Quest Diagnostics Incorporated

900 Business Center Drive
Horsham, PA 19044
215.957.9300
www.questdiagnostics.com

NMSS L

Quest
Diagnostics

July 3, 2007

US Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415
Attn: Michael Perkins

030 30859

Notification #37-28294-01
Mail Control #~~140577~~ 140761

Dear Mr. Perkins,

This letter is to request termination of the NRC license #37-28294-01 at Quest Diagnostics, 900 Business Center Drive, Horsham, PA 19044.

Please refer to my previous correspondence dated May 24, 2007 and June 19, 2007 that contains documentation associated with my request to terminate our license.

If you have any questions, please feel free to contact me. My phone number is listed above; my e-mail address is linda.e.dickson@questdiagnostics.com.

Sincerely yours,

Linda E. Dickson
Special Chemistry Manager, RSO
Quest Diagnostics, Incorporated
Philadelphia Business Unit
P: 215.442.7656
F: 215.957.9116

LED:kr

140761

NMSS/RGN1 MATERIALS-002

Quest Diagnostics Incorporated

900 Business Center Drive
Horsham, PA 19044
215.957.9300
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Quest
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REGION 1
2007 JUN 22 PM 12: 31

June 19, 2007

US Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

Notification # 37-28294-01 03030859
Mail Control Number: ~~140577~~ 140761

Dear Licensing Assistance Team Leader:

Enclosed is the documentation that pertains to the decommissioning of the RIA area and components used in testing with Radioactive I125 kits at Quest Diagnostics Incorporated, Horsham, PA.

Report of Decommissioning the RIA Section of the Laboratory at the Horsham Facility

1. Purpose and Scope – This document describes the plan, method and results of decommissioning the RIA section of the Quest Diagnostics Laboratory located in Horsham, PA during the month of May 2007. The process of decommissioning was performed by the Lab Assistant and Technologists directly under the supervision of the ImmunoChemistry Supervisor, Vicky Carter and the RSO, Linda Dickson. The purpose of decommissioning was to ensure that all areas of the laboratory where radioactive material was used in testing were below the limit of 65 dpm as determined by the Swipe Test.

2. Radionuclides of Concern – Iodine 125 was the only radionuclide in use at the Horsham RIA Laboratory.

3. Method – On Monday, May 7, 2007, testing using Radioactive I125 ceased and a Geiger counter was used to survey the area for possible radioactive contamination. The results of the Geiger Counter Survey were determined to be at room background. On Thursday, May 10, 2007, the remaining I124 liquid not used in testing was flushed down the designated sink with copious amounts of water. The total amount of I125 flushed down the sink was 14.6 uCi. On Thursday, May 10th, the area and components used in RIA testing were wiped with I-Bind and Contrad 70 and allowed to dry. The Swipe Test procedure was performed on the areas and components listed on the Map for Decontamination. Clean, cotton swabs were used to swipe the areas designated on the map in a square area approximately 16 inches wide. Swipe testing was also performed on

components used in RIA testing and are listed in each specific area designated with a number. A background count was taken on three empty tubes to ensure the Gamma Counter was at background. The swabs were counted in the Gamma Counter in counts per minute and converted to disintegrations per minute. The results of the Swipe test were less than the acceptable limit of 65 dpm.

In February 2007, the refrigerator that stored the Radioactive Kits (I125) used for clinical testing broke and a decision was made not to repair or replace the refrigerator. The kits were moved to one shelf in the adjacent refrigerator. The broken refrigerator was decommissioned using the Swipe Test procedure. The results of the Swipe test on the outside and inside of the refrigerator are attached. All results are less than the acceptable limit of 65 dpm.

4. Instrumentation Used

Geiger Counter:	Ludlum, Model: 3, S/N 83765
Detector:	Ludlum, Model: 44-3, S/N 078190
Calibration:	JRT Calibration Services, dates 04/10/2006 and 04/02/2007
Gamma Counter:	ISODATA Serial #9507215 The Gamma Counter is calibrated daily using Iso-Calibrators Reference Sources supplied by PolyMedco BioMedicals, Inc.

5. Survey Findings and Results of the Decommissioning of the RIA Lab at Quest Diagnostics, Horsham, PA

   Swipe test results for the RIA refrigerator that broke and was decommissioned in February 2007 were acceptable at less than background of 65 dpm. See attachment labeled B, Refrig, Decontamination Map and Results.

   Survey results for the RIA area using the Survey Meter (Geiger Counter) on May 7, 2007 were acceptable at a background of 200 cpm or 1176 dpm. See attachment labeled A, Geiger Counter Survey.

   Swipe test results obtained on May 10, 2007 for the RIA area where clinical testing was performed using I125 kits were acceptable at less than background of 65 dpm. See attachment labeled C, ImmunoChemistry Environmental Radiation Survey: Swipe Test Results.

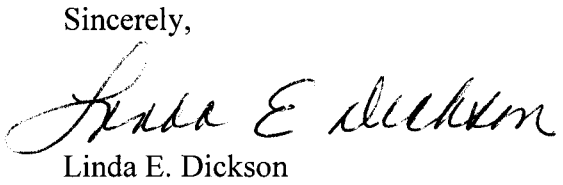
6. Final Report of Waste Packaging Operations and Survey Results

   Results of the removal of the decay in storage waste performed by Ecology Services, Inc. in November 2006 at Quest Diagnostics, Incorporated in Norristown, PA. See attachment labeled D.

7. Summary
   Swipe Test results for the RIA refrigerator, testing area and components used in clinical testing were less than background: no radiation levels were detected above background by the Geiger Counter Survey or Swipe Test.

If I can be of further assistance, I can be reached by phone at 215-442-7656 or by email at Linda.E.Dickson@QuestDiagnostics.com.

Sincerely,



Linda E. Dickson
Special Chemistry Manager, RSO
Quest Diagnostics, Incorporated
Philadelphia Business Unit
P: 215.442.7656
F: 215.957.9116

LED:kr

ATTACHMENT "A"

QUEST DIAGNOSTICS
900 Bussiness Center Dr.
Horsham, Pa. 19044

GEIGER COUNTER SURVEY

MGR. REVIEW: IMMUNOCHEMISTRY
DATE: 2/14/07

ACTION LEVEL: 500 CPM OR 2941 DPM OR GRERATER: CONSULT RSO AND FOLLOW THE CLEAN UP PROCEDURE IN THE RADIATION SAFETY PROCEDURE MANUAL

							RIA AREA #1						REGULAR TRASH		DECON. AREA1	
DATE	TECH. INITIALS	BAT.	BKG		RIA REFRIG		BODY SCAN W/PPE		BIOHAZARD WASTE		COUNTER TOP		REGULAR TRASH		COUNTER TOPS (WIPE)	
			CPM	DPM	CPM	DPM	CPM	DPM	CPM	DPM	CPM	DPM	CPM	DPM	YES	
1-2-07	[illegible]	OK	200	1176	200	1176	200	1176	200	1176	200	1176	200	1176	✓	
1-3-07	[illegible]	OK	200	1176	200	1176	200	1176	200	1176	200	1176	200	1176	✓	
1-4-07	[illegible]	OK	200	1176	200	1176	200	1176	200	1176	200	1176	200	1176	✓	
1-5-07	LB	OK	200	1176	200	1176	200	1176	200	1176	200	1176	200	1176	✓	
1-6-07	[illegible]	OK	200	1176	200	1176	200	1176	200	1176	200	1176	200	1176	✓	
1-5-07	LXS	OK	200	1176	200	1176	200	1176	200	1176	200	1176	200	1176	✓	
1-1-07	[illegible]	OK	200	1176	200	1176	200	1176	200	1176	200	1176	200	1176		
	RIA decommissioned															

Check battery: Knob set at BAT. Reading must be within acceptable battery test. Check if acceptable. Record CPM using Ludlum Model 2 Geiger Counter

Use setting X1 for Body Scan, Biohazard Waste, Counter Top, and Regular Trash

NOTE: Acceptable unit of measure for radioactivity is DPM. DPM=(CPM/Efficiency) where efficiency=0.17

The room background in CPM = 200 - 500 or 1176-2941 in DPM

Acceptable survey for Body Scan, Biohazard Waste, Counter Top, and Regular Trash is 200 - 500 CPM (1176 - 2941 DPM)

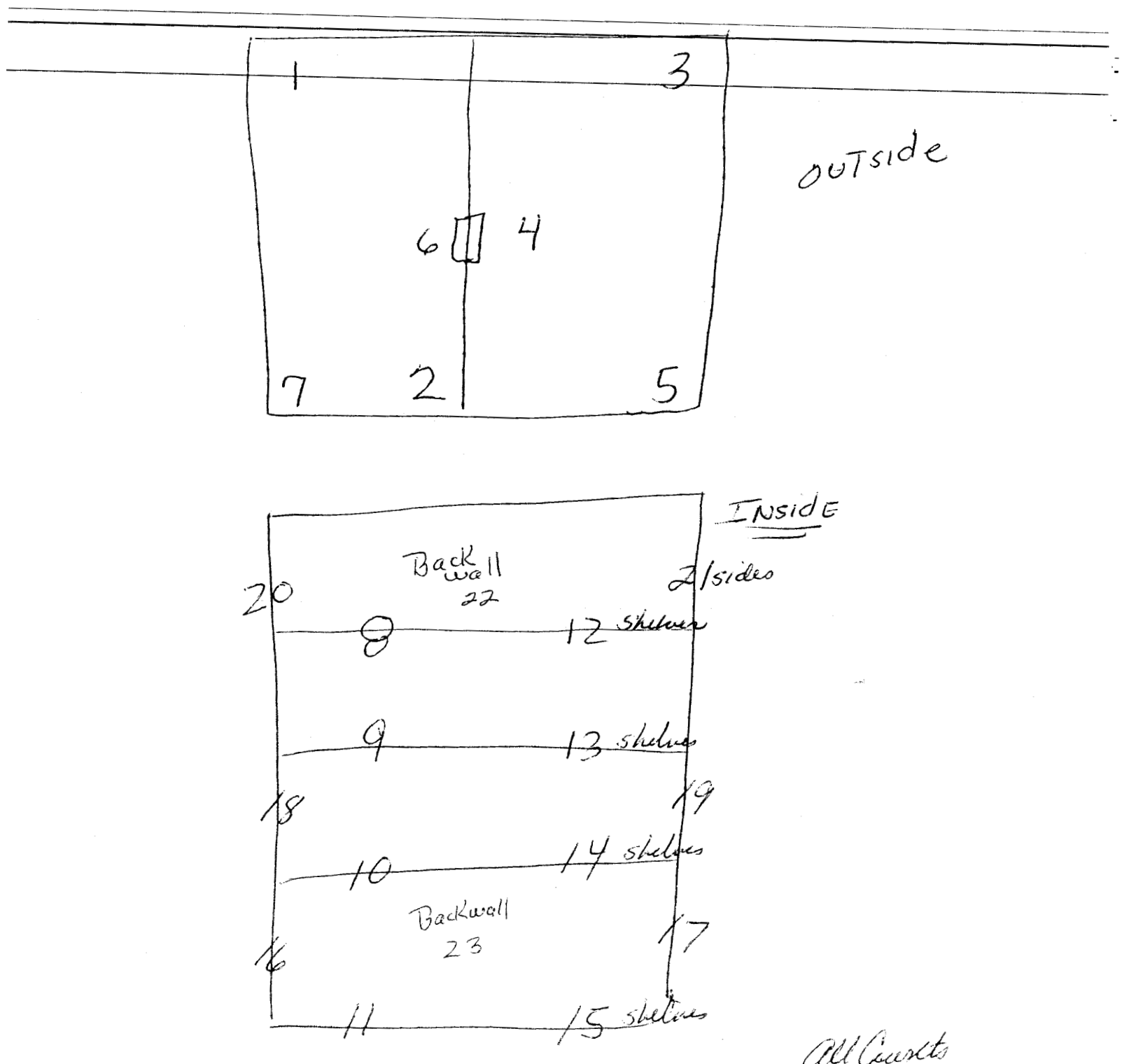
Acceptable survey for the RIA Refrigerator is 200 - 500 CPM (1176 - 2941 DPM)

ReFrig

ATTACHMENT B.

Decontamination

Survey -



All Counts
<65, Martin
3-2-07

RIA Refrig AFTER DECON

28 2007 Load List for ENVIR-I 2-28-07 3:02:51 PM
N ID:02/28/:7 15:01 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Group Name	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	COMMENTS
	1001	A	24				
	1002	A	36				
	1003	A	8				
NB		A	22	63.66			

Feb 28 2007 Load List for DOLO 3:03:01 PM
RUN ID:02/28/:7 15:01 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Group Name	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	COMMENTS
	1001	B	0				
	1002	B	0				
	1003	B	28				
NB		B	9	173.21			

Results of Survey Wipes on Outside of Refrigerator

Feb 28 2007 Report for ENVIR-I /DOLO 3:03:05 PM
RUN ID:02/28/:7 15:01 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
1	1004	A	35	0.00	12.399			
	1004	B	23	0.00	13.595			
DPM OF I125 =			49.70 DPM					
NANO =			0.02 nano Ci I125					
DPM OF CO57 =			32.71 DPM					
NANO =			0.01 nano Ci Co57					
2	1005	A	25	0.00	2.6811			
	1005	B	23	0.00	13.813			
DPM OF I125 =			35.82 DPM					
NANO =			0.02 nano Ci I125					
DPM OF CO57 =			33.02 DPM					
NANO =			0.01 nano Ci Co57					
3	1006	A	19	0.00	-3.3109			
	1006	B	0	0.00	-9.3031			
DPM OF I125 =			27.26 DPM					
NANO =			0.01 nano Ci I125					
DPM OF CO57 =			0.00 DPM					
NANO =			0.00 nano Ci Co57					
4	1007	A	6	0.00	-16.892			
	1007	B	21	0.00	11.564			
DPM OF I125 =			7.86 DPM					
NANO =			0.00 nano Ci I125					
DPM OF CO57 =			29.81 DPM					
NANO =			0.01 nano Ci Co57					
5	1008	A	30	0.00	7.2368			
	1008	B	15	0.00	5.5557			
DPM OF I125 =			42.33 DPM					
NANO =			0.02 nano Ci I125					
DPM OF CO57 =			21.23 DPM					
NANO =			0.01 nano Ci Co57					

All counts less than LLS OK
[illegible] 3-2-07

Reviewed [illegible] 3/7/07

```
        1009 B        31    0.00   21.669
    F I125 =   50.26 DPM
           =    0.02 nano Ci I125
    M OF CO57 =   44.25 DPM
ANO        =    0.02 nano Ci Co57
```

```
(7)     1010 A        25    0.00   3.0956
        1010 B        56    0.00   47.176
DPM OF I125 =   36.41 DPM
NANO        =    0.02 nano Ci I125
DPM OF CO57 =   80.68 DPM
NANO        =    0.04 nano Ci Co57
```

28 2007 Report for ENVIR-I /DOLO 3:03:05 PM
N ID:02/28/:7 15:01 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
8	1011	A	3	0.00	-19.453			Results of Survey Wipes Inside of Refrigerator.
	1011	B	5	0.00	-4.3360			
DPM OF I125 =			4.20 DPM					
NANO =			0.00 nano Ci I125					
DPM OF CO57 =			7.10 DPM					
NANO =			0.00 nano Ci Co57					
9	1012	A	22	0.00	0.3419			
	1012	B	12	0.00	2.7963			
DPM OF I125 =			31.50 DPM					
NANO =			0.01 nano Ci I125					
DPM OF CO57 =			17.29 DPM					
NANO =			0.01 nano Ci Co57					
10	1013	A	24	0.00	1.8960			
	1013	B	48	0.00	38.246			
DPM OF I125 =			34.70 DPM					
NANO =			0.02 nano Ci I125					
DPM OF CO57 =			67.93 DPM					
NANO =			0.03 nano Ci Co57					
11	1014	A	28	0.00	6.1032			
	1014	B	10	0.00	0.6174			
DPM OF I125 =			40.71 DPM					
NANO =			0.02 nano Ci I125					
DPM OF CO57 =			14.17 DPM					
NANO =			0.01 nano Ci Co57					
12	1015	A	10	0.00	-12.421			
	1015	B	5	0.00	-4.2858			
DPM OF I125 =			14.25 DPM					
NANO =			0.01 nano Ci I125					
DPM OF CO57 =			7.17 DPM					
NANO =			0.00 nano Ci Co57					
13	1016	A	9	0.00	-13.662			
	1016	B	17	0.00	7.8523			
DPM OF I125 =			12.47 DPM					
NANO =			0.01 nano Ci I125					
DPM OF CO57 =			24.51 DPM					
NANO =			0.01 nano Ci Co57					
14	1017	A	7	0.00	-15.759			
	1017	B	27	0.00	17.679			
DPM OF I125 =			9.48 DPM					
NANO =			0.00 nano Ci I125					
DPM OF CO57 =			38.55 DPM					
NANO =			0.02 nano Ci Co57					

28 2007 Report for ENVIR-I /DOLO 3:03:05 PM
ID:02/28/:7 15:01 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
15	1018	A	36	0.00	13.581			Survey Wipes Inside ~~outside~~ Refrigerator
	1018	B	35	0.00	25.732			
DPM OF I125 =			51.39	DPM				
NANO =			0.02	nano Ci I125				
DPM OF CO57 =			50.05	DPM				
NANO =			0.02	nano Ci Co57				
16	1019	A	35	0.00	12.897			
	1019	B	25	0.00	15.813			
DPM OF I125 =			50.41	DPM				
NANO =			0.02	nano Ci I125				
DPM OF CO57 =			35.88	DPM				
NANO =			0.02	nano Ci Co57				
17	1020	A	13	0.00	-9.1860			
	1020	B	22	0.00	12.990			
DPM OF I125 =			18.87	DPM				
NANO =			0.01	nano Ci I125				
DPM OF CO57 =			31.85	DPM				
NANO =			0.01	nano Ci Co57				
18	1021	A	33	0.00	10.714			
	1021	B	1	0.00	-8.3042			
DPM OF I125 =			47.30	DPM				
NANO =			0.02	nano Ci I125				
DPM OF CO57 =			1.43	DPM				
NANO =			0.00	nano Ci Co57				
19	1022	A	28	0.00	5.8321			
	1022	B	33	0.00	23.752			
DPM OF I125 =			40.32	DPM				
NANO =			0.02	nano Ci I125				
DPM OF CO57 =			47.22	DPM				
NANO =			0.02	nano Ci Co57				
20	1023	A	35	0.00	12.916			
	1023	B	26	0.00	16.745			
DPM OF I125 =			50.44	DPM				
NANO =			0.02	nano Ci I125				
DPM OF CO57 =			37.21	DPM				
NANO =			0.02	nano Ci Co57				
21	1024	A	14	0.00	-8.5529			
	1024	B	8	0.00	-1.2364			
DPM OF I125 =			19.77	DPM				
NANO =			0.01	nano Ci I125				
DPM OF CO57 =			11.52	DPM				
NANO =			0.01	nano Ci Co57				

28 2007 Report for ENVIR-I /DOLO 3:03:05 PM
N ID:02/28/:7 15:01 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
22	1025	A	34	0.00	11.941			
	1025	B	56	0.00	46.700			
DPM OF I125 =	**49.05** DPM							
NANO =	**0.02** nano Ci I125							
DPM OF CO57 =	**80.00** DPM							
NANO =	**0.04** nano Ci Co57							
23	1026	A	0	0.00	-22.393			
	1026	B	17	0.00	7.4720			
DPM OF I125 =	**0.00** DPM							
NANO =	**0.00** nano Ci I125							
DPM OF CO57 =	**23.97** DPM							
NANO =	**0.01** nano Ci Co57							
24	1027	A	24	0.00	1.7020			
	1027	B	37	0.00	27.562			
DPM OF I125 =	**34.42** DPM							
NANO =	**0.02** nano Ci I125							
DPM OF CO57 =	**52.67** DPM							
NANO =	**0.02** nano Ci Co57							

ATTACHMENT C

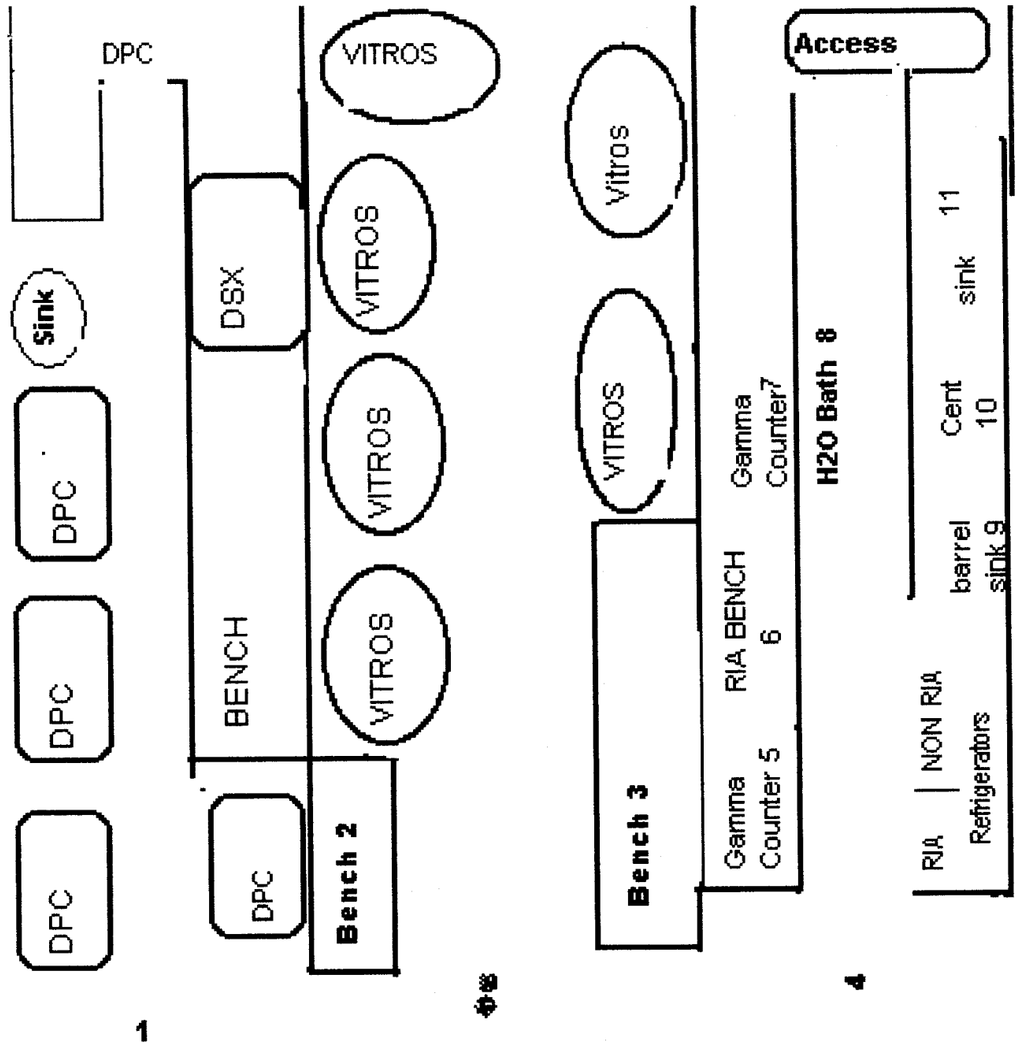
Quest Diagnostics
Horsham, Pa
10-May-07

RIA Section of the Laboratory

Final Environmental Radiation Survey: Swipe Test Results

KEY	DESCRIPTION	WIPE TEST RESULTS
1	Entrance by DPC area	No radioactive material used in the area
2	Hepatitis Counter Top Area 2	No radioactive material used in the area
3	Hepatitis Counter Top Area 3	No radioactive material used in the area
4	Entrance by Refrigerator	
	Refrigerator back wall	46.06 dpm
	Refrigerator floor	36.85 dpm
	Refrigerator door (inside)	24.77 dpm
	Refrigerator door (outside)	16.99 dpm
	Refrigerator left side (outside)	6.42 dpm
	RIA refrigerator shelves	0.00 dpm
5	Gamma Counter (across from Refrig)	
	Left hand wall by main Gamma Counter	20.93 dpm
	Main Gamma Counter	28.46 dpm
	Cabinet under Gamma Counter	14.23 dpm
6	RIA Counter Top	
	Cabinet drawer	0.00 dpm
	Shelves above bench	37.41 dpm
	Bench Top Testing Area	56.14 dpm
	Wall & Foot Rest under bench	26.25 dpm
	Mixer	0.00 dpm
	Keyboard	42.74 dpm
	PC Terminal	20.8 dpm
	Pipette	19.51 dpm
	Phone	29.83 dpm
	Tube Mixer	22.23 dpm
	Cabinet under PC Terminal	34.27 dpm
	Light	38.48 dpm
7	Gamma Counter (across from sink)	
	Walls next to back up Gamma Counter	21.69 dpm
	Gamma Counter (back up)	37.92 dpm
8	Water bath	
	Shelf & walls next to gamma counter	18.09 dpm
	Water Bath	25.32 dpm
9	Sink (near Radioactive barrel)	
	Sink for disposal of radioactive liquids	40.97 dpm
	Cabinet under sink	37.65 dpm
	Wall above sink	33.64 dpm
	Drum before moving	47.45 dpm
	Floor mat near RIA sink	57.45 dpm
	Floor under barrel (drum)	28.54 dpm
	Wall behind barrel (drum)	57.52 dpm
	Shelving next to barrel (drum)	49.18 dpm
10	Centrifuge	

	Outside of centrifuge (lid)	18.66 dpm
	Outside Centrifuge (shelf)	7.65 dpm
	Inside Centrifuge	38.99 dpm
	Cabinet under Centrifuge	9.09 dpm
	Walls of cabinet	22.36 dpm
	Counter to the right of Centrifuge	53.43 dpm
	Floor mat near Centrifuge	12.93 dpm
	Warehouse	
	Wall behind barrels (drum)	18.37 dpm
	Floor around barrels (drum)	0.00 dpm
11	Counter Top next to Access	No radioactive material used in the area
3/2/2007	RIA Refrigerator broke and was decommissioned - see diagram - ATTACHMENT D	
	Outside of Refrigerator - area 1 through 7	all dpm < 65
	Inside of Refrigerator - area 8 through 23	all dpm < 65



Note: Map for Decontamination May 10, 2007 End RIA Testing in Immunchemistry

KEY	DESCRIPTION	Gamma Counter Wipe Testing Used for Decontamination Purposes
1	Entrance by the DPC AREA	NA
2	Hepatitis Counter Top Area 2	NA
3	Hepatitis Counter Top Area 3	NA
4	Entrance by Refrigerator	See print out for counts
5	Gamma Counter (Across from Refrigerator)	Area broken down further for decontamination. See attached print out for counts
6	RIA Counter Top	As above

IMMUNOCHEMISTRY ENVIORNMENTAL RADIATION SURVEY: SURVEY METER & SWIPE TEST

7	Gamma Counter (Across from the Sink)	As above
8	Water Bath	As above
9	Sink (Near Radiation Barrel)	As above
10	Centrifuge	As above
11	Counter Top Next to Access	NA

DATE: 5-30-07	**ANALYST:** Bennis Hines
REVIEWED BY: V Carter	JoAnn Sherry
Judy Wilder RSO	
	I-125 SWIPE TEST ACCEPTABLE RANGE < 65 DPM
Final Decomtamination: See attached sheet for DPM readings. **May 8, 2007 final RIA testing performed at Quest Horsham. Areas decontaminated with I-Bind and then wipe testing performed on all areas listed on the print out. Walls, cabinets, shelves, refrigerator shelves, floor etc as documented on print out sheets.**	**All counts less than 65.**
Areas Broken Down as follows:	**Area 5** **1)Left hand wall by main gamma counter** **2) Main gamma counter** **3) Cabinet under gamma counter**
	Area 6 **1) Drawer of cabinet** **2) Bench Top testing Area** **3) Shelves above bench** **4) Wall and foot rest under bench** **5) Mixer- wide mixer** **6) Keyboard** **7) Terminal** **8) Pipettes** **9) Phone** **10) Tube mixer** **11) Cabinet below area** **12) Light fixture**
	Area 7 **1) Walls next to back up gamma counter** **2) Gamma counter**
	Area 8 **1) Shelf and walls next to water bath** **2) Water Bath**
	Area 9 **1) sink**

IMMUNOCHEMISTRY ENVIORNMENTAL RADIATION SURVEY: SURVEY METER & SWIPE TEST

	2) cabinet under sink 3) wall above sink 4) Floor mat near RIA sink 5) Floor under barrel 6) Wall behind barrel
	Area 10 1) Outside of centrifuge lid 2) Outside of centrifuge shelf 3) Inside centrifuge 4) Cabinet under centrifuge 5) Walls of cabinet 6) Floor mat near centrifuge 7) Floor mat near RIA Sink
	1) Refrigerator shelf 2) Refrigerator back wall 3) Refrigerator floor 4) Refrigerator door(inside) 5) Refrigerator door(ourtside)
Warehouse	1) Wall behind barrels 2) Floor around barrels 3) Shelving next to barrels 4) One old barrel 5) New barrel

May 10 2007 Load List for ENVIR-I 12:05:03 PM
RUN ID:05/10/:7 12:03 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Group Name	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	COMMENTS
	1001	A	29				
	1002	A	13				
	1003	A	9				
NB		**A**	**17**	**62.23**			

May 10 2007 Load List for DOLO 12:05:24 PM
RUN ID:05/10/:7 12:03 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Group Name	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	COMMENTS
	1001	B	6				
	1002	B	1				
	1003	B	14				
NB		**B**	**7**	**93.52**			

May 10 2007 Report for ENVIR-I /DOLO 12:05:30 PM
RUN ID:05/10/:7 12:03 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
1	1004	A	15	0.00	-2.1125			
	1004	B	24	0.00	16.907			
DPM OF I125 =			**20.93** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**34.13** DPM					
NANO =			**0.02** nano Ci Co57					
2	1005	A	20	0.00	3.1590			
	1005	B	27	0.00	20.150			
DPM OF I125 =			**28.46** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**38.77** DPM					
NANO =			**0.02** nano Ci Co57					
3	1006	A	10	0.00	-6.8050			
	1006	B	1	0.00	-5.9820			
DPM OF I125 =			**14.23** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**1.43** DPM					
NANO =			**0.00** nano Ci Co57					
4	1007	A	0	0.00	-16.762			
	1007	B	22	0.00	14.875			
DPM OF I125 =			**0.00** DPM					
NANO =			**0.00** nano Ci I125					
DPM OF CO57 =			**31.23** DPM					
NANO =			**0.01** nano Ci Co57					
5	1008	A	26	0.00	9.4223			
	1008	B	39	0.00	31.647			
DPM OF I125 =			**37.41** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**55.19** DPM					

Area 5

left hand wall by main gamma counter

AREA 5

main gamma counter

Area 5

cabinet under gamma counter

Area RIA 6

drawer of cabinet

Area RIA 6

6	1009	A	39	0.00	22.537	
	1009	B	24	0.00	16.992	

DPM OF I125 = **56.14** DPM
NANO = **0.03** nano Ci I125
DPM OF CO57 = **34.26** DPM
NANO = **0.02** nano Ci Co57

Area 6
bench top testing area

7	1010	A	18	0.00	1.6131	
	1010	B	55	0.00	48.502	

DPM OF I125 = **26.25** DPM
NANO = **0.01** nano Ci I125
DPM OF CO57 = **79.27** DPM
NANO = **0.04** nano Ci Co57

Area 4
wall + foot rest under bench

May 10 2007 Report for ENVIR-I /DOLO 12:05:30 PM
RUN ID:05/10/:7 12:03 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
8	1011	A	0	0.00	-16.762			
	1011	B	5	0.00	-2.0192			
DPM OF I125 =			**0.00** DPM					
NANO =			**0.00** nano Ci I125					
DPM OF CO57 =			**7.10** DPM					
NANO =			**0.00** nano Ci Co57					AREA 6 mixer
9	1012	A	30	0.00	13.155			
	1012	B	26	0.00	19.229			
DPM OF I125 =			**42.74** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**37.45** DPM					
NANO =			**0.02** nano Ci Co57					AREA 6 Keyboard
10	1013	A	15	0.00	-2.2034			
	1013	B	29	0.00	22.352			
DPM OF I125 =			**20.80** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**41.91** DPM					
NANO =			**0.02** nano Ci Co57					AREA 6 terminal
11	1014	A	14	0.00	-3.1064			
	1014	B	11	0.00	3.9262			
DPM OF I125 =			**19.51** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**15.59** DPM					
NANO =			**0.01** nano Ci Co57					AREA 6 pipettes
12	1015	A	21	0.00	4.1171			
	1015	B	14	0.00	7.0623			
DPM OF I125 =			**29.83** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**20.07** DPM					
NANO =			**0.01** nano Ci Co57					AREA 6 phone
13	1016	A	16	0.00	-1.2026			
	1016	B	28	0.00	21.270			
DPM OF I125 =			**22.23** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**40.37** DPM					
NANO =			**0.02** nano Ci Co57					AREA 6 tube mixer
14	1017	A	24	0.00	7.2249			
	1017	B	19	0.00	12.001			
DPM OF I125 =			**34.27** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**27.13** DPM					
NANO =			**0.01** nano Ci Co57					AREA 6 cabinet under terminal

May 10 2007 Report for ENVIR-I /DOLO 12:05:30 PM
RUN ID:05/10/:7 12:03 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
15	1018	A	15	0.00	-1.5767			
	1018	B	35	0.00	28.048			
DPM OF I125 =			**21.69** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**50.05** DPM					
NANO =			**0.02** nano Ci Co57					walls next to backup G.C
16	1019	A	27	0.00	9.7810			
	1019	B	15	0.00	8.0830			
DPM OF I125 =			**37.92** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**21.53** DPM					
NANO =			**0.01** nano Ci Co57					backup gamma counter
17	1020	A	13	0.00	-4.0969			
	1020	B	42	0.00	34.560			
DPM OF I125 =			**18.09** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**59.35** DPM					
NANO =			**0.03** nano Ci Co57					shelf + walls next to water bath
18	1021	A	18	0.00	0.9618			
	1021	B	19	0.00	11.994			
DPM OF I125 =			**25.32** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**27.12** DPM					
NANO =			**0.01** nano Ci Co57					water bath
19	1022	A	29	0.00	11.913			
	1022	B	7	0.00	0.0253			
DPM OF I125 =			**40.97** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**10.02** DPM					
NANO =			**0.00** nano Ci Co57					sink
20	1023	A	26	0.00	9.5899			
	1023	B	26	0.00	19.062			
DPM OF I125 =			**37.65** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**37.21** DPM					
NANO =			**0.02** nano Ci Co57					cabinet under sink
21	1024	A	24	0.00	6.7869			
	1024	B	22	0.00	15.197			
DPM OF I125 =			**33.64** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**31.69** DPM					
NANO =			**0.01** nano Ci Co57					wall above sink

AREA 7

Area 7

AREA 8

AREA 8

Area 9

AREA 9

AREA 9

May 10 2007 Report for ENVIR-I /DOLO 12:05:30 PM
RUN ID:05/10/:7 12:03 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
22	1025	A	13	0.00	-3.6986			
	1025	B	38	0.00	31.016			
DPM OF I125 =			**18.66** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**54.29** DPM					
NANO =			**0.02** nano Ci Co57					outside centrifuge (lid) AREA 10
23	1026	A	5	0.00	-11.409			
	1026	B	16	0.00	8.7403			
DPM OF I125 =			**7.65** DPM					
NANO =			**0.00** nano Ci I125					
DPM OF CO57 =			**22.47** DPM					
NANO =			**0.01** nano Ci Co57					outside centrifuge (shelf) AREA 10
24	1027	A	27	0.00	10.527			
	1027	B	26	0.00	18.919			
DPM OF I125 =			**38.99** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**37.01** DPM					
NANO =			**0.02** nano Ci Co57					inside centrifuge AREA 10
25	1028	A	0	0.00	-16.762			
	1028	B	34	0.00	26.912			
DPM OF I125 =			**0.00** DPM					
NANO =			**0.00** nano Ci I125					
DPM OF CO57 =			**48.43** DPM					
NANO =			**0.02** nano Ci Co57					refrigerator shelf NON RIA Refrig RIA Shelves
26	1029	A	32	0.00	15.482			
	1029	B	32	0.00	24.938			
DPM OF I125 =			**46.06** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**45.61** DPM					
NANO =			**0.02** nano Ci Co57					refrigerator back wall
27	1030	A	26	0.00	9.0318			
	1030	B	32	0.00	24.789			
DPM OF I125 =			**36.85** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**45.39** DPM					
NANO =			**0.02** nano Ci Co57					refrigerator floor
28	1031	A	17	0.00	0.5743			
	1031	B	69	0.00	61.611			
DPM OF I125 =			**24.77** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**98.00** DPM					
NANO =			**0.04** nano Ci Co57					refrigerator door (inside)

May 10 2007 Report for ENVIR-I /DOLO 12:05:30 PM
RUN ID:05/10/:7 12:03 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
29	1032	A	12	0.00	-4.8697			
	1032	B	20	0.00	12.803			
DPM OF I125 =			**16.99** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**28.27** DPM					
NANO =			**0.01** nano Ci Co57					refrigrator door (outside)
30	1033	A	27	0.00	10.175			
	1033	B	25	0.00	17.860			
DPM OF I125 =			**38.48** DPM					
NANO =			**0.02** nano Ci I125					AREA 6
DPM OF CO57 =			**35.50** DPM					
NANO =			**0.02** nano Ci Co57					light
31	1034	A	6	0.00	-10.401			
	1034	B	27	0.00	20.200			
DPM OF I125 =			**9.09** DPM					
NANO =			**0.00** nano Ci I125					AREA 10
DPM OF CO57 =			**38.84** DPM					
NANO =			**0.02** nano Ci Co57					cabinet under centrifuge
32	1035	A	16	0.00	-1.1082			
	1035	B	27	0.00	19.998			
DPM OF I125 =			**22.36** DPM					
NANO =			**0.01** nano Ci I125					AREA 10
DPM OF CO57 =			**38.55** DPM					
NANO =			**0.02** nano Ci Co57					walls of cabinet
33	1036	A	33	0.00	16.455			
	1036	B	57	0.00	50.307			
DPM OF I125 =			**47.45** DPM					
NANO =			**0.02** nano Ci I125					AREA 9
DPM OF CO57 =			**81.85** DPM					
NANO =			**0.04** nano Ci Co57					drum before moving
34	1037	A	4	0.00	-12.266			
	1037	B	25	0.00	17.844			
DPM OF I125 =			**6.42** DPM					
NANO =			**0.00** nano Ci I125					
DPM OF CO57 =			**35.47** DPM					
NANO =			**0.02** nano Ci Co57					left side of refrigerator (outside)
35	1038	A	37	0.00	20.639			
	1038	B	16	0.00	9.0433			
DPM OF I125 =			**53.43** DPM					
NANO =			**0.02** nano Ci I125					AREA 10
DPM OF CO57 =			**22.90** DPM					
NANO =			**0.01** nano Ci Co57					counter next to centrifuge (to the right)

May 10 2007 Report for ENVIR-I /DOLO 12:05:30 PM
RUN ID:05/10/:7 12:03 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
36	1039	A	9	0.00	-7.7144			
	1039	B	42	0.00	34.912			
DPM OF I125 =			**12.93**	DPM				
NANO =			**0.01**	nano Ci I125				
DPM OF CO57 =			**59.86**	DPM				
NANO =			**0.03**	nano Ci Co57				
37	1040	A	40	0.00	23.454			
	1040	B	43	0.00	36.350			
DPM OF I125 =			**57.45**	DPM				
NANO =			**0.03**	nano Ci I125				
DPM OF CO57 =			**61.91**	DPM				
NANO =			**0.03**	nano Ci Co57				

Area 10

floor mat near centrifuge

Area 9

floor mat near RIA sink

May 10 2007 Load List for ENVIR-I 12:27:08 PM
RUN ID:05/10/:7 12:25 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Group Name	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	COMMENTS
	1001	A	36				
	1002	A	23				
	1003	A	15				
NB		**A**	**25**	**43.08**			

May 10 2007 Load List for DOLO 12:27:15 PM
RUN ID:05/10/:7 12:25 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Group Name	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	COMMENTS
	1001	B	1				
	1002	B	24				
	1003	B	22				
NB		**B**	**16**	**81.31**			

May 10 2007 Report for ENVIR-I /DOLO 12:27:26 PM
RUN ID:05/10/:7 12:25 INSTRUMENT ID:-F-9507215 CNT TIME: 1.00

Pat. Group	Tray Tube	Ch	CPM	CPM %CV	RESP	DOSE	DOSE %CV	COMMENTS
1	1004	A	20	0.00		-4.6745		
	1004	B	8	0.00		-7.6620		
DPM OF I125 =			**28.54** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**11.38** DPM					
NANO =			**0.01** nano Ci Co57					
2	1005	A	40	0.00		15.610		
	1005	B	28	0.00		12.515		
DPM OF I125 =			**57.52** DPM					
NANO =			**0.03** nano Ci I125					
DPM OF CO57 =			**40.20** DPM					
NANO =			**0.02** nano Ci Co57					
3	1006	A	13	0.00		-11.793		
	1006	B	6	0.00		-9.6001		
DPM OF I125 =			**18.37** DPM					
NANO =			**0.01** nano Ci I125					
DPM OF CO57 =			**8.61** DPM					
NANO =			**0.00** nano Ci Co57					
4	1007	A	0	0.00		-24.651		
	1007	B	41	0.00		25.115		
DPM OF I125 =			**0.00** DPM					
NANO =			**0.00** nano Ci I125					
DPM OF CO57 =			**58.20** DPM					
NANO =			**0.03** nano Ci Co57					
5	1008	A	34	0.00		9.7754		
	1008	B	25	0.00		9.1383		
DPM OF I125 =			**49.18** DPM					
NANO =			**0.02** nano Ci I125					
DPM OF CO57 =			**35.38** DPM					

AREA #9

RIA dept. floor under barrel

Area #9

RIA dept. wall behind barrel

WareHouse Wall behind barrels

Warehouse - floor around barrels

AREA #9

```
|        6    1009 A        30    0.00   4.9446
|             1009 B        12    0.00  -3.6374
|DPM OF I125 =   42.28 DPM
|NANO        =    0.02 nano Ci I125
|DPM OF CO57 =   17.13 DPM
|NANO        =    0.01 nano Ci Co57
```

AREA warehouse

one old drum

```
|        7    1010 A        22    0.00  -2.8695
|             1010 B        36    0.00   20.045
|DPM OF I125 =   31.12 DPM
|NANO        =    0.01 nano Ci I125
|DPM OF CO57 =   50.96 DPM
|NANO        =    0.02 nano Ci Co57
```

AREA warehouse

the newly finished drum

ATTACHMENT D

ECOLOGY
SERVICES, INC.

Final Report of Waste Packaging Operations and Survey Results

Quest Diagnostics, Inc. Norristown, PA
October 27th – November 30th 2006

1.0 Purpose and Scope

This document describes the plan, methods and results of the operations performed on the decay in storage waste during the month of November 2006, for Quest Diagnostics, Inc. Ecology Services, Inc. was contracted to investigate, sort, repackage, remove any active radioactive waste and report any radiation levels above background to Daniel E. Schorn, CSP, HEM.

2.0 Radionuclides of Concern

Based upon generator information and previous analyses, the following radionuclide was actively surveyed:

Table 1.
Potential Contaminants

Radionuclide	*Form*
Cobalt	57
Iodine	125

3.0 Methods

We conducted a systematic evaluation and documentation of radiological measurements with accurately calibrated and operated instruments. Starting on October 27, 2006 we arrived on site to survey the trailer contents and formulate an operating procedure to properly deal with the inventory of decay in storage waste. We began operations on November 20, 2006 by sorting all material to be autoclaved, incinerated or free released. We completed operations on November 30th 2006. The majority of waste (laboratory trash, plastic vials, pipette tips and paper) was packaged into fiberboard boxes, scanned for residual radioactivity and sent for disposal by autoclave to remove any residual biological hazards. Seven fiberboard boxes containing plastic, metal and glass components were scanned for residual radioactivity and sent for disposal by incineration. The remaining forty eight empty drums and three dismantled sinks were scanned for residual radioactivity, wipe samples of twenty five percent of the containers were taken to confirm results and they were sent to a recycler. The results of all radiological measurements on each generated fiberboard box were less than background.

TABLE 2 - INSTRUMENT DATA

INSTRUMENT MAKE/MODEL	DETECTOR	CALIBRATION DATE	RADIO-NUCLIDE	EFFICIENCY (4PI)	MDA (DPM/100 SQ.CM.)
Ludlum / model 12 Serial # 91115	44-17 2" x 2" NaI(Tl) Serial # PR 139429	6/19/2006	Iodine 125	22.80 %	10914

4.0 Instrumentation Selection

Instrument selection was based upon the following criteria:

4.1. Selection was based upon the survey instrument's detection capability for each known or potential radionuclide.

4.2. Capability of measuring the quantity of radionuclide not yet decayed.

4.3. Calibrated for the known or potential radionuclide contamination (counts per minute).

4.4. Operated and maintained by qualified and trained personnel in accordance with an appropriate quality assurance program.

The Ludlum model 12 detector with a 44-17 probe that has been calibrated using an Iodine 125 gamma emitter, will sufficiently detect any radioactivity emitted by the Cobalt 57 Radionuclide. The 44-17 detector is a solid state 2" x 2" Sodium Iodide crystal with a high counting efficiency for gamma rays. Confirmation of our detecting capabilities was affirmed when we located four source vials of simulated Iodine 125 buried in the middle of container number 965.

5.0 Survey Findings and Results

Survey results for containers sent for disposal, were less than the minimum detectable activity for the counting instrument used. See attachment 1. MPW Monitoring and Destruction Document. The empty drums sent for recycling were scanned using the Ludlum model 12 w/44-17 probe, and additional wipe samples were taken to confirm no residual contamination. See attachment 2. Empty Drum Survey Results. The three storage trailers were cleaned and scanned using the Ludlum model 12 w/44-17 detector, no counts above background were recorded. The only radioactivity above background that we detected belonged to container number 965. In the middle of this container, shielded by many of the contents, were four source vials of simulated Iodine 125. These source vials were documented and removed with a chain of custody to our laboratories at Ecology Services, Inc. for analysis and disposal.

6.0 Summary

Except for the four source vials of simulated Iodine 125, existing contamination for the remaining decay in storage waste was non-detectable and less than the stated project scope and limits. The probability of exposure is unlikely because no radiation levels were detected above background. Empty containers met guidelines for free release as well as empty storage trailers.

Brett B. Daniels
Sr. Project Manager
Ecology Services, Inc.

Attachments:

1. MPW Monitoring and Destruction Document.
2. Empty Drum Survey results.

ECOLOGY SERVICES, INC.

MPW Monitoring and Destruction Document

Date Transferred:

The following containers are transferred to Stericycle for incineration as non-radioactive MPW.

Project:	MONITORING MPW BOXES FOR FREE RELEASE	**HP Tech (s):**	Keck, Woodward, Daniels, Watson
Locaton:		**Monitor Date:**	11/20-11/21/06 & 11/29-11/30/06

Instrument	Serial No.	Cal. Date	Detector	Serial No.	Isotope	Efficiency (4Pi)
Ludlum 12	91115	6/19/2006	44-17	PR 139429	I-125	22.80%

BKGD CPM	Check Source	Scale	MDA (DPM/100 sq cm)
900	I-129 / 9kgcpm	x 100	10914

$$MDA = \frac{4.66\ \sqrt{Bkg}}{Efficiency \times ProbeSurfaceArea}$$

Container ID	Reading CPM	Container ID	Reading CPM	Container ID	Reading CPM	Comments
55 a,b,c,d,e	≤ BKGD	746	≤ BKGD	865	≤ BKGD	
82 a,b,c,d	≤ BKGD	747	≤ BKGD	866	≤ BKGD	
100 a,b,c,d,e,f	≤ BKGD	748	≤ BKGD	867	≤ BKGD	
101 a,b,c	≤ BKGD	749	≤ BKGD	868	≤ BKGD	
159 a,b,c,d,e	≤ BKGD	750	≤ BKGD	869	≤ BKGD	
168 a,b,c,d	≤ BKGD	751	≤ BKGD	870	≤ BKGD	
182 a,b,c,d,e,f	≤ BKGD	752	≤ BKGD	871	≤ BKGD	
194 a,b,c,d	≤ BKGD	753	≤ BKGD	872	≤ BKGD	
196 a,b,c,d,e,f	≤ BKGD	754	≤ BKGD	873	≤ BKGD	
198 a,b,c,d,e,f	≤ BKGD	755	≤ BKGD	874	≤ BKGD	
201 a,b,c,d,e	≤ BKGD	756	≤ BKGD	875	≤ BKGD	
260 a,b	≤ BKGD	757	≤ BKGD	876	≤ BKGD	
266 a,b,c,d	≤ BKGD	758	≤ BKGD	877	≤ BKGD	
274 a,b,c	≤ BKGD	759	≤ BKGD	878	≤ BKGD	
280 a,b,c,d	≤ BKGD	760	≤ BKGD	879	≤ BKGD	
282 a,b,c	≤ BKGD	761	≤ BKGD	880	≤ BKGD	
286 a,b,c	≤ BKGD	762	≤ BKGD	881	≤ BKGD	
288 a,b,c,d	≤ BKGD	763	≤ BKGD	882	≤ BKGD	
289 a,b,c,d	≤ BKGD	764	≤ BKGD	883	≤ BKGD	
290 a,b,c,d,e	≤ BKGD	765	≤ BKGD	884	≤ BKGD	
302 a,b,c,d	≤ BKGD	766	≤ BKGD	885	≤ BKGD	
305 a,b,c	≤ BKGD	767	≤ BKGD	886	≤ BKGD	
315 a,b,c,d	≤ BKGD	768	≤ BKGD	887	≤ BKGD	
318 a,b,c,d	≤ BKGD	769	≤ BKGD	888	≤ BKGD	
322 a,b,c	≤ BKGD	770	≤ BKGD	889	≤ BKGD	
332 a,b,c	≤ BKGD	771	≤ BKGD	890	≤ BKGD	
336 a,b,c,d	≤ BKGD	772	≤ BKGD	891	≤ BKGD	
339 a,b,c,d,e,f	≤ BKGD	773	≤ BKGD	892	≤ BKGD	
344 a,b,c,d,e,f	≤ BKGD	774	≤ BKGD	893	≤ BKGD	

Container ID	Reading CPM	Container ID	Reading CPM	Container ID	Reading CPM	Comments
358 a,b,c	≤ BKGD	775	≤ BKGD	894	≤ BKGD	
360 a,b,c,d	≤ BKGD	776	≤ BKGD	895	≤ BKGD	
361 a,b,c,d	≤ BKGD	777	≤ BKGD	896	≤ BKGD	
366 a,b,c	≤ BKGD	778	≤ BKGD	897	≤ BKGD	
367 a,b,c,d	≤ BKGD	779	≤ BKGD	898	≤ BKGD	
375 a,b,c,d	≤ BKGD	780	≤ BKGD	900	≤ BKGD	
382	≤ BKGD	781	≤ BKGD	901	≤ BKGD	
383	≤ BKGD	782	≤ BKGD	902	≤ BKGD	
384	≤ BKGD	783	≤ BKGD	903	≤ BKGD	
391	≤ BKGD	784	≤ BKGD	904	≤ BKGD	
392	≤ BKGD	785	≤ BKGD	905	≤ BKGD	
393 a,b,c,d	≤ BKGD	786	≤ BKGD	906	≤ BKGD	
393 a,b,c,d	≤ BKGD	787	≤ BKGD	907	≤ BKGD	393 Duplicate
399	≤ BKGD	788	≤ BKGD	908	≤ BKGD	
412	≤ BKGD	789	≤ BKGD	909	≤ BKGD	
424	≤ BKGD	790	≤ BKGD	910	≤ BKGD	
433	≤ BKGD	791	≤ BKGD	911	≤ BKGD	
442	≤ BKGD	792	≤ BKGD	912	≤ BKGD	
452	≤ BKGD	793	≤ BKGD	913	≤ BKGD	
471	≤ BKGD	794	≤ BKGD	914	≤ BKGD	
491	≤ BKGD	795	≤ BKGD	915	≤ BKGD	
496	≤ BKGD	796	≤ BKGD	916	≤ BKGD	
516	≤ BKGD	807	≤ BKGD	917	≤ BKGD	
525	≤ BKGD	808	≤ BKGD	918	≤ BKGD	
535	≤ BKGD	809	≤ BKGD	919	≤ BKGD	
548	≤ BKGD	810	≤ BKGD	920	≤ BKGD	
552	≤ BKGD	811	≤ BKGD	921	≤ BKGD	
568	≤ BKGD	812	≤ BKGD	922	≤ BKGD	
581	≤ BKGD	813	≤ BKGD	923	≤ BKGD	
597	≤ BKGD	814	≤ BKGD	924	≤ BKGD	
607	≤ BKGD	815	≤ BKGD	925	≤ BKGD	
618	≤ BKGD	816	≤ BKGD	926	≤ BKGD	
626	≤ BKGD	817	≤ BKGD	927	≤ BKGD	
638	≤ BKGD	818	≤ BKGD	928	≤ BKGD	
651	≤ BKGD	819	≤ BKGD	929	≤ BKGD	
655	≤ BKGD	820	≤ BKGD	930	≤ BKGD	
660	≤ BKGD	821	≤ BKGD	931	≤ BKGD	
675	≤ BKGD	822	≤ BKGD	932	≤ BKGD	
676	≤ BKGD	823	≤ BKGD	933	≤ BKGD	
677	≤ BKGD	824	≤ BKGD	934	≤ BKGD	
678	≤ BKGD	825	≤ BKGD	935	≤ BKGD	
679	≤ BKGD	826	≤ BKGD	936	≤ BKGD	
680	≤ BKGD	827	≤ BKGD	937	≤ BKGD	
681	≤ BKGD	828	≤ BKGD	938	≤ BKGD	
682	≤ BKGD	829	≤ BKGD	939	≤ BKGD	
683	≤ BKGD	830	≤ BKGD	940	≤ BKGD	

Container ID	Reading CPM	Container ID	Reading CPM	Container ID	Reading CPM	Comments
684	≤ BKGD	831	≤ BKGD	941	≤ BKGD	
685	≤ BKGD	832	≤ BKGD	942	≤ BKGD	
686	≤ BKGD	833	≤ BKGD	943	≤ BKGD	
687	≤ BKGD	834	≤ BKGD	944	≤ BKGD	
688	≤ BKGD	835	≤ BKGD	945	≤ BKGD	
689	≤ BKGD	836	≤ BKGD	946	≤ BKGD	
690	≤ BKGD	837	≤ BKGD	947	≤ BKGD	
691	≤ BKGD	838	≤ BKGD	948	≤ BKGD	
692	≤ BKGD	839	≤ BKGD	949	≤ BKGD	
693	≤ BKGD	840	≤ BKGD	950	≤ BKGD	
694	≤ BKGD	841	≤ BKGD	951	≤ BKGD	
696	≤ BKGD	842	≤ BKGD	952	≤ BKGD	
697	≤ BKGD	843	≤ BKGD	953	≤ BKGD	
699	≤ BKGD	844	≤ BKGD	954	≤ BKGD	
701	≤ BKGD	845	≤ BKGD	955	≤ BKGD	
705	≤ BKGD	846	≤ BKGD	956	≤ BKGD	
709	≤ BKGD	847	≤ BKGD	957	≤ BKGD	
715	≤ BKGD	848	≤ BKGD	958	≤ BKGD	
720	≤ BKGD	849	≤ BKGD	959	≤ BKGD	
722	≤ BKGD	850	≤ BKGD	960	≤ BKGD	
725	≤ BKGD	851	≤ BKGD	961	≤ BKGD	
730	≤ BKGD	852	≤ BKGD	962 a,b,c	≤ BKGD	
732	≤ BKGD	853	≤ BKGD	963 a,b	≤ BKGD	
735	≤ BKGD	854	≤ BKGD	964 a	≤ BKGD	1 recycled sink
736	≤ BKGD	855	≤ BKGD	965 a.b	≤ BKGD	965 contained I-129 stds
737	≤ BKGD	856	≤ BKGD	966 a,b	≤ BKGD	
738	≤ BKGD	857	≤ BKGD	967 a,b	≤ BKGD	
739	≤ BKGD	858	≤ BKGD	UNK6 a,b,c,d	≤ BKGD	No I.D. Number
740	≤ BKGD	859	≤ BKGD	UNK7 a,b,c,d,e,f,g,h	≤ BKGD	No I.D. Number
741	≤ BKGD	860	≤ BKGD	UNK1 a,b,c,d,e,f,g	≤ BKGD	No I.D. Number
742	≤ BKGD	861	≤ BKGD	UNK2 a,b,c	≤ BKGD	No I.D. Number
743	≤ BKGD	862	≤ BKGD	UNK3 a,b,c,d,e,f,g,h	≤ BKGD	No I.D. Number
744	≤ BKGD	863	≤ BKGD	UNK4 a,b,c	≤ BKGD	No I.D. Number
745	≤ BKGD	864	≤ BKGD	UNK5 a,b,c,d,e,f	≤ BKGD	No I.D. Number

Container I.D.'s with letters represent drums repackaged into boxes, each letter represents a box, each box was monitored separately. Other container I.D.'s without letters represent fiber drums transferred as is. The last 7 listed had no legible I.D. numbers. Summary: 277 fiber drums, 204 boxes from 50 steel drums

Signature _____

REPORT OF SAMPLE ANALYSIS

Report Date: 25-Jan-07 **Sample Date:** 22-Nov-06 **Analysis By:** GK

Equipment Description:

Counter	Detector	Counting Parameters
Beckman Gamma 4000	NaI	Gross Gamma

Background Data:

Bkgd Counts	Ct Time (m)	Bkgd CPM	% Error
89	1.00	89	20.78%

Effic. Data:

Isotope	Gross Counts	Time (m)	DPM	Effic. (4 π)	% Error
I-129	32938	1.00	51060	64.33%	0.10

MDA Calculation:

MDA (CPM)	*MDA (DPM)*	*MDA (uCi)*
47.0	73.0	3.29E-05

Sample Data:

Sequence Number	Sample ID	Gross C P M	Ct Time (m)	DPM*	uCi*	% Error at 95% C.L.
1	Drum	69	1.00	0	0.000	0.000
2	Drum	69	1.00	0	0.000	0.000
3	Drum	69	1.00	0	0.000	0.000
4	Drum	69	1.00	0	0.000	0.000
5	Drum	69	1.00	0	0.000	0.000
6	Drum	79	1.00	0	0.000	0.000
7	Drum	79	1.00	0	0.000	0.000
8	Drum	79	1.00	0	0.000	0.000
9	Drum	79	1.00	0	0.000	0.000
10	Drum	79	1.00	0	0.000	0.000
11	Drum	81	1.00	0	0.000	0.000
12	Drum	81	1.00	0	0.000	0.000
13	Drum	81	1.00	0	0.000	0.000
14	Drum	81	1.00	0	0.000	0.000

*** A zero reading for DPM or uCi values indicates only that the sample activity was less than the MDA.**

ECOLOGY SERVICES INC.

LS Counter Data Reduction Program - ESI

Report Date:	25-Jan-07
Sample Date:	22-Nov-06

Instrument Data: Beckman LS 6500

Window: Phosphorus-32

Background Data:

Bkg CPM	Count Time (min)	% Error (95% C.L.)
8.67	1	66.57%

MDA Data:

MDA (CPM):	17	MDA (DPM):	20

Sample Data:

Seq No.	Sample ID	Count Time (min)	H No.	CPM	Efficiency	DPM	Error (95% C.L.)
1	Quest Empty Drums #1	1	149.9	10	81.914%	< MDA	N/A
2	2	1	168	10	82.054%	< MDA	N/A
3	3	1	120.2	3	81.585%	< MDA	N/A
4	4	1	170.6	7	82.071%	< MDA	N/A
5	5	1	137.7	7	81.794%	< MDA	N/A
6	6	1	163.8	6	82.026%	< MDA	N/A
7	7	1	144.7	9	81.865%	< MDA	N/A
8	8	1	136.7	5	81.783%	< MDA	N/A
9	9	1	122.5	8	81.615%	< MDA	N/A
10	10	1	163.2	12	82.022%	< MDA	N/A
11	11	1	149.5	5	81.910%	< MDA	N/A
12	12	1	115.3	8	81.518%	< MDA	N/A
13	13	1	162.7	14	82.018%	< MDA	N/A
14	14	1	156.2	7	81.968%	< MDA	N/A

ECOLOGY SERVICES, INC

LS Counter Data Reduction Program - ESI

Report Date:	25-Jan-07
Sample Date:	22-Nov-06

Instrument Data: Beckman LS 6500

Window: Carbon-14

Background Data:

Bkg CPM	Count Time (min)	% Error (95% C.L.)
10.33	1	60.98%

MDA Data:

MDA (CPM):	18

MDA (DPM):	26

Sample Data:

Seq No.	Sample ID	Count Time (min)	H No.	CPM	Efficiency	DPM	Error (95% C.L.)
1	Quest Empty Drums #1	1	149.90	9	70.2%	< MDA	N/A
2	2	1	168.00	11	68.7%	< MDA	N/A
3	3	1	120.20	15	72.4%	< MDA	N/A
4	4	1	170.60	16	68.4%	< MDA	N/A
5	5	1	137.70	12	71.1%	< MDA	N/A
6	6	1	163.80	10	69.0%	< MDA	N/A
7	7	1	144.70	17	70.6%	< MDA	N/A
8	8	1	136.70	10	71.2%	< MDA	N/A
9	9	1	122.50	10	72.2%	< MDA	N/A
10	10	1	163.20	11	69.1%	< MDA	N/A
11	11	1	149.50	13	70.2%	< MDA	N/A
12	12	1	115.30	9	72.7%	< MDA	N/A
13	13	1	162.70	14	69.1%	< MDA	N/A
14	14	1	156.20	8	69.7%	< MDA	N/A

ECOLOGY SERVICES, INC.

LS Counter Data Reduction Program - ESI

Report Date:	25-Jan-07
Sample Date:	22-Nov-06

Instrument Data: Beckman LS 6500

Window: Tritium

Background Data:

Bkg CPM	Count Time (min)	% Error (95% C.L.)
5.67	1	82.31%

MDA Data:

MDA (CPM):	14

MDA (DPM):	53

Sample Data:

Seq No.	Sample ID	Count Time (min)	H No.	CPM	Efficiency	DPM	Error (95% C.L.)
1	Quest Empty Drums #1	1	149.90	5.0	26.1%	< MDA	N/A
2	2	1	168.00	6.0	21.9%	< MDA	N/A
3	3	1	120.20	4.0	33.2%	< MDA	N/A
4	4	1	170.60	4.0	21.3%	< MDA	N/A
5	5	1	137.70	2.0	29.0%	< MDA	N/A
6	6	1	163.80	7.0	22.8%	< MDA	N/A
7	7	1	144.70	3.0	27.3%	< MDA	N/A
8	8	1	136.70	4.0	29.2%	< MDA	N/A
9	9	1	122.50	7.0	32.7%	< MDA	N/A
10	10	1	163.20	1.0	23.0%	< MDA	N/A
11	11	1	149.50	3.0	26.1%	< MDA	N/A
12	12	1	115.30	8.0	34.5%	< MDA	N/A
13	13	1	162.70	1.0	23.1%	< MDA	N/A
14	14	1	156.20	6.0	24.6%	< MDA	N/A

Quest Diagnostics Incorporated

900 Business Center Drive
Horsham, PA 19044
215.957.9300
www.questdiagnostics.com

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Diagnostics

NMSS 2

May 24, 2007

US Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415
Attn: LAP

03030859

RE: License # 37-28294-01

To Whom It May Concern,

This letter is to inform you of our decision to stop all testing using pre-packaged I125 kits at Quest Diagnostics, 900 Business Center Drive, Horsham, Pa. We have stopped ordering radioactive material and have begun the process of decommissioning the testing area.

The storage area located at 400 Egypt Road, Norristown, Pennsylvania that was used to decay and store I125 and CO57 used in testing 6 years ago, has been decommissioned by Ecology Services.

Upon the completion of the decommissioning process, the documentation associated with the decommissioning of both sites will be submitted to terminate our materials license # 37-28294-01.

If you have any questions, please feel free to contact me. My phone number is listed above; my e-mail address is linda.e.dickson@questdiagnostics.com.

Sincerely yours,

Linda E. Dickson

Linda E. Dickson
Radiation Safety Officer

140577

NMSS/RGN1 MATERIALS-002

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

7/3/2007, and to inform you that the initial processing which includes an administrative review has been performed.

TEAM 37-22294-01

☑ 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** 140761.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader