



BUSINESS CENTER  
2722 MERRILEE DRIVE, SUITE 230  
FAIRFAX, VA 22031  
703-698-4444 FAX 703-698-2176

WOODBURN  
DIAGNOSTIC CENTER/  
NUCLEAR MEDICINE IMAGING  
CENTER  
3299 WOODBURN RD., SUITE 110  
ANNANDALE, VA 22003  
703-849-9050 FAX 703-698-4491

YORKTOWN  
IMAGING CENTER  
8316 ARLINGTON BLVD., SUITE 206  
FAIRFAX, VA 22031  
703-698-8550 FAX 703-641-5709

PROSPERITY IMAGING CENTER  
8503 ARLINGTON BLVD., LL-SUITE 100  
FAIRFAX, VA 22031  
703-698-9600 FAX 703-698-5609

THE ULTRASOUND  
CENTER  
8503 ARLINGTON BLVD., LL-SUITE 100  
FAIRFAX, VA 22031  
703-698-4498 FAX 703-280-1566

THE BREAST DIAGNOSTIC  
CENTER  
8318 ARLINGTON BLVD., SUITE 200  
FAIRFAX, VA 22031  
703-698-4455 FAX 703-205-9884

FAIRFAX MRI CENTER\*  
8318 ARLINGTON BLVD., SUITE 100  
FAIRFAX, VA 22031  
703-204-8333 FAX 703-204-3744

VIENNA IMAGING CENTER  
115 PARK STREET, SE, SUITE 300  
VIENNA, VA 22180  
703-698-4456 FAX 703-242-4474

SPRINGFIELD IMAGING CENTER  
5510 ALMA LANE, SUITE 100  
SPRINGFIELD, VA 22151  
703-698-4485 FAX 703-750-0302

RESTON/HERNDON  
IMAGING CENTER  
100 ELDEN STREET, SUITE 16  
HERNDON, VA 20170  
703-481-9400 FAX 703-481-9408

RESTON/HERNDON  
BREAST IMAGING CENTER  
106 ELDEN STREET, SUITE 16  
HERNDON, VA 20170  
703-481-9400 FAX 703-796-1103

CENTREVILLE/CLIFTON  
IMAGING CENTER  
6211 CENTREVILLE RD., SUITE 400  
CENTREVILLE, VA 20121  
703-204-4411 FAX 703-961-8318

WESTERN LOUDOUN  
IMAGING CENTER  
224 CORNWALL STREET, NW  
LEESBURG, VA 20176  
703-737-7550 FAX 703-737-7555

FAIRFAX RADIOLOGICAL CONSULTANTS, P.C.  
RADIOLOGISTS TO INOVA FAIRFAX HOSPITAL  
AND LOUDOUN HOSPITAL CENTER

July 10, 2006

Br. 1

US Nuclear Regulatory Commission, Region 1  
Licensing Assistance Team  
Division of Nuclear Materials Safety  
475 Allendale Road  
King of Prussia, Pa. 19406

RE: AMENDMENT TO LICENSE 45-25031-01

03030926

To Whom It May Concern:

Fairfax Radiological Consultants, PC is requesting the removal  
(decommissioning) from our license the following site located at:

3299 Woodburn Road, Suite 110  
Annandale, Va. 22031

The site located at 8503 Arlington Boulevard, Suite LL100 Fairfax, Va  
is to **remain on the license**.

Attached is the Physicist's Decommissioning Report and NRC form  
313. If there are any questions regarding this application, please  
contact Linda Tolerico, Sr. Director of Patient Services at 703-698-  
4444. Thank you for your assistance with this matter.

Sincerely,

  
Brigid Anne Castro, MD  
Radiation Safety Officer

RECEIVED  
REGION 1  
2006 JUL 17 AM 9:20

139139  
NMSS/RGNI MATERIALS-002

## NRC FORM 313

(10-2005)  
10 CFR 30, 32, 33,  
34, 35, 36, 39, and 40

## U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES: 10/31/2008

## APPLICATION FOR MATERIAL LICENSE

Estimated burden per response to comply with this mandatory collection request: 4.4 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [infocollects@nrc.gov](mailto:infocollects@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

## APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY  
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555-0001

## IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

## ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

## IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, MISSISSIPPI, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM  
DIVISION OF NUCLEAR MATERIALS SAFETY  
U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406-1415

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TX 76011-4005

PERSONS LOCATED IN AGREEMENT-STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

## 1. THIS IS AN APPLICATION FOR (Check appropriate item)

☐

A. NEW LICENSE

☒

B. AMENDMENT TO LICENSE NUMBER 45-25031-01

☐

C. RENEWAL OF LICENSE NUMBER

## 2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

Fairfax Radiological Consultants, PC  
2722 Merrilee Drive, Suite 230  
Fairfax, Va. 22031

## 3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Decommissioning of site located at:  
3299 Woodburn Road, Suite 110, Annandale, Va. 22003

The site located at 8503 Alington Blvd, Suite LL100,  
Fairfax, Va 22031 is to remain IN USE.

## 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Brigid Anne Castro, MD, RSO

## TELEPHONE NUMBER

(703) 698-4444

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

## 5. RADIOACTIVE MATERIAL

a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

## 6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

## 7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

## 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

## 9. FACILITIES AND EQUIPMENT.

## 10. RADIATION SAFETY PROGRAM.

## 11. WASTE MANAGEMENT.

## 12. LICENSE FEES (See 10 CFR 170 and Section 170.31)

## FEE CATEGORY

## AMOUNT

\$

## ENCLOSED

## 13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

## CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

BSO

## SIGNATURE

Brigid Anne Castro MD

## DATE

1/10/06

## FOR NRC USE ONLY

TYPE OF FEE

FEE LOG

FEE CATEGORY

AMOUNT RECEIVED

CHECK NUMBER

COMMENTS

\$

APPROVED BY

DATE

## REPORT ON FREE RELEASE OF FRC NUCLEAR MEDICINE CLINIC SPACES

22 June 2006

Survey Date: 19 May 2006

Location: Fairfax Radiological Consultants, INC  
3299 Woodburn Road  
Suite 110  
Annandale, Virginia 22003

Licenses: NRC License # NRC-45-25031-01  
VA License # VA-142-01

Surveyor: Laurence F. Parr, MS, DABR

Instruments: BICRON 200 GM survey instrument with a thin window pancake CM probe.  
Nuclear Associates Deluxe Wipe Test Counter.  
Captus 3000 Well Counter with 2" NaI well crystal.

Isotopes: Tc-99m  
Ga-67  
Tl-201  
In-111  
I-123  
I-131

Procedure: The clinic spaces were divided into a grid pattern based on the 12"x12" tiles of the floor. The camera rooms, support areas, and waiting area etc. used a grid of three nine tiles or 36"x36" and for the radiopharmacy, dosing room and bathroom the grid was 4 tiles or 24"x24." The walls of all rooms were also checked. Each room was given a number and each grid location also given a sequential number with the specific location being identified by the room # and grid number (eg. 2-5 is room two grid location 5).

The initial survey of the clinic spaces was conducted using a thin window GM pancake survey meter to determine whether any significant contamination (fixed or loose) was present. This was done by passing the GM probe over each of the grid squares at a distance of about 1" from the surface. On the walls the probe was slowly moved over the wall from chest height to the floor in a sweeping back and forth pattern. Prior to use the survey instrument was verified to be within calibration and checked for operation by measuring the attached 1 uCi Cs-137 and verifying that it read as indicated on the calibration sticker (6.5 mr/hr). At the same time the cpm indicated by the unit was measured in order to estimate the sensitivity of the survey instrument. The check source gave a reading of 6000 cpm for  $2.2 \times 10^3$  kdpm or about 3 cpm / kdpm. The general area background for

the instrument was 30 cpm with a standard deviation of ~6 cpm. Thus, based on Cs-137, to record a count rate at least three standard deviations greater than background, ~6000 dpm would have to be present. Any areas of greater than 30 cpm were noted the survey form for special attention when looking for removable contamination.

The removable contamination was evaluated by wiping the designated areas with Rad-Wipe® Smears and with initial counting in a GM detector based Wipe Test Counter to determine if there were any obvious areas of contamination. The process used was to wipe the area in a four pass back and forth "S" pattern which, assuming the contact area on the wipe paper was about 1 cm<sup>2</sup>, gave a wipe area of ~300 cm<sup>2</sup> for the 36"x36" grid and ~200 cm<sup>2</sup> for the 24"x24" grid. The counter was calibrated against a 0.075 uCi Cs-137 source and a 0.1 uCi Tc-99m source (made by decaying and diluting a known source and extracting a calculated volume using a micro syringe for accuracy). To determine the sensitivity of the system a 20 minute background count time was used to improve statistics of the background cpm and reduce the MDA level. Over a series of 20 minutes counts the background count rate per minute was stable between 9.9 and 10.9 cpm with an average of 10.68 cpm and a standard deviation of 0.73 cpm. Any net measurement greater than 2.16 cpm (three standard deviations) was considered significant (>99% level) and represents an activity of 0.0002 µCi based on Tc-99m. The system is capable of measuring less than 1000 dpm accurately.

The wipe samples were counted in groups of five. If the group net count rate was greater than 1 ½ times the group count rate standard deviation there is ~98% confidence that the recorded count rate is in fact greater than "zero." In this situation each of the five wipes was measured individually to determine if any single swipe as responsible.

The swipes were counted again a few days later in a high sensitivity NaI well counting system. Again the samples were counted in batches and if the batch count rate was greater than 1 ½ the standard deviation of the count rate, then the individual swipes were counted.

Results: Quarterly review of the nuclear medicine program at FRC Woodburn over the years has shown no significant contaminating events. The weekly wipe surveys and area surveys were always below limits though on some occasions the locally established action limits were exceeded. In this case the area was cleaned and re-tested always bring the results to below action levels.

The area radiation survey using the BICRON 200 survey meter showed not areas with count rates greater than background. Based on the general calibration of the survey instrument, this implied that no areas of activity greater than 6000 dpm were likely.

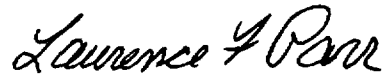
The "PRELIMINARY COUNTING RESULTS" data sheet indicated all areas tested were below the MDA of the counter (1000 dpm) indicating no areas of gross contamination. The follow-up evaluation of the wipes provided on the "FINAL COUNTING RESULTS" data sheet were obtained using the more sensitive NaI well detector and also indicated no areas of greater than MDA (208 dpm, 0.00009 uCi) of the system.

These data sheets and this report comprise the test results. All areas tested measured less than 200 dpm per 100 cm<sup>2</sup> both on the preliminary and final measurement. Preliminary results showed no sample, individual or bulk, measured more than 2000 dpm and only three measurements had count rates greater than 1 ½ deviations from zero. The swipes in these three bulk samples when counted individually, all were less than 500 dpm. The preliminary results indicated the spaces were clear.

As a confirmation the same wipe samples were counted in the NaI well counter and all indicated no contamination above the MDA of the counter (0.00009 uCi).

Diagrams of the each of the areas tested are provided indicating the location of each of the samples. Also, a general (not to scale) diagram showing the overall layout of the clinic is also provided.

**THE SPACES ARE FREE RELEASED AS NO SIGNIFICANT  
RADIATION LEVELS OR REMOVABLE CONTAMINATION WAS  
FOUND.**

A handwritten signature in cursive script, reading "Laurence F. Parr".

Laurence F. Parr, MS, DABR

# PRELIMINARY COUNTING RESULTS

Date: May 20, 2006

BACKGROUND MEASUREMENTS:				
Run No.	Count Time	Gross Counts	Count Rate	$\sigma$ of Count Rate
1	20	213	10.65	0.73
2	20	198	9.90	0.70
3	20	218	10.90	0.74
4	20	214	10.70	0.73
5	20	220	11.00	0.74
6	20	218	10.90	0.74
Average= 10.68 0.40				

MDA CALCULATIONS: NA Delux Wipe Counter							
Isotope	Activity in $\mu\text{Ci}$	Count Time	Gross Counts	Net Counts	$\mu\text{Ci/cpm}$	MDA ( $\mu\text{Ci}$ )	MDA (dpm)
Cs-137	0.075	5	460	89.87	0.000835	0.00101	2215
Co-60	0.0124	5	290	55.87	0.000222	0.00027	589
Tc99m	0.1	5	2550	507.87	0.000197	0.00024	523

## BATCH MEASUREMENTS:

AREA	Batch Samples	Area of Swipe	Count Time	Gross Counts	Gross Count Rate	$\sigma$ Gross Count Rate	Net Count Rate	$\sigma$ Net Count Rate	$\mu\text{Ci}$	Removable $\mu\text{Ci}$	DPM per 100 $\text{cm}^2$	Acceptable (<2000 DPM/100 $\text{cm}^2$ )
Camera rm 2	BKG				10.68	0.40						
	1-1 thru 1-5	300	5.00	60.00	12.00	1.55	1.33	1.60	0.00026	0.00031	191	OK
	1-6 thru 1-10	300	5.00	59.00	11.80	1.54	1.13	1.59	0.00022	<MDA		OK
	1-11 thru 1-15	300	5.00	61.00	12.20	1.56	1.53	1.61	0.00030	0.00036	220	OK
	1-16 thru 1-20	300	5.00	54.00	10.80	1.47	0.12	1.52	0.00002	<MDA		OK
	1-21 thru 1-25	300	5.00	49.00	9.80	1.40	-0.88	1.46	-0.00017	<MDA		OK
Rad Pharm	1-25 thru 1-29	300	5.00	52.00	10.40	1.44	-0.28	1.50	-0.00005	<MDA		OK
	2-1 thru 2-5	250	5.00	52.00	10.40	1.44	-0.28	1.50	-0.00005	<MDA		OK
	2-6 thru 2-10	250	5.00	55.00	11.00	1.48	0.32	1.54	0.00006	<MDA		OK
	2-11 thru 2-14	250	5.00	62.00	12.40	1.57	1.73	1.63	0.00034	0.00041	299	OK
	2-16 thru 2-20	250	5.00	59.00	11.80	1.54	1.13	1.59	0.00022	<MDA		OK
	2-21 thru 2-25	250	5.00	51.00	10.20	1.43	-0.48	1.48	-0.00009	<MDA		OK
	2-26 thru 2-30	250	5.00	62.00	12.40	1.57	1.73	1.63	0.00034	0.00041	299	OK
	2-31 thru 2-35	250	5.00	59.00	11.80	1.54	1.13	1.59	0.00022	<MDA		OK
	2-36 thru 2-40	250	5.00	53.00	10.60	1.46	-0.08	1.51	-0.00001	<MDA		OK
	2-41 thru 2-45	250	5.00	57.00	11.40	1.51	0.72	1.56	0.00014	<MDA		OK
Dose room	3-1 thru 3-9	250	5.00	63.00	12.60	1.59	1.93	1.64	0.00038	0.00046	334	OK
	3-10 thru 3-19	250	5.00	57.00	11.40	1.51	0.72	1.56	0.00014	<MDA		OK
Bathroom	4-1 thru 4-6	250	5.00	61.00	12.20	1.56	1.53	1.61	0.00030	0.00036	264	OK
Thyroid uptake	5-1 thru 5-5	300	5.00	72.00	14.40	1.70	3.73	1.74	0.00073	0.00088	538	OK
	1	300	5.00	61.00	12.20	1.56	1.53	1.61	0.00030	0.00036	220	OK
	2	300	5.00	59.00	11.80	1.54	1.13	1.59	0.00022	<MDA		OK

AREA	Batch Samples	Area of Swipe	Count Time	Gross Counts	Gross	$\sigma$ Gross	Net	$\sigma$ Net	uCi	Removable uCi	DPM per 100 cm <sup>2</sup>	Acceptable
					Count Rate	Count Rate	Count Rate	Count Rate				( $<2000$ DPM/100 cm <sup>2</sup> )
Waiting Area	3	300	5.00	54.00	10.80	1.47	0.12	1.52	0.00002	<MDA	220	OK
	4	300	5.00	57.00	11.40	1.51	0.72	1.56	0.00014	<MDA		OK
	5	300	5.00	50.00	10.00	1.41	-0.68	1.47	-0.00013	<MDA		OK
	5-6 thru 5-10	300	5.00	61.00	12.20	1.56	1.53	1.61	0.00030	0.00036		OK
	5-11 thru 5-15	300	5.00	59.00	11.80	1.54	1.13	1.59	0.00022	<MDA	OK	
	6-1 thru 6-5	300	5.00	53.00	10.60	1.46	-0.08	1.51	-0.00001	<MDA	OK	
	6-6 thru 6-10	300	5.00	43.00	8.60	1.31	-2.08	1.37	-0.00041	<MDA	OK	
	6-31 thru 6-35	300	5.00	53.00	10.60	1.46	-0.08	1.51	-0.00001	<MDA	OK	
Camera rm 1	6-36 thru 6-39	300	5.00	62.00	12.40	1.57	1.73	1.63	0.00034	0.00041	249	OK
	L-shield	300	5.00	45.00	9.00	1.34	-1.68	1.40	-0.00033	<MDA		OK
	7-1 thru 7-5	300	5.00	52.00	10.40	1.44	-0.28	1.50	-0.00005	<MDA		OK
	7-6 thru 7-10	300	5.00	56.00	11.20	1.50	0.52	1.55	0.00010	<MDA		OK
	7-11 thru 7-15	300	5.00	59.00	11.80	1.54	1.13	1.59	0.00022	<MDA	OK	
	7-16 thru 7-20	300	5.00	68.00	13.60	1.65	2.93	1.70	0.00058	0.00069	422	OK
	16	300	5.00	52.00	10.40	1.44	-0.28	1.50	-0.00005	<MDA		OK
	17	300	5.00	52.00	10.40	1.44	-0.28	1.50	-0.00005	<MDA		OK
	18	300	5.00	48.00	9.60	1.39	-1.08	1.44	-0.00021	<MDA		OK
	19	300	5.00	54.00	10.80	1.47	0.12	1.52	0.00002	<MDA	OK	
	20	300	5.00	55.00	11.00	1.48	0.32	1.54	0.00006	<MDA	OK	
	Tech Work Area	7-21 thru 7-25	300	5.00	53.00	10.60	1.46	-0.08	1.51	-0.00001	<MDA	OK
7-26 thru 7-30		300	5.00	43.00	8.60	1.31	-2.08	1.37	-0.00041	<MDA	OK	
7-31 thru 7-35		300	5.00	53.00	10.60	1.46	-0.08	1.51	-0.00001	<MDA	OK	
7-36 thru 7-39		300	5.00	62.00	12.40	1.57	1.73	1.63	0.00034	0.00041	249	OK
8-1 thru 8-5		300	5.00	48.00	9.60	1.39	-1.08	1.44	-0.00021	<MDA		OK
8-6 thru 8-10		300	5.00	55.00	11.00	1.48	0.32	1.54	0.00006	<MDA		OK
8-11 thru 8-15		300	5.00	46.00	9.20	1.36	-1.48	1.41	-0.00029	<MDA		OK
8-16 thru 8-20		300	5.00	55.00	11.00	1.48	0.32	1.54	0.00006	<MDA	OK	
8-21 thru 8-25		300	5.00	58.00	11.60	1.52	0.92	1.58	0.00018	<MDA	OK	
8-26 thru 8-30		300	5.00	68.00	13.60	1.65	2.93	1.70	0.00058	0.00069	422	OK
26		300	5.00	59.00	11.80	1.54	1.13	1.59	0.00022	<MDA		OK
27		300	5.00	56.00	11.20	1.50	0.52	1.55	0.00010	<MDA		OK
28		300	5.00	61.00	12.20	1.56	1.53	1.61	0.00030	0.00036		220
29		300	5.00	54.00	10.80	1.47	0.12	1.52	0.00002	<MDA	OK	
30		300	5.00	52.00	10.40	1.44	-0.28	1.50	-0.00005	<MDA	OK	
	8-31	300	5.00	49.00	9.80	1.40	-0.88	1.46	-0.00017	<MDA	OK	

# FINAL COUNTING RESULTS

Date: May 24, 2006

## BACKGROUND MEASUREMENTS:

Run No.	Count Time	Gross Counts	Count Rate	$\sigma$ of Count Rate
1	1	120	120.00	10.95
2	1	140	140.00	11.83
3	1	109	109.00	10.44
4	1	134	134.00	11.58
5	1	129	129.00	11.36
6	1	137	137.00	11.70
6		769	128.17	4.62

## MDA CALCULATIONS: Captus 3000 w/ 2" NaI Well

Isotope	Activity in $\mu$ Ci	Count Time	Gross Counts	Net Counts	$\mu$ Ci/cpm	MDA ( $\mu$ Ci)	MDA (dpm)
Cs-137	0.5	1	73403	73274.83	0.000007	0.00009	208

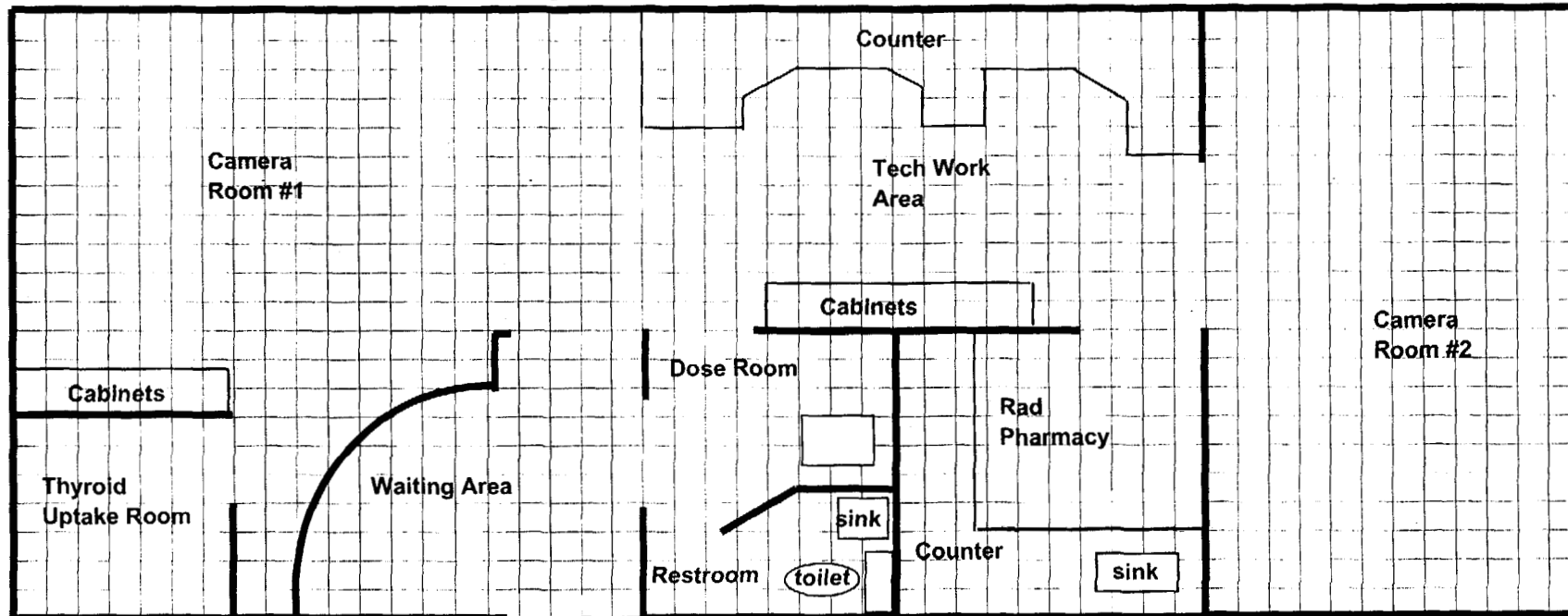
## BATCH MEASUREMENTS:

AREA	Batch Samples	Area of Swipe	Count Time	Gross Counts	Gross Count Rate	$\sigma$ Gross Count Rate	Net Count Rate	$\sigma$ Net Count Rate	$\mu$ Ci	Removable $\mu$ Ci	DPM per 100 $\text{cm}^2$	Acceptable (<2000 DPM/100 $\text{cm}^2$ )
	BKG				128.17	4.62						
Camera rm 2	1-1 thru 1-5	300	1.00	118.00	118.00	10.86	-10.17	11.81	0.00007	<MDA		OK
	1-6 thru 1-10	300	1.00	128.00	128.00	11.31	-0.17	12.22	0.00000	<MDA		OK
	1-11 thru 1-15	300	1.00	133.00	133.00	11.53	4.83	12.42	0.00003	<MDA		OK
	1-16 thru 1-20	300	1.00	119.00	119.00	10.91	-9.17	11.85	0.00006	<MDA		OK
	1-21 thru 1-25	300	1.00	129.00	129.00	11.36	0.83	12.26	0.00001	<MDA		OK
	1-25 thru 1-29	300	1.00	134.00	134.00	11.58	5.83	12.46	0.00004	<MDA		OK
Rad Pharm	2-1 thru 2-5	250	1.00	135.00	135.00	11.62	6.83	12.50	0.00005	<MDA		OK
	2-6 thru 2-10	250	1.00	138.00	138.00	11.75	9.83	12.62	0.00007	<MDA		OK
	2-11 thru 2-14	250	1.00	123.00	123.00	11.09	-5.17	12.02	0.00004	<MDA		OK
	2-16 thru 2-20	250	1.00	110.00	110.00	10.49	-18.17	11.46	0.00012	<MDA		OK
	2-21 thru 2-25	250	1.00	145.00	145.00	12.04	16.83	12.90	0.00011	<MDA		OK
	2-26 thru 2-30	250	1.00	133.00	133.00	11.53	4.83	12.42	0.00003	<MDA		OK
	2-31 thru 2-35	250	1.00	129.00	129.00	11.36	0.83	12.26	0.00001	<MDA		OK
	2-36 thru 2-40	250	1.00	118.00	118.00	10.86	-10.17	11.81	0.00007	<MDA		OK
	2-41 thru 2-45	250	1.00	136.00	136.00	11.66	7.83	12.54	0.00005	<MDA		OK
Dose room	3-1 thru 3-9	250	1.00	123.00	123.00	11.09	-5.17	12.02	0.00004	<MDA		OK
	3-10 thru 3-19	250	1.00	139.00	139.00	11.79	10.83	12.66	0.00007	<MDA		OK
Bathroom	4-1 thru 4-6	250	1.00	118.00	118.00	10.86	-10.17	11.81	0.00007	<MDA		OK
Thyroid uptake	5-1 thru 5-5	300	1.00	106.00	106.00	10.30	-22.17	11.29	0.00015	<MDA		OK
	5-6 thru 5-10	300	1.00	131.00	131.00	11.45	2.83	12.34	0.00002	<MDA		OK
	5-11 thru 5-15	300	1.00	129.00	129.00	11.36	0.83	12.26	0.00001	<MDA		OK



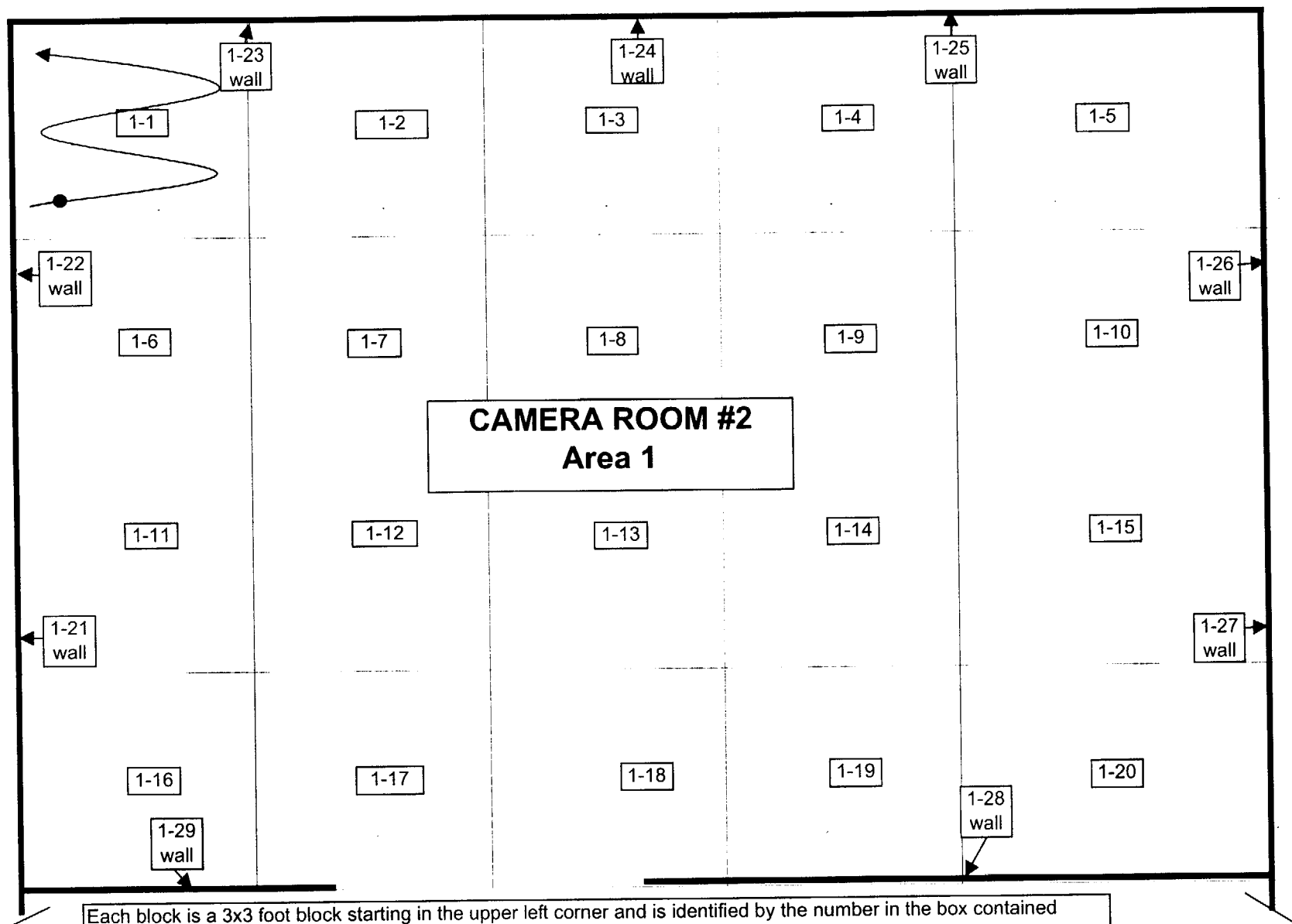
AREA	Batch Samples	Area of Swipe	Count Time	Gross Counts	Gross Count Rate	$\sigma$ Gross Count Rate	Net Count Rate	$\sigma$ Net Count Rate	uCi	Removable uCi	DPM per 100 cm <sup>2</sup>	Acceptable (<2000 DPM/100 cm <sup>2</sup> )
Waiting Area	6-1 thru 6-5	300	1.00	118.00	118.00	10.86	-10.17	11.81	-0.00007	<MDA		OK
	6-6 thru 6-10	300	1.00	124.00	124.00	11.14	-4.17	12.06	-0.00003	<MDA		OK
	6-31 thru 6-35	300	1.00	139.00	139.00	11.79	10.83	12.66	0.00007	<MDA		OK
	6-36 thru 6-39	300	1.00	136.00	136.00	11.66	7.83	12.54	0.00005	<MDA		OK
	L-shield	300	1.00	132.00	132.00	11.49	3.83	12.38	0.00003	<MDA		OK
Camera rm 1	7-1 thru 7-5	300	1.00	120.00	120.00	10.95	-8.17	11.89	-0.00006	<MDA		OK
	7-6 thru 7-10	300	1.00	139.00	139.00	11.79	10.83	12.66	0.00007	<MDA		OK
	7-11 thru 7-15	300	1.00	141.00	141.00	11.87	12.83	12.74	0.00009	<MDA		OK
	7-16 thru 7-20	300	1.00	112.00	112.00	10.58	-16.17	11.55	-0.00011	<MDA		OK
	7-21 thru 7-25	300	1.00	132.00	132.00	11.49	3.83	12.38	0.00003	<MDA		OK
	7-26 thru 7-30	300	1.00	154.00	154.00	12.41	25.83	13.24	0.00018	<MDA		OK
	7-31 thru 7-35	300	1.00	129.00	129.00	11.36	0.83	12.26	0.00001	<MDA		OK
	7-36 thru 7-39	300	1.00	111.00	111.00	10.54	-17.17	11.50	-0.00012	<MDA		OK
Tech Work Area	8-1 thru 8-5	300	1.00	122.00	122.00	11.05	-6.17	11.97	-0.00004	<MDA		OK
	8-6 thru 8-10	300	1.00	129.00	129.00	11.36	0.83	12.26	0.00001	<MDA		OK
	8-11 thru 8-15	300	1.00	135.00	135.00	11.62	6.83	12.50	0.00005	<MDA		OK
	8-16 thru 8-20	300	1.00	114.00	114.00	10.68	-14.17	11.63	-0.00010	<MDA		OK
	8-21 thru 8-25	300	1.00	125.00	125.00	11.18	-3.17	12.10	-0.00002	<MDA		OK
	8-26 thru 8-30	300	1.00	141.00	141.00	11.87	12.83	12.74	0.00009	<MDA		OK
	8-31	300	1.00	123.00	123.00	11.09	-5.17	12.02	-0.00004	<MDA		OK

## Fairfax Radiological Consultants, Nuclear Medicine Clinic



General Diagram of the Nuclear Medicine spaces for FRC located at Woodburn Avenue, Suite 110, Annandale, Virginia. Diagram not to scale.

The above is an approximation of the FRC Nuclear Medicine Clinic to be free released. Although the diagram is to exact scale, each of the blocks represents approximately 1 square foot based on floor tiles in the clinic. In all locations except for the radiopharmacy and dose room, 3 x 3 foot areas were checked using a thin window GM counter (Bicron 200) by sweeping the counter over the area at a distance of less than 1" in an effort to locate possible contamination. The walls were similarly checked but not on a fixed grid pattern. Then all 3x3 areas were wiped with Rad-Wipe Smears from Biodex to verify that any removable contamination was below limits. The pharmacy and dose room were checked on a 2 x 2 foot grid vice 3 x 3 grid. The following pages are larger diagrams of the eight general areas in the clinic and indicate the location of the grids used to test for contamination.



Each block is a 3x3 foot block starting in the upper left corner and is identified by the number in the box contained within the block. Wipes were taken by using "Rad-Wipe Smears" and wiping the block in a zig-zag pattern so each block is sampled as shown in top corner. This represents approximately 300 cm<sup>2</sup>. The sample numbers that point to the walls indicate that a wipe was made of the wall.

**Area 2**

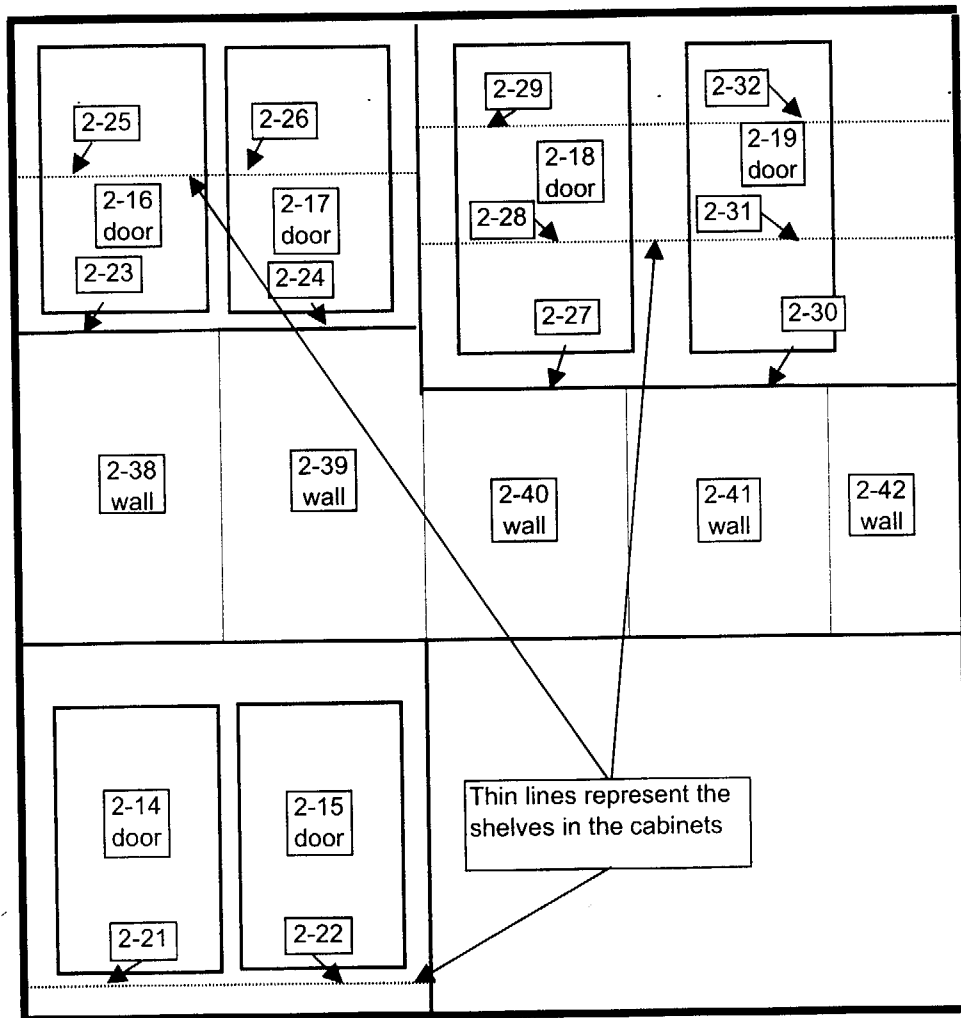
**Floor Survey**

**Projection A**

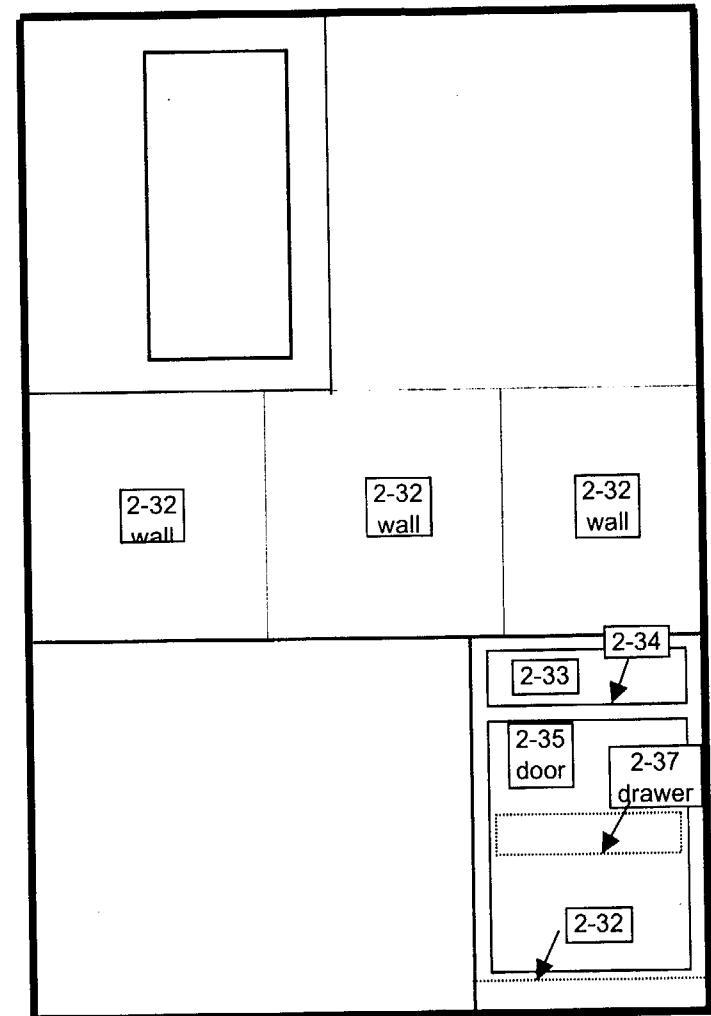
Diagram labels: 2-1, 2-2, 2-3, 2-3', 2-4, 2-4', 2-5, 2-6, 2-7.

<div>2-14</div> <div><div>2-8</div><div>2-9</div><div></div></div>	<div>2-10</div>	<div>2-11</div>
<div>Counter Top Survey</div>		<div>2-12</div>
		<div>2-13</div>

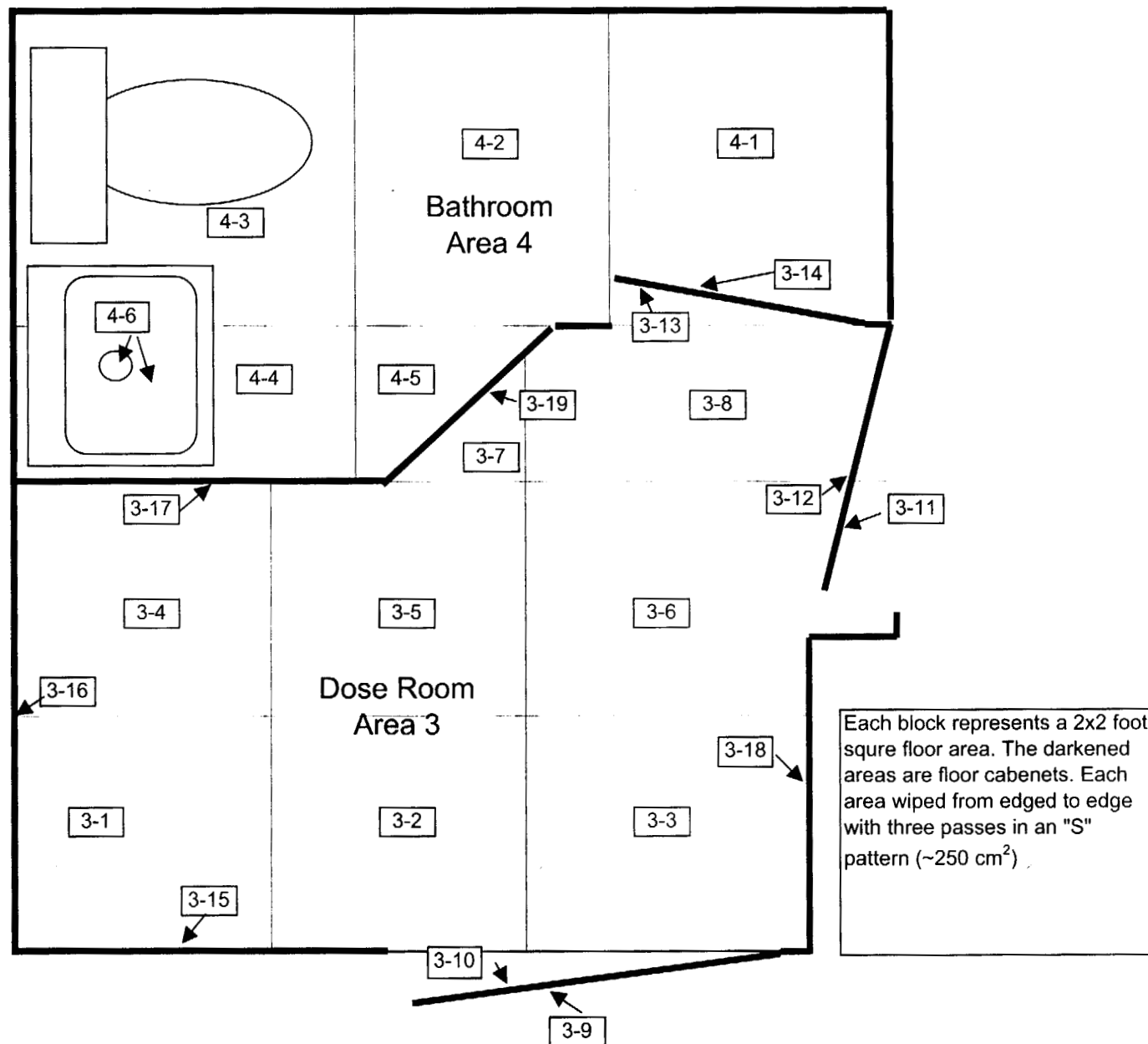
# Radio-Pharmacy Wall and Cabinet Surevey Area 2 continued

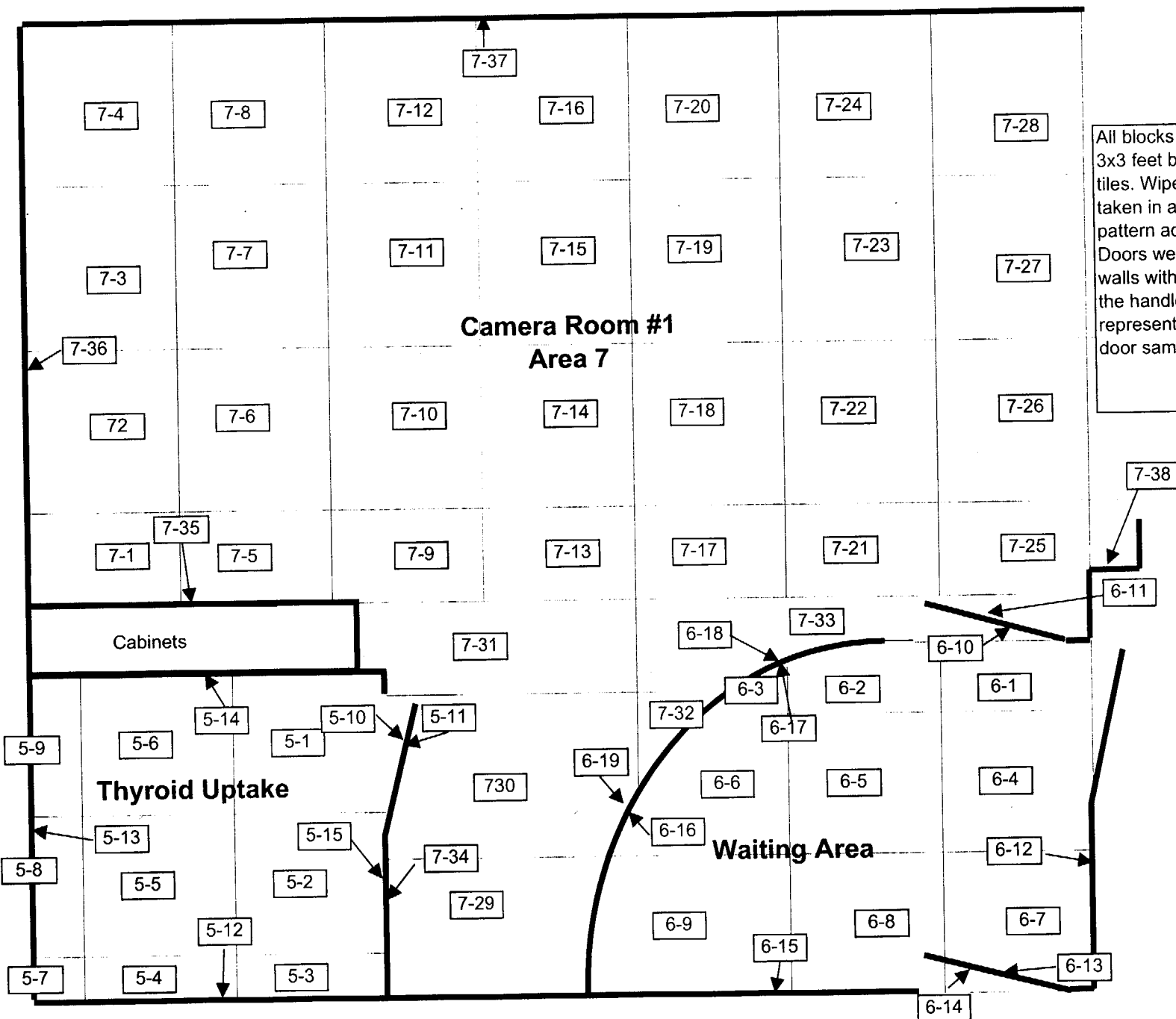


Projection A

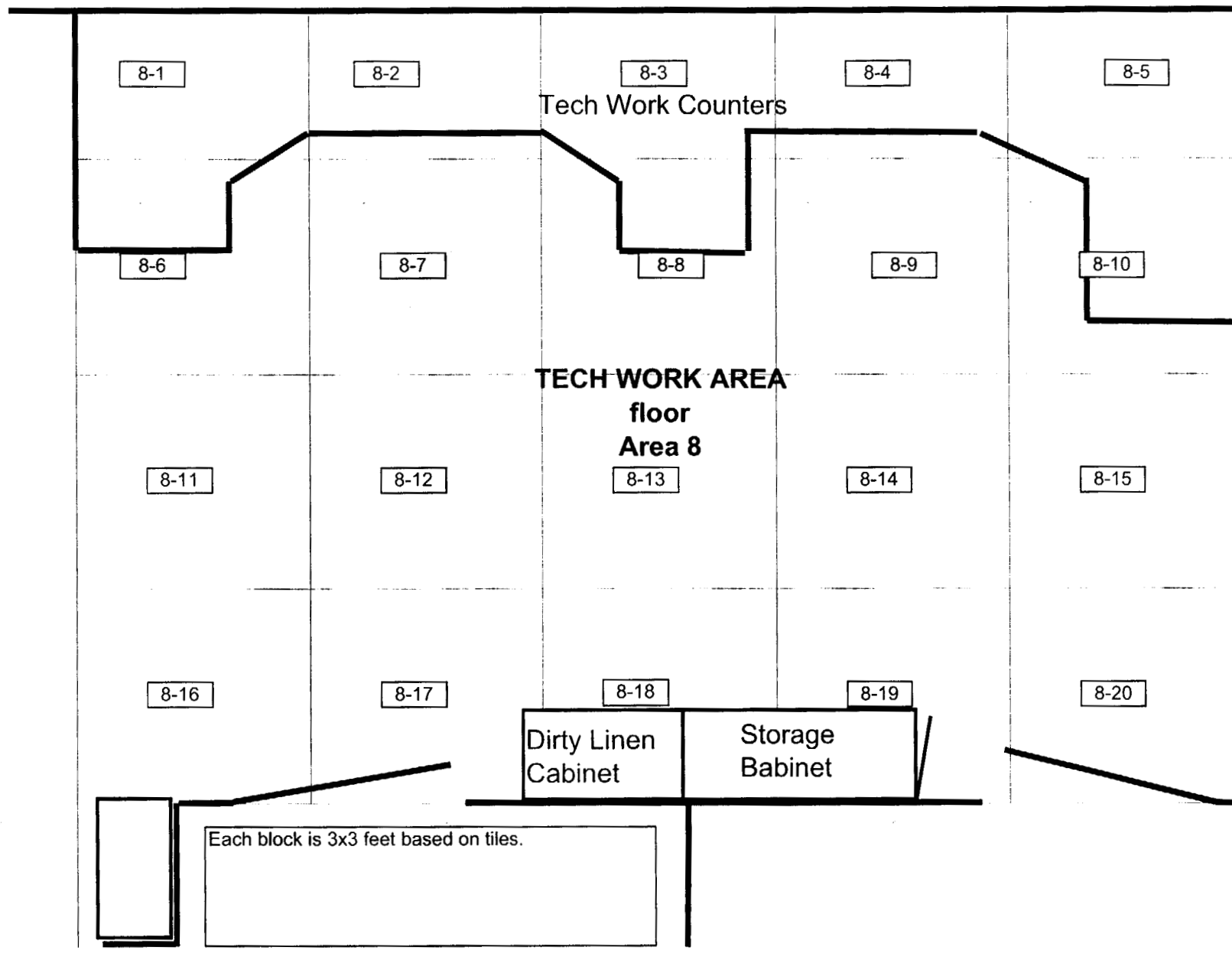


Projection B

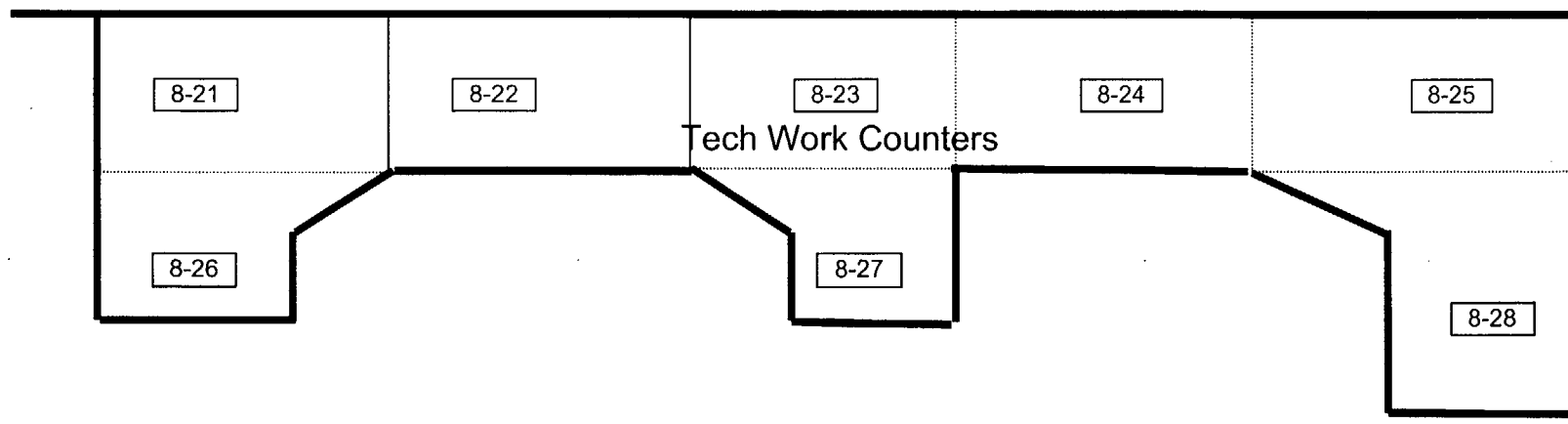




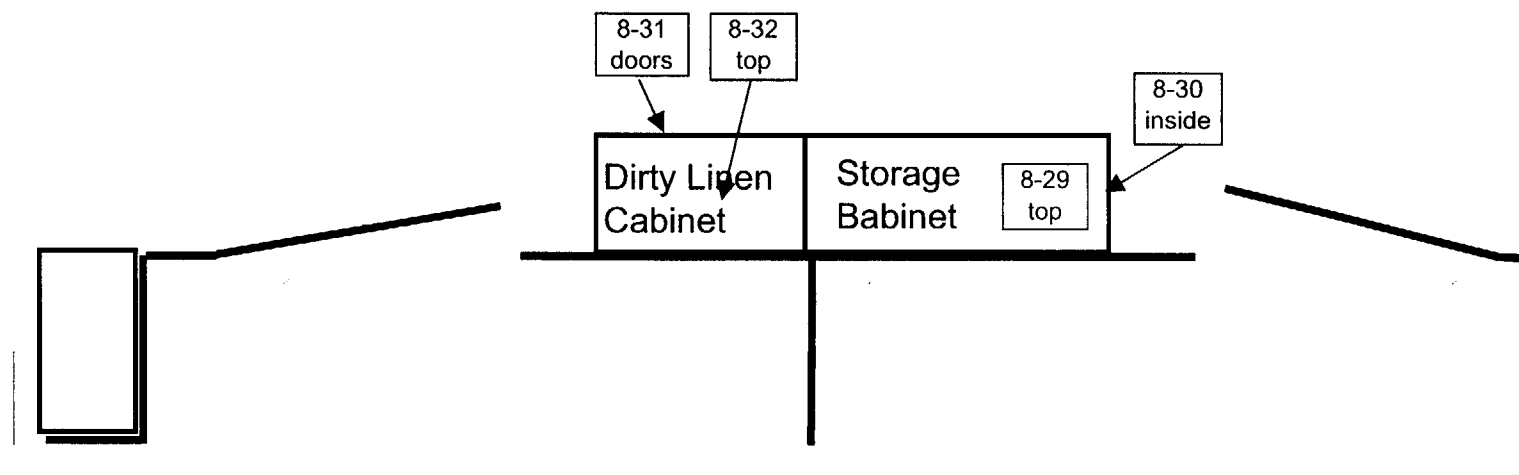
All blocks are approximately 3x3 feet based on counting tiles. Wipes of the walls were taken in a continuous "S" pattern across the entire wall. Doors were checked as the walls with special attention to the handle area. The arrows represent wall or surface of the door samples.







**TECH WORK AREA**  
**Area 8 continued**



This is to acknowledge the receipt of your letter/application dated

7/10/2006, and to inform you that the initial processing which includes an administrative review has been performed.

☒ Amendment 45-25031-01 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 139138.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.