



## NEOSE TECHNOLOGIES, INC.

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October 27, 2005

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

Control No. 137674  
License number 37-28751-01  
Docket No. 030-32749

Q-9  
MS-16

2005 OCT 27 PM 2:42

RECEIVED

Enclosed is documentation supporting the release of rooms 190 and 128A. This information was requested of Neose Technologies, Inc. during a phone conversation on October 25, 2005 with Steve Hammann.

Please contact me (215-315-9090), with any further questions regarding our decommissioning activities.

Respectfully submitted,

*Debra Alvarez*

Debra Alvarez  
Radiation Safety Officer

137674  
NMSS/RGNI MATERIALS-002

## Decommissioning Report of Radioactive Storage Room 190

The following procedure was followed:

1. All radioactive material was removed from room 190 and relocated to the new waste storage area, room 128A
2. All accessible floor, wall and door surfaces were surveyed with a GM meter
  - a. Ludlum Model 3 Meter  
Serial Number: 109575  
Calibration Date: June 23, 1999
  - b. Probe Model 44-9  
Serial Number: 111796
3. The room was partitioned into approximately 9 square foot sections (see attached map) and each section was wipe tested - an unused wipe was used for determining the background radiation level
4. Scintillation cocktail was added to the wipes and the vials were counted for 10 min each with a wide open window, 1-1024 (see attached spreadsheet for DPM of each section)
  - a. Liquid Scintillation Counter: Wallac 1209 Rackbeta  
Serial Number: 682  
Calibration Date: July 14, 1999

### Results:

1. No radiation levels exceeded the background level which was 0.05 mRem/h
2. All wipe tests were equivalent to background
3. The warning label was removed from the door and the room was released for unsecured use

Debra Alvarez

Radiation Coordinator

Signature: Debra Alvarez

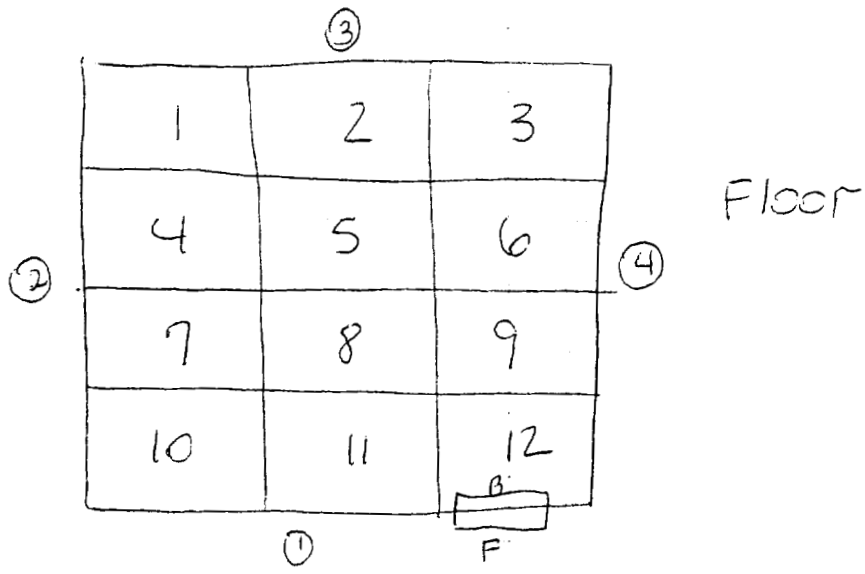
Date: 5/1/00

Dr. Edward McGuire

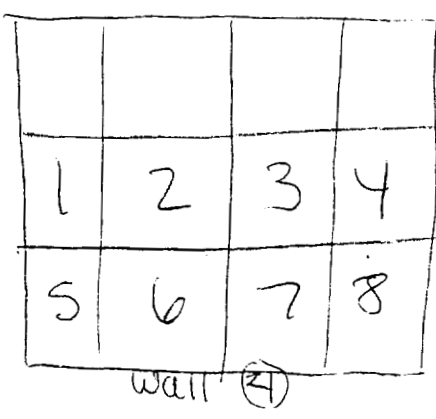
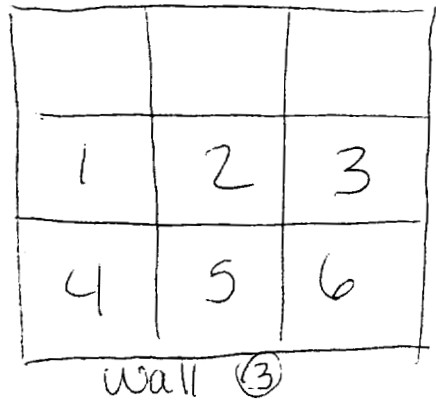
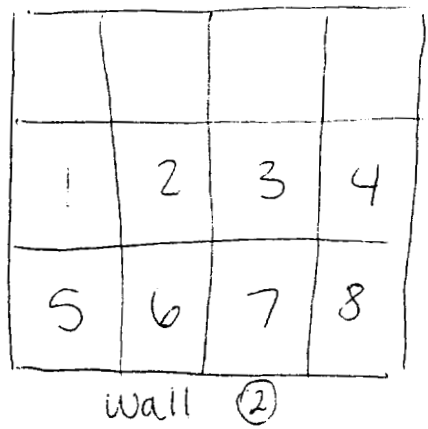
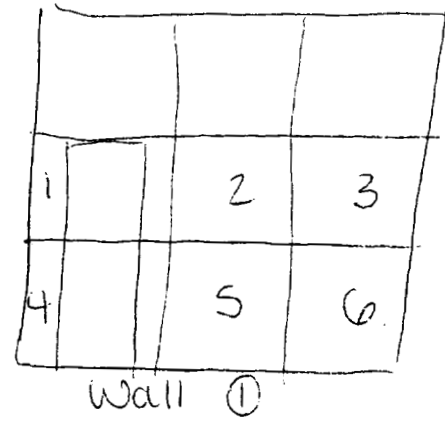
Radiation Safety Officer

Signature: Edward McGuire

Date: 5/3/00



Door Front  
Door Back



Prepared by: Debra Alvarez

Initials: *DA*

Date: May 1, 2000

Liquid Scintillation Counter: Wallac 1209 Rackbeta

Counting Efficiency is ~50% for  $^3\text{H}$  and ~95% for  $^{14}\text{C}$  -- 50% is used for the calculations below  
 Background CPM are subtracted, then DPM are calculated

Floor	CPM	DPM	Wall 1	CPM	DPM	Wall 2	CPM	DPM
1	44	-18	1	49	-8	1	47	-12
2	45	-17	2	47	-13	2	48	-11
3	47	-13	3	46	-14	3	53	0
4	42	-23	4	46	-15	4	52	-3
5	43	-21	5	49	-8	5	48	-10
6	46	-15	6	44	-19	6	56	6
7	45	-17				7	42	-23
8	39	-28				8	51	-4
9	41	-24						
10	42	-22						
11	45	-17						
12	40	-26						
<b>Door</b>			<b>Wall 3</b>			<b>Wall 4</b>		
Front	44	-19	1	47	-12	1	54	2
Back	47	-13	2	48	-11	2	51	-5
			3	48	-11	3	51	-4
			4	50	-6	4	53	0
			5	50	-6	5	55	4
			6	51	-5	6	50	-7
						7	51	-5
						8	50	-6
<b>Background</b>	53	106						

*Debra J. Alway 5/1/00*

PARAMETER GROUP :

PROGRAM MODE : CPM-DPM  
 COUNT MODE : SCF 14  
 FACTOR : 440  
 TIME : 0000  
 NUMBER OF WINDOWS : 1  
 WINDOW 1 : 5-720  
 COUNTS 1 : 300000  
 BACKGROUNDS 1 :  
 WINDOW 2 : 000000  
 BACKGROUNDS 2 :  
 WINDOW 3 : 000000  
 BACKGROUNDS 3 :  
 REPEAT : 1  
 REPLICATE : 1  
 PRINT : 1,2,11,12,31,32,37,40  
 LISTING : YES

POS	CTIME	CPM1	CPM1X	CPM2	CPM2X	CPM1/CPM2	CPM2	Floor
001	00600	22.08	6.667	14.14	8.457	1.60184	41.14	1
002	00600	18.98	6.367	12.02	9.175	1.07876	41.33	2
003	00600	16.09	6.228	14.04	8.488	1.63879	41.52	3
004	00600	12.14	6.789	11.72	9.291	1.28977	41.71	4
005	00600	20.26	6.594	11.80	9.251	1.28875	41.90	5
006	00600	12.14	6.789	15.13	8.171	1.86107	42.09	6
007	00600	12.75	6.668	14.59	8.510	1.56347	42.28	7
008	00600	19.62	7.180	11.72	9.291	1.28748	42.47	8
009	00600	18.81	7.377	14.44	8.768	1.71075	42.66	9
010	00600	21.64	6.802	11.51	9.456	1.29417	42.85	10
POS	CTIME	CPM1	CPM1X	CPM2	CPM2X	CPM1/CPM2	CPM2	
011	00600	27.06	6.623	11.80	9.251	1.75145	43.04	11
012	00600	20.82	6.968	12.87	8.930	1.54980	43.23	12
POS	CTIME	CPM1	CPM1X	CPM2	CPM2X	CPM1/CPM2	CPM2	
031	00600	20.22	7.058	14.54	8.509	1.79714	43.42	Door front
032	00600	24.58	6.775	17.22	8.747	1.88047	43.61	back
POS	CTIME	CPM1	CPM1X	CPM2	CPM2X	CPM1/CPM2	CPM2	
001	00600	20.57	7.019	18.08	7.577	1.12502	43.80	Wall 1
002	00600	21.94	6.790	17.70	8.915	1.72477	44.00	2
003	00600	21.74	6.871	18.06	8.084	1.71771	44.20	3
004	00600	20.52	7.029	18.48	8.090	1.70887	44.40	4
005	00600	22.14	6.789	18.08	7.577	1.12175	44.60	5
006	00600	20.27	7.058	17.87	8.509	1.77081	44.80	6

POS	CTIME	CPM1	CPM1X	CPMC	CPMCX	CPM1/CPMC	CPMC	Wait
042	00500	21.74	6.790	18.77	6.190	1.029416	47.47	1
043	00500	21.84	6.790	18.74	6.117	1.043810	47.57	2
044	00500	24.27	6.485	19.09	7.279	1.027141	51.07	3
044	00500	25.12	6.376	19.09	7.408	1.02739	51.07	4
045	00500	21.94	6.790	18.76	7.416	1.02710	48.75	5
046	00500	21.4	6.408	17.71	6.771	1.0288	50.00	6
047	00500	21.10	7.100	17.69	6.450	1.04000	41.51	7
048	00500	20.87	6.768	18.13	7.458	1.04476	51.11	8

POS	CTIME	CPM1	CPM1X	CPMC	CPMCX	CPM1/CPMC	CPMC	Wait
051	00500	20.93	6.952	17.88	7.500	1.02074	47.77	1
052	00500	25.38	6.750	18.04	6.185	1.02080	47.57	2
057	00500	21.17	6.818	18.07	7.714	1.02074	47.77	3
054	00500	21.17	6.818	18.07	7.714	1.02074	47.77	4
055	00500	20.11	7.000	17.87	7.481	1.02070	47.77	5
058	00500	21.77	6.771	18.07	7.337	1.02074	50.50	6

POS	CTIME	CPM1	CPM1X	CPMC	CPMCX	CPM1/CPMC	CPMC	Wait
061	00500	20.56	6.952	21.80	6.809	1.07394	54.74	1
062	00500	22.95	6.679	18.09	7.312	1.01510	50.50	2
063	00500	22.04	6.774	19.09	7.222	1.13656	51.11	3
064	00500	22.55	6.697	21.21	6.905	1.08016	52.13	4
065	00500	24.68	6.776	20.81	6.970	1.12981	55.05	5
066	00500	22.65	6.682	18.69	7.057	1.21000	47.59	6
067	00500	20.26	6.594	18.76	6.012	1.47626	50.54	7
068	00500	22.04	6.774	18.79	7.337	1.17321	51.11	8

POS	CTIME	CPM1	CPM1X	CPMC	CPMCX	CPM1/CPMC	CPMC	Bkgnd
071	00500	23.06	6.900	18.79	7.200	1.12500	51.11	

TOTAL COUNT RATE: 266.9 CPM

*Selma J. Alverez 5/1/80*

## Release Report of Radioactive Storage Room 128A

The following procedure was followed:

1. All radioactive material was removed from room 128A and relocated to the new waste storage area, room 415
2. All accessible floor, wall and door surfaces were surveyed with a GM meter
  - a. Ludlum Model 3 Meter  
Serial Number: 109575  
Calibration Date: June 27, 2000
  - b. Probe Model 44-9  
Serial Number: 111796
3. The room was partitioned into approximately 9 square foot sections (see attached map) and each section was wipe tested - an unused wipe was used for determining the background radiation level
4. Scintillation cocktail was added to the wipes and the vials were counted for 10 min each with a wide open window, 1-1024 (see attached spreadsheet for DPM of each section)
  - a. Liquid Scintillation Counter: Wallac 1209 Rackbeta  
Serial Number: 682  
Calibration Date: July 18, 2000

Results:

1. No radiation levels exceeded the background level which was 0.05 mRem/h
2. All wipe tests were equivalent to background
3. The warning label was removed from the door and the room was released for unsecured use

Debra Alvarez

Radiation Coordinator

Signature: Debra Alvarez

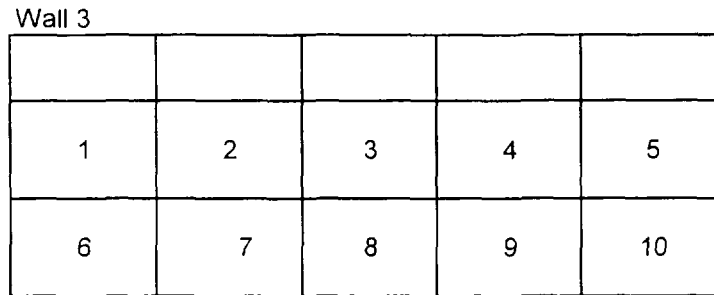
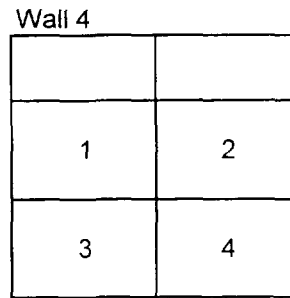
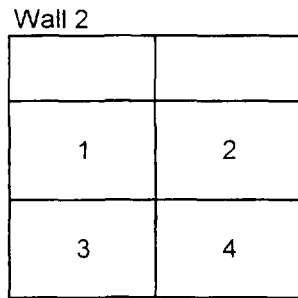
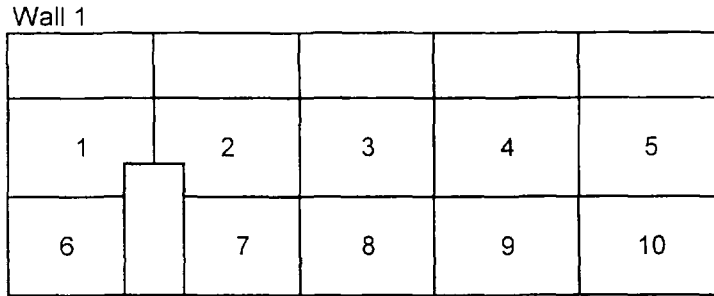
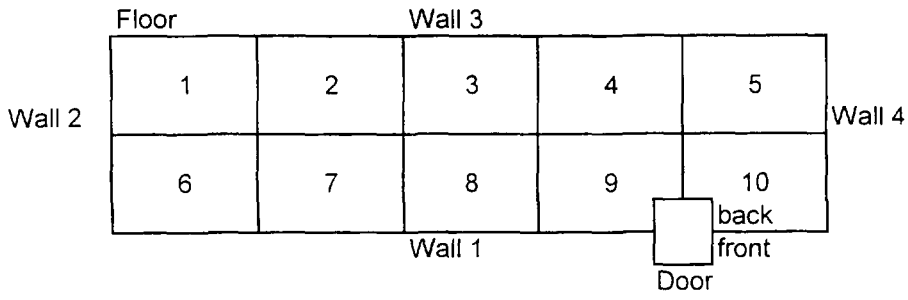
Date: 7/3/01

Dr. Edward McGuire

Radiation Safety Officer

Signature: Edward McGuire

Date: 7/3/01





Prepared by: Debra Alvarez

Initials: *da*

Date: 3-Jul-01

Liquid Scintillation Counter: Wallac 1209 Rackbeta

Counting Efficiency is ~50% for <sup>3</sup>H and ~95% for <sup>14</sup>C -- 50% is used for the calculations below  
 Background CPM are subtracted, then DPM are calculated

Floor	CPM	DPM	Wall 1	CPM	DPM	Wall 2	CPM	DPM
1	44	-8	1	43	-9	1	43	-10
2	45	-5	2	44	-7	2	42	-11
3	43	-10	3	44	-7	3	47	-1
4	43	-9	4	42	-11	4	42	-12
5	44	-7	5	39	-17			
6	43	-10	6	46	-3			
7	48	0	7	42	-11			
8	52	8	8	42	-12			
9	48	0	9	37	-21			
10	43	-9	10	37	-22			
<b>Door</b>			<b>Wall 3</b>			<b>Wall 4</b>		
Front	45	-5	1	40	-16	1	46	-4
Back	43	-9	2	46	-4	2	40	-16
			3	46	-4	3	41	-13
			4	46	-4	4	41	-14
			5	42	-12			
			6	42	-12			
			7	42.02	-12			
			8	43.23	-9			
			9	40.3	-15			
			10	44.34	-7			
<b>Background</b>	48	96						

*Selma Alvarez 7/31/01*

PARAMETER GROUP 3

PROGRAM MODE: CPM,CPM  
 COUNT MODE: SCPM  
 ISOTOPE: H-3  
 TIME: 300  
 NUMBER OF WINDOWS: 2  
 WINDOW 1: 0-100  
 WINDOW 2: 0-100  
 END ENERGY (eV):  
 CHANNELS:  
 CHANNEL WIDTH (eV):  
 CHANNEL CENTER (eV):  
 CHANNEL START (eV):  
 CHANNEL STOP (eV):  
 SET 1:  
 SET 2:  
 SET 3:  
 PRINT: 1,2,11,12,21,22,39,43  
 LISTING: YES

RACK ID: NO PLUG

POS	CTIME	CPM1	CPM1%	CPM2	CPM2%	CPM1/CPM2	CPM3	
								Flcor
001	00600	27.40	6.076	7.37	11.712	3.71626	43.63	1
002	00600	27.10	6.109	7.98	11.259	3.39642	45.25	2
003	00600	23.56	6.552	8.48	10.918	2.77699	42.72	3
004	00600	25.28	6.325	9.29	10.433	2.72062	43.43	4
005	00600	25.18	6.338	8.59	10.854	2.91302	44.04	5
006	00600	24.27	6.455	9.09	10.548	2.66997	42.93	6
007	00600	27.20	6.098	9.39	10.377	2.89577	47.67	7
008	00600	30.44	5.764	11.92	9.212	2.55412	51.91	8
009	00600	26.39	6.191	9.70	10.213	2.72174	47.98	9
010	00600	25.58	6.288	8.18	11.119	3.12675	43.13	10
RACK ERROR								

RACK ID: NO PLUG

POS	CTIME	CPM1	CPM1%	CPM2	CPM2%	CPM1/CPM2	CPM3	
								Door
011	00600	25.28	6.325	9.19	10.490	2.75052	43.16	front
012	00600	25.18	6.338	8.59	10.854	2.83277	47.27	back
RACK ERROR								

RACK ID: NO PLUG

POS	CTIME	CPM1	CPM1%	CPM2	CPM2%	CPM1/CPM2	CPM3	
								well 1
013	00600	27.51	6.067	7.37	11.712	3.73118	43.23	1
014	00600	25.29	6.202	8.59	10.854	3.06232	44.34	2
023	00600	24.37	6.442	9.19	10.490	2.65151	44.44	3
024	00600	23.36	6.580	8.08	11.188	2.89109	42.12	4
025	00600	21.44	6.868	7.47	11.633	2.86861	39.19	5
026	00600	28.01	5.977	8.48	10.918	3.33687	46.06	6
027	00600	26.28	6.325	7.07	11.961	3.57567	42.42	7
028	00600	27.66	6.511	8.48	10.918	2.81275	41.61	8
029	00600	19.90	7.147	7.78	11.404	3.12834	37.77	9

RACK ID: NO PLUG

POS	CTIME	CPM1	CPM1%	CPM2	CPM2%	CPM1/CPM2	CPM3
031	00600	25.28	6.325	8.89	10.667	2.84428	42.82 1
032	00600	23.46	6.566	8.38	10.984	2.79852	42.32 2
033	00600	29.12	5.893	8.18	11.119	3.55947	47.47 3
034	00600	23.76	6.524	8.08	11.168	2.94059	41.92 4

RACK ID: NO PLUG

POS	CTIME	CPM1	CPM1%	CPM2	CPM2%	CPM1/CPM2	CPM3
041	00600	24.67	6.403	8.18	11.119	3.01552	39.90 1
042	00600	28.82	5.924	9.29	10.433	3.10159	45.96 2
043	00600	26.70	6.155	9.49	10.721	2.81230	45.96 3
044	00600	27.00	6.120	8.18	11.119	3.30033	45.55 4
045	00600	24.17	6.469	9.09	10.546	3.65897	41.15 5
046	00600	22.65	6.657	8.48	10.713	3.19771	41.71 6
047	00600	22.15	6.821	8.77	10.927	2.87147	41.13 7
048	00600	27.16	6.227	8.77	10.927	3.07911	47.25 8
049	00600	22.65	6.657	9.29	10.433	2.75684	41.70 9
050	00600	25.29	6.325	8.18	11.119	3.26289	44.74 10

RACK ID: NO PLUG

POS	CTIME	CPM1	CPM1%	CPM2	CPM2%	CPM1/CPM2	CPM3
051	00600	24.77	6.390	8.48	10.713	2.91961	45.96 1
052	00600	23.66	6.536	8.38	10.984	2.82238	39.59 2
053	00600	24.47	6.429	8.18	11.119	2.99108	41.11 3
054	00600	22.55	6.697	9.19	10.490	2.45349	40.91 4

RACK ERROR

RACK ID: NO PLUG

POS	CTIME	CPM1	CPM1%	CPM2	CPM2%	CPM1/CPM2	CPM3
061	00600	28.01	6.009	7.98	11.259	3.51046	47.77 <i>Bigmac</i>

TOTAL COUNT RATE: 1029.8 CPM

*Delia Alvarez 7/3/01*