval
- p = surveyor efficiency (0.5)
- E_{tot} = total detector efficiency for radionuclide emission of interest (includes combination of instrument efficiency and 0.5 surface efficiency)
- A = detector probe area in cm^2

A typical MDC_{scan} calculation for the Ludlum 2350/43-37 large area floor monitor is shown below:

$$MDC_{scan} = \frac{1.38 \cdot \sqrt{4.07} \left(\frac{60}{0.24} \right)}{\sqrt{0.5} \cdot 0.08 \cdot \frac{550}{100}} \approx 2200 \text{dpm}/100\text{cm}^2$$

The above calculation assumes a background of 1000 cpm, detector speed of 10 inches per second, and a detector area of 550 cm².

9.6 Smear Counting

Smear counting Minimum Detectable Concentration at a 95% confidence level is calculated using the following equation, which is an expansion of NUREG 1507, "Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions", Table 3.1 (Strom & Stansbury, 1992):

$$MDC_{smear} = \frac{3 + 3.29 \sqrt{B_r \cdot t_s \cdot \left(1 + \frac{t_s}{t_b}\right)}}{t_s \cdot E}$$

Where:

- MDC_{smear} = minimum detectable concentration level in dpm/smear
- B_r = background count rate in counts per minute
- t_b = background count time in minutes
- t_s = sample count time in minutes
- E = instrument efficiency for radionuclide emission of interest

A typical MDC calculation for ^3H is shown below.

$$MDC_{smear} = \frac{3 + 3.29 \sqrt{.60 \cdot (1 + \frac{1}{1})}}{1 \cdot 0.65} = 60dpm$$

Nominal efficiencies for Tritium and Carbon-14 were used in MDC calculations. The typical efficiencies for Tritium and Carbon-14 on unquenched standards are 65% and 96%, respectively.

9.7 Instrument Specifications

The instrumentation used for final status surveys is summarized in Table 9.1 and Table 9.2. Table 9.1 lists the standard features of each instrument such as probe size and efficiency. Table 9.2 lists the operational parameters such as scan rate, count time, and the associated Minimum Detectable Concentrations (MDC).

Table 9.1 – Final Status Survey Instrumentation

Manufacturer	Detector Model	Detector Type	Detector Area	Window Thickness	Meter Model	Typical Total Efficiency
Ludlum	43-37	Gas Flow Proportional	582 cm ²	0.4 mg/cm ²	2221 or 2360	7.5% - $^{14}\text{C}^1$
Ludlum	43-93	Dual Phosphor Scintillator	100 cm ²	0.4 mg/cm ²	2221 or 2360	7.5% - $^{14}\text{C}^1$
Packard	Packard Tri-Carb	Liquid Scintillation	N/A	N/A	N/A	65% - ^3H 96% - ^{14}C

Note 1 = Includes a surface efficiency of 0.5.

Table 9.2 – Typical Instrument Operating Parameters and Sensitivities

Measurement Type	Detector Model	Meter Model	Scan Rate	Bkg. Count Time	Count Time	Typical Bkg. (cpm)	Typical MDC (dpm/100cm ²)
Surface Scans	43-37	Ludlum 2360	10 in./sec.	N/A	N/A	1000	2,200 - ^{14}C
Surface Scans	43-93	Ludlum 2360	2 in./sec.	N/A	N/A	300	2,570 - ^{14}C

Total Surface Activity	43-68	Ludlum 2360	N/A	60 sec.	60 sec.	300	830 ⁻¹⁴ C
Removable Activity	Packard Tri-Carb	N/A	N/A	60 sec.	60 sec.	18 ⁻³ H 12 ⁻¹⁴ C	57 ⁻³ H 24 ⁻¹⁴ C

10.0 Data Quality Objectives

The Data Quality Objectives discussed in Section 18.2 of the D&D Plan Addendum were used as the foundation of the final status survey planning process.

- Static measurements were taken to achieve an MDC_{static} of less than 50% of DCGL.
- Scan surveys were conducted at a rate to achieve an MDC_{scan} of less than 75% of the DCGL in Class 2 areas.
- Scan surveys were conducted at a rate to achieve an MDC_{scan} of less than 50% of the DCGL in Class 3 areas.
- Individual measurements were made to a 95% confidence interval.
- Decision error probability rates were set at 0.05 for both α and β .
- The null hypothesis (H_0) and alternate null hypothesis (H_A) are that of NUREG 1505 scenario A:

H_0 is that the survey unit does not meet the release criteria

H_A is that the survey unit meets the release criteria

Characterization and remedial action support surveys were conducted under the same quality assurance criteria as final status surveys such that the data could be used as final status survey data to the maximum extent possible.

Instrument operating parameters and methodologies were established to meet the DQOs. Additionally, investigation levels were developed to verify the assumptions for classifying survey units. If these investigation levels were exceeded, an investigation was performed to verify the initial assumptions behind the classification and determine the appropriate resolution. This is further discussed in Section 14.0 of this report. The established investigation levels are summarized in Table 10.1.

Table 10.1 – Survey Investigation Levels

Survey Unit Classification	Flag Direct Measurement or Sample Result When:	Flag Scanning Measurement Result When:	Flag Removable Measurement Result When:
Class 1	>5,000 dpm/100cm ²	>MDC	> 1000 dpm/100cm ²
Class 2	>5,000 dpm/100cm ²	>MDC	> 1000 dpm/100cm ²
Class 3	>MDC	>MDC	> 200 dpm/100cm ²

There were no Class 1 Areas.

11.0 Characterization Surveys

The survey protocol for building surfaces consisted of performing the scanning portion of the final status survey protocol, and judgmental smears and static measurements on the highest probability areas for residual radioactivity.

The purpose of scanning is to identify locations of elevated activity that exceed the investigation levels. No areas of elevated activity were identified during the scanning surveys.

The survey protocol for building system surveys consisted of performing removable contamination measurements of internal surfaces of fume hoods, vacuum and drains systems. The percentage of systems surveyed was consistent with the survey protocols contained in Section 19 of the D&D plan addendum.

12.0 Remediation

12.1 Building Structures and Surfaces

No contaminated building structures or surfaces were identified during characterization or final status surveys.

12.2 Drain Systems

No contaminated drain systems were identified during characterization or final status surveys. PGRD did not normally use drain disposal during the facility operations. Generally, liquid wastes were packaged and shipped to the Portage Site Incinerator for disposal.

12.3 General Ventilation

No general ventilation ducts were easily accessible during characterization or final status surveys and were therefore not surveyed (as per the DP Addendum).

12.4 Fume Hood Ventilation

No contaminated fume hoods were identified during characterization or final status surveys.

12.5 Vacuum Systems

No contaminated vacuum nozzles or lines were identified during characterization or final status surveys.

13.0 Design and Performance of Final Status Surveys

Final status surveys were performed to demonstrate that residual radioactivity in each survey unit satisfied the predetermined criteria for release for unrestricted use. Final status surveys were conducted using the Data Quality Objective (DQO) process.

Final status surveys were conducted by performing the appropriate combination of scan surveys, total activity measurements and removable activity measurements as discussed further in this section. All final status surveys were performed according to survey package instructions. Survey data was documented on survey maps and/or associated data information sheets. An example survey package is included in Appendix C.

13.1 Background Determination

For total surface activity measurements, ambient background levels were generally determined for each survey unit by performing a timed count with the probe at waist level and away from survey unit surfaces. Ambient background was subtracted from each total activity gross measurement. Material background, the contribution from naturally-occurring radioactivity in building structural materials was not accounted for (subtracted) since it was a small fraction of the DCGL.

For removable surface activity measurements, background levels were determined for the liquid scintillation counter by counting a blank as the last sample for each batch of samples. The blank was a sample prepared using a new, unused smear. These values were used to determine counting error rates and minimum detectable concentrations. The background values were not subtracted from the results. All removable contamination results are reported as gross dpm/100cm².

13.2 Surface Scans

Scanning is used to identify locations within the survey unit that exceed an applicable investigation level (investigation levels are shown in Table 10.1). Scan surveys were conducted by holding the detector probe within 1/2 inch from the

surface and moving the detector at the prescribed scan rate and listening for an increase in the audible response.

In Class 2 and 3 survey units, scanning was performed on a minimum percentage of accessible surfaces with the highest potential to contain residual activity at the discretion of the survey technician. Table 13.1 summarizes the minimum percentage of accessible building structural surfaces scanned based on classification. There were no Class 1 survey units in Building 267.

Table 13.1 – Scan Survey Coverage by Classification

Structure	Class 1	Class 2	Class 3
Floors	100%	50%	20%
Other Structures	100	25%	10%

13.3 Total Surface Activity Measurements

Total surface activity (static) measurements were taken in impacted areas at each identified sample location. Scaler count times were determined to achieve the detection sensitivities stated in the DQOs.

13.4 Determining the Number of Samples Needed

The minimum number of samples required for the Sign Test was calculated using equations in Section 5 of MARSSIM in accordance with Section 18.6 of the D&D Plan. A conservative estimate for the standard deviation total surface activity measurements was determined using the maximum survey unit standard deviation expected. Final status survey standard deviations are typically between 500 and 2,500 dpm/100cm² at these types of facilities. MARSSIM recommends setting the value of the LBGR (Lower Bound of the Gray Region) at the expected average contamination level in the survey unit. For this project, the expected average activities are orders of magnitude below the DCGL. Therefore, the LBGR was increased to obtain a more realistic relative shift. The calculation performed to determine the required number of samples is provided in Appendix D.

13.5 Determining Class 1 and Class 2 Sample Locations

In Class 1 and Class 2 survey units, sample locations are established in a square grid pattern beginning with a random start location and calculated sample spacing. After determining the number of samples needed in the survey unit, sample spacing (L) is determined from MARSSIM equation 5-8:

$$L = \sqrt{\frac{A}{N}} \text{ for a square grid}$$

Where:

- L = sample spacing interval
- A = the survey unit area
- N = number of samples needed in the survey unit

Maps for each survey unit were generated showing permanent surfaces (e.g., floors and walls). A random starting point was determined using MS Excel random numbers coinciding with the x and y coordinates of the survey unit. A grid was plotted across the survey unit surfaces based on the random start location and the calculated sample spacing. A measurement location was plotted at each grid intersection.

In laboratory areas, permanent counter tops and other horizontal or vertical surfaces that blocked floor or wall surfaces were included as replacement surfaces. Computer-generated survey unit maps are included in the survey packages and are available in the project records.

13.6 Determining Class 3 Sample Locations

For Class 3 areas, maps were generated showing the permanent surfaces (floors, fixed casework, etc.). Sample locations were selected using MS Excel random numbers coinciding with the x and y coordinates of the survey unit. Computer-generated survey unit maps are included in the survey packages and available in the project records.

13.7 Removable Contamination Measurements

Removable contamination measurements were collected by wiping an area of approximately 100 cm² using glass fiber smears on structural surfaces and cotton swabs on building systems. For swabs or smears where less than 100cm² of area was wiped, area corrections were applied to correct to 100cm². The smears/swabs were counted according to PGRD's Liquid Scintillation Counter operating procedure to achieve the detection sensitivities stated in the DQOs. The liquid scintillation counter was setup in and open window configuration to detect ³H and ¹⁴C as well as any other radionuclide that may be present:

Channel 1 : 0.0 – 2000 keV

13.8 Building System Surveys

Activity measurements, including removable activity, scan surveys, and, where possible static measurements were completed on building fume hood ventilation, house vacuum, and building drains in accordance with Section 18.8 of the D&D Plan Addendum.

The systems in the buildings were surveyed as part of their respective survey unit. For example, fume hoods in survey unit 267-4-001 were surveyed as part of that unit but are specifically identified as 267-4-001-FH-X-XX. Fume hoods (H) and Vacuum System (V) measurements are similarly identified. A detailed description of survey unit identification is contained in Appendix E.

13.9 Survey Documentation

A survey package was developed and approved by the Radiological Engineer for each survey unit containing the following:

- Survey instruction sheet
- General survey requirements
- Instrument requirements with associated MDCs, count times and scan rates
- Survey maps detailing survey locations and placement methodology
- Survey data sheets

To ensure proper data management and organization a unique location code system was used so that survey data could be properly entered and organized. A key to the location code and specific code components is provided in Appendix E.

13.10 Data Validation

Field data was reviewed by the Health Physicist and Radiological Engineer and validated to ensure:

- Completeness of Forms
- Proper types of surveys were performed
- The MDCs for measurements met the established data quality objectives
- Independent calculations were performed on a representative sample of data sheets
- Satisfactory instrument calibrations and daily functionality checks were performed as required

14.0 Data Quality Assessment and Interpretation of Survey Results

The statistical guidance contained in Section 8 of MARSSIM was used to determine if areas are acceptable for unrestricted release and whether additional surveys or sample measurements were required.

14.1 Preliminary Data Review

A preliminary data review was performed for each survey unit to identify any patterns, relationships or anomalies. Additionally, measurement data was reviewed and compared with the DCGLs and investigation levels to confirm the correct classification of survey units. All calculations of means, standard deviations, minimum and maximum values and comparisons between survey data and investigation levels are presented in Appendix F, Tables F.1 through F.6.

14.2 Nuclide Verification

As an additional check on assumptions made during the planning phase, removable samples were also analyzed for energies >156 keV (above Carbon-14 and Tritium). An increased count rate in this range could indicate the presence of nuclides other than those used for survey planning. No elevated count rates were detected in these energy ranges on any removable contamination measurement collected during characterization, remediation or final status surveys.

14.3 Determining Compliance for Building Surfaces and Structures

Scan surveys were completed for all survey units at the prescribed coverage. Removable contamination measurements were compared directly to the applicable investigation levels and DCGLs to determine if an area required further actions or surveys. All removable contamination measurements collected during the final status surveys were less than the applicable investigation levels and significantly less than the established DCGL for average ^3H and ^{14}C removable activity.

All total surface activity measurements were compared directly to the DCGL and investigation levels to determine if an area required further surveillance. All total surface activity measurement collected during final status surveys were significantly less than the DCGL for total surface activity. Only two sample locations exceeded investigation levels. Both of these measurements were elevated due to NORM material in the surface being measured (e.g., ceramic tile).

Total activity and removable contamination measurement results for all surface and structure survey units are provided in Appendix G.

14.4 Determining Compliance for Building Systems

Total and removable measurements were collected at the areas of the highest probability to contain residual activity. Scan surveys were completed for all applicable survey units at the prescribed coverage in the survey instructions. These surveys were completed in accordance with Section 18.8 of the D&D Plan. All total surface activity measurements were compared directly to the DCGL and investigation levels to determine if an area required further examination. The geometry of building systems frequently precluded scanning and total activity measurements.

Small diameter pipes are not easily scanned nor is it possible to obtain accurate static measurements. Within that limitation, data was collected and reported for vacuum lines and drains. All surface activity measurements taken on vacuum lines and drains were significantly less than the DCGL.

Total surface activity measurements were taken on all fume hoods in accordance with Section 18.5 of the D&D plan addendum. All total surface activity measurements collected on fume hood systems were significantly less than the established DCGL.

Since all total activity measurements were well less than the applicable DCGL, compliance was based on removable contamination measurements. Removable contamination measurements were compared to 10% of the DCGLs. Additionally, all removable contamination measurements were compared to the applicable investigation levels to determine if an area required further examination. All removable contamination measurements collected during the final status surveys were significantly less than 10% of the DCGLs (370,000 dpm/100cm² for ¹⁴C and 12,000,000 dpm/100cm² for ³H).

A sludge sample was collected from the sump located in the basement of building 267. The sample was analyzed by liquid scintillation counting.

Table 14.2 – Building 267 Sump Sample

Building	Location	Activity	MDA
267	Basement Sump	53 dpm	34 dpm

Total activity and removable activity measurement results for all building systems surveys units are provided in Appendix H.

15.0 Quality Assurance Surveys

Approximately five percent of the structural surface survey units and their associated mechanical systems were selected to be monitored twice to verify the reproducibility of the results recorded during final status surveys.

The QA surveys were compared to the original surveys. There did not appear to be any significant differences in the sample data. The conclusions reached based on the initial surveys would be the same as those based on the QA survey.

All QA sample data is provided in Appendix I.

16.0 References

- NRC Regulations 10 CFR 20 Subpart E
- Pfizer Radioactive Materials License Number 21-00182-03
- Kalamazoo Facilities Decontamination and Decommissioning Plan – Building 209 Portage Road Wing (267A)”, Safety and Ecology Corporation, March 2005.
- Kalamazoo Facilities Decontamination and Decommissioning Plan Addendum – Building 267, Safety and Ecology Corporation, April 2008.
- NUREG-1575, “Multi-Agency Radiation Survey and Site Investigation Manual” (MARSSIM)
- NUREG-1505, “A Nonparametric Statistical Methodology for the Design and Analysis of Final Decommissioning Surveys”
- NUREG 1507, “Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions”
- NUREG 1727, “NMSS Decommissioning Standard Review Plan,” September, 2000.
- NUREG 1757, Volume 1 “Consolidated NMSS Decommissioning Guidance,” September, 2002
- NUREG 1757, Volume 2 “Consolidated NMSS Decommissioning Guidance,” September, 2003

Appendix A
Survey Unit List and Building Layout

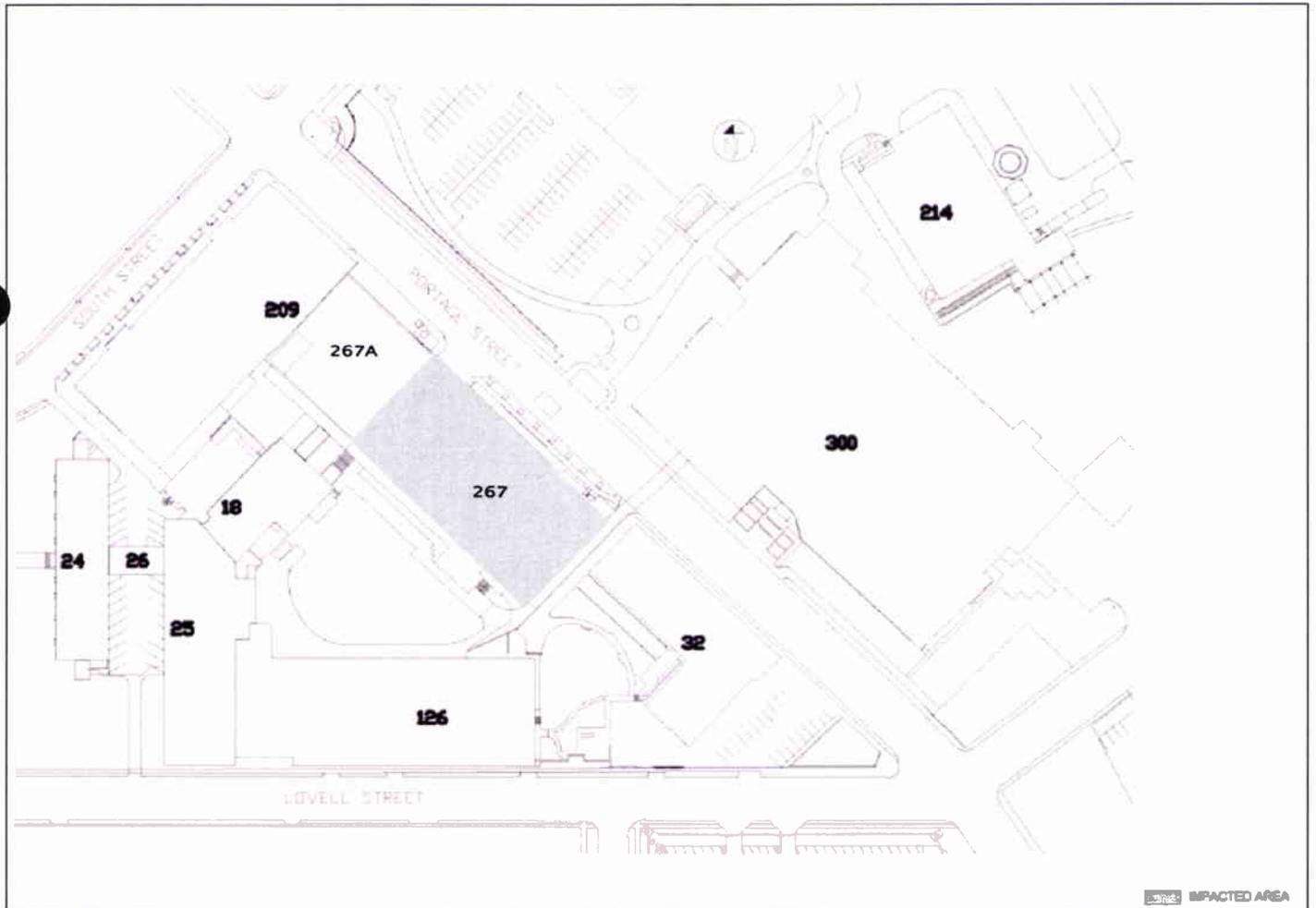
Appendix A – Survey Unit List

SURVEY UNIT (Bldg,Floor,Unit)	ROOM	CLASS	COMMENTS
267-0-001	011-1, 012, 038	2	
267-0-002	All others areas of floor 0	3	
267-1-001	118, 118-1, 118-2, 118-3, 118A, 118B, 118C 118D, 118E, 118F, 118H, 118J, 118L, 118N 118Q, 118R, 118S	2	
267-1-002	131, 132, 133	2	
267-1-003	All other areas of 1 st floor	3	
267-2-001	All areas of 2 nd floor	Non- Impacted	
267-3-001	301, 302, 303, 304, 305, 306, 307	2	
267-3-002	308-1,310, 311, 312	2	
267-3-003	315-320	2	
267-3-004	324	2	
267-3-005	328-1	2	
267-3-006	331-2	2	
267-3-007	333-2	2	
267-3-008	All other areas of 3 rd floor	3	
267-4-001	401, 401-3, 402, 402A 403, 403A, 403B, 404, 404A, 404B 405, 405A, 405B 406, 406-A, 406-B, 407	2	
267-4-002	409, 409-1, 409-2, 409A 410, 410-1, 410A, 410B 411, 411-1, 411A, 411B 412, 412-1, 412A, 412B	2	
267-4-003	417	2	
267-4-004	419	2	
267-4-005	424, 424-3, 424-4	2	
267-4-006	429	2	
267-4-007	434, 435, 436, 436-1, 436-2, 436-2	2	
267-4-008	All other areas of 4 th floor	3	
267-5-001	502, 503	2	
267-5-002	505, 506, 507	2	
267-5-003	508-1, 509, 509-1, 509-2A, 509-2B, 510, 510-1, 510-2A, 510-2B, 511, 511-1, 511-2A, 511-2B 512, 512-1, 511-2A, 512-2B	2	

Survey Unit Table
 (continued)

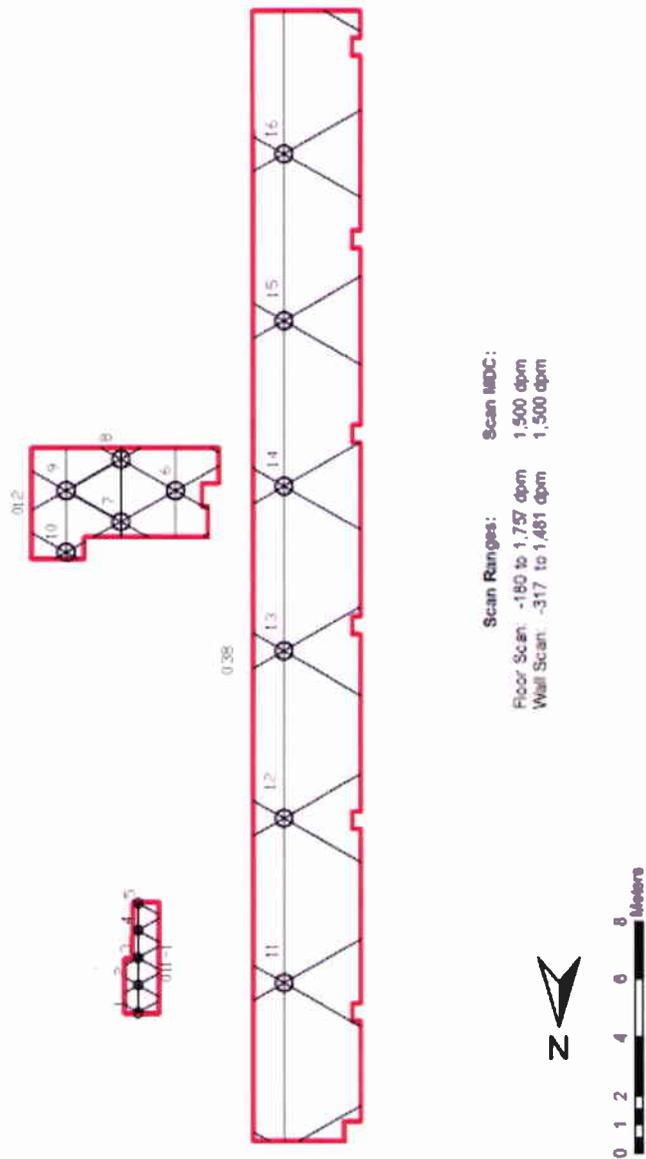
SURVEY UNIT (Bldg,Floor,Unit)	ROOM	CLASS	COMMENTS
267-5-004	531, 531-2A, 532, 532-1, 532-2, 533, 533-2, 508-2, 534, 534-1, 535	2	Combined with original survey unit 5-006
267-5-005	514-2	2	High Background Epoxy-painted concrete floor
267-5-006	All other areas of 5 th floor	3	
267-6-001	601-1, 626-1	2	
267-6-002	602, 602-1, 602A, 602B 603, 603-1, 603A, 603B 604, 604-1, 604A, 604-B	2	
267-6-003	606, 606-1, 606A, 607, 607-1, 607A, 607B	2	High Background Epoxy-painted concrete floor
267-6-004	610, 610-1, 610A, 610B	2	
267-6-006	616, 617, 618, 619, 620	2	
267-6-005	629, 629-1, 629-2, 630, 630-1, 631, 634	2	
267-6-007	All other areas of 6 th floor	3	
267-7-001	All areas of 7 th floor	Non-impacted	

Site Overview

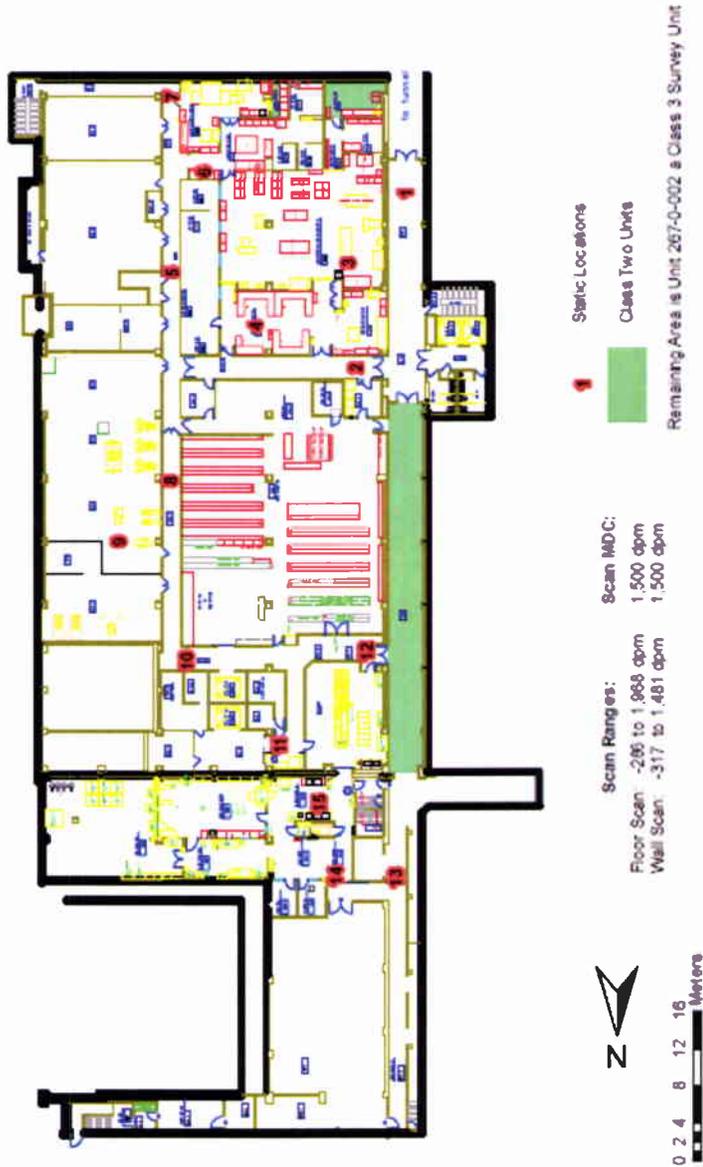


Appendix B
Surface and Structure Survey Measurement Location Maps

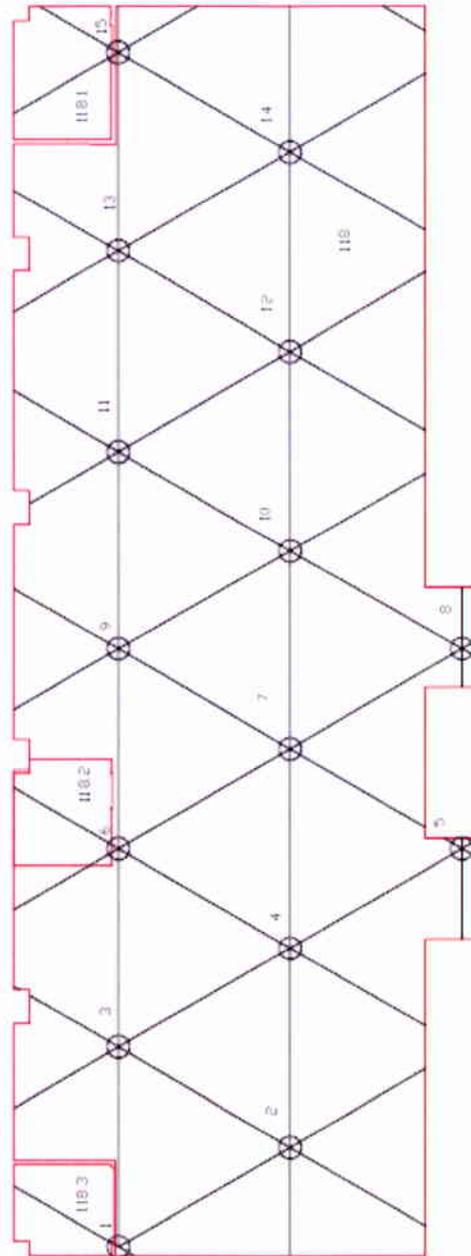
Survey Unit 267-0-001
Building Basement Floor
Static and Removable Sample Locations
Class 2



Survey 267-0-002
Building Basement Floor
Static and Removable Sample Locations
Class 3



Survey Unit 267-1-001
Building first Floor
Static and Removable Sample Locations
Class 2

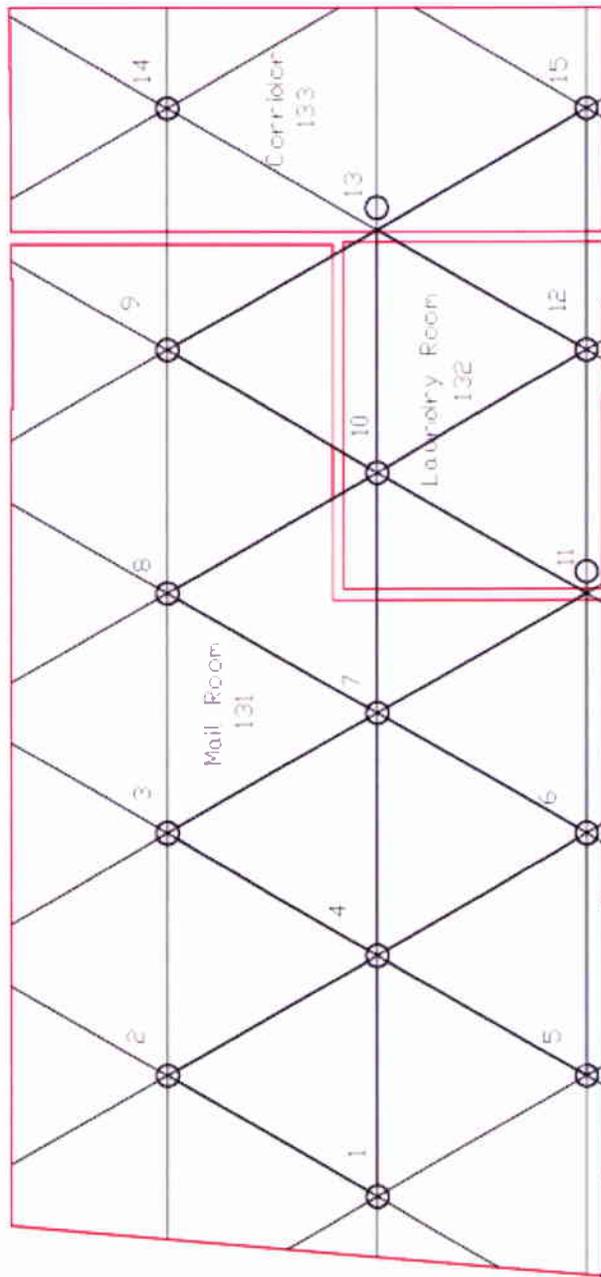


Scan Ranges:
Floor Scan: -286 to 1,088 dpm
Wall Scan: -106 to 1,481 dpm

Scan MDC:
1,500 dpm
1,500 dpm



Survey Unit 267-1-002
Building First Floor
Static and Removable Sample Locations
Class 2



Scan Ranges:
Floor Scan: -392 to 275 dpm
Wall Scan: -106 to 1,481 dpm

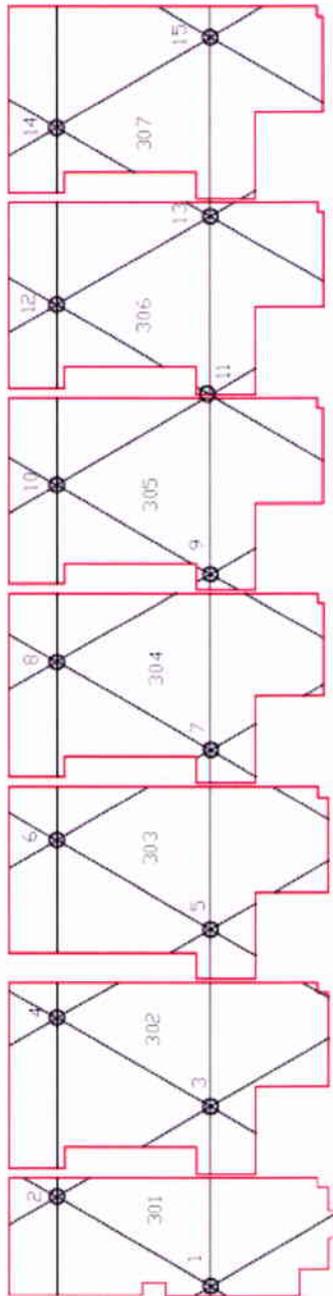
Scan MDC:
1,500 dpm
1,500 dpm



Survey Unit 267-1-003
Building First Floor
Static and Removable Sample Locations
Class 3



Survey Unit 267-3-001
Building Third Floor
Static and Removable Sample Locations
Class 2

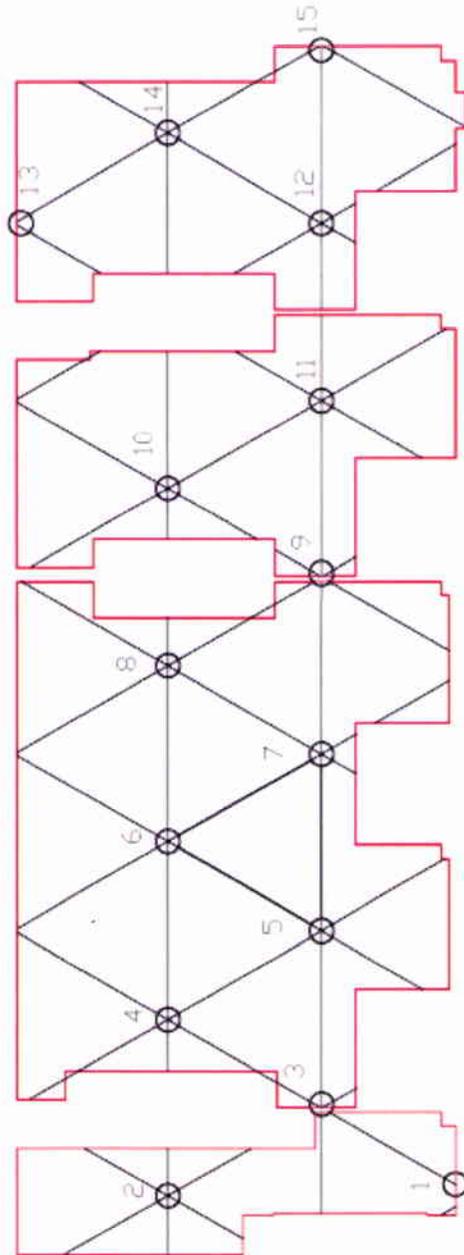


Scan Ranges:
Floor Scan: -255 to 1,968 dpm
Wall Scan: -317 to 1,058 dpm

Scan MDC:
1,500 dpm
1,500 dpm



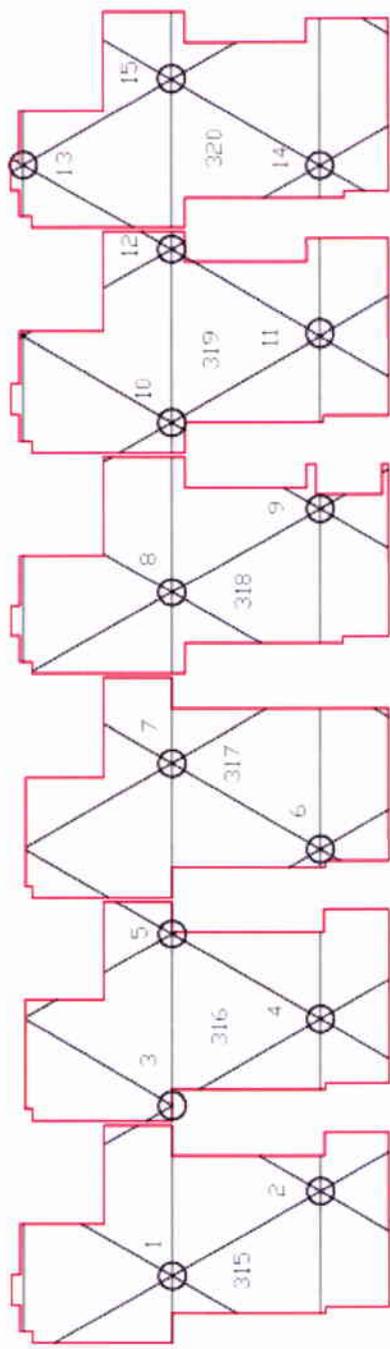
Survey Unit 267-3-002
Building Third Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: -266 to -148 dpm 1,500 dpm
Wall Scan: -108 to 1,905 dpm 1,500 dpm



Survey Unit 267-3-003
Building Third Floor
Static and Removable Sample Locations
Class 2

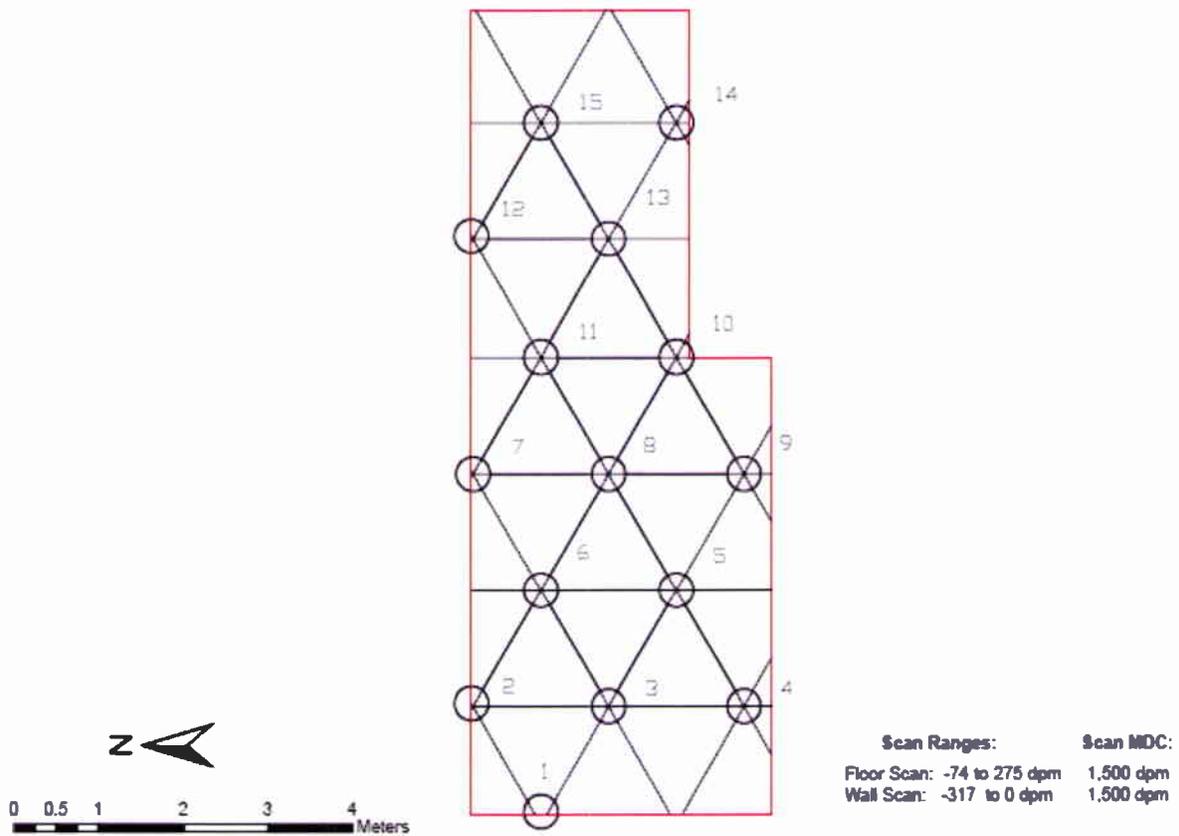


Scan MDC:
1,500 dpm
1,500 dpm

Scan Ranges:
Floor Scan: -74 to 487 dpm
Wall Scan: -106 to 1905 dpm

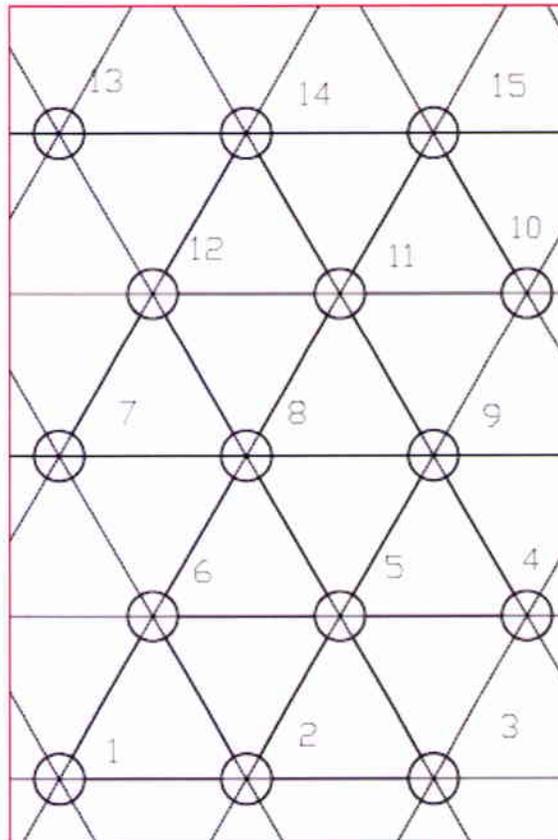
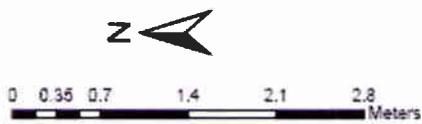


Survey Unit 267-3-004
Building Third Floor
Static and Removable Sample Locations
Class 2

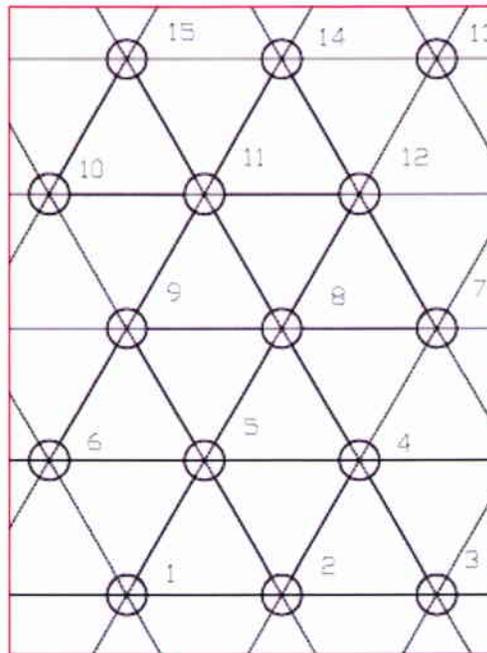


Survey Unit 267-3-005
Building Third Floor
Static and Removable Sample Locations
Class 2

Scan Ranges: Scan MDC:
Floor Scan: 28 to 275 dpm 1,500 dpm
Wall Scan: 0 to 1,481 dpm 1,500 dpm

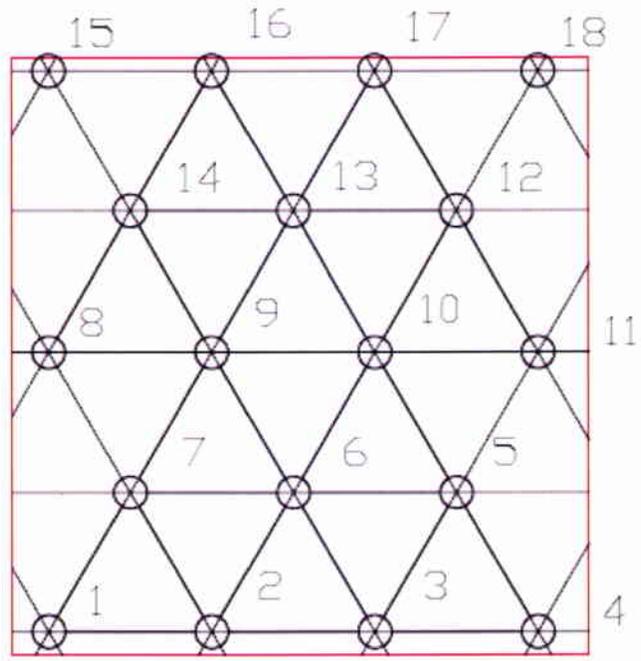


Survey Unit 267-3-006
Building Third Floor
Static and Removable Sample Locations
Class 2



Scan Ranges:	Scan MDC:
Floor Scan: 138 to 808 dpm	1,500 dpm
Wall Scan: -10 to 1,058 dpm	1,500 dpm

Survey Unit 267-3-007
Building Third Floor
Static and Removable Sample Locations
Class 2

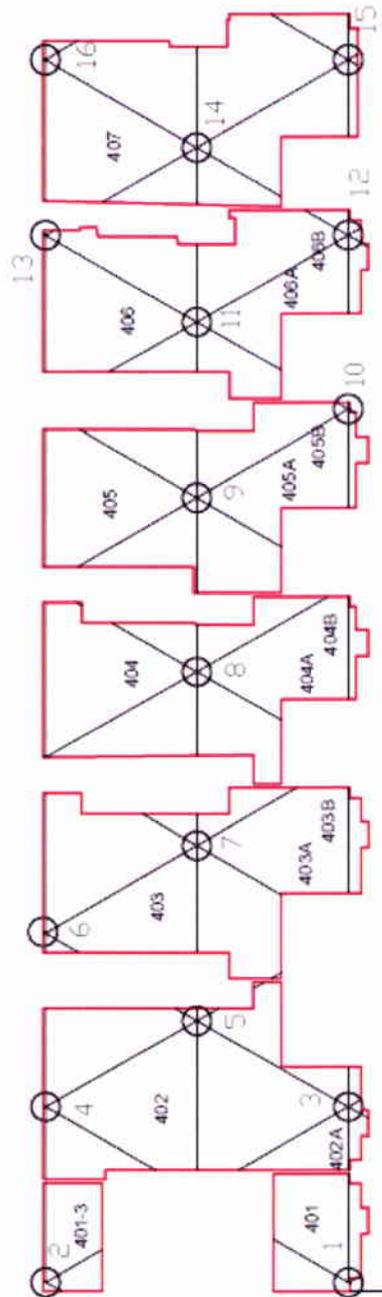


Scan Ranges:		Scan MDC:
Floor Scan:	-280 to 63 dpm	1,500 dpm
Wall Scan:	-635 to -423 dpm	1,500 dpm

Survey Unit 267-3-008
Building Third Floor
Static and Removable Sample Locations
Class 3



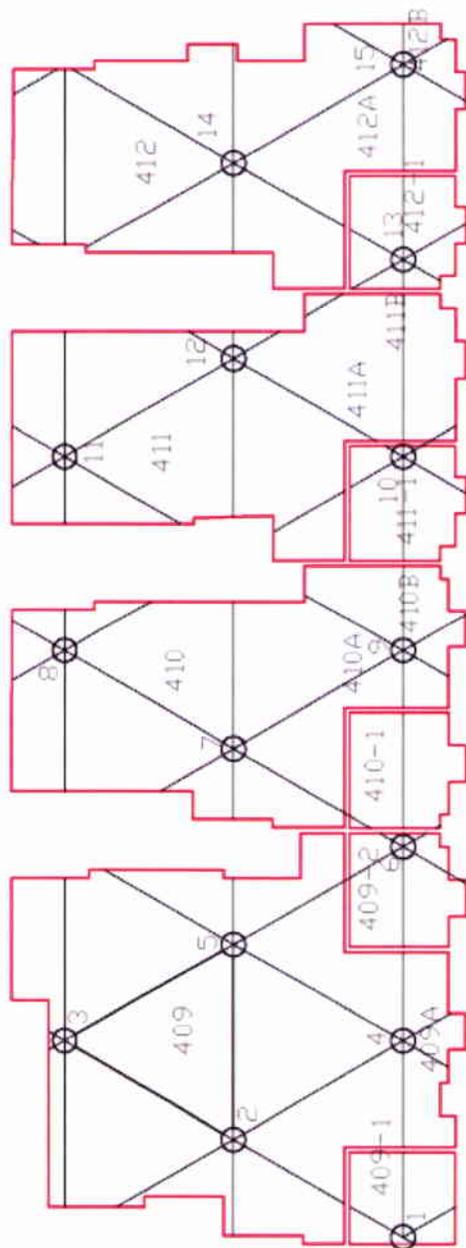
Survey Unit 267-4-001
Building Fourth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: -180 to 275 dpm 1,500 dpm
Wall Scan: -106 to 2,116 dpm 1,500 dpm



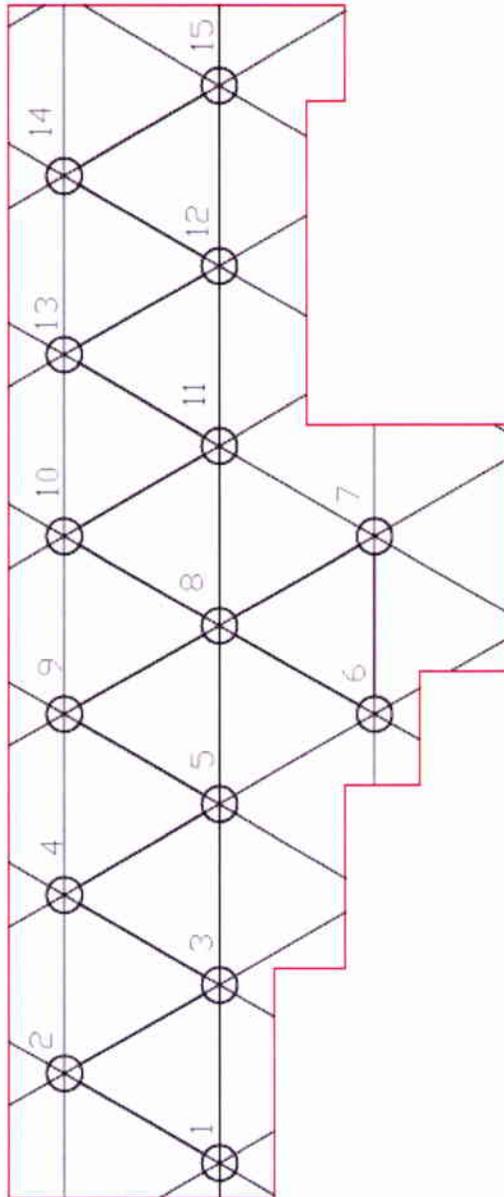
Survey Unit 267-4-002
Building Fourth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: 32 to 487 dpm 1,500 dpm
Wall Scan: -108 to 1,805 dpm 1,500 dpm



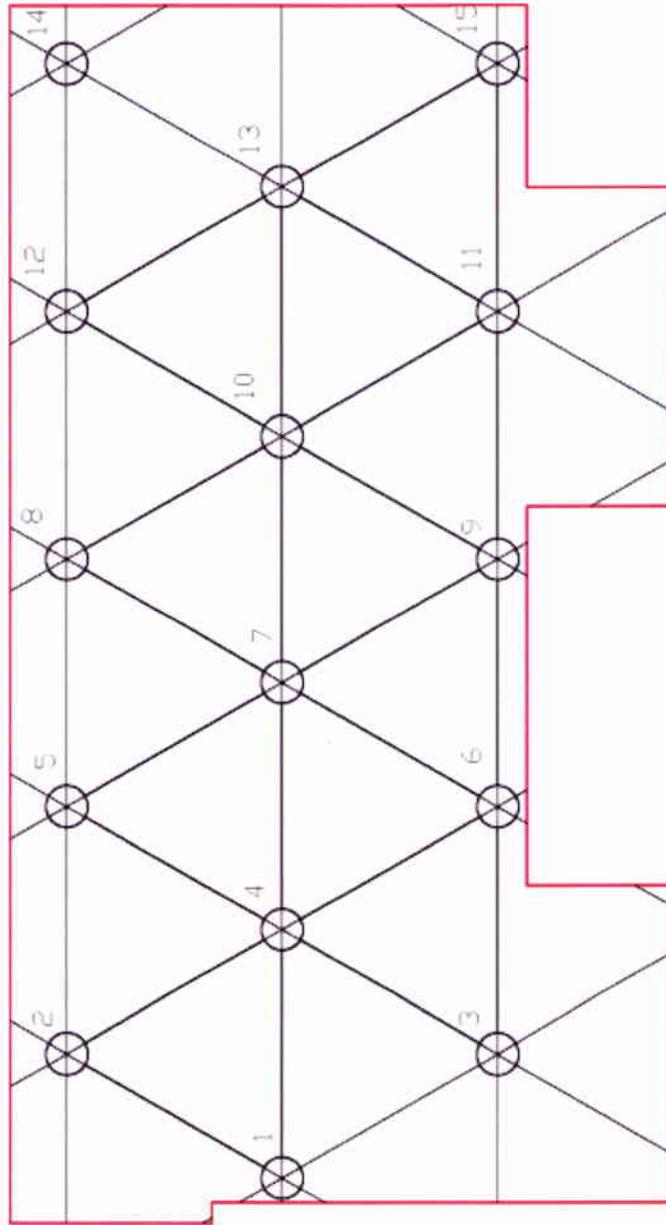
Survey Unit 267-4-003
Building Fourth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: 53 to 564 dpm 445 dpm
Wall Scan: 96 to 336 dpm 445 dpm



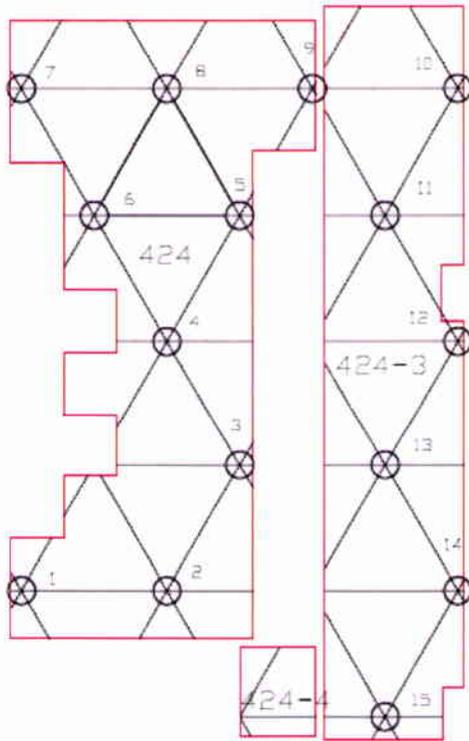
Survey Unit 267-4-004
Building Fourth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: 53 to 564 dpm 445 dpm
Wall Scan: 42 to 264 dpm 445 dpm

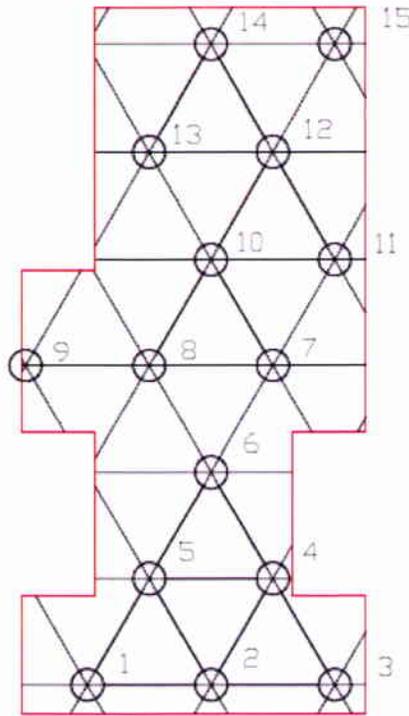


Survey Unit 267-4-005
Building Fourth Floor
Static and Removable Sample Locations
Class 2



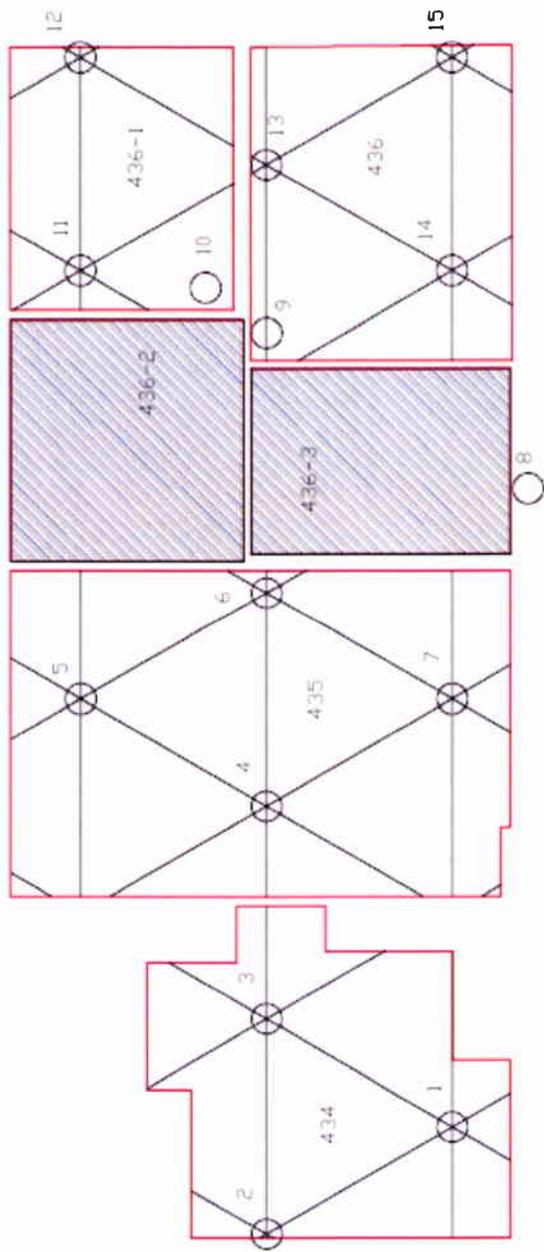
Scan Ranges: Scan MDC:
Floor Scan: -74 to 275 dpm 1,500 dpm
Wall Scan: -317 to -212 dpm 1,500 dpm

Survey Unit 267-4-006
Building Fourth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: -280 to 487 dpm 1,500 dpm
Wall Scan: -317 to 0 dpm 1,500 dpm

Survey Unit 267-4-007
Building Fourth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: -291 to 334 dpm 445 dpm
Wall Scan: 96 to 445 dpm 445 dpm

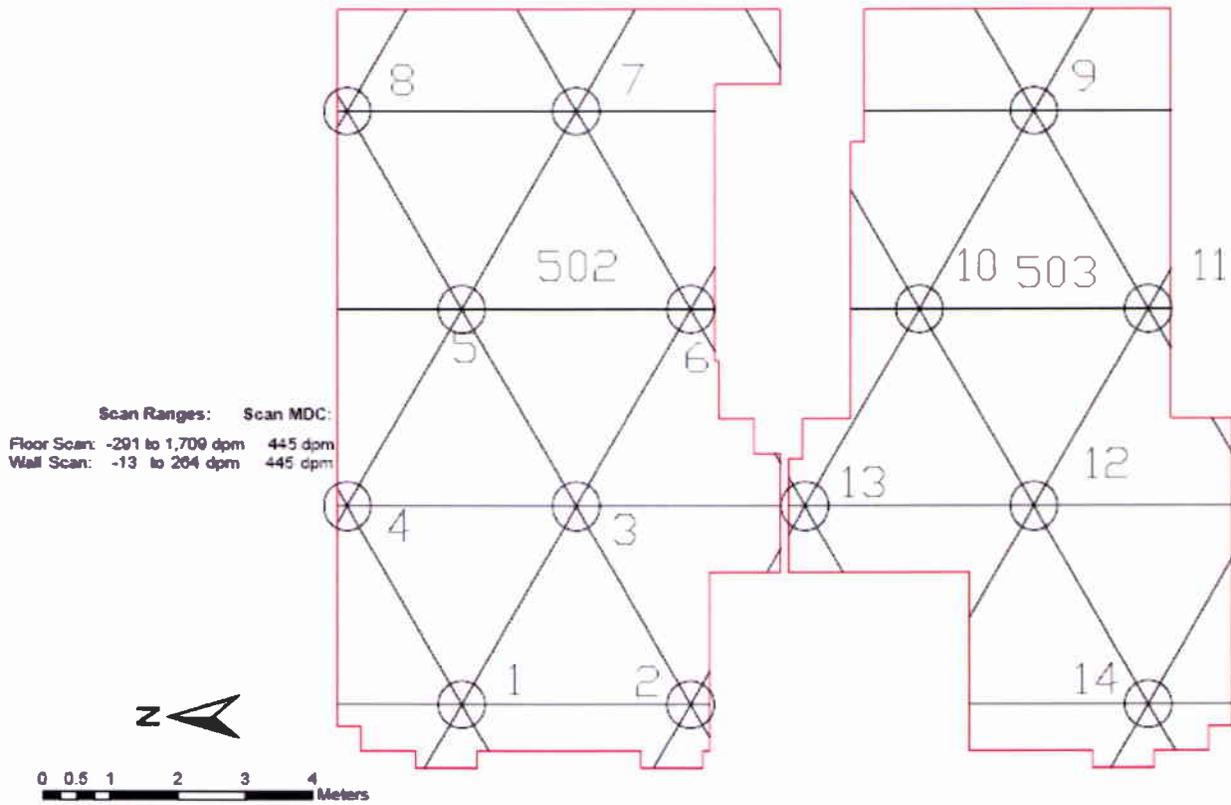
Inaccessible Areas



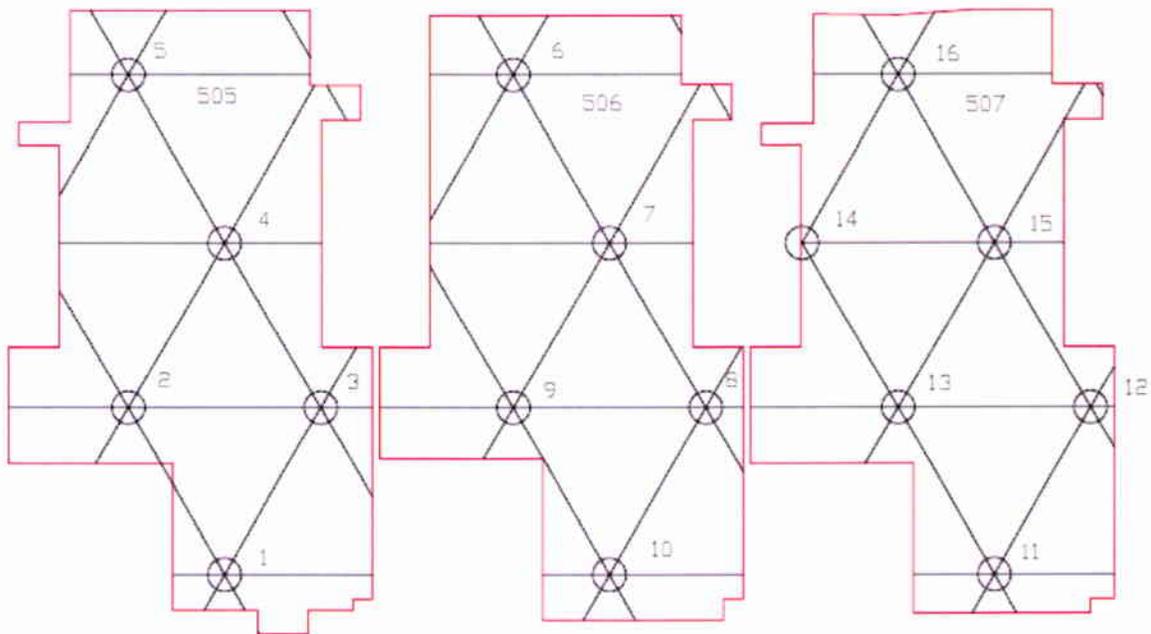
Survey Unit 267-4-008
Building Fourth Floor
Static and Removable Sample Locations
Class 3



Survey Unit 267-5-001
Building Fifth Floor
Static and Removable Sample Locations
Class 2

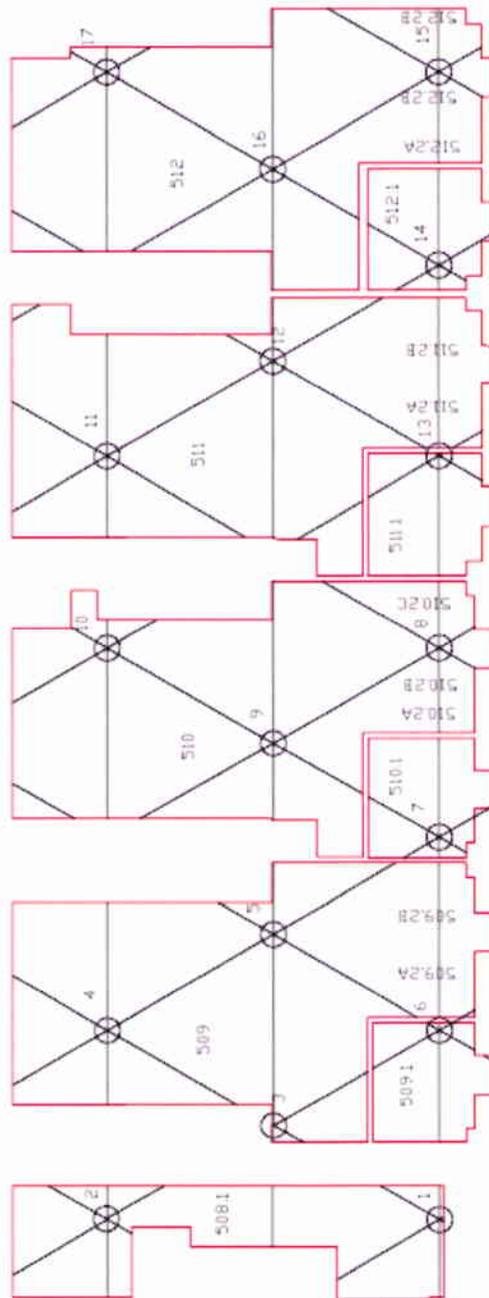


Survey Unit 267-5-002
Building Fifth Floor
Static and Removable Sample Locations
Class 2



	Scan Ranges:	Scan MDC:
Floor Scan:	-62 to 334 dpm	445 dpm
Wall Scan:	24 to 336 dpm	445 dpm

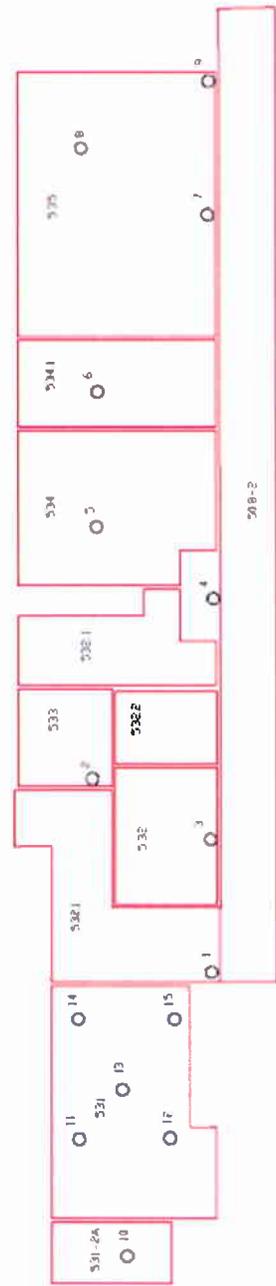
Survey Unit 267-5-003
Building Fifth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
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Wall Scan: 42 to 284 dpm 445 dpm



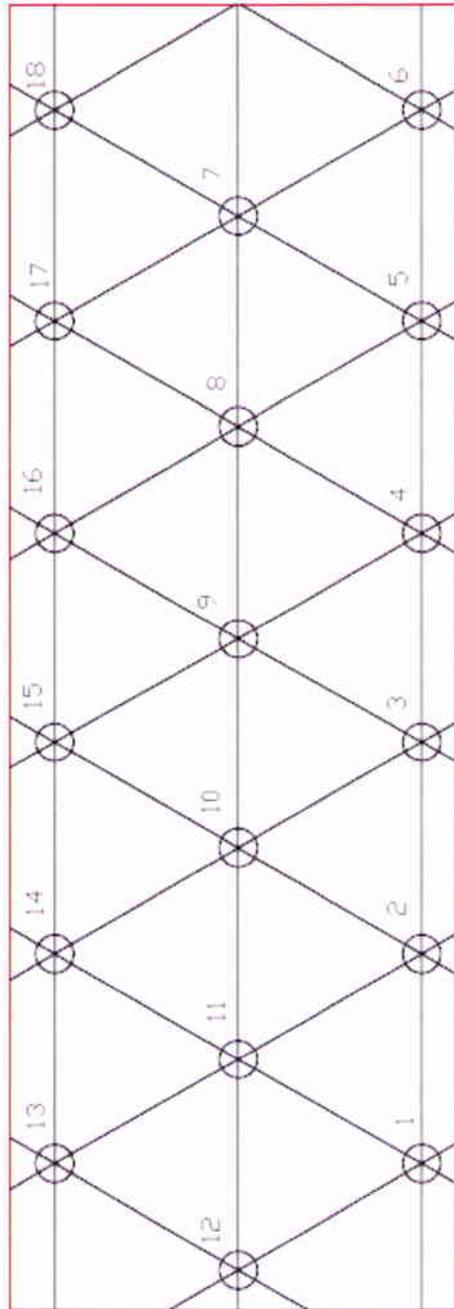
Survey Unit 267-5-004
Building Fifth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: 291 to 1,251 dpm 445 dpm
Wall Scan: 132 to 526 dpm 445 dpm



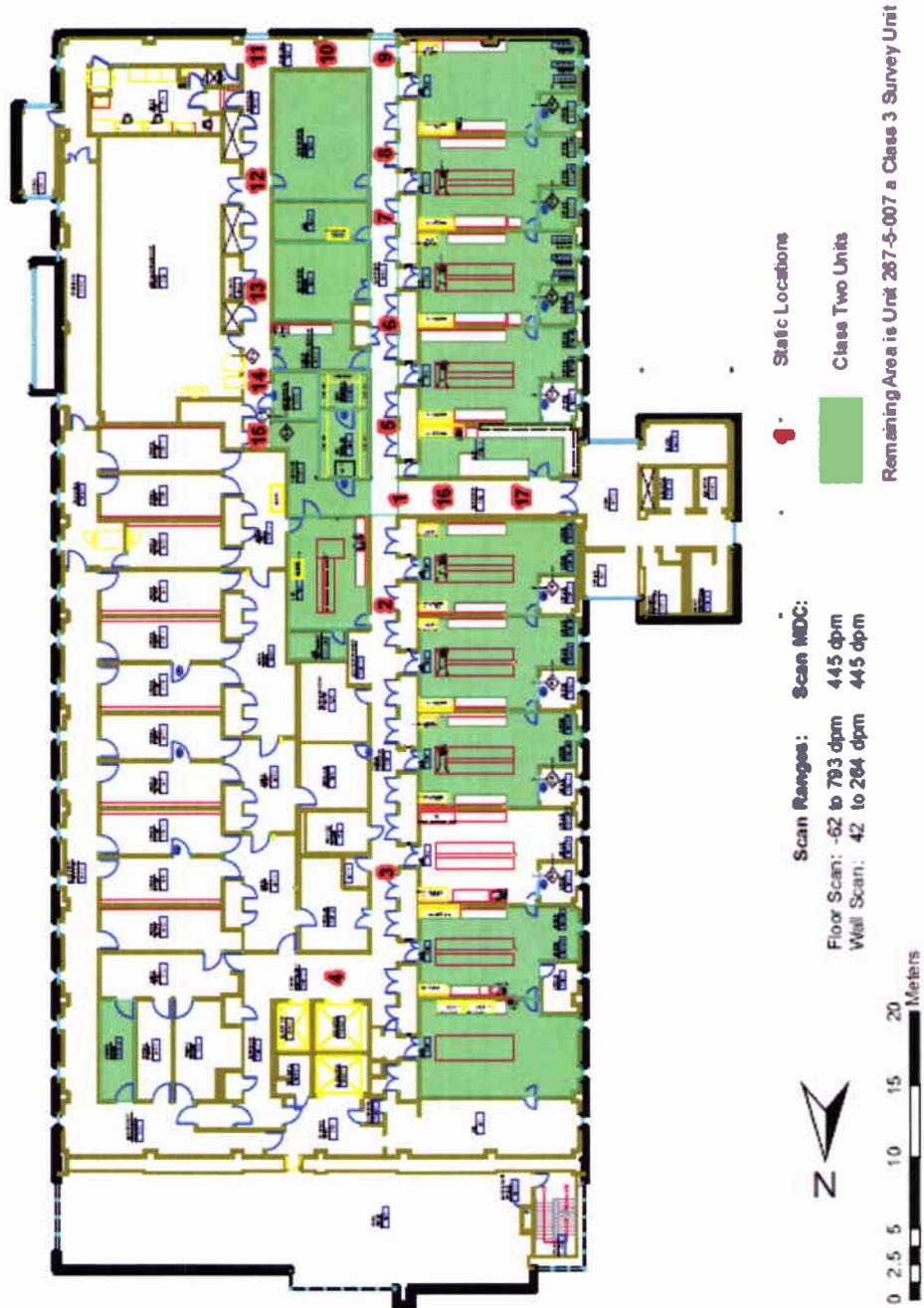
Survey Unit 267-5-005
Building Fifth Floor
Static and Removable Sample Locations
Class 2



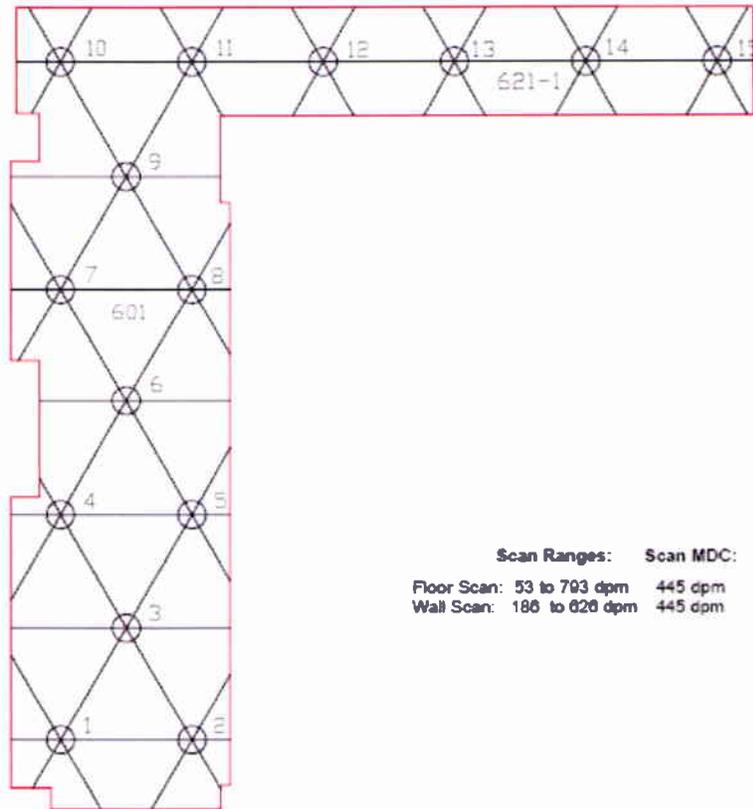
Scan Ranges: Scan MDC:
Floor Scan: 1,084 to 3,084 dpm 445 dpm
Wall Scan: 96 to 373 dpm 445 dpm



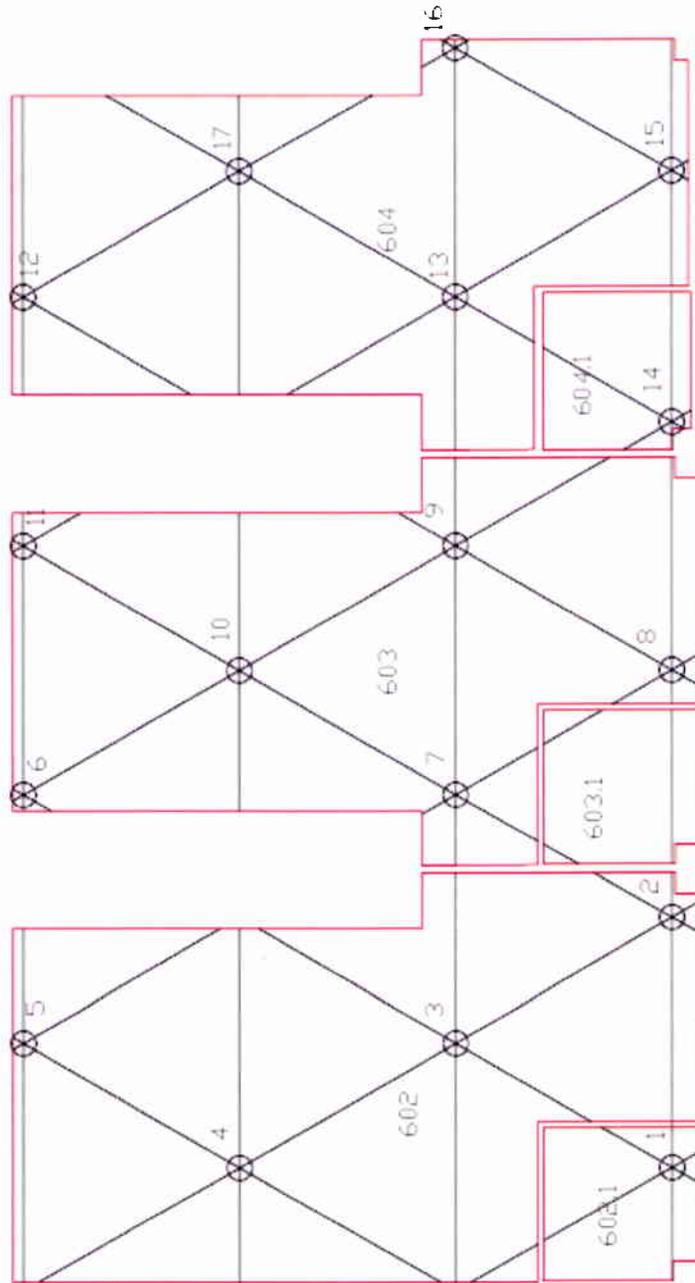
Survey Unit 267-5-006
Building Fifth Floor
Static and Removable Sample Locations
Class 3



Survey Unit 267-6-001
Building Sixth Floor
Static and Removable Sample Locations
Class 2



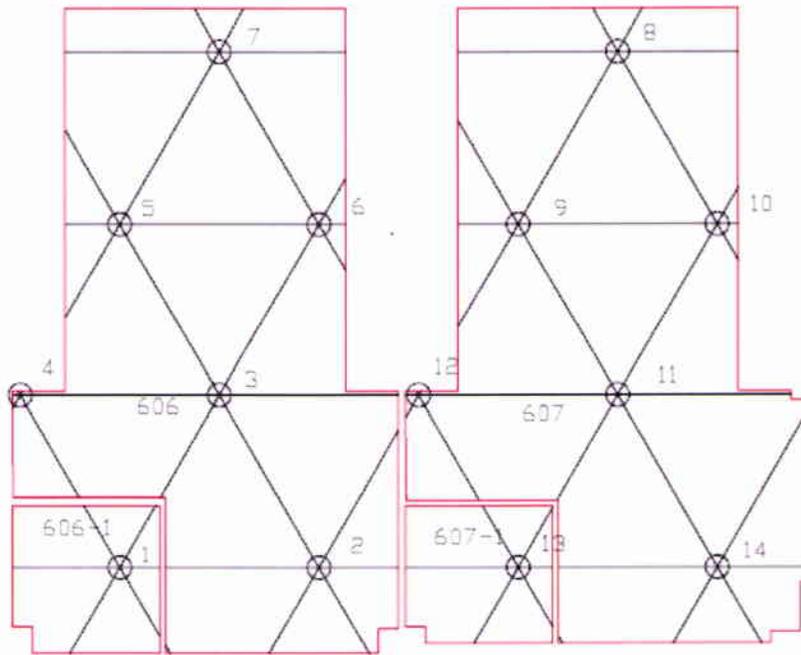
Survey Unit 267-6-002
Building Sixth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: 291 to 105 dpm 445 dpm
Wall Scan: 168 to 481 dpm 445 dpm

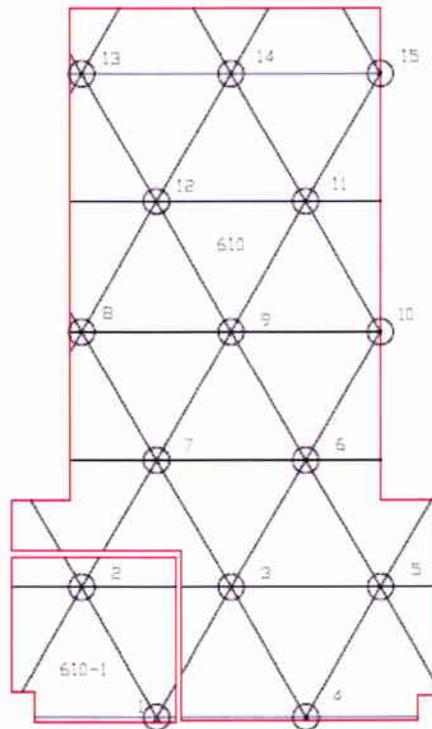


Survey Unit 267-6-003
Building Sixth Floor
Static and Removable Sample Locations
Class 2



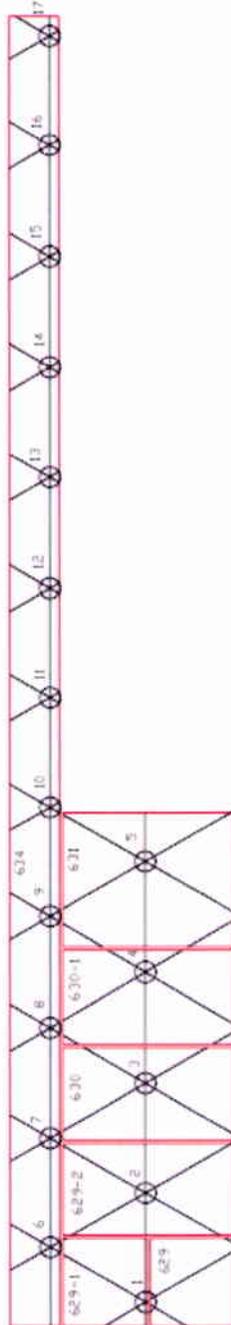
Scan Ranges: Scan MDC:
Floor Scan: -176 to 105 dpm 445 dpm
Wall Scan: 132 to 481 dpm 445 dpm

Survey Unit 267-6-004
Building Sixth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: -176 to 105 dpm 445 dpm
Wall Scan: 132 to 481 dpm 445 dpm

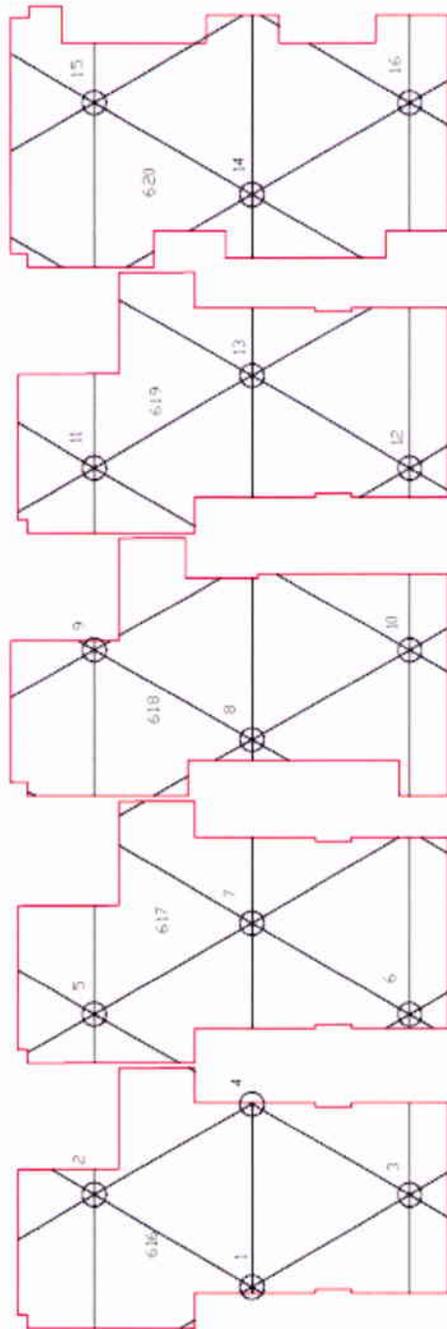
Survey Unit 267-6-005
Building Sixth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: -291 to 334 dpm 445 dpm
Wall Scan: -27 to 409 dpm 445 dpm



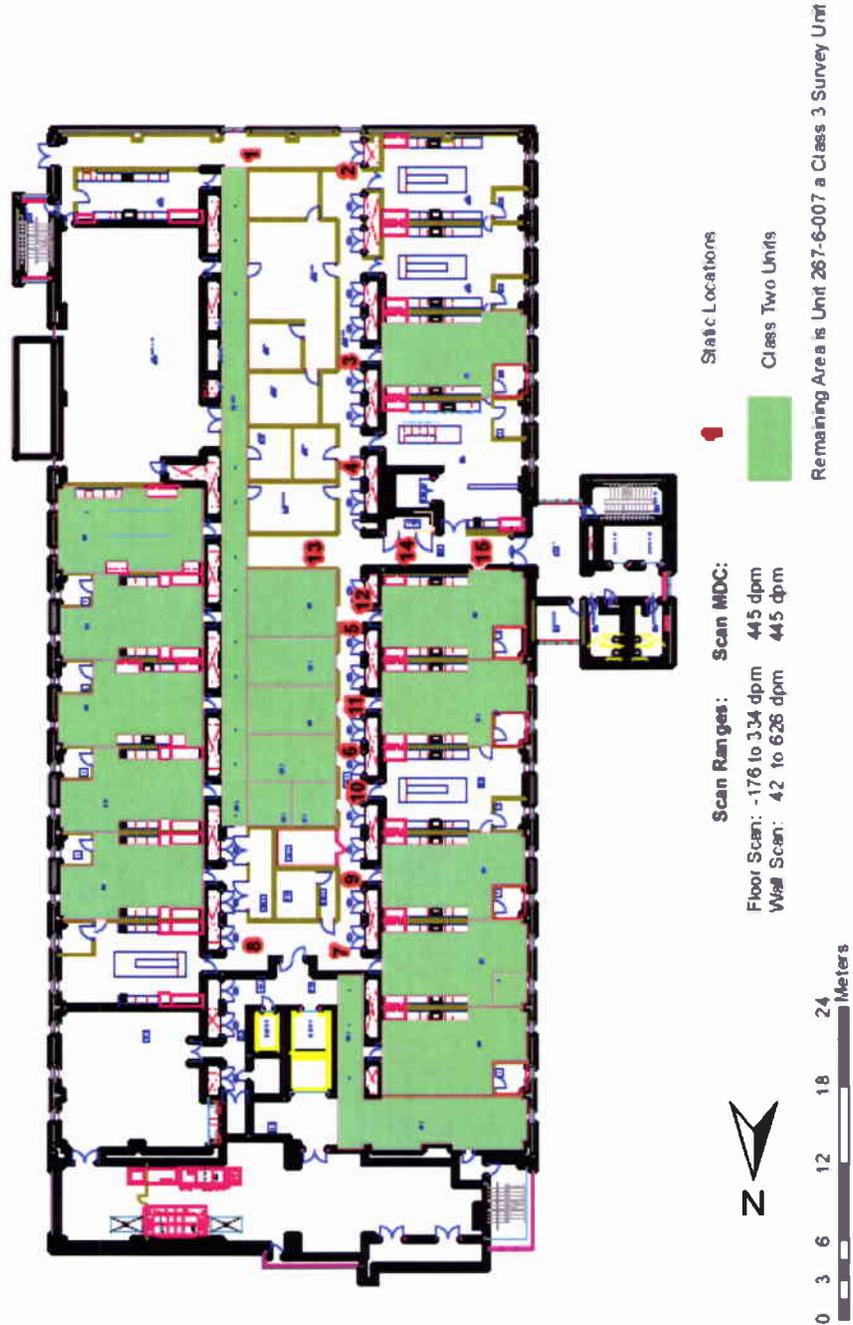
Survey Unit 267-6-006
Building Sixth Floor
Static and Removable Sample Locations
Class 2



Scan Ranges: Scan MDC:
Floor Scan: -176 to 105 dpm 445 dpm
Wall Scan: 132 to 445 dpm 445 dpm



Survey Unit 267-6-007
Building Sixth Floor
Static and Removable Sample Locations
Class 3



Appendix C

Example Final Status Survey Package

(The following appendix contains 9 pages. The forms are identical to those used during the Decommissioning Project. They are not paginated in this attachment.)

Building: 267	Survey Unit #:	Page ____ of ____
Classification:	<input type="checkbox"/> Class 1 – Impacted	<input checked="" type="checkbox"/> Class 2 - Impacted
		<input type="checkbox"/> Class 3 - Impacted

Survey Type:	<input type="checkbox"/> Characterization	<input checked="" type="checkbox"/> Final Status Survey
---------------------	---	---

Applicable Nuclides of Concern:									
Nuclide	<input checked="" type="checkbox"/> ³ H	<input checked="" type="checkbox"/> ¹⁴ C	<input type="checkbox"/>						
DCGL_w (dpm/100cm ²)	1.0 x 10 ⁸	3.7 x 10 ⁶							

Applicable Survey Unit Surfaces: Class 2	Surface Included in Measurement Distribution?	% of Surface Requiring Scan Surveys
<input checked="" type="checkbox"/> Floors	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> 10% <input type="checkbox"/> 25% <input checked="" type="checkbox"/> 50% <input type="checkbox"/> 100%
<input checked="" type="checkbox"/> Lower walls	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> 10% <input type="checkbox"/> 25% <input checked="" type="checkbox"/> 50% <input type="checkbox"/> 100%
<input type="checkbox"/> Upper Walls	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> 10% <input type="checkbox"/> 25% <input type="checkbox"/> 100% <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Ceiling	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> 10% <input type="checkbox"/> 25% <input type="checkbox"/> 100% <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Structures (Permanent Furnishings) Interior and Exterior Surfaces	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> 10% <input checked="" type="checkbox"/> 25% <input type="checkbox"/> 100% <input type="checkbox"/> N/A

Applicable Survey Unit Surfaces: Class 3	Surface Included in Measurement Distribution?	% of Surface Requiring Scan Surveys
<input checked="" type="checkbox"/> Floors	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> 10% <input checked="" type="checkbox"/> 20% <input type="checkbox"/> 50% <input type="checkbox"/> 100%
<input checked="" type="checkbox"/> Lower walls	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/> 10% <input type="checkbox"/> 20% <input type="checkbox"/> 50% <input type="checkbox"/> 100%
<input type="checkbox"/> Upper Walls	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> 10% <input type="checkbox"/> 25% <input type="checkbox"/> 100% <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Ceiling	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> 10% <input type="checkbox"/> 25% <input type="checkbox"/> 100% <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Structures (Permanent Furnishings) Interior and Exterior Surfaces	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/> 10% <input type="checkbox"/> 25% <input type="checkbox"/> 100% <input type="checkbox"/> N/A

Required Survey Instrumentation	Measurement Type	Static Count Time	Scan Rate	Limiting¹ Efficiency Based on:	Limiting¹ DCGL_w Based on:	Typical MDCR (cpm)
<input checked="" type="checkbox"/> LMI 2360 or 2221/43-68	Beta	1 Minute	N/A	³ H	³ H	75
<input checked="" type="checkbox"/> LMI 2360 or 2221/43-37 Floor Monitor	Beta	N/A	6.0 inches/sec.	³ H	³ H	400
<input checked="" type="checkbox"/> Packard Tri-Carb LSC	Beta	N/A	N/A	³ H	³ H	N/A
<input type="checkbox"/> A Proportional Counter shall be used for analysis of required removable contamination measurements. See General Survey Instructions item # 9.					N/A	

1. Perform scan surveys of the required surface area at the prescribed scan rates. For areas with less than 100% scan coverage, use professional judgment to select the areas scan surveyed. Select areas with the highest probability to contain residual activity (i.e., floor traffic pathways, cracks and/or crevices not easily cleaned, counter top workspaces, storage locations, stained or water spotted areas, or areas with a known history of contamination). For alpha scans using the 43-37 detector the background count rate is limited to ≤ 3 cpm. For beta scans using the 43-37 detector the background count rate is limited to ≤ 1400 cpm.
2. If any elevated activity is detected during the scan surveys, then establish the extent (size) of the contaminated area(s) and mark the affected area(s) and quantify the activity by taking static measurements of the affected area(s). Notify the Radiation Safety Officer (RSO) or designee of the type, amount and extent of any contamination. If contamination is detected, suspend any further survey activities in the survey unit until permission is obtained from the RSO to continue. Alpha and beta-gamma static measurements are shall be taken at each elevated area.
3. Document all scan survey results on the applicable survey maps and data results sheets.
4. The established number of static measurement locations needed for the statistical evaluation of this survey unit is 15. However, for Class 1 and 2 survey units, the locations are determined by using a random start point and a systematic spacing from this point. Due to this method, the actual number of locations may vary. In this case, collect the actual locations provided on the survey map even if this number is greater than 15.
5. For Class 1 and 2 survey units, locate and mark the required static measurements locations using the provided survey map(s). Survey Maps have been provided with the required static measurement locations. Sufficient detail has been provided on these maps to measure and locate all of these locations.
6. For Class 3 survey units, these locations are selected by using randomly generated coordinates to determine survey locations. Due to this method, the actual number of locations may vary. In this case, collect the actual locations provided on the survey map even if this number is greater than 15.
7. For Class 1 and 2 survey units, collect all required static measurements and document the results on the associated data results sheets. Additional static measurements may be taken in suspect areas at the discretion of the RSO or survey technician. However, these additional locations are not included in the statistical analysis of the survey sample set.
8. For Class 3 survey units, collect the required static measurements at identified locations. Mark or label each location on the surface for reproducibility at a later time. Document all survey locations and survey results on the attached survey maps and data results sheets.
9. For all survey units, removable contamination measurements (swipes) shall be performed at all locations where direct static measurements are made and shall be analyzed for beta activity by onsite liquid scintillation counting.
10. Notify the RSO or designee if elevated activity is detected by any of the static measurements or applicable removable contamination measurements.
11. Ensure that all package information is completed and signed prior to turning in this Survey Package to the RSO or designee for review.

Special Survey Instructions

Component(s)	Classification of Area in Which Components Exist	Survey Requirements		
		Scan Surveys	Static (Total Activity) Measurements	Removable Contamination Measurements
General ventilation and fume hood exhaust ducts	Class 2	100% scan survey of accessible ¹ internal surfaces of at least 50% of existing exhaust ducts	At least one static measurement taken on the internal surfaces 50% of existing exhaust duct openings	One smear taken at each static measurement location
	Class 3	100% scan survey of accessible ¹ internal surfaces of at least 10% of the existing exhaust ducts	At least one static measurement taken on the internal surfaces of 10% of the existing exhaust duct openings	One smear taken at each static measurement location
Collection points within ventilation fan units	All	100% scan survey of accessible ¹ internal surfaces of all applicable ventilation fan units	At least one static measurement taken on each internal surface of each accessible ¹ opening on the units	One smear taken at each static measurement location
Vacuum system inlets	Class 2	N/A	N/A	At least one smear on the internal surfaces of 50% of the existing vacuum inlet points
Vacuum system inlets	Class 3	N/A	N/A	At least one smear on the internal surfaces of 10% of the existing vacuum inlet points
Collection points within vacuum system moisture accumulators and/or filtration components	All	N/A	N/A	At least one smear on the internal surfaces of all accessible locations within the vacuum system moisture accumulator(s) and filtration points.

¹ Within reach of duct or component opening

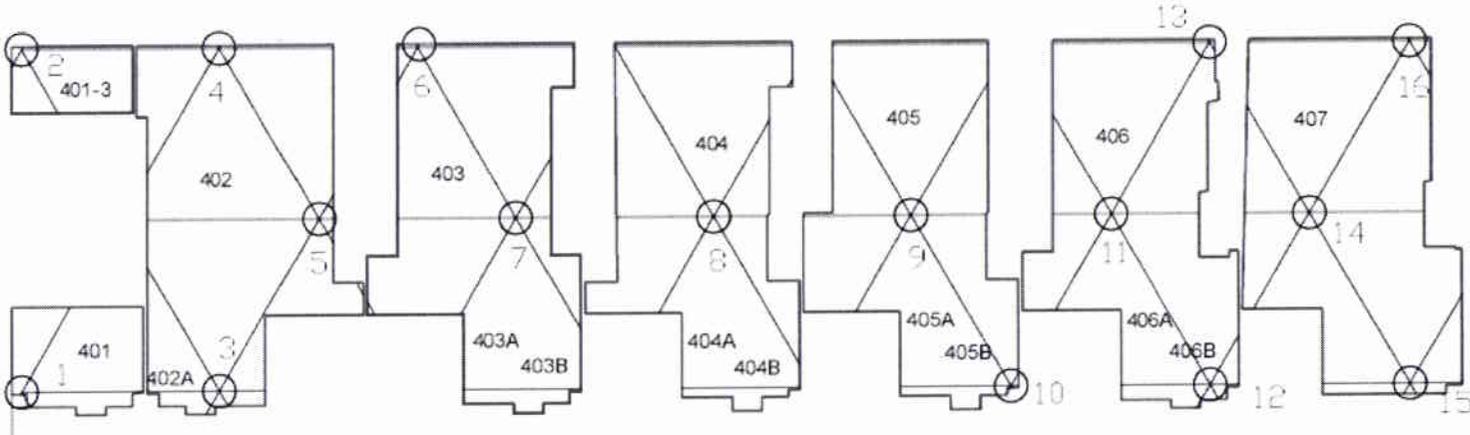
Prepared By: _____
Printed Name/Signature

Date: _____

Reviewed By: _____
Printed Name/Signature

Date: _____

Building 267 Survey Unit 267-4-001



PFIZER

Random Sample Start Location and Sample Spacing Worksheet

Building: 267	Survey Unit: 267-4-001	Page _____ of _____							
Survey Unit Description:	Class 2 Floor Survey Unit: Rooms 401, 401-3, 402, 402A, 403, 403A, 403B, 404, 404A, 404B, 405, 405A, 405B, 406, 406A, 406B, and 407								
Survey unit floor area in square meters:	479.9 m ²	Computer Generated Random Scalars ¹							
Required number of samples for survey unit:	15								
		X Rand	Y Rand	Point	X(m)	Y(m)	Point	X(m)	Y(m)
x-axis dimension (meters)	43.43 m	0.64	0.52	1	0.31	0.45	9	27.62	5.71
y-axis dimension (meters)	11.05 m			2	0.31	10.97	10	30.66	0.45
				3	6.38	0.45	11	33.69	5.71
				4	6.38	10.97	12	36.73	0.45
X-AXIS Start Location	27.62 meters			5	9.41	5.71	13	36.72	10.97
Y-AXIS Start Location	5.71 meters			6	12.50	11.06	14	39.76	5.71
				7	15.48	5.71	15	42.80	0.45
Sample Spacing For Survey Unit	6.07 meters			8	21.55	5.71	16	42.80	10.97

Note 1: Random scalars were generated using the RAND function of Microsoft Excel.

Calculations Performed By:	Printed Name/Signature	Date
Reviewed By:	Printed Name/Signature	Date

Appendix D

Desired Sample Number Calculations

Desired Sample Number Calculations

Determination of the Relative Shift

The number of required samples depends on the ratio of the activity level to be measured relative to the variability in the concentration. This ratio is called the Relative Shift, Δ/σ_s , and is defined in MARSSIM as:

$$\Delta/\sigma_s = \frac{DCGL - LBGR}{\sigma_s}$$

Where:

- DCGL = derived concentration guideline
- LBGR = concentration at the lower bound of the gray region. The LBGR is the average concentration to which the survey unit should be cleaned in order to have an acceptable probability of passing the statistical test
- σ_s = an estimate of the standard deviation of the residual radioactivity in the survey unit

A conservative estimate for the standard deviation total surface activity measurements was determined using the maximum survey unit standard deviation expected. Final status survey standard deviations are typically between 500 and 2,500 dpm/100cm² at these types of facilities. MARSSIM recommends setting the value of the LBGR (Lower Bound of the Gray Region) at the expected average contamination level in the survey unit. For this project, the expected average activities are orders of magnitude below the DCGL. Therefore, the LBGR was increased to obtain a more realistic relative shift. This will increase the power of the statistical test. The estimated relative shift is provided in the following calculation:

$$\Delta/\sigma_s = \frac{3.7E6 - 3.65E6}{5,000} = 10$$

Since MARSSIM Table 5.5 does not include relative shifts above 3 and expected residual contamination levels were a small fraction of the DCGLs, it was determined that a relative shift of 3 would be more than sufficient.

Determination of Acceptable Decision Errors

A decision error is the probability of making an error in the decision on a survey unit by failing a unit that should pass (β decision error) or passing a unit that should fail (α decision error).

MARSSIM uses the terminology α and β decision errors; this is the same as the more common terminology of Type I and Type II errors, respectively.

The applicable decision errors (Type I Type II errors) selected were both set at 0.05 in accordance with the Data Quality Objectives discussed in Section 18.2 of the Supplemental D&D Plan.

Determination of Number of Data Points

For the purposes of the final status survey it was assumed that the contaminant is not present in background at significant levels compared to the DCGLs. Therefore, material specific background was ignored and was not subtracted from the total surface activity measurements. Using this methodology, the Sign Test was chosen for the statistical evaluation of survey data. The number of direct measurements for a survey unit, employing the Sign Test, is determined from MARSSIM Table 5.5, which is based on the following equation (MARSSIM equation 5-2):

$$N = \frac{(Z_{1-\alpha} + Z_{1-\beta})^2}{4(\text{Sign}P - 0.5)^2}$$

Where:

- N = number of samples needed in the survey unit
 $Z_{1-\alpha}$ = percentile represented by the decision error α
 $Z_{1-\beta}$ = percentile represented by the decision error β
 $\text{Sign}P$ = estimated probability that a random measurement will be less than the DCGL when the survey unit median is actually at the LBGR

Note: Percentiles $Z_{1-\alpha}$ and $Z_{1-\beta}$ are determined from MARSSIM Table 5.2. $\text{Sign}P$ is determined from MARSSIM Table 5.4

MARSSIM recommends increasing the calculated number of measurements by 20% to ensure sufficient power of the statistical tests and to allow for possible data losses.

Pfizer's approach was to predetermine a number of samples to be applied to all survey units. This approach would provide sufficient power for the statistical test while streamlining the survey planning process. The following calculations were made to determine this number:

$$N = \left(\frac{(1.645 + 1.645)^2}{4(0.998650 - 0.5)^2} \right) = 10.88$$

$Z_{1-\alpha}$ is equal to 1.645 using the α error rate of 0.05 from MARSSIM Table 5.2.

$Z_{1-\beta}$ is equal to 1.645 using the β error rate of 0.05 from MARSSIM Table 5.2.

$\text{Sign}P$ is equal to 0.998650 from MARSSIM Table 5.4.

Adding an additional 20% to account for data losses resulted in a value of 13.06. Rounding up to the nearest whole integer results in the value of 14. Therefore, the determined number of samples for the final status surveys for planning purposes was 14. In most survey units, more than 14 samples were collected.

Appendix E
Survey Unit Identification and Location Codes

Table E.1 – Survey Unit Identification and Location Codes

Location Code Description	
A unique location code shall be assigned to each individual survey location to ensure proper data management of the survey results. The following format shall be used to ensure consistency throughout the final status survey process: <p style="text-align: center;">BBB-F-SUN-RRR-SS-LL</p>	
Where:	
BBB	= Building code. This field represents the facility area. This will be the building number. (267)
F-	= Survey unit ID code. This field has been assigned based on the actual building floor [F-], the survey unit number [SUN], and the room number [RRR]. Smaller room numbers may have more than 3 characters [e.g. 118-1 or 118L]. In these cases, record the room number as RRR.R.
SUN-RRR	= Structural surface code. This field represents the structural surface such as floor [FL], wall [WA], countertop [CT], sink [SK], etc. (2 characters)
SS	Building system survey units (i.e., ventilation systems, drain systems or vacuum systems) are assigned unique 3-digit numbers that are consistent with the floor and room numbers. For these systems, record the type of mechanical system in place of the SS code as: VS [Vacuum systems] GV [General ventilation systems and FH [Fume hood systems]. [GV not used due to inaccessibility]
LL	= Numerical identification number. This field represents the survey point assigned numerical identifier. The field "001" means survey point location number 1. Numerical Identifiers shall not be duplicated within the same survey unit. (2-characters) Replicate or duplicate measurements should be followed with the letter "A".

Table E.2 – System Survey Unit Identifiers

Building System/Elevation	Identifier
Drains	D
Hood Systems	FH
Installed Equipment	E
Sumps	SU

Table E.3 – Structural Surface Codes

M Code	Description
FL	Floor Surface
CT	Counter or Benchttop
SK	Sink Surface
S	Permanent Structure Surface (Not Used)

Table E.4 – Structural Material Codes

M Code	Description
A	Painted Brick
B	Unpainted Brick
C	Bare Concrete
D	Painted Concrete
E	Bare Cinder Block
F	Painted Cinder Block
G	Epoxy Coated Concrete
H	Ceramic Coated Block (Hot)
J	Ceramic Tile
K	Carpet over Concrete
L	Vinyl Tile over Concrete
R	Roof Membrane w/Gravel
S	Slate
T	Terrazzo over concrete
U	Terracotta Tile
V	Painted Wood
W	Bare Wood
X	Glass
Y	Epoxy Resin [countertops]
Z	Painted Metal
M	Bare Metal
M	Stainless Steel
N	Other materials with no material background

**Appendix F
Total Beta Activity Summary**

Total Beta Activity Summary									
Survey Unit	Class	# of Meas.	MDC	Survey Unit Mean	Standard Deviation	Survey Unit Minimum	Survey Unit Maximum	Applicable Investigation Level	Any Result Exceeding Investigation Level?
dpm/100 cm ²									
267-0-001	2	16	590	246	515	-358	1253	5000	No
267-0-002	3	15	590	581	700	-348	2254	590	Yes*
267-1-001	2	15	586	8	138	-305	221	5000	No
267-1-002	2	15	590	74	292	-442	400	5000	No
267-1-003	3	15	590	274	355	-169	1138	590	Yes*
267-3-001	2	19	590	-52	233	-790	232	5000	No
267-3-002	2	17	590	-72	215	-569	316	5000	No
267-3-003	2	18	590	46	174	-305	463	5000	No
267-3-004	2	15	590	16	142	-379	274	5000	No
267-3-005	2	15	590	-82	192	-327	284	5000	No
267-3-006	2	15	586	253	207	-53	664	5000	No
267-3-007	2	18	527	132	214	-169	632	5000	No
267-3-008	3	15	590	162	141	-105	400	590	No
267-4-001	2	19	590	40	150	-232	327	5000	No
267-4-002	2	17	590	15	113	-211	169	5000	No
267-4-003	2	15	237	154	102	-16	343	5000	No
267-4-004	2	15	237	125	71	18	271	5000	No
267-4-005	2	15	590	26	167	-274	400	5000	No
267-4-006	2	16	590	-21	168	-316	295	5000	No
267-4-007	2	15	212	37	68	-64	152	5000	No
267-4-008	3	15	227	4	88	-129	163	227	No
267-5-001	2	14	227	159	349	-216	914	5000	No
267-5-002	2	16	227	-112	71	-225	4	5000	No
267-5-003	2	18	227	-54	72	-172	80	5000	No
267-5-004	2	15	227	192	366	-218	891	5000	No
267-5-005	2	15	227	1121	144	905	1406	5000	No
267-5-006	3	17	227	3	65	-129	106	227	No
267-6-001	2	15	227	32	75	-149	120	5000	No
267-6-002	2	19	227	-12	76	-174	179	5000	No
267-6-003	2	16	227	400	521	-147	1153	5000	No
267-6-004	2	16	227	-27	129	-168	369	5000	No
267-6-005	2	17	227	15	106	-182	163	5000	No
267-6-006	2	18	227	-31	97	-179	96	5000	No
267-6-007	3	15	227	6	105	-140	170	227	No
*Maximum Reading due to NORM material in surface									

**Appendix G
Building Surface and Structure Final Status Survey Results**

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 0-001					Class 2		
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-0-001-011.1-FL-L-01	0	+/-	333	590	44	+/-	17	34	
267-0-001-011.1-FL-L-02	32	+/-	335	590	40	+/-	18	34	
267-0-001-011.1-FL-L-03	-190	+/-	321	590	40	+/-	14	34	
267-0-001-011.1-FL-L-04	-358	+/-	310	590	43	+/-	17	34	
267-0-001-011.1-FL-L-05	-211	+/-	320	590	32	+/-	15	34	
267-0-001-012-FL-L-06	-105	+/-	326	590	26	+/-	14	34	
267-0-001-012-FL-L-07	84	+/-	338	590	53	+/-	19	34	
267-0-001-012-FL-W-08	-179	+/-	322	590	29	+/-	15	34	
267-0-001-012-FL-L-09	0	+/-	333	590	35	+/-	15	34	
267-0-001-012-FL-L-10	190	+/-	344	590	54	+/-	18	34	
267-0-001-038-FL-C-11	-21	+/-	332	590	20	+/-	13	34	
267-0-001-038-FL-C-12	643	+/-	370	590	52	+/-	18	34	
267-0-001-038-FL-C-13	1253	+/-	402	590	42	+/-	16	34	
267-0-001-038-FL-C-14	1106	+/-	394	590	36	+/-	16	34	
267-0-001-038-FL-C-15	853	+/-	381	590	47	+/-	17	34	
267-0-001-038-FL-C-16	843	+/-	381	590	39	+/-	15	34	
Summary for Unit 0-001	Average		246				40		
	Minimum		-358				20		
	Maximum		1253				54		
	Std. Dev.		515				10		
All values are dpm/100 cm ² unless otherwise noted									

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 0-002					Class 3		
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-0-002-039-FL-L-01	958	+/-	387	590	34	+/-	15		
267-0-002-037-FL-L-02	147	+/-	342	590	39	+/-	16		
267-0-002-009-CT-W-03	-242	+/-	318	590	36	+/-	17		
267-0-002-032-FL-04	-158	+/-	323	590	53	+/-	19		
267-0-002-033-FL-L-05	-137	+/-	324	590	34	+/-	15		
267-0-002-011-CT-Y-06	-348	+/-	311	590	31	+/-	15		
267-0-002-033-FL-L-07	84	+/-	338	590	37	+/-	17		
267-0-002-028.1-FL-C-08	1180	+/-	398	590	36	+/-	15		
267-0-002-017-FL-C-09	706	+/-	373	590	38	+/-	15		
267-0-002-027.1-FL-C-10	1053	+/-	392	590	36	+/-	15		
267-0-002-026-FL-C-11	1043	+/-	391	590	57	+/-	20		
267-0-002-003.1-FL-C-12	800	+/-	378	590	56	+/-	18		
267-0-002-044.2-FL-C-13	748	+/-	376	590	47	+/-	17		
267-0-002-044-FL-J-14	2254	+/-	449	590	44	+/-	17		
267-0-002-049-SK-M-15	632	+/-	369	590	25	+/-	13		
Summary for Unit 0-002	Average		581				40		
	Minimum		-348				25		
	Maximum		2254				57		
	Std. Dev.		700				9		
All values are dpm/100 cm ² unless otherwise noted									

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 1-001				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta	MDC		Beta	MDC			
267-1-001-118.3-FL-K-01	74	+/-	332	586	34	+/-	15	34	
267-1-001-118-FL-K-02	126	+/-	334	586	33	+/-	16	34	
267-1-001-118-FL-K-03	11	+/-	320	586	43	+/-	17	34	
267-1-001-118-FL-K-04	137	+/-	309	586	30	+/-	15	34	
267-1-001-118-FL-K-05	74	+/-	318	586	32	+/-	15	34	
267-1-001-118-FL-K-06	-305	+/-	325	586	41	+/-	17	34	
267-1-001-118-FL-K-07	-63	+/-	337	586	22	+/-	14	34	
267-1-001-118-FL-K-08	221	+/-	320	586	37	+/-	17	34	
267-1-001-118-FL-K-09	-169	+/-	332	586	36	+/-	15	34	
267-1-001-118-FL-K-10	11	+/-	343	586	45	+/-	19	34	
267-1-001-118-FL-K-11	-169	+/-	330	586	32	+/-	16	34	
267-1-001-118-FL-K-12	53	+/-	369	586	28	+/-	13	34	
267-1-001-118-FL-K-13	-42	+/-	401	586	35	+/-	15	34	
267-1-001-118-FL-K-14	105	+/-	393	586	46	+/-	18	34	
267-1-001-118.1-FL-K-15	53	+/-	380	586	25	+/-	18	34	
Summary for Unit 1-001	Average	8			35				
	Minimum	-305			22				
	Maximum	221			46				
	Std. Dev.	138			7				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 1-002				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta	MDC		Beta	MDC			
267-1-002-131-FL-K-01	169	+/-	343	590	42	+/-	17	34	
267-1-002-131-FL-K-02	-53	+/-	330	590	36	+/-	15	34	
267-1-002-131-FL-K-03	-116	+/-	326	590	30	+/-	15	34	
267-1-002-131-FL-K-04	232	+/-	347	590	56	+/-	19	34	
267-1-002-131-FL-K-05	169	+/-	343	590	36	+/-	16	34	
267-1-002-131-FL-K-06	232	+/-	347	590	41	+/-	16	34	
267-1-002-131-FL-K-07	169	+/-	343	590	51	+/-	18	34	
267-1-002-131-FL-K-08	379	+/-	355	590	32	+/-	15	34	
267-1-002-131-FL-L-09	11	+/-	334	590	34	+/-	15	34	
267-1-002-132-FL-L-10	400	+/-	356	590	41	+/-	18	34	
267-1-002-132-FL-L-11	379	+/-	355	590	44	+/-	17	34	
267-1-002-132-FL-L-12	358	+/-	354	590	56	+/-	20	34	
267-1-002-131-FL-L-13	-442	+/-	305	590	35	+/-	15	34	
267-1-002-131-FL-L-14	-369	+/-	310	590	34	+/-	15	34	
267-1-002-131-FL-L-15	-400	+/-	308	590	51	+/-	18	34	
Summary for Unit 1-002	Average	74			41				
	Minimum	-442			30				
	Maximum	400			56				
	Std. Dev.	292			9				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 1-003				Class 3			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-1-003-132.1-FL-L-01	63	+/-	337	590	52	+/-	19	34	
267-1-003-132.1-FL-L-02	211	+/-	345	590	45		17	34	
267-1-003-132.1-FL-L-03	274	+/-	349	590	39		17	34	
267-1-003-132.1-FL-D-04	611	+/-	368	590	47		18	34	
267-1-003-127-FL-D-05	1138	+/-	396	590	31		15	34	
267-1-003-129.1-FL-L-06	864	+/-	382	590	38		17	34	
267-1-003-129.1-FL-L-07	-169	+/-	322	590	35		16	34	
267-1-003-129.1-FL-L-08	126	+/-	340	590	29		14	34	
267-1-003-129.1-FL-L-09	74	+/-	337	590	31		15	34	
267-1-003-129.1-FL-L-10	-21	+/-	332	590	49		18	34	
267-1-003-129.1-FL-L-11	-105	+/-	326	590	37		16	34	
267-1-003-107-FL-L-12	327	+/-	352	590	32		15	34	
267-1-003-107-FL-L-13	316	+/-	352	590	26		13	34	
267-1-003-133.1FL-L-14	179	+/-	344	590	47		18	34	
267-1-003-133.1FL-L-15	221	+/-	346	590	27		15	34	
Summary for Unit 1-003	Average	274			38				
	Minimum	-169			26				
	Maximum	1138			52				
	Std. Dev.	355			9				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 3-001				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-3-001-301-FL-L-01	232	+/-	693	590	32	+/-	15	34	
267-3-001-301-FL-L-02	147	+/-	683	590	51	+/-	19	34	
267-3-001-302-FL-L-03	32	+/-	670	590	43	+/-	18	34	
267-3-001-302-FL-L-04	179	+/-	687	590	42	+/-	17	34	
267-3-001-303-FL-L-05	-147	+/-	648	590	41	+/-	17	34	
267-3-001-303-FL-L-06	-95	+/-	654	590	61	+/-	19	34	
267-3-001-304-CT-Y-07	53	+/-	672	590	47	+/-	17	34	
267-3-001-304-FL-L-08	74	+/-	675	590	30	+/-	14	34	
267-3-001-305-CT-Y-09	-179	+/-	644	590	37	+/-	15	34	
267-3-001-305-FL-L-10	-274	+/-	632	590	47	+/-	19	34	
267-3-001-306-FL-L-11	74	+/-	675	590	39	+/-	17	34	
267-3-001-306-FL-L-12	53	+/-	672	590	53	+/-	20	34	
267-3-001-306-FL-L-13	-84	+/-	655	590	39	+/-	16	34	
267-3-001-307-FL-L-14	-84	+/-	655	590	44	+/-	18	34	
267-3-001-307-FL-L-15	-158	+/-	654	590	45	+/-	17	34	
267-3-001-301-FH-M-16	-790	+/-	546	580	43	+/-	17	34	
267-3-001-301-SK-N-17					47*	+/-	18	34	
267-3-001-303-FH-M-18	-232	+/-	328	590	30	+/-	14	34	
267-3-001-303-VS-N-19					44*	+/-	17	34	
267-3-001-305-FH-M-20	221	+/-	328	590	53	+/-	18	34	
267-3-001-305-SK-N-21					40*	+/-	15	34	
267-3-001-307-FH-M-22	0	+/-	323	590	53	+/-	20	34	
267-3-001-307-VS-N-23					40*	+/-	16	34	
267-3-001-307-SK-N-24					34*	+/-	15	34	
Summary for Unit 3-001	Average	-52			44				
	Minimum	-790			30				
	Maximum	232			61				
	Std. Dev.	233			8				

All values are dpm/100 cm² unless otherwise noted; * dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 3-002				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-3-002-308.1-CT-Y-01	316	+/-	352	590	32	+/-	15	34	
267-3-002-308.1-FL-L-02	-358	+/-	310	590	51	+/-	19	34	
267-3-002-310-FL-L-03	-137	+/-	324	590	43	+/-	18	34	
267-3-002-310-FL-L-04	32	+/-	335	590	42	+/-	17	34	
267-3-002-310-FL-L-05	53	+/-	336	590	41	+/-	17	34	
267-3-002-310-FL-L-06	-95	+/-	327	590	61	+/-	19	34	
267-3-002-310-FL-L-07	-327	+/-	312	590	47	+/-	17	34	
267-3-002-310-FL-L-08	-211	+/-	320	590	30	+/-	14	34	
267-3-002-311-FL-L-09	-179	+/-	322	590	37	+/-	15	34	
267-3-002-311-FL-L-10	0	+/-	333	590	47	+/-	19	34	
267-3-002-311-FL-L-11	95	+/-	339	590	39	+/-	17	34	
267-3-002-312-FL-L-12	42	+/-	335	590	53	+/-	20	34	
267-3-002-312-FL-L-13	53	+/-	336	590	39	+/-	16	34	
267-3-002-312-FL-L-14	21	+/-	334	590	44	+/-	18	34	
267-3-002-312-FL-L-15	-126	+/-	325	590	45	+/-	17	34	
267-3-002-308.1-FH-M-16	169	+/-	461	590	45	+/-	17	34	
267-3-002-308.1-SK-N-17					50*	+/-	18	34	
267-3-002-311-FH-N-18	-569	+/-	602	590	44	+/-	16	34	
267-3-002-311-VS-N-19					50*	+/-	18	34	
267-3-002-310-SK-N-20					48*	+/-	18	34	
Summary for Unit 3-002	Average	-72			44				
	Minimum	-569			30				
	Maximum	316			61				
	Std. Dev.	215			7				

All values are dpm/100 cm² unless otherwise noted * dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 3-003				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta		MDC		Beta		MDC		
267-3-003-315-FL-L-01	-32	+/-	331	590	50	+/-	18	34	
267-3-003-315-FL-L-02	232	+/-	347	590	38	+/-	18	34	
267-3-003-316-FL-L-03	-305	+/-	314	590	41	+/-	18	34	
267-3-003-316-FL-L-04	74	+/-	337	590	48	+/-	19	34	
267-3-003-316-FL-L-05	74	+/-	337	590	37	+/-	16	34	
267-3-003-317-FL-L-06	137	+/-	341	590	41	+/-	17	34	
267-3-003-317-FL-L-07	169	+/-	343	590	45	+/-	18	34	
267-3-003-318-FL-L-08	32	+/-	335	590	44	+/-	17	34	
267-3-003-318-FL-L-09	42	+/-	335	590	51	+/-	17	34	
267-3-003-319-FL-L-10	-169	+/-	322	590	41	+/-	19	34	
267-3-003-319-FL-L-11	32	+/-	335	590	42	+/-	17	34	
267-3-003-319-FL-L-12	105	+/-	339	590	43	+/-	18	34	
267-3-003-320-FL-L-13	95	+/-	339	590	37	+/-	17	34	
267-3-003-320-FL-L-14	463	+/-	360	590	44	+/-	15	34	
267-3-003-320-FL-L-15	-42	+/-	330	590	30	+/-	16	34	
267-3-003-315-FH-M-16	179	+/-	337	590	30	+/-	14	34	
267-3-003-315-VS-N-17					46*	+/-	18	34	
267-3-003-317-FH-M-18	-53	+/-	323	590	35	+/-	15	34	
267-3-003-317-VS-N-19					40*	+/-	16	34	
267-3-003-319-FH-M-20	-211	+/-	313	590	32	+/-	15	34	
267-3-003-319-VS-N-21					45*	+/-	16	34	
267-3-003-316-SK-N-22					49*	+/-	19	34	
267-3-003-316-SK-N-23					34*	+/-	16	34	
Summary for Unit 3-003	Average	46			41				
	Minimum	-305			30				
	Maximum	463			51				
	Std. Dev.	174			6				

All values are dpm/100 cm² unless otherwise noted * dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 3-004				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta	MDC	Beta	MDC	Beta	MDC	Beta	MDC	
267-3-004-324-FL-L-01	-84	+/-	328	590	33	+/-	16	34	
267-3-004-324-FL-L-02	179	+/-	344	590	45	+/-	17	34	
267-3-004-324-FL-L-03	-21	+/-	332	590	49	+/-	19	34	
267-3-004-324-FL-L-04	42	+/-	335	590	39	+/-	17	34	
267-3-004-324-CT-Y-05	-42	+/-	330	590	42	+/-	16	34	
267-3-004-324-FL-L-06	274	+/-	349	590	33	+/-	15	34	
267-3-004-324-FL-L-07	32	+/-	335	590	41	+/-	17	34	
267-3-004-324-FL-L-08	53	+/-	336	590	43	+/-	16	34	
267-3-004-324-FL-L-09	-53	+/-	330	590	43	+/-	17	34	
267-3-004-324-FL-L-10	95	+/-	339	590	30	+/-	15	34	
267-3-004-324-FL-L-11	-379	+/-	309	590	38	+/-	16	34	
267-3-004-324-FL-L-12	74	+/-	337	590	43	+/-	18	34	
267-3-004-324-FL-L-13	11	+/-	334	590	32	+/-	15	34	
267-3-004-324-FL-L-14	32	+/-	335	590	53	+/-	19	34	
267-3-004-324-FL-L-15	32	+/-	335	590	39	+/-	16	34	
267-3-004-324-SK-N-16					42*	+/-	18	34	
Summary for Unit 3-004	Average	16			40				
	Minimum	-379			30				
	Maximum	274			53				
	Std. Dev.	142			6				

All values are dpm/100 cm² unless otherwise noted * dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 3-005				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta	MDC	Beta	MDC	Beta	MDC	Beta	MDC	
267-3-005-328.1-FL-L-01	21	+/-	334	590	46	+/-	18	34	
267-3-005-328.1-FL-L-02	190	+/-	344	590	40	+/-	17	34	
267-3-005-328.1-FL-L-03	284	+/-	350	590	41	+/-	17	34	
267-3-005-328.1-FL-L-04	-42	+/-	330	590	33	+/-	16	34	
267-3-005-328.1-CT-Y-05	-84	+/-	328	590	39	+/-	17	34	
267-3-005-328.1-FL-L-06	-327	+/-	312	590	39	+/-	16	34	
267-3-005-328.1-FL-L-07	-295	+/-	314	590	40	+/-	15	34	
267-3-005-328.1-FL-L-08	-295	+/-	314	590	52	+/-	19	34	
267-3-005-328.1-FL-L-09	-263	+/-	316	590	47	+/-	17	34	
267-3-005-328.1-FL-L-10	-116	+/-	326	590	49	+/-	19	34	
267-3-005-328.1-FL-L-11	147	+/-	342	590	36	+/-	16	34	
267-3-005-328.1-FL-L-12	11	+/-	334	590	53	+/-	19	34	
267-3-005-328.1-CT-Y-13	-295	+/-	314	590	45	+/-	17	34	
267-3-005-328.1-FL-L-14	-126	+/-	325	590	43	+/-	16	34	
267-3-005-328.1-FL-L-15	-42	+/-	330	590	33	+/-	16	34	
Summary for Unit 3-005	Average	-82			42				
	Minimum	-327			33				
	Maximum	284			53				
	Std. Dev.	192			6				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 3-006				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-3-006-331.2-FL-K-01	611	+/-	366	586	41	+/-	17	34	
267-3-006-331.2-FL-K-02	211	+/-	343	586	37	+/-	16	34	
267-3-006-331.2-FL-K-03	232	+/-	344	586	34	+/-	15	34	
267-3-006-331.2-FL-K-04	232	+/-	344	586	48	+/-	17	34	
267-3-006-331.2-FL-K-05	-53	+/-	327	586	33	+/-	15	34	
267-3-006-331.2-FL-K-06	664	+/-	369	586	44	+/-	17	34	
267-3-006-331.2-FL-K-07	42	+/-	333	586	45	+/-	17	34	
267-3-006-331.2-FL-K-08	295	+/-	348	586	43	+/-	17	34	
267-3-006-331.2-FL-K-09	463	+/-	358	586	42	+/-	18	34	
267-3-006-331.2-FL-K-10	263	+/-	346	586	41	+/-	17	34	
267-3-006-331.2-FL-K-11	200	+/-	342	586	54	+/-	19	34	
267-3-006-331.2-FL-K-12	42	+/-	333	586	51	+/-	18	34	
267-3-006-331.2-FL-K-13	105	+/-	337	586	35	+/-	16	34	
267-3-006-331.2-FL-K-14	84	+/-	335	586	43	+/-	18	34	
267-3-006-331.2-FL-K-15	400	+/-	354	586	28	+/-	14	34	
Summary for Unit 3-006	Average	253			41				
	Minimum	-53			28				
	Maximum	664			54				
	Std. Dev.	207			7				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 3-007				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-3-007-333.2-FL-M-01	0	+/-	295	527	46	+/-	18	34	
267-3-007-333.2-FL-M-02	221	+/-	310	527	41	+/-	17	34	
267-3-007-333.2-FL-M-03	42	+/-	298	527	40	+/-	16	34	
267-3-007-333.2-CT-M-04	632	+/-	335	527	48	+/-	18	34	
267-3-007-333.2-FL-M-05	147	+/-	305	527	21	+/-	13	34	
267-3-007-333.2-FL-M-06	0	+/-	295	527	47	+/-	19	34	
267-3-007-333.2-FL-M-07	-169	+/-	283	527	41	+/-	17	34	
267-3-007-333.2-CT-Y-08	-21	+/-	293	527	36	+/-	17	34	
267-3-007-333.2-FL-M-09	-53	+/-	291	527	37	+/-	16	34	
267-3-007-333.2-FL-M-10	-84	+/-	289	527	31	+/-	16	34	
267-3-007-333.2-CT-M-11	232	+/-	310	527	50	+/-	19	34	
267-3-007-333.2-FL-M-12	337	+/-	317	527	51	+/-	18	34	
267-3-007-333.2-FL-M-13	295	+/-	314	527	36	+/-	16	34	
267-3-007-333.2-FL-M-14	21	+/-	296	527	30	+/-	18	34	
267-3-007-333.2-CT-Y-15	485	+/-	326	527	43	+/-	18	34	
267-3-007-333.2-FL-M-16	263	+/-	312	527	40	+/-	17	34	
267-3-007-333.2-FL-M-17	-84	+/-	289	527	44	+/-	17	34	
267-3-007-333.2-CT-M-18	116	+/-	303	527	65	+/-	20	34	
Summary for Unit 3-007	Average	132			42				
	Minimum	-169			21				
	Maximum	632			65				
	Std. Dev.	214			10				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 3-008					Class 3		
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-3-008-308-FL-L-01	105	+/-	339	590	37	+/-	17	34	
267-3-008-334-FL-L-02	-21	+/-	332	590	44	+/-	18	34	
267-3-008-334.3-FL-L-03	42	+/-	335	590	41	+/-	16	34	
267-3-008-328.3-FL-L-04	274	+/-	349	590	37	+/-	17	34	
267-3-008-334.1-FL-K-05	232	+/-	347	590	49	+/-	18	34	
267-3-008-328.3-FL-L-06	295	+/-	350	590	42	+/-	16	34	
267-3-008-328-FL-L-07	147	+/-	342	590	35	+/-	15	34	
267-3-008-327.1-FL-L-08	358	+/-	354	590	36	+/-	16	34	
267-3-008-327.1-FL-L-09	147	+/-	342	590	39	+/-	17	34	
267-3-008-385-FL-D-10	400	+/-	356	590	41	+/-	17	34	
267-3-008-385-FL-D-11	147	+/-	342	590	32	+/-	15	34	
267-3-008-334.3-FL-L-12	253	+/-	348	590	42	+/-	17	34	
267-3-008-334.3-FL-L-13	-105	+/-	326	590	52	+/-	18	34	
267-3-008-334.3-FL-L-14	42	+/-	335	590	35	+/-	16	34	
267-3-008-334.3-FL-L-15	116	+/-	340	590	47	+/-	18	34	
Summary for Unit 3-008	Average	162			41				
	Minimum	-105			32				
	Maximum	400			52				
	Std. Dev.	141			6				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 4-001					Class 2		
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-4-001-401-FL-M-01	232	+/-	347	590	30	+/-	15	34	
267-4-001-401.3-FL-L-02	63	+/-	337	590	42	+/-	18	34	
267-4-001-402-FL-L-03	327	+/-	352	590	49	+/-	18	34	
267-4-001-402-FL-L-04	105	+/-	339	590	55	+/-	19	34	
267-4-001-402-CT-Y-05	-232	+/-	318	590	33	+/-	16	34	
267-4-001-403-FL-L-06	-95	+/-	327	590	32	+/-	15	34	
267-4-001-403-FL-L-07	-147	+/-	324	590	29	+/-	14	34	
267-4-001-404-CT-Y-08	11	+/-	334	590	42	+/-	16	34	
267-4-001-405-CT-Y-09	-53	+/-	330	590	29	+/-	15	34	
267-4-001-405B-FL-L-10	63	+/-	337	590	43	+/-	17	34	
267-4-001-406-CT-Y-11	126	+/-	340	590	25	+/-	13	34	
267-4-001-406B-FL-L-12	-42	+/-	330	590	36	+/-	17	34	
267-4-001-406-FL-L-13	84	+/-	338	590	40	+/-	18	34	
267-4-001-407-FL-L-14	32	+/-	335	590	41	+/-	18	34	
267-4-001-407-FL-L-15	-21	+/-	332	590	51	+/-	19	34	
267-4-001-407-FL-L-16	253	+/-	348	590	49	+/-	18	34	
267-4-001-403-FH-M-17	242	+/-	341	590	37	+/-	17	34	
267-4-001-403-SK-N-18					40	+/-	18	34	
267-4-001-405-FH-M-19	-53	+/-	323	590	48	+/-	19	34	
267-4-001-405-VS-N-20					35	+/-	16	34	
267-4-001-407-FH-M-21	-137	+/-	318	590	53	+/-	18	34	
267-4-001-407-VS-N-22					44	+/-	17	34	
Summary for Unit 4-001	Average	40			40				
	Minimum	-232			25				
	Maximum	327			55				
	Std. Dev.	150			8				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results								
Building 267	Survey Unit 4-002				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements			
		Beta	MDC		Beta	MDC		
267-4-002-409.1-FL-L-01	-190	+/-	321	590	42	+/-	17	34
267-4-001-409-CT-Y-02	116	+/-	340	590	34	+/-	17	34
267-4-001-409-FL-L-03	169	+/-	343	590	33	+/-	15	34
267-4-001-409A-FL-L-04	84	+/-	338	590	32	+/-	15	34
267-4-001-409-FL-L-05	74	+/-	337	590	48	+/-	18	34
267-4-001-409.2-FL-L-06	-105	+/-	326	590	26	+/-	14	34
267-4-001-410-FL-L-07	-21	+/-	332	590	40	+/-	17	34
267-4-001-410-FL-L-08	63	+/-	337	590	45	+/-	17	34
267-4-001-410B-FL-L-09	-105	+/-	326	590	44	+/-	17	34
267-4-001-411.1-FL-L-10	32	+/-	335	590	38	+/-	15	34
267-4-001-411-FL-L-11	158	+/-	342	590	30	+/-	14	34
267-4-001-411-FL-L-12	84	+/-	338	590	35	+/-	16	34
267-4-001-412.1-FL-L-13	32	+/-	335	590	43	+/-	18	34
267-4-001-412-CT-Y-14	-211	+/-	320	590	33	+/-	16	34
267-4-001-412B-FL-L-15	42	+/-	335	590	53	+/-	18	34
267-4-001-410-FH-M-16	84	+/-	332	590	41	+/-	18	34
267-4-001-410-VS-N-17					41	+/-	17	34
267-4-001-412-FH-M-18	-53	+/-	323	590	36	+/-	17	34
267-4-001-412-VS-N-19					36	+/-	16	34
Summary for Unit 4-002	Average	15			38			
	Minimum	-211			26			
	Maximum	169			53			
	Std. Dev.	113			7			

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results								
Building 267	Survey Unit 4-003				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements			
		Beta	MDC		Beta	MDC		
267-4-003-417-FL-D-01	221	+/-	143	237	43	+/-	18	34
267-4-003-417-FL-D-02	133	+/-	141	237	30	+/-	14	34
267-4-003-417-FL-D-03	163	+/-	142	237	43	+/-	15	34
267-4-003-417-FL-D-04	166	+/-	142	237	45	+/-	18	34
267-4-003-417-FL-D-05	37	+/-	139	237	42	+/-	18	34
267-4-003-417-FL-D-06	271	+/-	144	237	37	+/-	17	34
267-4-003-417-FL-D-07	-16	+/-	137	237	36	+/-	16	34
267-4-003-417-FL-D-08	67	+/-	139	237	47	+/-	19	34
267-4-003-417-FL-D-09	212	+/-	143	237	52	+/-	18	34
267-4-003-417-FL-D-10	19	+/-	138	237	27	+/-	15	34
267-4-003-417-FL-D-11	228	+/-	143	237	38	+/-	16	34
267-4-003-417-FL-D-12	214	+/-	143	237	38	+/-	16	34
267-4-003-417-FL-D-13	60	+/-	139	237	39	+/-	16	34
267-4-003-417-FL-D-14	343	+/-	146	237	54	+/-	19	34
267-4-003-417-FL-D-15	189	+/-	142	237	40	+/-	18	34
267-4-003-417-SK-N-16					45*	+/-	18	34
267-4-003-417-SK-N-17					38*	+/-	15	34
Summary for Unit 4-003	Average	154			41			
	Minimum	-16			27			
	Maximum	343			54			
	Std. Dev.	102			7			

All values are dpm/100 cm² unless otherwise noted* dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 4-004						Class 2	
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-4-004-419-FL-D-01	271	+/-	144	237	47	+/-	18	34	
267-4-004-419-FL-D-02	76	+/-	140	237	29	+/-	14	34	
267-4-004-419-FL-D-03	106	+/-	140	237	42	+/-	17	34	
267-4-004-419-FL-D-04	143	+/-	141	237	41	+/-	18	34	
267-4-004-419-FL-D-05	57	+/-	139	237	47	+/-	17	34	
267-4-004-419-FL-D-06	175	+/-	142	237	38	+/-	16	34	
267-4-004-419-FL-D-07	25	+/-	138	237	37	+/-	16	34	
267-4-004-419-FL-D-08	188	+/-	142	237	43	+/-	17	34	
267-4-004-419-FL-D-09	133	+/-	141	237	46	+/-	17	34	
267-4-004-419-FL-D-10	66	+/-	139	237	33	+/-	15	34	
267-4-004-419-FL-D-11	221	+/-	143	237	34	+/-	16	34	
267-4-004-419-FL-D-12	18	+/-	138	237	35	+/-	16	34	
267-4-004-419-FL-D-13	112	+/-	141	237	36	+/-	16	34	
267-4-004-419-FL-D-14	158	+/-	142	237	34	+/-	16	34	
267-4-004-419-FL-D-15	122	+/-	141	237	34	+/-	16	34	
Summary for Unit 4-004	Average	125			38				
	Minimum	18			29				
	Maximum	271			47				
	Std. Dev.	71			6				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 4-005						Class 2	
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-4-005-424-FL-L-01	-95	+/-	327	590	48	+/-	18	34	
267-4-005-424-FL-L-02	-53	+/-	330	590	53	+/-	18	34	
267-4-005-424-CT-Y-03	42	+/-	335	590	48	+/-	18	34	
267-4-005-424-FL-L-04	21	+/-	334	590	30	+/-	13	34	
267-4-005-424-FL-L-05	95	+/-	339	590	42	+/-	17	34	
267-4-005-424-FL-L-06	-232	+/-	318	590	25	+/-	14	34	
267-4-005-424-FL-L-07	126	+/-	340	590	34	+/-	16	34	
267-4-005-424-FL-L-08	74	+/-	337	590	44	+/-	17	34	
267-4-005-424-FL-L-09	11	+/-	334	590	40	+/-	18	34	
267-4-005-424.3-FL-L-10	232	+/-	347	590	38	+/-	17	34	
267-4-005-424.3-FL-L-11	-274	+/-	316	590	48	+/-	18	34	
267-4-005-424.3-FL-L-12	42	+/-	335	590	31	+/-	15	34	
267-4-005-424.3-FL-L-13	74	+/-	337	590	32	+/-	15	34	
267-4-005-424.3-FL-L-14	-74	+/-	328	590	53	+/-	19	34	
267-4-005-424.3-FL-L-15	400	+/-	356	590	44	+/-	18	34	
267-4-005-424-SK-Y-16					34*	+/-	15	34	
267-4-005-424-SK-Y-17					38*	+/-	16	34	
Summary for Unit 4-005	Average	26			41				
	Minimum	-274			25				
	Maximum	400			53				
	Std. Dev.	167			9				

All values are dpm/100 cm² unless otherwise noted * dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 4-006					Class 2		
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-4-006-429-FL-L-01	-74	+/-	328	590	39	+/-	17	34	
267-4-006-429-FL-L-02	32	+/-	335	590	51	+/-	18	34	
267-4-006-429-FL-L-03	179	+/-	344	590	42	+/-	17	34	
267-4-006-429-FL-L-04	-200	+/-	320	590	27	+/-	14	34	
267-4-006-429-FL-L-05	-84	+/-	328	590	41	+/-	17	34	
267-4-006-429-FL-L-06	53	+/-	336	590	39	+/-	15	34	
267-4-006-429-FL-L-07	-126	+/-	325	590	36	+/-	17	34	
267-4-006-429-FL-L-08	211	+/-	345	590	32	+/-	14	34	
267-4-006-429-CT-Y-09	42	+/-	335	590	36	+/-	15	34	
267-4-006-429-FL-L-10	-232	+/-	318	590	39	+/-	17	34	
267-4-006-429-CT-Y-11	-147	+/-	324	590	33	+/-	15	34	
267-4-006-429-FL-L-12	-316	+/-	313	590	51	+/-	19	34	
267-4-006-429-FL-L-13	63	+/-	337	590	55	+/-	19	34	
267-4-006-429-FL-L-14	295	+/-	350	590	46	+/-	18	34	
267-4-006-429-FL-L-15	63	+/-	337	590	24	+/-	13	34	
267-4-006-429-FH-M-16	-95	+/-	327	590	39	+/-	17	34	
Summary for Unit 4-006	Average	-21			39				
	Minimum	-316			24				
	Maximum	295			55				
	Std. Dev.	168			8				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 4-007					Class 2		
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-4-007-434-FL-L-01	58	+/-	125	212	40	+/-	17	34	
267-4-007-434-FL-L-02	108	+/-	126	212	37	+/-	17	34	
267-4-007-434-FL-L-03	152	+/-	127	212	42	+/-	17	34	
267-4-007-425-FL-L-04	-11	+/-	123	212	29	+/-	15	34	
267-4-007-425-FL-L-05	90	+/-	126	212	43	+/-	18	34	
267-4-007-425-FL-L-06	-41	+/-	122	212	32	+/-	15	34	
267-4-007-425-FL-L-07	-19	+/-	123	212	28	+/-	15	34	
267-4-007-436.3-FL-L-08	69	+/-	125	212	22	+/-	12	34	
267-4-007-436-FL-L-09	110	+/-	126	212	47	+/-	18	34	
267-4-007-436.1-FL-L-10	42	+/-	124	212	49	+/-	18	34	
267-4-007-436.1-FL-L-11	76	+/-	125	212	41	+/-	17	34	
267-4-007-436.1-FL-L-12	73	+/-	125	212	40	+/-	17	34	
267-4-007-436-FL-L-13	-30	+/-	122	212	47	+/-	18	34	
267-4-007-436-FL-L-14	-53	+/-	122	212	42	+/-	18	34	
267-4-007-436-FL-L-15	-64	+/-	121	212	31	+/-	14	34	
Summary for Unit 4-007	Average	37			38				
	Minimum	-64			22				
	Maximum	152			49				
	Std. Dev.	68			8				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 4-008				Class 3			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-4-008-427.2-FL-L-01	-89	+/-	130	227	34	+/-	15	34	
267-4-008-427.2-FL-L-02	-96	+/-	130	227	55	+/-	19	34	
267-4-008-408-FL-L-03	-51	+/-	131	227	45	+/-	17	34	
267-4-008-408-FL-L-04	-34	+/-	131	227	46	+/-	18	34	
267-4-008-408.1-FL-L-05	-39	+/-	131	227	41	+/-	17	34	
267-4-008-408.1-FL-L-06	51	+/-	134	227	30	+/-	15	34	
267-4-008-427.2-FL-L-07	124	+/-	135	227	41	+/-	17	34	
267-4-008-427.1-FL-L-08	-7	+/-	132	227	36	+/-	15	34	
267-4-008-427.1-FL-L-09	163	+/-	136	227	44	+/-	17	34	
267-4-008-427-FL-L-10	-129	+/-	129	227	42	+/-	16	34	
267-4-008-427-FL-L-11	16	+/-	133	227	38	+/-	18	34	
267-4-008-427-FL-L-12	150	+/-	136	227	35	+/-	17	34	
267-4-008-427-FL-L-13	-19	+/-	132	227	29	+/-	15	34	
267-4-008-427-FL-L-14	34	+/-	133	227	44	+/-	16	34	
267-4-008-424.3-FL-L-15	-12	+/-	132	227	38	+/-	14	34	
Summary for Unit 4-008	Average	4			40				
	Minimum	-129			29				
	Maximum	163			55				
	Std. Dev.	88			7				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 5-001				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-5-001-502-FL-D-01	127	+/-	136	227	40	+/-	17	34	
267-5-001-502-FL-D-02	163	+/-	136	227	38	+/-	17	34	
267-5-001-502-FL-D-03	239	+/-	138	227	50	+/-	19	34	
267-5-001-502-FL-D-04	74	+/-	134	227	37	+/-	16	34	
267-5-001-502-FL-D-05	207	+/-	138	227	42	+/-	18	34	
267-5-001-502-FL-D-06	188	+/-	137	227	47	+/-	19	34	
267-5-001-502-FL-D-07	914	+/-	154	227	32	+/-	15	34	
267-5-001-502-FL-D-08	912	+/-	154	227	30	+/-	15	34	
267-5-001-503-FL-L-09	27	+/-	133	227	31	+/-	15	34	
267-5-001-503-FL-L-10	-112	+/-	129	227	43	+/-	17	34	
267-5-001-503-FL-L-11	-108	+/-	130	227	32	+/-	15	34	
267-5-001-503-FL-L-12	-216	+/-	127	227	41	+/-	17	34	
267-5-001-503-FL-L-13	-66	+/-	131	227	39	+/-	16	34	
267-5-001-503-FL-L-14	-124	+/-	129	227	46	+/-	18	34	
267-5-001-502-VS-N-15					41*	+/-	18	34	
267-5-001-502-FH-M-16					50*	+/-	18	34	
Summary for Unit 5-001	Average	159			39				
	Minimum	-216			30				
	Maximum	914			50				
	Std. Dev.	349			6				

All values are dpm/100 cm² unless otherwise noted * dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 5-002				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-5-002-505-FL-L-01	-225	+/-	126	227	40	+/-	17	34	
267-5-002-505-FL-L-02	-101	+/-	130	227	41	+/-	17	34	
267-5-002-505-FL-L-03	0	+/-	132	227	43	+/-	17	34	
267-5-002-505-FL-L-04	-207	+/-	127	227	32	+/-	15	34	
267-5-002-505-FL-L-05	4	+/-	132	227	41	+/-	17	34	
267-5-002-506-FL-L-06	-124	+/-	129	227	44	+/-	18	34	
267-5-002-506-FL-L-07	-101	+/-	130	227	29	+/-	14	34	
267-5-002-506-FL-L-08	-90	+/-	130	227	39	+/-	17	34	
267-5-002-506-FL-L-09	-165	+/-	128	227	46	+/-	18	34	
267-5-002-506-FL-L-10	-186	+/-	127	227	25	+/-	14	34	
267-5-002-507-FL-L-11	-163	+/-	128	227	41	+/-	17	34	
267-5-002-507-FL-L-12	-41	+/-	131	227	44	+/-	18	34	
267-5-002-507-FL-L-13	-143	+/-	129	227	45	+/-	18	34	
267-5-002-507-FL-L-14	-76	+/-	130	227	31	+/-	15	34	
267-5-002-507-FL-L-15	-19	+/-	132	227	46	+/-	17	34	
267-5-002-507-FL-L-16	-147	+/-	128	227	27	+/-	14	34	
267-5-002-505-FH-M-17					30*	+/-	14	34	
267-5-002-507-VS-N-18					38*	+/-	16	34	
267-5-002-507-FH-M-19					47*	+/-	16	34	
Summary for Unit 5-002	Average	-112			38				
	Minimum	-225			25				
	Maximum	4			46				
	Std. Dev.	71			7				

All values are dpm/100 cm² unless otherwise noted* dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 5-003				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-5-003-508.1-FL-L-01	-117	+/-	129	227	31	+/-	16	34	
267-5-003-508.1-FL-L-02	27	+/-	133	227	59	+/-	19	34	
267-5-003-509-FL-L-03	-11	+/-	132	227	32	+/-	15	34	
267-5-003-509-FL-L-04	-30	+/-	132	227	52	+/-	18	34	
267-5-003-509-FL-L-05	-55	+/-	131	227	33	+/-	15	34	
267-5-003-509.1-FL-L-06	80	+/-	134	227	41	+/-	17	34	
267-5-003-510.1-FL-L-07	-64	+/-	131	227	35	+/-	16	34	
267-5-003-510-FL-L-08	-58	+/-	131	227	34	+/-	16	34	
267-5-003-510-FL-L-09	-62	+/-	131	227	43	+/-	17	34	
267-5-003-510-FL-L-10	-37	+/-	131	227	48	+/-	19	34	
267-5-003-511-FL-L-11	-113	+/-	129	227	44	+/-	17	34	
267-5-003-511-FL-L-12	25	+/-	133	227	43	+/-	17	34	
267-5-003-511.1-FL-L-13	-145	+/-	129	227	42	+/-	15	34	
267-5-003-512.1-FL-L-14	-172	+/-	128	227	31	+/-	15	34	
267-5-003-512-FL-L-15	69	+/-	134	227	44	+/-	18	34	
267-5-003-512-FL-L-16	-64	+/-	131	227	38	+/-	15	34	
267-5-003-508.1-FH-M-17	-147	+/-	317	290	37	+/-	17	34	
267-5-003-510-FH-M-18	-95	+/-	320	290	43	+/-	18	34	
Summary for Unit 5-003	Average	-54			41				
	Minimum	-172			31				
	Maximum	80			59				
	Std. Dev.	72			8				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 5-004						Class 2	
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-5-004-532.1-FL-L-01	-42	+/-	131	227	48	+/-	19	34	
267-5-004-532.1-FL-L-02	-165	+/-	128	227	50	+/-	18	34	
267-5-004-532-FL-M-03	-101	+/-	130	227	27	+/-	15	34	
267-5-004-534-FL-L-04	66	+/-	134	227	36	+/-	15	34	
267-5-004-534-FL-L-05	-218	+/-	127	227	37	+/-	17	34	
267-5-004-535-FL-K-06	-18	+/-	132	227	40	+/-	18	34	
267-5-004-535-FL-K-07	46	+/-	133	227	46	+/-	18	34	
267-5-004-535-FL-K-08	73	+/-	134	227	40	+/-	19	34	
267-5-004-535-FL-K-09	149	+/-	136	227	35	+/-	17	34	
267-5-004-531.2A-FL-D-10	891	+/-	154	227	43	+/-	16	34	
267-5-004-531-FL-D-11	806	+/-	152	227	34	+/-	16	34	
267-5-004-531-FL-D-12	850	+/-	153	227	38	+/-	15	34	
267-5-004-531-FL-D-13	27	+/-	133	227	35	+/-	16	34	
267-5-004-531-FL-D-14	189	+/-	137	227	34	+/-	16	34	
267-5-004-531-FL-D-15	326	+/-	140	227	45	+/-	17	34	
Summary for Unit 5-004	Average	192			39				
	Minimum	-218			27				
	Maximum	891			50				
	Std. Dev.	366			6				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 5-005						Class 2	
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-5-005-514.2-FL-G-01	986	+/-	156	227	39	+/-	17	34	
267-5-005-514.2-FL-G-02	1078	+/-	158	227	37	+/-	16	34	
267-5-005-514.2-FL-G-03	1153	+/-	159	227	40	+/-	17	34	
267-5-005-514.2-FL-G-04	1344	+/-	163	227	40	+/-	17	34	
267-5-005-514.2-FL-G-05	905	+/-	154	227	41	+/-	17	34	
267-5-005-514.2-FL-G-06	1105	+/-	158	227	41	+/-	17	34	
267-5-005-514.2-FL-G-07	1149	+/-	159	227	38	+/-	17	34	
267-5-005-514.2-FL-G-08	1192	+/-	160	227	39	+/-	16	34	
267-5-005-514.2-FL-G-09	1234	+/-	161	227	42	+/-	17	34	
267-5-005-514.2-FL-G-10	1406	+/-	165	227	40	+/-	17	34	
267-5-005-514.2-FL-G-11	1032	+/-	157	227	41	+/-	17	34	
267-5-005-514.2-FL-G-12	947	+/-	155	227	39	+/-	16	34	
267-5-005-514.2-FL-G-13	951	+/-	155	227	38	+/-	17	34	
267-5-005-514.2-FL-G-14	1195	+/-	160	227	37	+/-	17	34	
267-5-005-514.2-FL-G-15	1138	+/-	159	227	38	+/-	16	34	
Summary for Unit 5-005	Average	1121			39				
	Minimum	905			37				
	Maximum	1406			42				
	Std. Dev.	144			2				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 5-006						Class 3	
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-5-006-508-FL-L-01	97	+/-	135	227	42	+/-	17	34	
267-5-006-527-FL-L-02	34	+/-	133	227	38	+/-	17	34	
267-5-006-527-FL-L-03	-9	+/-	132	227	41	+/-	16	34	
267-5-006-527.1-FL-L-04	106	+/-	135	227	25	+/-	13	34	
267-5-006-508.2-FL-L-05	58	+/-	134	227	34	+/-	16	34	
267-5-006-508.2-FL-L-06	-129	+/-	129	227	45	+/-	17	34	
267-5-006-508.2-FL-L-07	-44	+/-	131	227	47	+/-	18	34	
267-5-006-508.2-FL-L-08	-11	+/-	132	227	41	+/-	17	34	
267-5-006-508.2-FL-L-09	34	+/-	133	227	21	+/-	13	34	
267-5-006-536-FL-L-10	-94	+/-	130	227	44	+/-	17	34	
267-5-006-536-FL-L-11	-37	+/-	131	227	34	+/-	15	34	
267-5-006-523.1-FL-L-12	62	+/-	134	227	41	+/-	17	34	
267-5-006-523.1-FL-L-13	19	+/-	133	227	41	+/-	16	34	
267-5-006-523.1-FL-L-14	-48	+/-	131	227	50	+/-	19	34	
267-5-006-523.1-FL-L-15	-23	+/-	132	227	35	+/-	16	34	
267-5-006-508-FL-L-16	-35	+/-	131	227	45	+/-	18	34	
267-5-006-508-FL-L-17	66	+/-	134	227	34	+/-	15	34	
Summary for Unit 5-006	Average	3			39				
	Minimum	-129			21				
	Maximum	106			50				
	Std. Dev.	65			8				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 6-001						Class 2	
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-6-001-601-FL-D-01	103	+/-	135	227	45	+/-	19	34	
267-6-001-601-FL-D-02	-149	+/-	128	227	37	+/-	16	34	
267-6-001-601-FL-D-03	71	+/-	134	227	43	+/-	17	34	
267-6-001-601-FL-D-04	48	+/-	134	227	43	+/-	17	34	
267-6-001-601-FL-D-05	120	+/-	135	227	48	+/-	19	34	
267-6-001-601-FL-D-06	101	+/-	135	227	43	+/-	18	34	
267-6-001-601-FL-D-07	-39	+/-	131	227	38	+/-	17	34	
267-6-001-601-FL-D-08	58	+/-	134	227	39	+/-	17	34	
267-6-001-601-FL-D-09	-66	+/-	131	227	33	+/-	15	34	
267-6-001-626.1-FL-D-10	42	+/-	133	227	42	+/-	17	34	
267-6-001-626.1-FL-D-11	-28	+/-	132	227	44	+/-	19	34	
267-6-001-626.1-FL-D-12	76	+/-	134	227	55	+/-	21	34	
267-6-001-626.1-FL-D-13	62	+/-	134	227	48	+/-	18	34	
267-6-001-626.1-FL-D-14	-11	+/-	132	227	35	+/-	16	34	
267-6-001-626.1-FL-D-15	96	+/-	135	227	52	+/-	19	34	
Summary for Unit 6-001	Average	32			43				
	Minimum	-149			33				
	Maximum	120			55				
	Std. Dev.	75			6				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 6-002						Class 2	
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta	MDC	Beta	MDC	Beta	MDC			
267-6-002-602-1-FL-L-01	16	+/-	133	227	30	+/-	15	34	
267-6-002-602-FL-L-02	-85	+/-	130	227	44	+/-	18	34	
267-6-002-602-FL-L-03	-34	+/-	131	227	35	+/-	16	34	
267-6-002-602-FL-L-04	44	+/-	133	227	37	+/-	16	34	
267-6-002-602-FL-L-05	-174	+/-	128	227	40	+/-	16	34	
267-6-002-603-FL-L-06	-73	+/-	130	227	38	+/-	16	34	
267-6-002-603-FL-L-07	-74	+/-	130	227	36	+/-	16	34	
267-6-002-603-FL-L-08	-11	+/-	132	227	46	+/-	17	34	
267-6-002-603-FL-L-09	-76	+/-	130	227	50	+/-	18	34	
267-6-002-603-FL-L-10	-39	+/-	131	227	31	+/-	14	34	
267-6-002-604-FL-L-11	7	+/-	133	227	43	+/-	18	34	
267-6-002-604-FL-L-12	-18	+/-	132	227	36	+/-	15	34	
267-6-002-604-FL-L-13	-12	+/-	132	227	35	+/-	15	34	
267-6-002-604.1-FL-L-14	-27	+/-	132	227	45	+/-	16	34	
267-6-002-604-FL-L-15	96	+/-	135	227	43	+/-	17	34	
267-6-002-604-FL-L-16	23	+/-	133	227	27	+/-	17	34	
267-6-002-604-FL-L-17	-35	+/-	131	227	48	+/-	13	34	
267-6-002-602-FH-M-18	63	+/-	330	1180	40	+/-	19	34	
267-6-002-602-VS-N-19					34*	+/-	18	34	
267-6-002-603-FH-M-20	179	+/-	337	1180	35	+/-	15	34	
267-6-002-603-VS-N-21					49*	+/-	19	34	
Summary for Unit 6-002	Average	-12			39				
	Minimum	-174			27				
	Maximum	179			50				
	Std. Dev.	76			6				

All values are dpm/100 cm² unless otherwise noted * dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 6-003						Class 2	
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta	MDC	Beta	MDC	Beta	MDC			
267-6-003-606-FL-L-01	-55	+/-	131	227	39	+/-	17	34	
267-6-003-606-FL-L-02	35	+/-	133	227	38	+/-	17	34	
267-6-003-606-FL-L-03	-108	+/-	130	227	52	+/-	18	34	
267-6-003-606-FL-L-04	-11	+/-	132	227	38	+/-	16	34	
267-6-003-606-FL-L-05	-41	+/-	131	227	45	+/-	17	34	
267-6-003-606-CT-Y-06	85	+/-	134	227	42	+/-	17	34	
267-6-003-606-FL-L-07	-9	+/-	132	227	38	+/-	17	34	
267-6-003-607-FL-G-08	915	+/-	154	227	34	+/-	16	34	
267-6-003-607-FL-G-09	929	+/-	154	227	39	+/-	15	34	
267-6-003-607-CT-Y-10	905	+/-	154	227	38	+/-	17	34	
267-6-003-607-FL-G-11	929	+/-	154	227	37	+/-	15	34	
267-6-003-607-FL-G-12	894	+/-	154	227	39	+/-	16	34	
267-6-003-607.1-FL-G-13	1153	+/-	159	227	39	+/-	16	34	
267-6-003-607-FL-G-14	1036	+/-	157	227	50	+/-	18	34	
267-6-003-606-FH-M-15	-105	+/-	646	590	36	+/-	16	34	
267-6-003-606-VS-N-16					41*	+/-	17	34	
267-6-003-607-FH-M-17	-147	+/-	644	590	41	+/-	16	34	
267-6-003-607-VS-N-18					37*	+/-	16	34	
Summary for Unit 6-003	Average	400			40				
	Minimum	-147			34				
	Maximum	1153			52				
	Std. Dev.	521			5				

All values are dpm/100 cm² unless otherwise noted * dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 6-004				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta	Beta	MDC		Beta	Beta	MDC		
267-6-004-610-FL-L-01	-142	+/-	129	227	36	+/-	15	34	
267-6-004-610.1-FL-L-02	-119	+/-	129	227	54	+/-	19	34	
267-6-004-610-FL-L-03	-115	+/-	129	227	34	+/-	15	34	
267-6-004-610-FL-L-04	-99	+/-	130	227	36	+/-	16	34	
267-6-004-610-FL-L-05	-50	+/-	131	227	30	+/-	15	34	
267-6-004-610-FL-L-06	-168	+/-	128	227	34	+/-	16	34	
267-6-004-610-FL-L-07	-50	+/-	131	227	41	+/-	17	34	
267-6-004-610-CT-Y-08	-62	+/-	131	227	44	+/-	18	34	
267-6-004-610-FL-L-09	-74	+/-	130	227	35	+/-	16	34	
267-6-004-610-CT-Y-10	-5	+/-	132	227	32	+/-	14	34	
267-6-004-610-FL-L-11	-101	+/-	130	227	43	+/-	17	34	
267-6-004-610-FL-L-12	-19	+/-	132	227	36	+/-	17	34	
267-6-004-610-FL-L-13	67	+/-	134	227	53	+/-	19	34	
267-6-004-610-FL-L-14	76	+/-	134	227	43	+/-	18	34	
267-6-004-610-FL-L-15	62	+/-	134	227	31	+/-	15	34	
267-6-004-610-FH-M-16	369	+/-	349	560	43	+/-	18	34	
267-6-004-610-SK-N-17					41*	+/-	17	34	
267-6-004-610-SK-N-18					36*	+/-	15	34	
Summary for Unit 6-004	Average	-27			39				
	Minimum	-168			30				
	Maximum	369			54				
	Std. Dev.	129			7				

All values are dpm/100 cm² unless otherwise noted; * dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 6-005				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta	Beta	MDC		Beta	Beta	MDC		
267-6-005-629.1-FL-L-01	-44	+/-	131	227	44	+/-	18	34	
267-6-005-629-FL-L-02	-182	+/-	128	227	36	+/-	16	34	
267-6-005-630-FL-L-03	-112	+/-	129	227	43	+/-	18	34	
267-6-005-630.1-FL-L-04	-138	+/-	129	227	39	+/-	16	34	
267-6-005-631-FL-L-05	50	+/-	134	227	46	+/-	17	34	
267-6-005-629.4-FL-L-06	97	+/-	135	227	49	+/-	18	34	
267-6-005-629.4-FL-L-07	48	+/-	134	227	47	+/-	17	34	
267-6-005-629.4-FL-L-08	48	+/-	134	227	36	+/-	17	34	
267-6-005-629.4-FL-L-09	69	+/-	134	227	28	+/-	14	34	
267-6-005-629.4-FL-L-10	163	+/-	136	227	37	+/-	17	34	
267-6-005-634-FL-L-11	44	+/-	133	227	41	+/-	17	34	
267-6-005-634-FL-L-12	127	+/-	136	227	31	+/-	14	34	
267-6-005-634-FL-L-13	-92	+/-	130	227	29	+/-	15	34	
267-6-005-634-FL-L-14	143	+/-	136	227	44	+/-	18	34	
267-6-005-634-FL-L-15	99	+/-	135	227	38	+/-	16	34	
267-6-005-634-FL-L-16	-103	+/-	130	227	28	+/-	13	34	
267-6-005-634-FL-L-17	41	+/-	133	227	41	+/-	17	34	
Summary for Unit 6-005	Average	15			39				
	Minimum	-182			28				
	Maximum	163			49				
	Std. Dev.	106			7				

All values are dpm/100 cm² unless otherwise noted

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 6-006				Class 2			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-6-006-616-FL-L-01	-108	+/-	130	227	50	+/-	18	34	
267-6-006-616-FL-L-02	-150	+/-	128	227	43	+/-	17	34	
267-6-006-616-FL-L-03	67	+/-	134	227	28	+/-	14	34	
267-6-006-616-FL-L-04	-140	+/-	129	227	47	+/-	17	34	
267-6-006-617-FL-L-05	96	+/-	135	227	47	+/-	18	34	
267-6-006-617-FL-L-06	78	+/-	134	227	33	+/-	15	34	
267-6-006-617-FL-L-07	66	+/-	134	227	29	+/-	14	34	
267-6-006-618-CT-Y-08	67	+/-	134	227	33	+/-	16	34	
267-6-006-618-FL-L-09	-119	+/-	129	227	36	+/-	15	34	
267-6-006-618-FL-L-10	44	+/-	133	227	35	+/-	17	34	
267-6-006-619-FL-L-11	-94	+/-	130	227	54	+/-	19	34	
267-6-006-619-FL-L-12	-25	+/-	132	227	48	+/-	18	34	
267-6-006-619-FL-L-13	-67	+/-	131	227	48	+/-	18	34	
267-6-006-620-FL-L-14	78	+/-	134	227	35	+/-	17	34	
267-6-006-620-FL-L-15	44	+/-	133	227	42	+/-	17	34	
267-6-006-620-FL-L-16	-115	+/-	129	227	43	+/-	17	34	
267-6-006-617-FH-M-17	-179	+/-	315	580	36	+/-	15	34	
267-6-006-620-FH-M-18	-105	+/-	320	580	39	+/-	17	34	
267-6-006-617-SK-N-19					36*	+/-	16	34	
267-6-006-617-VS-N-20					48*	+/-	18	34	
267-6-006-619-SK-N-21					35*	+/-	16	34	
267-6-006-619-VS-N-22					37*	+/-	15	34	
267-6-006-620-VS-N-23					33*	+/-	16	34	
267-6-006-620-VS-N-24					38*	+/-	17	34	
Summary for Unit 6-006	Average	-31			40				
	Minimum	-179			28				
	Maximum	96			54				
	Std. Dev.	97			8				

All values are dpm/100 cm² unless otherwise noted *dpm/smear

Building Surface and Structure Final Status Survey Results									
Building 267		Survey Unit 6-007				Class 3			
Location Code	Total Activity Measurements				Removable Activity Measurements				
		Beta		MDC		Beta		MDC	
267-6-007-633-FL-L-01	23	+/-	133	227	48	+/-	18	34	
267-6-007-633-FL-L-02	73	+/-	134	227	42	+/-	18	34	
267-6-007-633-FL-L-03	-64	+/-	131	227	34	+/-	16	34	
267-6-007-633-FL-L-04	74	+/-	134	227	41	+/-	17	34	
267-6-007-629.3-FL-L-05	-46	+/-	131	227	47	+/-	18	34	
267-6-007-629.3-FL-L-06	-129	+/-	129	227	33	+/-	15	34	
267-6-007-629.3-FL-L-07	53	+/-	134	227	34	+/-	17	34	
267-6-007-629.3-FL-L-08	113	+/-	135	227	30	+/-	15	34	
267-6-007-629.3-FL-L-09	-120	+/-	129	227	41	+/-	16	34	
267-6-007-629.3-FL-L-10	66	+/-	138	227	46	+/-	17	34	
267-6-007-629.3-FL-L-11	-34	+/-	131	227	50	+/-	19	34	
267-6-007-629.3-FL-L-12	170	+/-	137	227	39	+/-	17	34	
267-6-007-608-FL-L-13	-104	+/-	130	227	39	+/-	16	34	
267-6-007-608-FL-L-14	-140	+/-	129	227	37	+/-	14	34	
267-6-007-608-FL-L-15	158	+/-	136	227	29	+/-	15	34	
Summary for Unit 6-007	Average	6			39				
	Minimum	-140			29				
	Maximum	170			50				
	Std. Dev.	105			7				
All values are dpm/100 cm ² unless otherwise noted									

Appendix H
Building System Component Final Status Survey Results

Appendix H		Building System Component Final Status Survey Results							
Building 267 Basement Sump and Vacuum System									
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta	Beta	MDC	MDC	Beta	Beta	MDC	MDC
267-0-002-SU-001		N/A	N/A	N/A	N/A	53	+/-	20	34
	Average					53			
	Minimum					53			
	Maximum					53			
	Std. Dev.					N/A			
267-6-008-VS-W3B		N/A	N/A	N/A	N/A	48	+/-	20	34
						42	+/-	17	
						31	+/-	16	
	Average					40			
	Minimum					31			
	Maximum					48			
	Std. Dev.					8			

**Appendix I
Quality Assurance Results**

		QA Results							
Building 267									
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta	MDC	Beta	MDC				
267-0-001-038-FL-13		N/A	N/A	N/A	N/A	42	+/-	16	34
267-0-001-038-FL-13A		N/A	N/A	N/A	N/A	56	+/-	18	34
267-0-001-038-FL-16		843	+/-	381	590	N/A	N/A	N/A	N/A
267-0-001-038-FL-16A		727	+/-	374	590	N/A	N/A	N/A	N/A
	Average	785				49			
	Minimum	727				42			
	Maximum	843				56			
	Std. Dev.	82				10			
267-1-001-118-FL-06		N/A	N/A	N/A	N/A	41	+/-	17	34
267-1-001-118-FL-06A		N/A	N/A	N/A	N/A	49	+/-	18	34
267-1-001-118.1-FL-15		-105	+/-	760	590	N/A	N/A	N/A	N/A
267-1-001-118.1-FL-15A		-63	+/-	765	590	N/A	N/A	N/A	N/A
	Average	-84				45			
	Minimum	-105				41			
	Maximum	-63				49			
	Std. Dev.	30				6			
267-1-002-131-FL-15		-400	+/-	308	590	N/A	N/A	N/A	N/A
267-1-002-131-FL-15A		-348	+/-	311	590	N/A	N/A	N/A	N/A
	Average	-374							
	Minimum	-400							
	Maximum	-348							
	Std. Dev.	37							
All values are dpm/100 cm ²									

		QA Results							
Building 267									
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta	MDC	Beta	MDC				
267-1-003-133.1FL-15		221	+/-	346	590	N/A	N/A	N/A	N/A
267-1-003-133.1FL-15A		421	+/-	358	590	N/A	N/A	N/A	N/A
	Average	321							
	Minimum	221							
	Maximum	421							
	Std. Dev.	141							
267-3-001-307-FL-15		-158	+/-	323	590	N/A	N/A	N/A	N/A
267-3-001-307-FL-15A		-95	+/-	327	590	N/A	N/A	N/A	N/A
267-3-001-304-CT-07		N/A	N/A	N/A	N/A	47	+/-	17	34
267-3-001-304-CT-07A		N/A	N/A	N/A	N/A	48	+/-	17	34
	Average	-127				47			
	Minimum	-158				47			
	Maximum	-95				47			
	Std. Dev.	45				1			
267-3-002-310-FL-08		N/A	N/A	N/A	N/A	30	+/-	14	34
267-3-002-310-FL-08A		N/A	N/A	N/A	N/A	57	+/-	18	34
267-3-002-312-FL-15		-126	+/-	325	590	N/A	N/A	N/A	N/A
267-3-002-312-FL-15A		-74	+/-	328	590	N/A	N/A	N/A	N/A
	Average	-100				44			
	Minimum	-126				30			
	Maximum	-74				57			
	Std. Dev.	37				19			
All values are dpm/100 cm ²									

		QA Results							
Building 267									
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta	MDC			Beta	MDC			
267-3-003-320-FL-15	-42 +/-	330	590		30 +/-	16	34		
267-3-003-320-FL-15A	11 +/-	334	590		48 +/-	19	34		
	Average	-16			39				
	Minimum	-42			30				
	Maximum	11			48				
	Std. Dev.	37			13				
267-3-004-324-CT-05	N/A	N/A	N/A	N/A	42 +/-	16	34		
267-3-004-324-CT-05A	N/A	N/A	N/A	N/A	48 +/-	19	34		
267-3-004-324-FL-15	32 +/-	335	590		N/A	N/A	N/A	N/A	
267-3-004-324-FL-15A	74 +/-	337	590		N/A	N/A	N/A	N/A	
	Average	53			45				
	Minimum	32			42				
	Maximum	74			48				
	Std. Dev.	30			4				
267-3-004-324-FL-06	N/A	N/A	N/A	N/A	33 +/-	15	34		
267-3-004-324-FL-06A	N/A	N/A	N/A	N/A	44 +/-	17	34		
267-3-004-324-FL-15	63 +/-	670	1181		N/A	N/A	N/A	N/A	
267-3-004-324-FL-15A	147 +/-	675	1181		N/A	N/A	N/A	N/A	
	Average	105			39				
	Minimum	63			33				
	Maximum	147			44				
	Std. Dev.	59			8				

All values are dpm/100 cm²

		QA Results							
Building 267									
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta	MDC			Beta	MDC			
267-3-005-328.1-CT-13	N/A	N/A	N/A	N/A	45 +/-	17	34		
267-3-005-328.1-CT-13A	N/A	N/A	N/A	N/A	37 +/-	15	34		
267-3-005-328.1-FL-15	-42 +/-	330	590		N/A	N/A	N/A	N/A	
267-3-005-328.1-FL-15A	53 +/-	336	590		N/A	N/A	N/A	N/A	
	Average	6			41				
	Minimum	-42			37				
	Maximum	53			45				
	Std. Dev.	67			6				
267-3-006-331.2-FL-15	400 +/-	354	590		N/A	N/A	N/A	N/A	
267-3-006-331.2-FL-15A	327 +/-	350	590		N/A	N/A	N/A	N/A	
	Average	364							
	Minimum	327							
	Maximum	400							
	Std. Dev.	52							
267-3-007-333.2-FL-03	N/A	N/A	N/A	N/A	34 +/-	16	34		
267-3-007-333.2-FL-03A	N/A	N/A	N/A	N/A	33 +/-	13	34		
	Average				34				
	Minimum				33				
	Maximum				34				
	Std. Dev.				1				

All values are dpm/100 cm²

QA Results									
Building 267									
Location Code	Total Activity Measurements					Removable Activity Measurements			
	Beta	MDC		Beta	MDC				
267-3-007-333.2-CT-08	N/A	N/A	N/A	N/A	43	+/-	17	34	
267-3-007-333.2-CT-08A	N/A	N/A	N/A	N/A	37	+/-	17	34	
	Average				40				
	Minimum				37				
	Maximum				43				
	Std. Dev.				4				
267-3-008-334.3-FL-15	116	+/-	340	590	N/A	N/A	N/A	N/A	
267-3-008-334.3-FL-15A	158	+/-	342	590	N/A	N/A	N/A	N/A	
267-3-008-385-FL-10	N/A	N/A	N/A	N/A	41	+/-	17	34	
267-3-008-385-FL-10A	N/A	N/A	N/A	N/A	55	+/-	19	34	
	Average	137			41				
	Minimum	116			41				
	Maximum	158			41				
	Std. Dev.	30			10				
267-4-001-403-FL-06	N/A	N/A	N/A	N/A	32	+/-	15	34	
267-4-001-403-FL-06A	N/A	N/A	N/A	N/A	39	+/-	18	34	
267-4-001-407-FL-15	-21	+/-	332	590	N/A	N/A	N/A	N/A	
267-4-001-407-FL-15A	32	+/-	335	590	N/A	N/A	N/A	N/A	
	Average	6			36				
	Minimum	-21			32				
	Maximum	32			39				
	Std. Dev.	37			5				

All values are dpm/100 cm²

QA Results									
Building 267									
Location Code	Total Activity Measurements					Removable Activity Measurements			
	Beta	MDC		Beta	MDC				
267-4-001-402-FL-03	N/A	N/A	N/A	N/A	49	+/-	18	34	
267-4-001-402-FL-03A	N/A	N/A	N/A	N/A	29	+/-	15	34	
	Average				39				
	Minimum				29				
	Maximum				49				
	Std. Dev.				14				
Location Code	Total Activity Measurements					Removable Activity Measurements			
	Beta	MDC		Beta	MDC				
267-4-002-412B-FL-15	42	+/-	335	590	N/A	N/A	N/A	N/A	
267-4-002-412B-FL-15A	137	+/-	341	590	N/A	N/A	N/A	N/A	
267-4-002-409-CT-02	N/A	N/A	N/A	N/A	34	+/-	17	34	
267-4-002-409-CT-02A	N/A	N/A	N/A	N/A	37	+/-	17	N/A	
	Average	90			36				
	Minimum	42			34				
	Maximum	137			37				
	Std. Dev.	67			2				
Location Code	Total Activity Measurements					Removable Activity Measurements			
	Beta	MDC		Beta	MDC				
267-4-001-405-CT-09	N/A	N/A	N/A	N/A	29	+/-	15	34	
267-4-001-405-CT-9A	N/A	N/A	N/A	N/A	43	+/-	16	34	
	Average				29				
	Minimum				29				
	Maximum				29				
	Std. Dev.				10				

All values are dpm/100 cm²

		QA Results							
Building 267									
Location Code	Total Activity Measurements					Removable Activity Measurements			
	Beta	N/A	N/A	MDC		Beta		MDC	
267-4-003-417-FL-06	N/A	N/A	N/A	N/A		37	+/-	17	34
267-4-003-417-FL-06A	N/A	N/A	N/A	N/A		33	+/-	15	34
	Average					35			
	Minimum					33			
	Maximum					37			
	Std. Dev.					3			
267-4-003-417-FL-01	N/A	N/A	N/A	N/A		43	+/-	18	34
267-4-003-417-FL-01A	N/A	N/A	N/A	N/A		47	+/-	19	34
	Average					45			
	Minimum					43			
	Maximum					47			
	Std. Dev.					3			
267-4-004-419-FL-09	N/A	N/A	N/A	N/A		46	+/-	17	34
267-4-004-419-FL-09A	N/A	N/A	N/A	N/A		50	+/-	19	34
	Average					48			
	Minimum					46			
	Maximum					50			
	Std. Dev.					3			
267-4-004-419-FL-14	N/A	N/A	N/A	N/A		43	+/-	18	34
267-4-004-419-FL-14A	N/A	N/A	N/A	N/A		42	+/-	18	34
	Average					43			
	Minimum					42			
	Maximum					43			
	Std. Dev.					1			

All values are dpm/100 cm²

		QA Results							
Building 267									
Location Code	Total Activity Measurements					Removable Activity Measurements			
	Beta	N/A	N/A	MDC		Beta		MDC	
267-4-004-419-FL-15	122	+/-	141	237		N/A	N/A	N/A	N/A
267-4-004-419-FL-15A	212	+/-	140	237		N/A	N/A	N/A	N/A
267-4-005-424.3-FL-15	N/A	N/A	N/A	N/A		44	+/-	18	34
267-4-005-424.3-FL-15A	N/A	N/A	N/A	N/A		55	+/-	19	34
	Average	167				44			
	Minimum	122				44			
	Maximum	212				44			
	Std. Dev.	64				8			
267-4-005-424.3-FL-15	400	+/-	356	590		N/A	N/A	N/A	N/A
267-4-005-424.3-FL-15A	453	+/-	359	590		N/A	N/A	N/A	N/A
267-4-006-429-FL-05	N/A	N/A	N/A	N/A		41	+/-	17	34
267-4-006-429-FL-05A	N/A	N/A	N/A	N/A		41	+/-	17	N/A
	Average	427				41			
	Minimum	400				41			
	Maximum	453				41			
	Std. Dev.	37				0			
267-4-007-436-FL-15	-64	+/-	121	212		N/A	N/A	N/A	N/A
267-4-007-436-FL-15A	-48	+/-	122	212		N/A	N/A	N/A	N/A
	Average	-56							
	Minimum	-64							
	Maximum	-48							
	Std. Dev.	11							

All values are dpm/100 cm²

		QA Results							
Building 267									
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta	MDC	Beta	MDC				
267-4-008-424.3-FL-15		-12	+/-	132	227	N/A	N/A	N/A	N/A
267-4-008-424.3-FL-15A		-71	+/-	130	227	N/A	N/A	N/A	N/A
	Average	-42							
	Minimum	-71							
	Maximum	-12							
	Std. Dev.	42							
267-5-001-503.2B-FL-14		-124	+/-	129	227	N/A	N/A	N/A	N/A
267-5-001-503.2B-FL-14A		-115	+/-	129	227	N/A	N/A	N/A	N/A
	Average	-120							
	Minimum	-124							
	Maximum	-115							
	Std. Dev.	6							
267-5-002-507-FL-15		-19	+/-	132	227	N/A	N/A	N/A	N/A
267-5-002-507-FL-15A		-205	+/-	127	227	N/A	N/A	N/A	N/A
	Average	-112							
	Minimum	-205							
	Maximum	-19							
	Std. Dev.	132							
267-5-002-506-FL-07		N/A	N/A	N/A	N/A	29	+/-	14	34
267-5-002-506-FL-07A		N/A	N/A	N/A	N/A	32	+/-	15	34
	Average					31			
	Minimum					29			
	Maximum					32			
	Std. Dev.					2			

All values are dpm/100 cm²

		QA Results							
Building 267									
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta	MDC	Beta	MDC				
267-5-003-512-FL-16		-64	+/-	131	227	N/A	N/A	N/A	N/A
267-5-003-512-FL-16A		-39	+/-	131	227	N/A	N/A	N/A	N/A
	Average	-52							
	Minimum	-64							
	Maximum	-39							
	Std. Dev.	18							
267-5-003-511-FL-11		N/A	N/A	N/A	N/A	44	+/-	17	34
267-5-003-511-FL-11A		N/A	N/A	N/A	N/A	61	+/-	19	34
	Average					53			
	Minimum					44			
	Maximum					61			
	Std. Dev.					12			
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta	MDC	Beta	MDC				
267-5-003-511-FL-11		N/A	N/A	N/A	N/A	44	+/-	17	34
267-5-003-511-FL-11A		N/A	N/A	N/A	N/A	61	+/-	19	34
	Average					53			
	Minimum					44			
	Maximum					61			
	Std. Dev.					12			

All values are dpm/100 cm²

		QA Results							
Building 267									
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta		MDC		Beta		MDC	
267-5-003-512-FL-15		N/A	N/A	N/A	N/A	44	+/-	18	34
267-5-003-512-FL-15A		N/A	N/A	N/A	N/A	46	+/-	18	34
	Average					45			
	Minimum					44			
	Maximum					46			
	Std. Dev.					1			
267-5-004-531-FL-15		326	+/-	140	227	N/A	N/A	N/A	N/A
267-5-004-531-FL-15A		269	+/-	139	227	N/A	N/A	N/A	N/A
	Average	298							
	Minimum	269							
	Maximum	326							
	Std. Dev.	40							
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta		MDC		Beta		MDC	
267-5-005-514.2-FL-15		1138	+/-	159	227	N/A	N/A	N/A	N/A
267-5-005-514.2-FL-15A		1119	+/-	158	227	N/A	N/A	N/A	N/A
	Average	1129							
	Minimum	1119							
	Maximum	1138							
	Std. Dev.	13							
All values are dpm/100 cm ²									

		QA Results							
Building 267									
267-5-005-514.2-FL-07		N/A	N/A	N/A	N/A	38	+/-	17	34
267-5-005-514.2-FL-07A		N/A	N/A	N/A	N/A	43	+/-	17	34
	Average					41			
	Minimum					38			
	Maximum					43			
	Std. Dev.					4			
267-5-006-523.1-FL-15		-23	+/-	132	227	N/A	N/A	N/A	N/A
267-5-006-523.1-FL-15A		-11	+/-	132	227	N/A	N/A	N/A	N/A
	Average	-17							
	Minimum	-23							
	Maximum	-11							
	Std. Dev.	8							
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta		MDC		Beta		MDC	
267-6-001-626.1-FL-15		96	+/-	135	227	N/A	N/A	N/A	N/A
267-6-001-626.1-FL-15A		127	+/-	136	227	N/A	N/A	N/A	N/A
	Average	112							
	Minimum	96							
	Maximum	127							
	Std. Dev.	22							
All values are dpm/100 cm ²									

		QA Results							
Building 267									
267-6-001-601-FL-05		N/A	N/A	N/A	N/A	48	+/-	19	34
267-6-001-601-FL-05A		N/A	N/A	N/A	N/A	47	+/-	18	34
	Average					48			
	Minimum					47			
	Maximum					48			
	Std. Dev.					1			
267-6-002-604-FL-15		96	+/-	135	227	N/A	N/A	N/A	N/A
267-6-002-604-FL-15A		69	+/-	134	227	N/A	N/A	N/A	N/A
	Average	83							
	Minimum	69							
	Maximum	96							
	Std. Dev.	19							
Location Code		Total Activity Measurements				Removable Activity Measurements			
			Beta	MDC			Beta	MDC	
267-6-002-603-FL-07		N/A	N/A	N/A	N/A	36	+/-	16	34
267-6-002-603-FL-07A		N/A	N/A	N/A	N/A	39	+/-	18	34
	Average					38			
	Minimum					36			
	Maximum					39			
	Std. Dev.					2			
All values are dpm/100 cm ²									

		QA Results							
Building 267									
Location Code		Total Activity Measurements				Removable Activity Measurements			
			Beta	MDC			Beta	MDC	
267-6-003-607-FL-14		1036	+/-	157	227	N/A	N/A	N/A	N/A
267-6-003-607-FL-14A		1084	+/-	158	227	N/A	N/A	N/A	N/A
	Average	1060							
	Minimum	1036							
	Maximum	1084							
	Std. Dev.	34							
267-6-004-610-CT-08		N/A	N/A	N/A	N/A	44	+/-	18	34
267-6-004-610-CT-08A		N/A	N/A	N/A	N/A	52	+/-	19	34
	Average					48			
	Minimum					44			
	Maximum					52			
	Std. Dev.					6			
267-6-004-610-FL-15		62	+/-	134	227	N/A	N/A	N/A	N/A
267-6-004-610-FL-15A		53	+/-	134	227	N/A	N/A	N/A	N/A
	Average	58							
	Minimum	53							
	Maximum	62							
	Std. Dev.	6							
All values are dpm/100 cm ²									

		QA Results							
Building 267									
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta		MDC		Beta		MDC	
267-6-005-634-FL-17		41	+/-	133	227	N/A	N/A	N/A	N/A
267-6-005-634-FL-17A		25	+/-	133	227	N/A	N/A	N/A	N/A
	Average	33							
	Minimum	25							
	Maximum	41							
	Std. Dev.	11							
267-6-006-620-FL-16		-115	+/-	129	227	N/A	N/A	N/A	N/A
267-6-006-620-FL-16A		-99	+/-	130	227	N/A	N/A	N/A	N/A
	Average	-107							
	Minimum	-115							
	Maximum	-99							
	Std. Dev.	11							
267-6-006-619-FL-12		N/A	N/A	N/A	N/A	48	+/-	18	34
267-6-006-619-FL-12A		N/A	N/A	N/A	N/A	41	+/-	17	34
	Average					45			
	Minimum					41			
	Maximum					48			
	Std. Dev.					5			
267-6-007-608-FL-15		158	+/-	136	455	N/A	N/A	N/A	N/A
267-6-007-608-FL-15A		124	+/-	135	455	N/A	N/A	N/A	N/A
	Average	141							
	Minimum	124							
	Maximum	158							
	Std. Dev.	24							

All values are dpm/100 cm²

		QA Results							
Building 267									
Location Code		Total Activity Measurements				Removable Activity Measurements			
		Beta		MDC		Beta		MDC	
267-6-007-629.3-FL-10		N/A	N/A	N/A	N/A	46	+/-	17	34
267-6-007-629.3-FL-10A		N/A	N/A	N/A	N/A	55	+/-	20	34
	Average					51			
	Minimum					46			
	Maximum					55			
	Std. Dev.					6			
267-3-002-311-VS-19		N/A	N/A	N/A	N/A	50	+/-	18	34
267-3-002-311-VS-19A		N/A	N/A	N/A	N/A	55	+/-	19	34
	Average					53			
	Minimum					50			
	Maximum					55			
	Std. Dev.					4			
267-4-001-407-FH-21		N/A	N/A	N/A	N/A	53	+/-	18	34
267-4-001-407-FH-21A		N/A	N/A	N/A	N/A	44	+/-	17	34
	Average					49			
	Minimum					44			
	Maximum					53			
	Std. Dev.					6			
267-5-001-502-VS-15		N/A	N/A	N/A	N/A	41	+/-	18	34
267-5-001-502-VS-15A		N/A	N/A	N/A	N/A	36	+/-	17	34
	Average					39			
	Minimum					36			
	Maximum					41			
	Std. Dev.					4			

		QA Results							
Building 267									
Location Code	Total Activity Measurements				Removable Activity Measurements				
	Beta	Beta	MDC	MDC	Beta	Beta	MDC	MDC	
267-6-002-602-FH-18	N/A	N/A	N/A	N/A	40	+/-	19	34	
267-6-002-602-FH-18A	N/A	N/A	N/A	N/A	39	+/-	17	34	
	Average				40				
	Minimum				39				
	Maximum				40				
	Std. Dev.				1				

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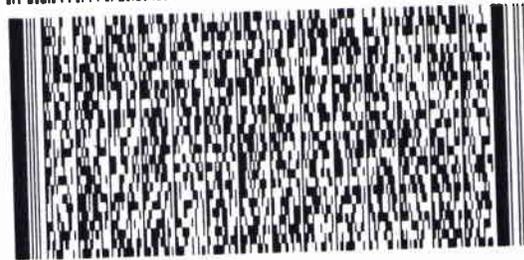
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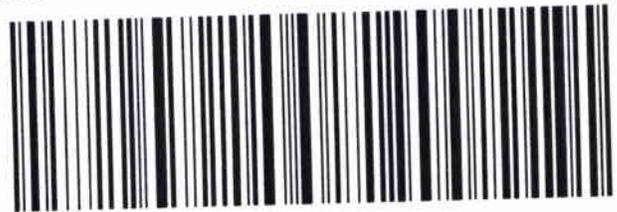
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