Johnson & Johnson
PHARMACEUTICAL RESEARCH
& DEVELOPMENT, L.L.C.

1000 U.S. Highway 202, P.O. Box 300
Raritan NJ 08869

MS16
J-4

April 28, 2009

RECEIVED
REGION 1
2009 APR 29 AM 10: 56

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

Dear Dennis Lawyer:

03010814

This letter is in response to your request for additional information pertaining to the Johnson & Johnson Pharmaceutical Research & Development, L.L.C. (JJPRD) NRC Material License (29-02608-03) amendment request submitted on March 27, 2009. The specific areas of focus are the extent of radioactive materials handled, the type work performed and the radioactive materials closeout surveys performed at the following Johnson & Johnson facilities:

Sterilization Sciences and Technology (SST)
U.S. Route 1 North and Commerce Boulevard
North Brunswick, NJ

Ortho Clinical Diagnostics, Inc.
1001 U.S. Route #202 North
Raritan, NJ 08869

The Sterilization Sciences and Technology facility utilized radioactive materials one time at the North Brunswick, NJ facility. They received a Johnson & Johnson product labeled with approximately 3 μCi of Carbon-14 on May 20, 2003. The product was sterilized on May 21, 2003 and then packaged and shipped on May 22, 2003. Please find attached (Attachment I) the survey form and wipe test printouts for both the incoming package receipt and clearance testing of the product outer package, the lab work area and the sterilizer.

JJPRD occupied laboratory space at the Ortho Clinical Diagnostics, Inc. facility, located at 1001 U.S. Route 202 North, Raritan, NJ 08869, from July 2004 through February 2007. There was one designated principal radiation user who was authorized to use limited quantities of radioactive materials (Carbon-14 and Tritium) in five laboratories (K011, K013, K014, K015, K016), which add up to approximately 1,528 ft^2. The primary room used for radioactive materials was K015, which was a tissue culture room designed for transport and covalent binding studies using limited quantities of Carbon-14 and Tritium, ranging from 2 to10 μCi per study. In addition, K011 contained a centrifuge and biosafety hood used for radioactive studies, K013 contained a refrigerator and fieezer utilized for storage of radioactive materials, K014 contained a liquid scintillation counter and K016 had a small area used for the storage of radioactive materials.

143601

NMSS/RGN1 MATERIALS-002

JJPRD's Radiation Safety Program requires each laboratory to be inspected on a quarterly basis by an independent radiation safety contract group. In addition, each user of radioactive materials is required to complete a radiation survey of their work area each time they utilize radioactive materials. JJPRD has established an internal wipe limit of less than 200 DPM above background. The completion of these surveys is verified during the quarterly radiation laboratory inspections. It is important to note that during the 2.5 years that JJPRD occupied space in the Ortho Clinical Diagnostics facility, there was no contamination found in any of the laboratories. This is a result of the ongoing monitoring performed by the radioactive materials users, the quarterly lab inspections and the limited use of radioactive materials that occurred in the laboratories. Please find attached (Attachment II) the final radiation laboratory inspections and surveys for labs K011, K013, K014, K015 and K016. In addition, I've included (Attachment III) additional surveys performed by the users in the laboratories and on all equipment that was used for radioactive materials studies.

If you have any questions or concerns, please feel fiee to contact me at (908) 704-4930.

Sincerely,

James Kwiatkowski
Manager – Environmental, Health & Safety
Johnson & Johnson Pharmaceutical
Research & Development, L.L.C.

Attachment I
Sterilization Sciences and Technology (SST)
Wipe Test Surveys

Sterile Process Technology
Johnson & Johnson

February 23,2009

Jim Kwiatkowski, EHS

North Brunswick Campus (NBC) Radioisotope Use

As discussed, SPT used RAM once only at NBC. Cordis product labeled with ~ 3 uCi of C-14 material was received on May 20,2003. It was sterilized May 21, 2003 and then packaged and shipped on May 22,2003.

The attached survey form and wipe test printouts note both the incoming package receipt (May 20, 2003) and clearance testing (May 22,2003) of the product outer package (prior to shipping) and the lab work area and the sterilizer.

Mike Cascio, RSO

Attachment IV **Survey/Contamination/Shipping/Receiving Documentation** **Form PR-022-FI**
Issue#: I

SST *Protocol/TSR #* 585 Radionuclide(s) C-14 Activity (µCi/mCi) 3.0 uCi

Counting Instrumentation Efficiency Check Date: 5/20/2003

Standard Used C-14 157961 Expected Efficiency 103900 Actual Efficiency 103665

RAM Receipt *Survey/Contamination* Test Date: 5/20/2003

Mrem/hour @ Surface NA @ One Meter

DPM @ Outer Shipper 48 Inner Package #1 48 #2 41

Routine *Monitoring/Clearance*

Lab/Area: DOSIMETRY Date: 5/22/2003

Routine Monitoring ☐ Clearance ☑ (Check one)

Bench top/shelving Left Side NA Other
Describe

Right Side NA Other
Describe

Center 42 DPM Other
Describe

Sterilization Suite: CLINICAL Date: 5/22/2003

Routine Monitoring ☐ Clearance ☑ (Check one)

Tray # 1 39 DPM #2 NA #3 NA #4 NA

Sterilizer Left Side 39 DPM Sterilizer Right Side 43 DPM

Sterilizer ~~Load Door~~ BOTTOM 65 DPM Sterilizer Unload Door NA

Sterilizer Vacuum Port 43 DPM Gamma Cell Chamber NA

RAM Shipping *Survey/Contamination* Test Date: 5/22/2003

Mrem/hour @ Surface NA @ One Meter NA

DPM @ Outer Shipper 47 DPM Inner Package #1 43 DPM #2 36 DPM

Signature RSO MIKE CASCIO Date 5/22/2003
RSO, ARSO or RAM User — Print Name

Note: Place additional comments/notations on back of form. Use multiple copies as needed.

STERILIZER + ALL AREAS CLEARED FOR RELEASE BACK TO ROUTINE NON-RAM USE. RSO

End Time 13:39:57

Name:< C-14>20 **May** 2003
Start Time 13:42:52
Win: 50...900
DPM **factor:** 1.1507

Samp.	(m)	CPM	**DPM**
1	3	90085	103665 - VERIFICATION CHECK w/REFERENCE SOD
2	3	**42**	48 - OUTER PKG.
3	3	41	48 - INNER PKG #1
4	3	36	41 - INNER PKG #2

RECEIVED 15 VENT FOIL POUCHES
W/ C-14 SIROLIMUS CSDS.

CIK, RSO 5/20/2003
MIKE CASCIO

End Time 14:14:29

Name:< C-14>22 May 2003
Start Time 10:31:21
Win: 50...900
DPM factor: 1.1507

Samp.	(m)	CPM	DPM	
1	3	89372	102845	EFFICIENCY CHECK
2	3	38	43	- STERILIZER VACUUM PORT
3	3	34	39	- " LEFT SIDE
4	3	37	43	- " RIGHT SIDE
5	3	57	65	- " BOTTOM
6	3	38	43	- VENT FOIL CSDS PKG #1
7	3	31	36	- " " " PKG #2
8	3	34	39	- TRAY
9	3	36	42	- BENCH TOP LSC
10	3	41	47	- OUTER SHIPPER

CLEARANCE + SHIPPING OF
C-14 SIRIUS CSDS

RSO 5/22/2003

Attachment II
Final Radiation Laboratory Inspections & Surveys
JJPRD Laboratories at Ortho Clinical Diagnostics
K011, K013, K014, K015, K016

Johnson & Johnson Pharmaceutical
Research & Development
1000 Route 202
Raritan, NJ 08869

Contact: Ms. Molly Duska
Phone: (908) 218-6708
Cell: (732) 406-5527

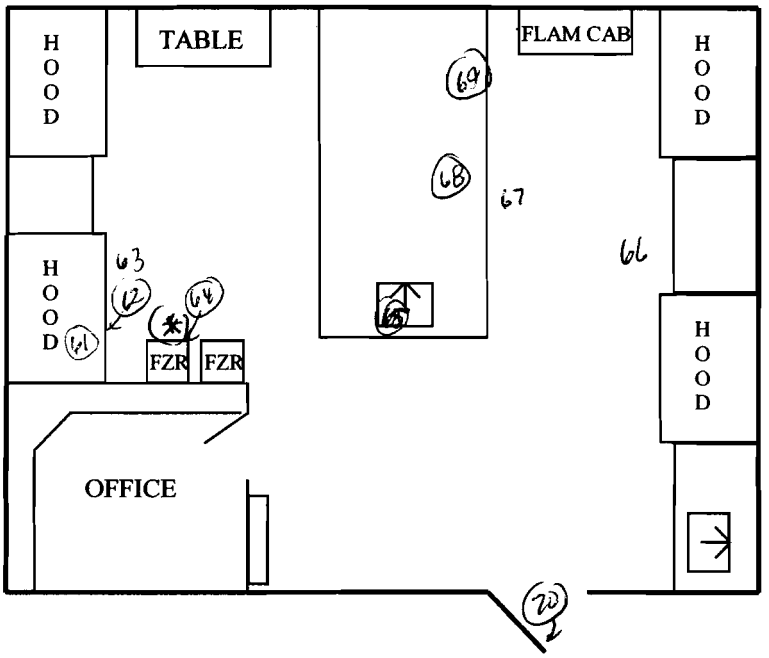
RADIOACTIVE MATERIALS USE AREA AUDIT REPORT

Laboratory: 011	Principal Radiation User: Kalimaridis	Department: PRD @ OCD Drug Metabolism	Date: 12-20-06
Meter / Probe: L-3 w/44-9	SN: 60725	Calibration Date: 10-31-06	

Wipe Test Data (DPM/ 100 cm²)

Wipe #	Nuclides β	γ	
61	<200	<200	
62			
63			
64			
65			
66			
67			
68			
69			
70	↓	↓	

SKETCH OF LABORATORY OR AREA (indicate radiation readings & wipe locations)



COMPLIANCE ITEMS (Check YES if in compliance, NO if violation and describe in COMMENTS)

Yes	No		Yes	No		Yes	No	
(*)		1. Source material containers, storage area(s) and refrigerator/ freezer labeled with appropriate sign/tape including international radiation symbol.	✓		6. All equipment containing sealed sources appropriately labeled.	✓		11. Radiation levels <0.05 mR/ hr (0.5 uSv/hr) in unrestricted areas.
✓		2. Waste properly logged & container (s) labeled	✓		7. Routine use of lead or acrylic shielding where necessary.	✓		12. Survey meter(s) available and operational.
✓		3. Other equipment/area(s) used to process/handle radioactive materials appropriately labeled wih sign/tape.	✓		8. Radiological hazard sign posted at entrance to lab area(s)	✓		13. Survey meter(s) checked/ calibrated within last year.
✓		4. Absorbant paper/tray on use area	✓		9. Adequate personnel monitoring.	✓		14. Quarterly verification of documented routine contamination monitoring.
✓		5. Radionuclide inventory maintained & up to date	✓		10. Radiation levels < 2.0 mR/ hr (20uSv/hr) in restricted areas			

COMMENTS (indicate corrective action taken for all violations)

(*) RAD LABELED MATERIAL IN UNMARKED RFG.

AUDIT PERFORMED BY:	AUDIT REVIEWED BY:
HOWELL, Ecology Services, Inc.	Caroline Johnson

Johnson & Johnson Pharmaceutical
Research & Development
1000 Route 202
Raritan, NJ 08869

Contact: Ms. Molly Duska
Phone: (908) 218-6708
Cell: (732) 406-5527

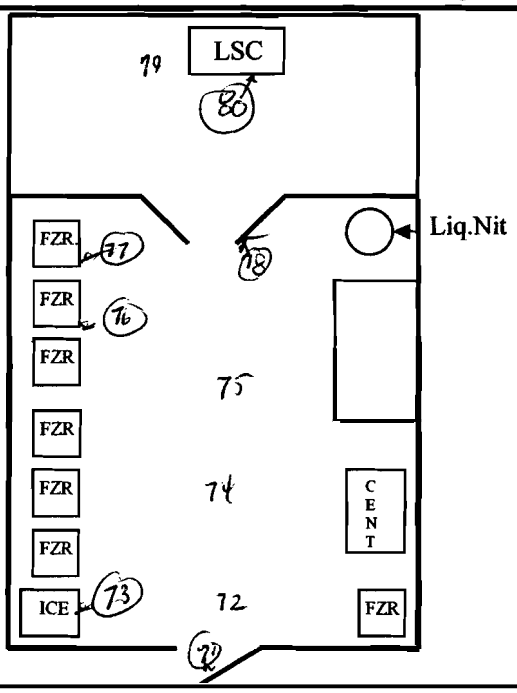
RADIOACTIVE MATERIALS USE AREA AUDIT REPORT

Laboratory: 013 / 014	Principal Radiation User: **Kalimaridis**	Department: PRD @ OCD Drug Metabolism	Date: 12-20-06
Meter / Probe: L-3 w/ 44-9	SN: 60725	Calibration Date: 10-31-06	

Wipe Test Data (DPM/ 100 cm^2)

Wipe #	Nuclides β	γ	
71	<200	<200	
72			
73			
74			
75			
76			
77			
78			
79			
80	↓	↓	

SKETCH OF LABORATORY OR AREA (indicate radiation readings & wipe locations)



COMPLIANCE ITEMS (Check YES if in **compliance**, NO if violation and describe in **COMMENTS**)

Yes	No		Yes	No		Yes	No	
✓		1. Source material containers, storage **area(s)** and **refrigerator/** freezer labeled with appropriate **sign/tape** including international radiation symbol.	✓		6. All equipment **containing** sealed sources appropriately labeled.	✓		11. Radiation levels **<0.05** mR/ hr (0.5 **uSv/hr)** in unrestricted areas.
✓		2. Waste properly **logged &** container(s) labeled	✓		7. Routine use of lead or acrylic shielding where necessary.	✓		12. Survey **meter(s)** available and operational.
✓		3. **Other equipment/area(s)** used to **process/handle** radioactive materials appropriately **labeled wih sign/tape**.	✓		8. Radiological hazard sign posted at entrance to lab **area(s)**	✓		13. **Survey meter(s) checked/** calibrated within last year.
✓		4. Absorbant **paper/tray** on use area	✓		9. Adequate personnel monitoring.	✓		14. Quarterly verification of documented routine contamination monitoring.
✓		5. Radionuclide inventory maintained & up to date	✓		10. Radiation levels < 2.0 mR/ hr **(20uSv/hr)** in restricted areas			

COMMENTS (indicate corrective action taken for all **violations**)

AUDIT PERFORMED BY:	AUDIT REVIEWED BY:
HOWETT , Ecology Services, Inc.	Caroline E Johnson

Johnson & Johnson Pharmaceutical
Research & Development
1000 Route 202
Raritan, NJ 08869

Contact: Ms. Molly Duska
Phone: (908) 218-6708
Cell: (732) 406-5527

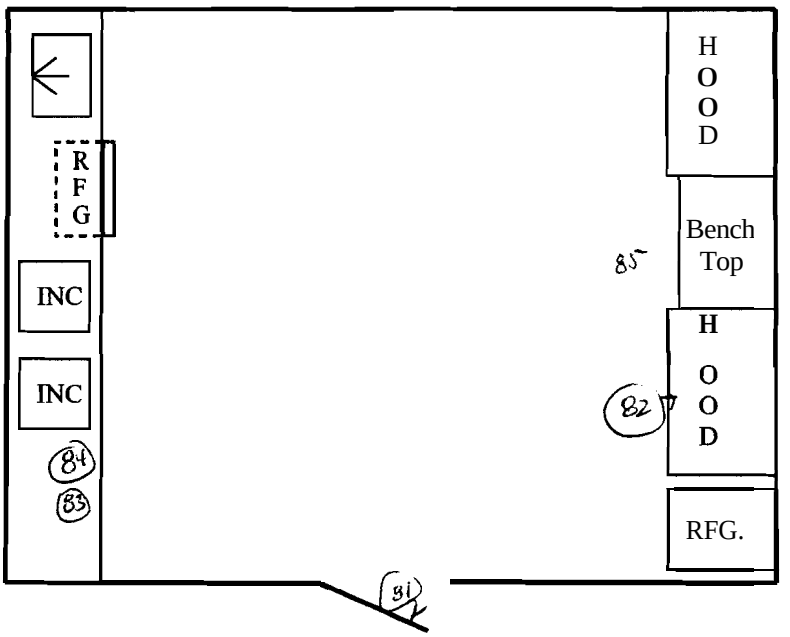
RADIOACTIVE MATERIALS USE AREA AUDIT REPORT

Laboratory: 015	Principal Radiation User: **Kalimaridis**	Department: PRD @ OCD Drug Metabolism	Date: 12-20-06
Meter / Probe: L-3 w/44-9	SN: 60725	Calibration Date: 10-31-06	

Wipe Test Data (DPM/ 100 cm²)

Nuclides			
Wipe #	β	γ	
81	<200	<200	
82			
83			
84			
85	↓	↓	

SKETCH OF LABORATORY OR AREA (indicate radiation readings & wipe locations)



COMPLIANCE ITEMS (Check YES if in **compliance**, NO if violation and describe in **COMMENTS**)

Yes	No		Yes	No		Yes	No	
✓		1. Source material containers, storage **area(s)** and **refrigerator/ freezer** labeled with appropriate **sign/tape** including **international** radiation symbol.	✓		6. All equipment containing sealed sources appropriately labeled.	✓		**11**. Radiation levels **<0.05** mR/ hr (0.5 **uSv/hr)** in unrestricted areas.
✓		2. Waste properly logged & container**(s)** labeled	✓		7. Routine use of lead or acrylic shielding where necessary.	✓		12. Survey **meter(s)** available and operational.
✓		3. **Other equipment/area(s)** used to **process/handle** radioactive **materials** appropriately labeled wih **sign/tape**.	✓		8. Radiological **hazard** sign posted at entrance to lab **area(s)**	✓		13. Survey **meter(s)** checked/ calibrated within last year.
✓		4. Absorbant **paper/tray** on use **area**	✓		9. Adequate personnel **monitoring**.	✓		14. Quarterly verification of documented routine contamination monitoring.
✓		5. Radionuclide inventory maintained & up to date	✓		10. Radiation levels < 2.0 mR/ hr **(20uSv/hr)** in restricted areas			

COMMENTS (indicate corrective action taken for all violations)

AUDIT PERFORMED BY:	AUDIT REVIEWED BY:
, Ecology Services, Inc.	

Johnson & Johnson Pharmaceutical
Research & Development
1000 Route 202
Raritan, NJ 08869

Contact: Ms. Molly Duska
Phone: (908) 218-6708
Cell: (732) 406-5527

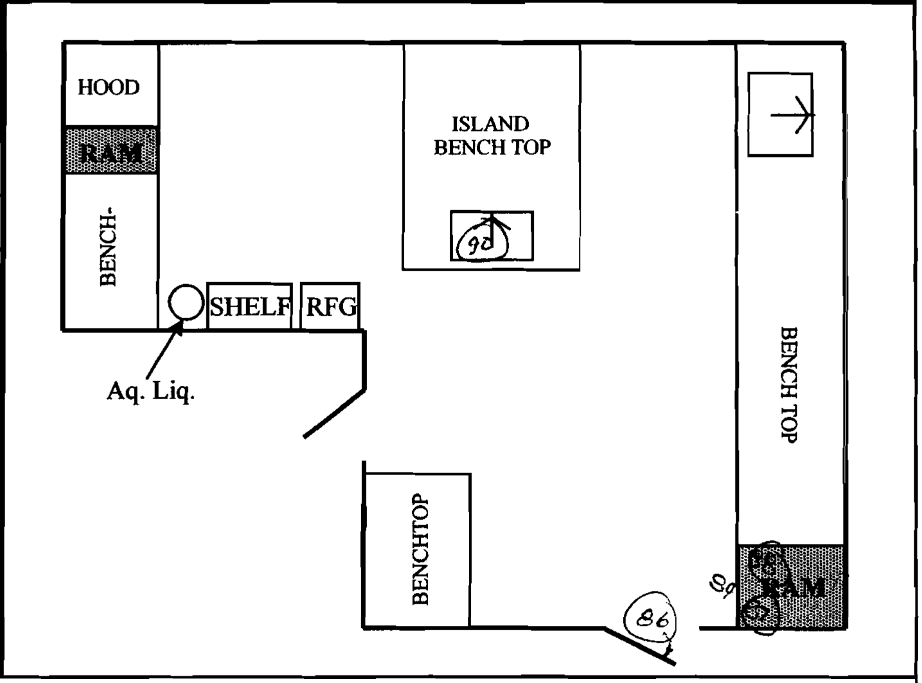
RADIOACTIVE MATERIALS USE AREA AUDIT REPORT

Laboratory: 016	Principal Radiation User: **Kalimaridis**	Department: **PRD @ OCD Drug Metabolism**	Date: 12-20-06
Meter / Probe:	SN:	Calibration Date:	

Wipe Test Data (DPM/ 100 cm^2)

Wipe #	β	γ	
	Nuclides		
86	<200	<200	
87	↓	↓	
88	↓	↓	
89	↓	↓	
90	↓	↓	

SKETCH OF LABORATORY OR AREA (indicate radiation readings & wipe locations)



COMPLIANCE ITEMS (Check YES if in compliance, NO if violation and describe in COMMENTS)

Yes	No		Yes	No		Yes	No	
✓		1. Source material containers, storage area(s) and refrigerator/ freezer labeled with appropriate sign/tape including international radiation symbol.	✓		6. All equipment containing sealed sources appropriately labeled.	✓		11. Radiation levels <0.05 mR/ hr (0.5 uSv/hr) in unrestricted areas.
✓		2. Waste properly logged & container(s) labeled	✓		7. Routine use of lead or acrylic shielding where necessary.	✓		12. Survey meter(s) available and operational.
✓		3. Other equipment/area(s) used to process/handle radioactive materials appropriately labeled wih sign/tape.	✓		8. Radiological hazard sign posted at entrance to lab area(s)	✓		13. Survey meter(s) checked/ calibrated within last year.
✓		4. Absorbant paper/tray on use area	✓		9. Adequate personnel monitoring.	✓		**14. Quarterly verification of documented routine contamination monitoring.**
✓		5. Radionuclide inventory maintained & up to date	✓		10. Radiation levels < 2.0 mR/ hr (20uSv/hr) in restricted areas			

COMMENTS (indicate corrective action taken for all violations)

AUDIT PERFORMED BY:	AUDIT REVIEWED BY:
Howett, Ecology Services, Inc.	Caroline E. Johnson

Attachment III
Final Surveys for JJPRD Laboratories & Equipment
@ Ortho Clinical Diagnostics

From: Waqas Alam
To: Curtis

Equipment Release Form

This form shall be completed by the individual who requests service/maintenance, relocation, or disposal of equipment that may be contaminated with chemical, biological, or radiological materials. It shall also be completed before potentially contsminsted equipment is involved in a renovation or construction activity

Requestor of Service, Relocation, or **Disposal.** WAQAS ALAM **Phone Extension:** 6893

BACKGROUND INFORMATION:

Equipment Location: K011 **Date:** 01/09/07

Type of Equipment: BIOSAFETY HOOD **Asset#:** LF-K-05

Potential Contaminants *(Check all that apply).*

☐ Chemical ☑ Biological ☑ Radioactive ☐ None

Activity to be performed *(Check appropriate box):*

☑ Service/Maintenance (**not** requiring removal of equipment from the area),
☐ Service/Maintenance (requiring removal of equipment from the area)*
☐ Relocation*
☐ Disposal*
☐ Renovation/Construction*

Method of **Decontamination:** [illegible] and Sestihol

Additional Information *(if applicable)*

Name of Ferson Decontaminating (if different from requestor;: **Phone Ext:**

EQUIPMENT STATUS:

☐ EQUIPMENT UNABLE TO BE SUFFICIENTLY DECONTAMINATED - When deconiaminztion is not feasible, decontaminate to the extent feasibie and:

- Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
- Inform affected employees cf remaining contamination and safe handling procedures; and
- Contact Environmental. Health & Safety before releasing equipment from the area.

☑ EQUIPMENT IS SUFFICIENTLY DECONTAMINATED FOR SERVICE/MAINTENANCE, RELOCATION, OR DISPOSAL.

Signature of Requestor (or Authorized Radiation User for Radioactive Material Contamination)

Curtis Smith 1/29/07

"Radiation Safety Release Signature "only required for equipment potentially contaminated with radioactive materials when such equipment will be removed from the area for service/maintenance. relocation. or disposal.)

POST THIS FORM ON THE EQUIPMENT

Gamma Counter Make: _____

Gamma Counter Model #: _____

Serial #: _____

Calibration Date: ____/____/____

Liquid Scintillation Counter Make: Tri Carb 3100 TR

Liquid Scintillation Model #: 3100TR

Serial #: 424586

Calibration Date: 1/8/07

All field notes, drawings and survey/sampling results shall be attached to this document please see attachment

AREA SKETCH/DESCRIPTION:

SURVEY RESULTS:

ID	Alpha	Beta	Gamma		ID	Alpha	Beta	Gamma
1.					11.			
2.					12.			
3.					13.			
4.					14.			
5.					15.			
6.					16.			
7.					17.			
8.					18.			
9.					19.			
10.					20.			

Radioactive Materials **Survey – Equipment/Room** Decommissioning

Date: 01 I 09 I 07

Name of **Individual(s)** Performing Survey: WAQAS ALAM

Radioactive Isotopes Previously Used: 3H and 14C

Survey Performed: ☑ Equipment
☑ Area within Room, Fixed Components in Room, Floor, etc.

Department: DMPK
Building: OCD (K) Room: K011 Floor: 1

Equipment (if applicable):

Equipment Description: BIOSAFETY HOOD
Manufacturer: THE BAKER COMPANY
Model: STERILGARD II CLASS II TYPE A/B3 / SG600
Serial Number: 63237

Survey Description:
The hood has been washed with Radiacwash. followed by a cleaning with septihol. Wipe test performed.

Section One: **Radiation Survey** Equipment Records (complete all relevant **sections**)

Survey Level Meter Make, Model & Serial #: _____

Survey Probe Type, **Model & Serial** #: _____

Calibration Date: / /

Is the survey level meter **and** probe operating **properly:** ☐ Yes ☐ No

Radioactive Materials **Equipment/Room** Decommissioning – General Checklist

Has a radioactive materials survey of the piece of equipment, room, room area, etc. been conducted?	☑ Yes	☐ No
Is the **survey** report signed by the RSO and does **he/she** have a copy **of** the report?	☑ Yes	☐ No
Have all radioactive labels, stickers, markings or references thereto been removed?	☑ Yes	☐ No
Has all waste be disposed of as radioactive waste and placed into the proper radioactive waste stream (dry solid, liquid, etc)	☑ Yes	☐ **No**
Has the appropriate sign been posted to indicate the equipment or room area has beer; cleared and deemed free of radioactive aontamination?	☑ Yes	☐ No

Final Closeout Items:

Has all radioactive waste been picked up and removed from the **Laboratory** (coordinate with Willie Montford x3104)	☑ Yes	☐ No
Have the radioactive signs **(i.e.** laboratory placards, door signs, etc.) been removed and disposed of accordingly	☑ Yes	☐ No

Section Two: Discussion

Have the **survey** and wipe test results been attached to this report?	☑ **Yes**	☐ No
Were all surveys performed less than **two** times background?	☑ **Yes**	☐ No
Were all wipe tests less than 200 **dpm/100 cm^2?**	☑ **Yes**	☐ No
Have these results been reviewed by the Radiation Safety Officer (RSO)?	☑ Yes	☐ No

Survey or Surveyors **Signature(s):** _____ Date: 1/9/07

Principal Radiation **User Signature:** _____ **Date:** 1/9/07

RSO Signature: _____ **Date:** 1/15/07

Note: Reference checklist entitled "Radioactive Materials Equipment/Room Decommissioning – General Checklist" once this results have been reviewed and determined to be acceptable by the RSO.

Assay Definition-

Assay Description:

Assay Type:' DPM (Single)
Report Name: Report1
output Data Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070109_1103
Raw Results Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070109_1103
\20070109_1103.results
comma-Delimited File Name: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070109_
1103\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\14C-Uptake_Maryla.lsa

Count Conditions-

Nuclide: 14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: 14C
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL
A	0.0	156.0
B	4.0	156.0
C	0.0	0.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	"nits	Reference Date	Reference Time
A				
E				
C				

Cycle i Results

P#	S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES
21	i	2.00	24	26	29.04	313.37	
21	2	2.00	26	28	26.17	319.70	
	3	2.00	35	38	38.09	320.45	
	4	2.00	21	22	29.52	319.81	
21	5	2.00	27	29	26.67	306.36	
21	6	2.00	22	24	31.15	307.26	

SWIPE TEST PERFORMED ON LF-K-05 (BIOSAFETY HOOD) IN K011, OCD
Performed on 01-09-07 by Waqas Alam

1. Blank
2. Hood Base
3. Homogenizer inside hood
4. Outside Hood
5. Floor near hood
6. Hood Controls

Health & Safety
Johnson & Johnson

From, Waqas Alam
To, Curtis.

Equipment Release Form - Instructions

The Equipment Release Form is used to communicate equipment decontamination status to employees or contractors coming to service, relocate, or dispose of laboratory equipment that may be contaminated with chemical, biological, or radiological materials. It is also used to communicate decontamination status of laboratory equipment that may be involved in renovation or construction activities. The form is not required for routine testing/certification of exposure control ventilation devices when such activity is performed by trained individuals.

The following instructions apply:

1. Requestor of service, relocation, or disposal assesses whether equipment could be potentially contaminated with chemical, biological, or radiological materials from previous use.

2. If contamination is possible, requestor must document the following (on the form):

    a. His/her name and telephone extension

    b. Background information:

        i. Equipment information
        ii. Potential contamination material(s) (all that apply)
        iii. Type of service to be performed (e.g., service/maintenance, disposal, relocation, etc.)
        iv. Method of decontamination
        v. Any additional information/instruction to those who will perform the activity
        vi. Person who performed decontamination activities (if different from requestor)

    c. Decontamination status

        i. If sufficient decontamination is not feasiblelpractical, the requestor must:

            Attach appropriate warning labels (e.g., radioactive, biohazard symbols);

            Inform affected employees of remaining contamination and safe handling procedures; and

            Contact Environmental, Health & Safety before releasing equipment from the area.

3. Radiological Contamination - Environmental, Health & Safety must approve the form in cases where radiological contamination is possible. The only exception is when equipment is serviced/maintained without removal from the area. Note that the form must still be completed in these instances.

4. If no hazard is present check none and sign the form.

5. Once the form is complete, the requestor must post it on the equipment to be serviced. In some cases, it may be easier to use one form for several pieces of equipment. This may be done where appropriate.

In all cases of potential contamination, service/maintenance, relocation, or disposal will not be performed unless a completed Equipment Release Form is posted on the equipment.

Equipment Release Form

This form shall be completed by the individual who requests service/maintenance, relocation, or disposal of equipment that may be contaminated with chemical, biological, or radiological materials. It shall also be completed before potentially contaminated equipment is involved in a renovation or construction activity

Requestor of Service, Relocation, or Disposal: WAQAS ALAM Phone Extension: 6893

BACKGROUND INFORMATION:

Equipment Location: K013 OCD Date: 01/09/07

Type of Equipment: Centrifuge L900 XP (Beckman Coulter) Asset #: 461565/CEN008

Potential Contaminants *(Check* all *that apply):*

☑ Chemical ☑ Biological ☑ Radioactive ☐ None

Activity to be performed *(Check appropriate* box):

- ☐ Service/Maintenance (**not** requiring removal of equipment from the area);
- ☑ Service/Maintenance (requiring removal of equipment from the area)'
- ☐ Relocation*
- ☐ Disposal*
- ☐ Renovation/Construction*

Method of Decontamination, Cleaned with Septihol. Performed swipe test.

Additional Information *(if applicable):*

Name of Person Decontaminating (if different from requestor): ***Phone Ext***:

EQUIPMENT STATUS:

☐ EQUIPMENT UNABLE TO BE SUFFICIENTLY DECONTAMINATED - When decontamination is not feasible. decontaminate to the extent feasible and:

- Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
- Inform affected employees of remaining contamination and safe handling procedures; and
- Contact Environmental, Health & Safety before releasing equipment from the area.

☑ **EQUIPMENT** IS SUFFICIENTLY DECONTAMINATED FOR **SERVICE/MAINTENANCE,** RELOCATION, OR DISPOSAL.

01/09/07

Signature of Requestor (or Authorized Radiation User for Radioactive Material Contamination)

1/15/07

***Radiation** Safety Release **Signature** (only required for equipment potentially contaminated with radioactive materials when such equipment will be removed from the area for service/maintenance, relocation, or disposal)*

*POST THIS **FORM ON THE** EQUIPMENT*

Assay Definition-

Assay Description:

Assay Type: DPM (Single)
Report Name': Report1
Output Data Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070109_1452
Raw Results Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070109_1452\20070109_1452.results
Comma-Delimited File Name: C;\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070109_1452\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\14C-Uptake_Maryla.lsa

Count Conditions-

Nuclide: 14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: 14C
count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
%Sigma % Terminator: Off

Regions	LL	UL
A	0.0	156.0
B	4.0	156.0
C	0.0	0.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
E				
C				

Cycle 1 Results

P#	S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES
21	1	2.00	20	21	30.62	320.23	— Blank
21	2	2.00	22	23	30.00	324.84	— Centrifuge L100 XP

Radioactive Materials **Survey – Equipment/Room Decommissioning**

Date: 01/09/07

Name of **Individual(s)** Performing Survey: WAQAS ALAM

Radioactive Isotopes Previously Used: W.A 01.09.07 ~~3H~~ NONE

Survey Performed: ☑ Equipment
Area within Room, Fired Components in Room, Floor, etc.

Department: DMPK
Building: OCN Room: K013 Floor: i

Equipment (if applicable):

Equipment Description: L100 XP
Manufacturer: BECKMAN COULTER
Model:
Serial Number:

Survey Description:
Cleaned with Septihol and performed swype test.

Section One: Racliation Survey Equipment Records (complete all relevant sections)

Survey Level Meter Make, Model & Serial #:

Survey Probe Type, Model & **Serial** #:

Calibration Date: / /

Is the **survey level** meter and pi-obe operating properly: ☐ Yes ☐ **No**

Gamma Counter Make: _____

Gamma Counter Model #: _____

Serial #: _____

Calibration Date: ____/____/____

Liquid Scintillation Counter Make: Tri Carb 3100 TR

Liquid Scintillation Model #: 3100 TR

Serial #: 424586

Calibration Date: 01 / 08 / 07

All field notes, drawings and survey/sampling results shall be attached to this document Please see attachment

AREA SKETCH/DESCRIPTION:

SURVEY RESULTS:

ID	Alpha	Beta	Gamma		ID	Alpha	Beta	Gamma
1.					11.			
2.					12.			
3.					13.			
4.					14.			
5.					15.			
6.					16.			
7.					17.			
8.					18.			
9.					19.			
10.					20.			

Section Two: Discussion

Have the survey and wipe test results been attached to this report?	☑ Yes	☐ No
Were all surveys performed less than two times background?	☑ **Yes**	☐ No
Were all wipe tests less than 200 **dpm/100** cm^2?	☑ **Yes**	☐ No
Have these results been reviewed by the Radiation Safety Officer (RSO)?	☑ **Yes**	☐ No

Survey or Surveyors **Signature(s):** _____ Date: 01/09/07

Principal Radiation User Signature: _____ Date: 1/09/07

RSO Signature: _____ Date: 1/15/07

Note: Reference checklist entitled "Radioactive Materials Equipment/Room Decommissioning – General Checklist" once this results have been reviewed and determined to be acceptable by the RSO.

Radioactive Materials **Equipment/Room** Decommissioning – General Checklist

Has a radioactive materials **survey** of the piece of equipment, room, room area, etc. been conducted?	☑ **Yes**	☐ No
Is the **survey** report signed by the RSO and does **he/she** have a copy of the report?	☑ Yes	☐ No
Have all radioactive labels, stickers, markings or references thereto been removed?	☑ Yes	☐ No
Has all waste be disposed of as radioactive waste and placed into the proper radioactive **waste** stream (dry solid, liquid, etc)	☑ **Yes**	☐ No
Has the appropriate sign been posted to indicate **the** equipment or room area has been cleared and deemed free of radioactive contamination?	☑ **Yes**	☐ No

Final Closeout Items:

Has all radioactive waste been picked up and removed from the **Laboratory** (coordinate with Willie Montford x3104)	☑ **Yes**	☐ No
Have the radioactive signs **(i.e.** laboratory placards, **door** signs, etc.) been removed and disposed of accordingly	☑ Yes	☐ No

Health & Safety
Johnson & Johnson

Equipment Release Form - Instructions

The Equipment Release Form is used to communicate equipment decontamination status to employees or contractors coming to service, relocate, or dispose of laboratory equipment that may be contaminated with chemical, biological, or radiological materials. It is also used to communicate decontamination status of laboratory equipment that may be involved in renovation or construction activities. The form is not required for routine testing/certification of exposure control ventilation devices when such activity is performed by trained individuals.

The following instructions apply:

1. Requestor of service, relocation, or disposal assesses whether equipment could be potentially contaminated with chemical, biological, or radiological materials from previous use.

2. If contamination is possible, requestor must document the following (on the form):

   a. His/her name and telephone extension

   b. Background information:

      i. Equipment information
      ii. Potential contamination material(s) (all that apply)
      iii. Type of service to be performed (e.g., service/maintenance, disposal, relocation, etc.)
      iv. Method of decontamination
      v. Any additional information/instruction to those who will perform the activity
      vi. Person who performed decontamination activities (if different from requestor)

   c. Decontamination status

      i. If sufficient decontamination is not feasible/practical, the requestor must:

         - Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
         - Inform affected employees of remaining contamination and safe handling procedures; and

         Contact Environmental. Health & Safety before releasing equipment from the area.

3. Radiological Contamination - Environmental, Health & Safety must approve the form in cases where radiological contamination is possible. The only exception is when equipment is serviced/maintained without removal from the arsa. Note that the form must still be completed in these instances.

4. If no hazard is present check none and sign the form.

5. Once the form is complete, the requestor must post it on the equipment to be serviced. In some cases, it may be easier to use one form for severai pieces of squipment. This may be done where appropriate.

In all cases of potential contamination, service/maintenance, relocation: or disposal will not be performed unless a completed Equipment Release Form is posted on the equipment..

Equipment Release Form

This form shall be completed by the individual who requests service/maintenance, **relocation,** or disposal of equipment that may be contaminated with chemical, biological, or radiological materials. It shall also be completed before potentially contaminated equipment is involved in a renovation or construction activity

Requestor of Service, Relocation, or Disposal: M. Mychasiw Phone Extension: 976

BACKGROUND INFORMATION:

Equipment Location: CCD K 15 Date: 1-18-07

Type of Equipment: Refrigerator Asset #:

Potential Contaminants *(Check all that apply):*

☒ Chemical ☒ Biological ☒ Radioactive ☐ None

Activity to be performed *(Check appropriate box):*

- ☐ Service/Maintenance (**not** requiring removal of equipment from the area)
- ☐ Service/Maintenance (requiring removal of equipment from the area)*
- ☒ Relocation*
- ☐ Disposal*
- ☐ Renovation/Construction*

Method of Decontamination: Radiac wash followed by wipe with 10% clorox solution & wipe

Additional Information *(if applicable):*

Name of Person Decontaminating (if different from requestor): T. Tarbush **Phone Ext**: 976

EQUIPMENT STATUS:

☐ EQUIPMENT UNABLE TO BE SUFFICIENTLY DECONTAMINATED - When decontamination is not feasible, decontaminate to the extent feasible and:

- Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
- Inform affected employees of remaining contamination and safe handling procedures; and
- Contact Environmental, Health & Safety before releasing equipment from the area.'

☒ **EQUIPMENT** IS SUFFICIENTLY DECONTAMINATED FOR **SERVICE/MAINTENANCE,** RELOCATION, OR DISPOSAL.

Signature of **Requestor** (or Authorized Radiation User for Radioactive Material Contamination) 1-18-07

*Radiation Safety Release Signature *(only required lor equipment potentially contaminated with radioactive materials when such equipment will be removed from the area forservice/maintenance, relocation, or disposal)* 1/18/07

POST THIS FORM Oh THE EQUIPMENT

Radioactive Materials Survey – **Equipment/Room** Decommissioning

Date: 1/18/07

Name of **Individual(s)** Performing Survey: M. Markowska

Radioactive Isotopes Previously Used: 14C - and 3H

Survey Performed: ☒ Equipment
☒ Area within Room, Fixed Components in Room, Floor, etc.

Department: BAIDMDK
Building: K Room: 13 Floor: 1

Equipment (if applicable):

Equipment Description: Refrigerator
Manufacturer: Harris
Model: HL-23V-CABAIA
Serial Number: Z23F-321530-NG

Survey Description:

Section One: Radiation Survey Equipment Records (complete all relevant sections)

Survey Level Meter Make, **Model** & Serial #: _____

Survey Probe Type, **Model** & Serial #: _____

Calibration Date: / /

Is the **survey level** meter and probe operating properly:. ☐ Yes ☐ No

Gamma Counter Make: _____

Gamma Counter Model #: _____

Serial #: _____

Calibration Date: ____/____/____

Liquid Scintillation Counter Make: Tri-Carb 3100TR

Liquid Scintillation Model # 3100TR

Serial #: 424586

Calibration Date: 1/18/07

All field notes, drawings and survey/sampling results shall be attached to this document

AREA SKETCH/DESCRIPTION:

SURVEY RESULTS:

ID	Alpha	Beta	Gamma		ID	Alpha	Beta	Gamma
1.					11.			
2.					12.			
3.					13.			
4.					14.			
5.					15.			
6.					16.			
7.					17.			
8.					18.			
9.					19.			
10.					20.			

Section Two: Discussion

Have the survey and wipe test results been attached to this report?	☒ Yes	☐ No
Were all surveys performed less than two times background?	☒ **Yes**	☐ No
Were all wipe tests less than 200 **dpm/100** cm^2?	☒ **Yes**	☐ No
Have these results been reviewed by **the Radiation** Safety Officer **(RSO)?**	☒ **Yes**	☐ **No**

Survey or Surveyors **Signature(s):** _____ Date: 1-18-07

Principal **Radiation User Signature:** _____ **Date:** 1-18-07

RSO Signature: _____ Date: 1/19/07

Note: Reference checklist entitled "Radioactive Materials Equipment/Room Decommissioning – General Checklist" once this results have been reviewed and determined to be acceptable by the RSO.

Radioactive Materials **Equipment/Room** Decommissioning – General Checklist,

Has a radioactive materials survey of the piece of equipment, room, room area, etc. been conducted?	☒ Yes	☐ No
Is the survey report signed by the RSO and does **he/she** have a copy of the report?	☒ Yes	☐ No
Have **all** radioactive labels, stickers, markings or references thereto been removed?	☒ Yes	☐ No
Has all waste be disposed of as radioactive waste and placed into the proper radioactive waste stream (dry solid, liquid, etc)	☒ Yes	☐ No
Has the appropriate sign been posted to indicate the equipment or room area has been cleared and deemed free of radioactive contamination?	☒ Yes	☐ No

Final Closeout Items:

Has all radioactive waste been picked up and removed from the Laboratory (coordinate with Willie Montford x3104)	☒ Yes	☐ No
Have the radioactive signs **(i.e.** laboratory placards, door signs, etc.) been removed and disposed of accordingly	☒ Yes	☐ No

Wipe test of the refrigerator and the freezer to be moved to OMP 01/18/07

Maryla Markowska
Description

1. Blank
2. Refrigerator Harris handle
3. shelf top 1
4. shelf 2 from the top
5. shelf 3 the same
6. shelf 4 the same
7. floor in front the refrigerator
8. freezer HotPack handle
9. bottom shelf
10. floor in front of the freezer
11. room 14 floor next to the s.c. waste
12. room 14 floor center
13. s.counter outside handle
14. door handle

Assay Definition-

Assay Description:

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results Maryla\3H-Uptake_Maryla\20070118_1519
Raw Results Path: C:\Packard\Tricarb\Results Maryla\3H-Uptake_Maryla\20070118_1519
\20070118_1519.results
Comma-Delimited File Name: C:\Packard\Tricarb\Results\Maryla\3H-Uptake_Maryla\20070118_
1519\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\3H-Uptake_Maryla.lsa

Count Conditions-

Nuclide: 3H
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: 3H-UG
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: i Calculate % Reference: Off

Background Subtract: Off
CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL
A	0.0	18.6
B	2.0	18.6
C	0.0	0.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

P#	S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES
A Quench set associated with this assay's nuclide was modified after being run.							
20	1	2.00	13	25	10.67	315.56	
20	2	2.00	10	20	8.49	291.15	
20	3	2.00	17	37	8.00	286.70	
20	4	2.00	14	29	5.74	289.95	
20	5	2.00	11	23	10.70	287.46	
20	6	2.00	12	25	7.36	285.86	
20	7	2.00	14	31	6.82	282.12	

[redacted]	8	2.00	14	29	8.11	287.34
[redacted]	9	2.00	12	26	11.11	239.28
20	10	2.00	8	18	8.54	284.11
20	11	2.00	10	22	9.59	282.82
20	12	2.00	9	19	7.32	288.04
20	13	2.00	12	25	9.63	294.03
20	14	2.00	17	36	7.74	284.67

OK 1-18-07

MM

Assay Definition-

Assay Description:

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070118_1440
Raw Results Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070118_1440
\20070118_1440.results
Comma-Delimited File Name: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070118_
1440\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\14C-Uptake_Maryla.lsa

Count Conditions-

Nuclide: 14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 3.30
Quench Set:
Low Energy: 14C
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: l
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma Terminator: Off

Regions	LL	UL
A	0.0	156.0
B	4.0	156.0
C	0.0	0.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

P#	S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES
21	1	2.00	14	15	38.23	317.28	
21	2	2.00	15	16	29.80	294.03	
21	3	2.00	21	23	31.54	291.85	
21	4	2.00	21	23	26.33	293.68	
21	5	2.00	24	26	36.35	290.88	
21	6	2.00	21	22	30.94	289.38	
21	7	2.00	20	21	31.79	283.14	
21	8	2.00	18	19	24.61	293.39	
21	9	2.00	21	22	35.21	291.73	

ok
1-18-07

21	10	2.00	18	20	37.40	287.74
21	11	2.00	21	23	36.15	286.57
21	12	2.00	20	22	29.40	290.40
21	13	2.00	20	21	34.46	296.32
21	14	2.00	23	25	31.82	290.01

OK 1-18-07
MM

SNC Protocol

Calibration Information
Software Version IC: 2.11
Software Version EC: 2.02
Instrument Model: Tri-Carb 3100TR
Instrument Serial Number: 424586
3H Chi Square: *20.77* Date Processed: 1/18/2007 2:40:12 PM
14C Chi Square: 17.31 Date Processed: 1/18/2007 2:40:12 PM
3H E^2/B (1-18.6 keV): 301.1 Date Processed: 1/18/2007 2:40:12 PM
14C E^2/B (4-156 keV): 599.11 Date Processed: 1/18/2007 2:40:12 PM
3H Efficiency (0-18.6 keV): 66.30 Date Processed: 1/18/2007 2:40:12 PM
14C Efficiency (0-156 keV): 33.37 Date Processed: 1/18/2007 2:40:12 PM
IPA Background Date Processed: 1/18/2007 2:40:12 PM
3H Background CPM (0-18.6 keV): 14.70 Date Processed: 1/18/2007 2:40:12 PM
14C Background CPM (0-156 keV): 20.73 Date Processed: 1/18/2007 2:40:12 PM
3H Calibration DPM: 283503
3H Reference Date: 5/5/2000
14C Calibration DPM: 135100

Health & Safety
Johnson & Johnson

Equipment Release Form - Instructions

The Equipment Release Form is used to communicate equipment decontamination status to employees or contractors coming to service, relocate, or dispose of laboratory equipment that may be contaminated with chemical, biological, or radiological materials. It is also used to communicate decontamination status of laboratory equipment that may be involved in renovation or construction activities. The form is not required for routine testing/certification of exposure control ventilation devices when such activity is performed by trained individuals.

The following instructions apply:

1. Requestor of service, relocation, or disposal assesses whether equipment could be potentially contaminated with chemical, biological, or radiological materials from previous use.

2. If contamination is possible, requestor must document the following (on the form):

   a. His/her name and telephone extension

   b. Background information:

      i. Equipment information
      ii. Potential contamination material(s) (all that apply)
      iii. Type of service to be performed (e.g., service/maintenance, disposal, relocation, etc.)
      iv. Method of decontamination
      v. Any additional information/instruction to those who will perform the activity
      vi. Person who performed decontamination activities (if different from requestor)

   c. Decontamination status

      i. If sufficient decontamination is not feasible/practical, **the requestor must:**

         Attach appropriate warning labels (e.g., radioactive, biohazard symbols);

         Inform affected employees of remaining contamination and safe handling procedures; and

         Contact Environmental, Health & Safety before releasing equipment from the area.

3. **Radiological Contamination** - Environmental, Health & Safely must approve the form in cases where radiological contamination is possible. The only exception is when equipment is serviced/maintained without removal from the area. Note that the form must still be completed in these instances.

4. If no hazard is present check none and sign the form.

5. Once the form is complete, the requestor must post it on the equipment to be serviced. in some cases, it may be easier to use one form for several pieces of equipment. This may be done where appropriate.

In all cases of potential contamination, service/maintenance, relocation?or disposal will not be performed unless a completed Equipment Release Form is posted on the equipment.

Equipment Release Form

This form shall be completed by the individual who requests service/maintenance, relocation, or disposal of equipment that may be contaminated with chemical, biological, or radiological materials. It shall also **be** completed before potentially contaminated equipment is involved in a renovation or construction activity

Requestor of Service, Relocation, or Disposal: M. Mathurin **Phone Extension:** 4765

BACKGROUND INFORMATION:

Equipment Location: CCD K 13 **Date:** 1-18-07

Type of Equipment: Freezer **Asset #:** _____

Potential Contaminants *(Check all that apply):*

☒ Chemical ☒ Biological ☒ Radioactive ☐ None

Activity to be performed *(Check appropriate **box):***

- ☐ Service/Maintenance (**not** requiring removal of equipment from the area),
- ☐ Service/Maintenance (requiring removal of equipment from the area)*
- ☒ Relocation*
- ☐ Disposal*
- ☐ Renovation/Construction*

Method of Decontamination: Radiacs. H 2O. Ethanol then 10% Clorox solution + water

Additional Information *(if applicable):* _____

Name of Person Decontaminating (if different from requestor): M. Mathurin **Phone Ext:** 4784

EQUIPMENT STATUS:

☐ **EQUIPMENT UNABLE TO BE SUFFICIENTLY DECONTAMINATED** - When decontamination is not feasible, decontaminate to the extent feasible and:

- Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
- Inform affected employees of remaining contamination and safe handling procedures; and
- Contact Environmental. Health & Safety before releasing equipment from the area.

☒ **EQUIPMENT IS SUFFICIENTLY DECONTAMINATED FOR SERVICE/MAINTENANCE, RELOCATION, OR DISPOSAL.**

[signature] 1-18-07

Signature of Requestor (or Authorized Radiation User for Radioactive Material Contamination)

[signature] 1/19/07

***Radiation Safety Release Signature** *(only required for equipment potentially contaminaied with radioactive materials when such equipment will be removed from the area for service/maintenance, relocation, or disposal)*

POST THIS FORM ON THE EQUIPMENT

Radioactive Materials Survey – **Equipment/Room** Decommissioning

Date: 1 1 18 1 07

Name of **Individual(s)** Performing Survey: M Markowska

Radioactive Isotopes Previously Used: 14C and 3-H

Survey Performed: ☒ Equipment
☒ Area within Room, Fixed Components in Room, Floor, **etc.**

Department: BA/DMPK
Building: K Room: 13 Floor: 1

Equipment (if applicable):

Equipment Description: Freezer
Manufacturer: hotpack
Model: FD-30-200
Serial Number: 290782

Survey Description:

Section One: Radiation Survey Equipment Records (complete all relevant sections)

Survey **Level** Meter Make: **Model** & Serial #: _____

Survey Probe Type, Model & **Serial** #: _____

Calibration Date: / /

Is the survey **level** meter and probe operating **properly**: ☐ Yes ☐ **No**

Gamma Counter Make: _____

Gamma Counter Model #: _____

Serial #: _____

Calibration Date: ___/___/___

Liquid Scintillation Counter Make: Tri-Carb 3100TR

Liquid Scintillation Model #: 3 00 TR

Serial #: 425456

Calibration Date: 1/18/07

All field notes, drawings and survey/sampling results shall be attached to this document

AREA SKETCH/DESCRIPTION:

SURVEY RESULTS:

ID	Alpha	Beta	Gamma		ID	Alpha	Beta	Gamma
1.					11.			
2.					12.			
3.					13.			
4.					14.			
5.					15.			
6.					16.			
7.					17.			
8.					18.			
9.					19.			
10.					20.			

Section Two: Discussion

Have the survey and wipe test results been attached to this report?	☒ Yes	☐ No
Were all surveys performed less than two times background?	☒ Yes	☐ No
Were all wipe tests less than 200 **dpm/100** cm^2?	☒ Yes	☐ No
Have these results been reviewed by the Radiation Safety Officer (RSO)?	☒ Yes	☐ No

Survey or Surveyors **Signature(s):** _____ Date: 1-18-07

Principal Radiation User **Signature:** _____ Date: 1-18-07

RSO Signature: _____ Date: 1/19/07

Note: Reference checklist entitled "Radioactive Materials Equipment/Room Decommissioning – General Checklist" once this results have been reviewed and determined to be acceptable by the RSO.

Radioactive Materials **Equipment/Room** Decommissioning – General Checklist

Has a radioactive materials survey of the piece of equipment, room, room area, etc. been conducted?	☒ **Yes**	☐ No
Is the survey report signed by the RSO and does **he/she** have a copy of the report?	☒ Yes	☐ No
Have all radioactive labels, stickers, **markings** or references thereto been removed?	☒ **Yes**	☐ No
Has all waste be disposed of as radioactive waste and placed into the proper radioactive waste stream (dry solid, liquid, etc)	☒ Yes	☐ No
Has the appropriate sign been posted to indicate the equipment or room area has been cleared and deemed free of radioactive **contamination?**	☒ Yes	☐ No

Final Closeout Items:

Has all radioactive waste been picked up and removed from the Laboratory (coordinate with Willie Montford x3104)	☒ **Yes**	☐ No
Have the radioactive signs **(i.e.** laboratory placards, door signs, etc.) been removed and disposed of accordingly	☒ Yes	☐ No

Health & Safety

Equipment Release Form - Instructions

The Equipment Release Form is used to communicate equipment decontamination status to employees or contractors coming to service, relocate, or dispose of laboratory equipment that may be contaminated with chemical, biological, or radiological materials. It is also used to communicate decontamination status of laboratory equipment that may be involved in renovation or construction activities. The form is not required for routine testing/certification of exposure control ventilation devices when such activity is performed by trained individuals.

The following instructions apply:

1. Requestor of service, relocation, or disposal assesses whether equipment could be potentially contaminated with chemical, biological, or radiological materials from previous use.

2. If contamination is possible, requestor must document the following (on the form):

    a. His/her name and telephone extension

    b. Background information:

        i. Equipment information
        ii. Potential contamination material(s) (all that apply)
        iii. Type of service to be performed (e.g., service/maintenance, disposal, relocation, etc.)
        iv. Method of decontamination
        v. Any additional information/instruction to those who will perform the activity
        vi. Person who performed decontamination activities (if different from requestor)

    c. Decontamination status

        i. If sufficient decontamination is not feasible/practical, **the requestor must:**

        - Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
        - Inform affected employees of remaining contamination and safe handling procedures; and

        Contact Environmental, Health & Safety before releasing equipment from the area.

3. **Radiological Contamination** - Environmental, Health & Safety must approve the form in cases where radiological contamination is possible. The only exception is when equipment is serviced/maintained without removal from the area. Note that the form must still be completed in these instances.

4. If no hazard is present check none and sign the form.

5. Once the form is complete, the requestor must post it on the equipment to be serviced. In some cases, it may be easier to use one form for several pieces of equipment. This may be done where appropriate.

In all cases of potential contamination, service/maintenance, relocation, or disposal will not be performed unless a completed Equipment Release Form is posted on the equipment.

Equipment Release Form

This form shall be completed by the individual who requests service/maintenance, relocation, or disposal of equipment that may be contaminated with chemical, biological, or radiological materials. It shall also be completed before potentially contaminated equipment is involved in a renovation or construction activity

Requestor of Service, **Relocation, or Disposal**) _____ Phone Extension: 4765

BACKGROUND INFORMATION:

Equipment Location: OCN K-14 Date: 2-2-07

Type of Equipment: Scintillation Counter Asset #: _____

Potential Contaminants *(Check all that apply):*

☑ Chemical ☑ Biological ☑ Radioactive ☐ None

Activity to be performed *(Check appropriate box):*

☐ Service/Maintenance (**not** requiring removal of equipment from the area)
☐ Service/Maintenance (requiring removal of equipment from the area)*
☒ Relocation*
☐ Disposal*
☐ Renovation/Construction*

Method of Decontamination: Radiacwash followed 5 rinses
then 10% clorox solution 2 rinses

Additional Information *(if applicable):* _____

Name of Person Decontaminating (if different from requestor): M. Rodriguez **Phone** Ext: 4765

EQUIPMENT STATUS:

☐ EQUIPMENT UNABLE TO BE SUFFICIENTLY DECONTAMINATED - When decontamination is not feasible, decontaminate to the extent feasible and:

- Attach appropriate warning labels **(e.g.,** radioactive, biohazard symbols);
- Inform affected employees of remaining contamination and safe handling procedures; and
- Contact Environmental, Health & Safety before releasing equipment from the area.

☒ **EQUIPMENT** IS SUFFICIENTLY DECONTAMINATED FOR SERVICE/MAINTENANCE, **RELOCATION, OR DISPOSAL.**

[signature] 2-2-07
Signature of Requestor (or **Authorized** Radiation User for Radioactive Material Contamination)

[signature] 2/2/07
*Radiation **Safety** Release Signature *{only required for equipment **potentially** contaminated with radioactive materials when such equipment will be removed from the area for **service/maintenance,** relocation, or disposal)*

POST THIS FORM ON THE EQUIPMENT

Radioactive Materials Survey – **Equipment/Room** Decommissioning

Date: 2 1 2 1 07

Name of **Individual(s)** Performing Survey: M. MARKOWSKA

Radioactive Isotopes Previously Used: 14-C and 3-H

Survey Performed: ☒ Equipment
☒ Area within Room, Fixed Components in Room, Floor, ete.

Department: BA/DMPh
Building: K Room: 14 Floor: 1

Equipment (if applicable):

Equipment **Description:** Scintillation Counter
Manufacturer: Perkin Elmer
Model: 3100 TR
Serial Number: 4245Hb

Survey Description:

Section One: Radiation Survey Equipment Records (complete all relevant sections)

Survey Level Meter Make, Model & Serial #: _____

Survey Probe Type, Model & Serial #: _____

Calibration Date: ____/____/____

Is the survey level meter and probe operating properly: ☐ Yes ☐ No

Gamma Counter Make: _____

Gamma Counter Model #: _____

Serial #: _____

Calibration Date: ___/___/___

.....

Liquid Scintillation Counter Make: Tri-Carb 3100TR

Liquid Scintillation Model #: 3100TR

Serial #: 424586

Calibration Date: 2 1 2 / 07

All field notes, drawings and surveylsampling results shall be attached to this document

AREA SKETCH/DESCRIPTION:

SURVEY RESULTS:

ID	Alpha	Beta	Gamma		ID	Alpha	Beta	Gamma
1.					11.			
2.					12.			
3.					13.			
4.					14.			
5.					15.			
6.					16.			
7.					17.			
8.					18.			
9.					19.			
10.					20.			

Section Two: Discussion

Have the survey and wipe test results been attached to this report?	☒ **Yes**	☐ No
Were all surveys performed less than two times background?	☒ **Yes**	☐ No
Were all wipe tests less than 200 **dpm/100** cm^2?	☒ **Yes**	☐ No
Have these results been reviewed by the Radiation Safety Officer (RSO)?	☒ **Yes**	☐ No

Survey or Surveyors **Signature(s):** _____ Date: 2-2-07

Principal Radiation User Signature: _____ **Date:** 2-2-07

RSO Signature: _____ **Date:** 2/2/07

Note: Reference checklist entitled "Radioactive Materials Equipment/Room Decommissioning – General Checklist" once this results have been reviewed and determined to be acceptable by the RSO.

Radioactive Materials **Equipment/Room** Decommissioning – General Checklist

Has a radioactive materials survey of the piece of equipment, room, room area, etc. been conducted?	☒ **Yes**	☐ No
Is the survey report signed by the RSO and does **he/she** have a copy of the report?	☒ Yes	☐ No
Have all radioactive labels, stickers, markings or references thereto been removed?	☒ **Yes**	☐ No
Has all waste be disposed of as radioactive waste and placed into the proper radioactive waste stream (dry solid, liquid, etc)	☒ **Yes**	☐ No
Has the appropriate sign been posted to indicate the equipment or room area has been cleared and deemed free of radioactive contamination?	☒ **Yes**	☐ No

Final Closeout Items:

Has all radioactive waste been picked up and removed from **the** Laboratory (coordinate with Willie Montford x3104)	☒ **Yes**	☐ **No**
Have the radioactive signs **(i.e.** laboratory placards, door signs, etc.) been removed and disposed of accordingly	☒ **Yes**	☐ **No**

Wipe test of K 14 OCD
2/1/07
Maria Markowska

1. Control
2. Lefi side of Scintillation counter outside
3. Middle side of the same
4. Right side of the same
5. Inside of the counter left back
6. Inside of the counter lefi front
7. Inside of the counter right back
8. Inside of the counter right front
9. Floor left side
10. Floor in front of scintillation counter
11. Floor in the middle
12. Floor right side

ok 2-2-07

MM

SNC Protocol

Calibration Information
Software Version IC: 2.11
Software Version EC: 2.02
Instrument Model: Tri-Carb 3100TR
Instrument Serial Number: 424586
3H Chi Square: 15.98 Date Processed: 2/1/2007 7:28:57 PM
14C Chi Square: 30.76 Date Processed: 2/1/2007 7:28:57 PM
3H E^2/B (1-18.6 keV): 304.36 Date Processed: 2/1/2007 7:28:57 PM
14C E^2/B (4-156 keV): 613.33 Date Processed: 2/1/2007 7:28:57 PM
3H Efficiency (0-18.6 keV): 66.06 Date Processed: 2/1/2007 7:28:57 PM
14C Efficiency (0-156 keV): 96.08 Date Processed: 2/1/2007 7:28:57 PM
IPA Background Date Processed: 2/1/2007 7:28:57 PM
3H Background CPM (0-18.6 keV): 14.30 Date Processed: 2/1/2007 7:28:57 PM
14C Background CPM (0-156 keV): 20.38 Date Processed: 2/1/2007 7:28:57 PM
3H Calibration DPM: 283500
3H Reference Date: 5/5/2000
14C Calibration DPM: 135100

Assay Definition-

Assay Description:

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Maryla\3H-Uptake_Maryla\20070201_1704
Raw Results Path: C:\Packard\Tricarb\Results\Maryla\3H-Uptake_Maryla\20070201_1704
\20070201_1704.results
Coma-Delimited File Name: C:\Packard\Tricarb\Results\Maryla\3H-Uptake_Maryla\20070201_
1704\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\3H-Uptake_Maryla.lsa

Count conditions-

Nuclide: 3H
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: 3H-UG
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL
A	0.0	18.6
B	2.0	18.6
C	0.0	0.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

P#	S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES
A Quench set associated with this assay's nuclide was modified after being run.							
20	1	2.00	10	19	8.83	308.07	
20	2	2.00	11	22	7.08	309.47	
20	3	2.00	12	24	10.83	310.00	
20	4	2.00	11	23	11.62	306.53	
20	5	2.00	15	31	9.76	311.30	
20	6	2.00	14	28	11.06	310.54	
20	7	2.00	19	37	7.74	317.33	

20	8	2.00	20	41	6.78	310.98
20	9	2.00	14	29	8.08	306.77
20	10	2.00	13	26	7.74	304.33
20	11	2.00	13	27	8.38	302.53
20	12	2.00	9	19	8.32	302.69

Assay Definition-

Assay Description:

Assay Type: DPM (Single)
Report Name: Report1
output Data Path: C:\Packard\Tricarb\Results\Maryla\14C-Perfusion_Maryla\20070201_1630
Raw Results Path: C:\Packard\Tricarb\Results\Maryla\14C-Perfusion_Maryla\20070201_1630\20070201_1630.results
Comma-Delimited File Name: C:\Packard\Tricarb\Results\Maryla\14C-Perfusion_Maryla\20070201_1630\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\14C-Perfusion_Maryla.lsa

Count Conditions-

Nuclide: 14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 15 sec
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: 14C
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL
A	0.0	156.0
B	4.0	156.0
C	0.0	0.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

P#	S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES
Missing vial 1.							
17	2	2.00	26	27	26.45	323.15	
17	3	2.00	14	15	32.16	321.74	
17	4	2.00	21	22	32.47	322.36	
17	5	2.00	18	19	23.87	313.27	
17	6	2.00	23	25	36.25	324.94	
17	7	2.00	17	18	33.60	322.62	
17	8	2.00	31	33	23.19	318.69	
17	9	2.00	18	19	31.68	311.09	

17	10	2.00	20	22	34.13	317.01
17	11	2.00	21	22	29.77	311.12
17	12	2.00	27	29	37.15	308.79
Missing vial 13.						
17	14	2.00	18	19	23.46	311.52

For Curtis ;
From Margie
Mershon

Health & Safety
Johnson & Johnson

Equipment Release Form - Instructions

The Equipment Release Form is used to communicate equipment decontamination status to employees or contractors coming to service, relocate, or dispose of laboratory equipment that may be contaminated with chemical, biological, or radiological materials. It is also used to communicate decontamination status of laboratory equipment that may be involved in renovation or construction activities. The form is not required for routine testing/certification of exposure control ventilation devices when such activity is performed by trained individuals.

The following instructions apply:

1. Requestor of service, relocation, or disposal assesses whether equipment could be potentially contaminated with chemical, biological, or radiological materials from previous use.

2. If contamination is possible, requestor must document the following (on the form):

   a. His/her name and telephone extension

   b. Background information:

      i. Equipment information
      ii. Potential contamination material(s) (all that apply)
      iii. Type of service to be performed (e.g., service/maintenance, disposal, relocation, etc.)
      iv. Method of decontamination
      v. Any additional information/instruction to those who will perform the activity
      vi. Person who performed decontamination activities (if different from requestor)

   c. Decontamination status

      i. If sufficient decontamination is not feasible/practical, **the requestor must:**

      - Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
      - Inform affected employees of remaining contamination and safe handling procedures; and
      - Contact Environmental, Health & Safety before releasing equipment from the area.

3. **Radiological Contamination** - Environmental, Health & Safety must approve the form in cases where radiological contamination is possible. The only exception is when equipment is serviced/maintained without removal from the area. Note that the form must still be compieted in these instances.

4. If no hazard is present check none and sign the form.

5. Once the form is complete, the requestor must post it on the equipment to be serviced. In come cases: it may be easier to use one form for several pieces of equipment. This may be done where appropriate.

in all cases of potential contamination, service/maintenance, relocation, or disposal will not be performed unless a completed Equipment Release Form is posted on the equipmerit.

Equipment Release Form

This form shall be completed by the individual who requests service/maintenance, relocation, or disposal of equipment that may be contaminated with chemical, biological, or radiological materials. It shall also be completed before potentially contaminated equipment is involved in a renovation or construction activity

Requestor of Service, Relocation, or Disposal: M MAR... Phone **Extension:** 704-4765

BACKGROUND INFORMATION:

Equipment **Location:** OCC Kg/>-- **Date:** 1-9-07

Type of Equipment: Incubator Asset #:

Potential Contaminants *(Check all that apply)*:

☐ Chemical ☐ Biological ☐ Radioactive ☐ None

Activity to be performed *(Check appropriate box):*

☐ Service/Maintenance (**not** requiring removal of equipment from the area)
☐ Service/Maintenance (requiring removal of equipment from the area)*
☒ Relocation*
☐ Disposal*
☐ Renovation/Construction*

Method of Decontamination: [illegible] radiacwash followed by [illegible] water [illegible] wipe test performed.

Additional Information *(if applicable):* --

Name of Person Decontaminating (if different from requestor): [illegible] ***Phone Ext.*** 4765

EQUIPMENT STATUS:

☐ EQUIPMENT UNABLE TO BE **SUFFICIENTLY** DECONTAMINATED - When decontamination is not feasible, decontaminate to the extent feasible and:

- Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
- Inform affected employees of remaining contamination and safe handling procedures; and
- Contact Environmental, Health & Safety before releasing equipment from the area.

☒ EQUIPMENT IS SUFFICIENTLY DECONTAMINATED FOR **SERVICE/MAINTENANCE,** RELOCATION: OF. DISPOSAL.

Signature of Requestor (or Authorized Radiation User for Radioactive Material Contamination)

'Radiation Safety **Release** Signature *(only required for equipment potentially contaminated with radioactive materials when such equipment will be removed from the area* **for** *service/maintenance, relocation, or disposal)*

POST THIS FORM ON THE EQUIPMENT

Radioactive Materials Survey – **Equipment/Room** Decommissioning

Date: 1/9/07

Name of **Individual(s)** Performing Survey: M. MARKOWSKA

Radioactive Isotopes Previously Used: 3-H and 14-C

Survey Performed: ☒ Equipment
☒ Area within Room, Fixed Components in **Room,** Floor, etc.

Department: BA/DMPK
Building: OCD K Room: 015 Floor: 1

Equipment (if applicable):

Equipment Description: Incubator
Manufacturer: Nuaire
Model: 8700
Serial Number: 104-122013106

Survey Description:
the incubator has been worked c Radiowork, one next to the, unknown was cleaned after c radiowork. The wipe test performed.

Section One: Radiation **Survey** Equipment Records (complete all relevant sections)

Survey Level **Meter** Make, Model & Serial #: _____

Survey Probe Type, Model & Serial #: _____

Calibration Date: ___/___/___

Is the survey **level** meter and probe operating properly: ☐ Yes ☐ No

Gamma Counter Make: _____

Gamma Counter Model #: _____

Serial #: _____

Calibration Date: ____/____/____

Liquid Scintillation Counter Make: Tri-Carb 3100TR

Liquid Scintillation Model #: 3100TR

Serial #: 424586

Calibration Date: 1/8/07

All field notes, drawings and survey/sampling results shall be attached to this document – please see the attachments

SKETCH/DESCRIPTION:

SURVEY RESULTS:

ID	Alpha	Beta	Gamma		ID	Alpha	Beta	Gamma
1.					11.			
2.					12.			
3.					13.			
4.					14.			
5.					15.			
6.					16.			
7.					17.			
8.					18.			
9.					19.			
10.					20.			

Section Two: Discussion

Have the survey and wipe test results been attached to this report?	☒ **Yes**	☐ No
Were all surveys performed less than **two** times background?	☒ **Yes**	☐ No
Were all wipe tests less than 200 **dpm/100 cm^2?**	☒ Yes	☐ No
Have these results been reviewed by the Radiation Safety Officer (RSO)?	☒ Yes	☐ No

Survey or Surveyors **Signature(s):** _____ Date: 1-9-07

Principal Radiation User Signature: _____ Date: 1-9-07

RSO Signature: C. Smith Date: 1/15/07

Note: Reference checklist entitled "Radioactive Materials Equipment/Room Decommissioning – General Checklist" once this results have been reviewed and determined to be acceptable by the RSO.

Radioactive Materials **Equipment/Room** Decommissioning - General Checklist

Has a radioactive materials survey of the piece of equipment, room, room area, etc. been conducted?	☒ **Yes**	☐ No
Is the survey report signed by the RSO and does **he/she** have a copy of the report?	☒ **Yes**	☐ No
Have all radioactive labels, stickers, markings or references thereto been removed?	☒ **Yes**	☐ No
Has all waste be disposed of as radioactive waste and placed into the proper radioactive waste **stream** (dry solid, liquid, etc)	☒ **Yes**	☐ No
Has the appropriate sign been posted to indicate the equipment or room area has been cleared and deemed free of radioactive contamination?	☒ Yes	☐ No

Final Closeout Items:

Has all radioactive waste been picked up and removed from the Laboratory (coordinate with Willie Montford x3104)	☒ Yes	☐ No
Have the radioactive signs **(i.e.** laboratory placards, door signs, etc.) been removed and disposed of accordingly	☒ **Yes**	☐ No

Assay Definition-

Assay Description:

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070108_1727
Raw Results Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070108_1727
\20070108_1727.results
Comma-Delimited File Name: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070108_
1727\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\14C-Uptake_Maryla.lsa

Count Conditions-

Nuclide: 14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.0C
Quench Set:
Low Energy: 14C
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: *Off*

Background Subtract: *Off*
Low CPM Threshold: *Off*
2 Sigma % Terminator: Off

Regions	LL	UL
A	0.0	156.0
E	4.0	156.0
C	0.0	0.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: *Off* Heterogeneity Monitor: *Off*
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
E				
C				

Cycle 1 Results

P#	S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES
21	1	2.00	25	27	44.14	292.08	
21	2	2.00	28	30	26.45	288.79	
21		2.00	16	19	16.21	297.85	
21	5	2.00	14	15	37.66	299.49	
21		2.00	21	23	35.27	299.43	
21	6	2.00	24	26	21.73	294.57	
21	7	2.00	20	22	32.57	294.05	
21		2.00	28	30	25.47	299.72	
21		2.00	27	28	31.96	293.94	

OK
1-9-07

21	10	2.00	29	31	31.41	297.90	11
21	11	2.00	24	26	19.78	295.24	12
21	12	2.00	22	23	30.72	293.92	13
21	13	2.00	26	28	24.12	293.63	14
21	14	2.00	21	23	17.28	290.36	15
21	15	2.00	19	20	35.98	296.34	16
21	16	2.00	25	27	30.38	297.52	17
21	17	2.00	22	24	25.90	295.73	18
21	18	2.00	21	22	29.30	293.02	19

OK
1-9-07

Wipe test of Tissue culture OCD K 5-15 **1/8/2007**

1 Blank
2 Top incubator top shelf
3 Top incubator second shelf from the, top.
4 Top incubator thirt shelf from the top
5 Top incubator fourth shelf from the top
6 Top incubator fifth shelf from the top
7 Top incubator knob of the glass door
8 Top incubator know of outside
9 Floor in front of the incubator
10 Bench left side: left on the incubator
11 Bench right side
12 Hood inside -left side
13 Hood inside -middle side
14 Hood inside -right side
15 Centrifuge outside
16 Bench next to the centrifuge
17 Floor
18
19
20

1-9-2007

Assay Definition-

Assay Description:

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Maryla\14C-Perfusion_Maryla\20070108_1503
Raw Results Path: C:\Packard\Tricarb\Results\Maryla\14C-Perfusion_Maryla\20070108_1503
\20070108_1503.results
Comma-Delimited File Name: C:\Packard\Tricarb\Results\Maryla\14C-Perfusion_Maryla\20070108
_1503\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\14C-Perfusion_Maryla.lsa

Count Conditions-

Nuclide: 14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 15 sec
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: 14C
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshoid: Off
2 Sigma % Terminator: Off

Regions	LL	UL
A	0.0	156.C
B	4.0	156.0
C	0.G	0.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Sampies: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Value	Reference Date	Reference Time
A				
E				
C				

Cycle 1 Results

P#	S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES
17	1	2.00	23	25	26.30	322.41	
17	2	2.00	21	23	36.04	[illegible]	
17	3	2.00	22	23	28.80	[illegible]	
17	4	2.00	16	17	29.85	[illegible]	
17	5	2.00	18	19	29.26	[illegible]	
17	6	2.00	26	26	27.99	[illegible]	
17	7	2.00	25	26	28.58	316.44	
17	8	2.00	17	18	33.34	311.24	
17	9	2.00		21	33.36	349.89	

ok
1-9-07

	10	2.00	20	21	27.07	313.09	11
17	11	2.00	18	19	34.83	311.45	12
17	12	2.00	18	19	30.23	310.15	13
17	13	2.00	21	23	34.39	307.88	14
17	14	2.00	26	28	30.04	304.17	15
17	15	2.00	20	21	32.29	313.94	16
17	16	2.00	17	18	33.99	307.16	17
17	17	2.00	17	18	27.99	309.10	18
17	18	2.00	18	19	25.72	305.92	19

ok

1-9-07

SNC Protocol

Calibration Information
Software Version IC: 2.11
Software Version EC: 2.02
Instrument Modei: Tri-Carb 3100TR
Instrument Serial Number: 424586
3H Chi Square: 18.36 Date Processed: 1/8/2007 5:27:40 PM
14C Chi Square: 17.05 Date Processed: 1/8/2007 5:27:40 PM
3H E^2/B (1-18.6 keV): 313.24 Date Processed: 1/8/2007 5:27:40 PM
14C E^2/B (4-156 keV): 606.59 Date Processed: 1/8/2007 5:27:40 PM
3H Efficiency (0-18.6 keV): 65.96 Date Processed: 1/8/2007 5:27:40 PM
14C Efficiency (0-156 keV): 95.12 Date Processed: 1/8/2007 5:27:40 PM
IPA Background Date Processed: 1/8/2007 5:27:40 PM
3H Background CPM (0-18.6 keV): 14.08 Date Processed: 1/8/2007 5:27:40 PM
14C Background CPM (0-156 keV): 20.27 Date Processed: 1/8/2007 5:27:40 PM
3H Calibration DPM: 283500
3H Reference Date: 5/5/2000
14C Calibration DPM: 135100

Health & Safety
Johnson & Johnson

Equipment Release Form - Instructions

The Equipment Release Form is used to communicate equipment decontamination status to employees or contractors coming to service, relocate, or dispose of laboratory equipment that may be contaminated with chemical, biological, or radiological materials. It is also used to communicate decontamination status of laboratory equipment that may be involved in renovation or construction activities. The form is not required for routine testing/certification of exposure control ventilation devices when such activity is performed by trained individuals.

The following instructions apply:

1. Requestor of service, relocation, or disposal assesses whether equipment could be potentially contaminated with chemical, biological, or radiological materials from previous use.

2. If contamination is possible, requestor must document the following (on the form):

    a. His/her name and telephone extension

    b. Background information:

        i. Equipment information
        ii. Potential contamination material(s) (all that apply)
        iii. Type of service to be performed (e.g., service/maintenance, disposal, relocation, etc.)
        iv. Method of decontamination
        v. Any additional information/instruction to those who will perform the activity
        vi. Person who performed decontamination activities (if different from requestor)

    c. Decontamination status

        i. If sufficient decontamination is not feasible/practical, the requestor must:

        - Attach appropriate warning labels (e.g., radioactive, biohazard symbols); Inform affected employees of remaining contamination and safe handling procedures; and
        - Contact Environmental, Health & Safety before releasing equipment from the area.

3. Radiological Contamination - Environmental, Health & Safety must approve the form in cases where radiological contamination is possible. The only exception is when equipment is serviced/maintained without removal from the area. Note that the form must still be completed in these instances.

4. If no hazard is present check none and sign the form.

5. Once the form is complete, the requestor must post it on the equipment to be serviced. In some cases: it may be easier to use one form for several pieces of equipment. This may be done where appropriate.

In all cases of potential contamination, service/maintenance, relocation; or disposal will not be performed unless a completed Equipment Release Form is posted on the equipment.

2

Equipment Release Form

This form shall be completed by the individual who requests service/maintenance, relocation, or disposal of equipment that may be contaminated with chemical, biological, or radiological materials. It shall also **be** completed before potentially contaminated equipment is involved in a renovation or construction activity

Requestor of Service, Relocation, or Disposal: Y. MARKOWSKA Phone Extension: 704-476J

BACKGROUND INFORMATION:

Equipment Location: OCD K 015 Date: 1-9-07

Type of Equipment: Steril Guard II Hood Asset #: ____

Potential Contaminants *(Check all that apply):*

☐ Chemical ☐ Biological ☐ Radioactive ☒ None

Activity to be performed *(Check appropriate* box):

☐ Service/Maintenance (**not** requiring removal of equipment from the **area)***
☐ Service/Maintenance (requiring removal of equipment from the area)*
☒ Relocation*
☐ Disposal*
☐ Renovation/Construction*

Method of Decontamination: equipment washed c mild [illegible] wash followed by [illegible], alcohol 70%, wipe test performed

Additional Information *(if applicable):* ____

Name of Person Decontaminating (if different from requestor): Y. MARKOWSKA **Phone Ext**: 476J

EQUIPMENT STATUS:

☐ EQUIPMENT **UNABLE** TO BE **SUFFICIENTLY** DECONTAMINATED - When decontamination is not feasible, decontaminate to the extent feasible and:

- Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
- Inform affected employees of remaining contamination and safe handling procedures; and
- Contact Environmental, Health & Safety before releasing equipment from the area.

☒ **EQUIPMENT** IS SUFFICIENTLY DECONTAMINATED FOR SERVICEIMAINTENANCE, RELOCATION, OR DISPOSAL.

[signature] [illegible]

signature of Requestor (or Authorized Radiation User for Radioactive Material Contamination)

[signature] 1/15/07

***Radiation** Safety Release Signature *(only required for equipment potentially contaminated with radioactive materials when such equipment will be removed from the area for service/maintenance, relocation, or disposal)*

POST THIS FORM ON THE EQUIPMENT

Radioactive Materials Survey – **Equipment/Room** Decommissioning

Date: 1/9/07

Name of **Individual(s)** Performing Survey: M. MARKOWSKA

Radioactive Isotopes Previously Used: 3-H and 14-C

Survey Performed: ☒ Equipment
Area within Room, Fixed Components in Room, Floor, etc.

Department: BALDWIN
Building: OCNK Room: 015 Floor: 1

Equipment (if applicable):

Equipment Description: Steel Hood Type II hood
Manufacturer: Baker Company
Model: SG600
Serial Number: 63572

Survey Description:
The hood has been washed w/ Radiac wash, a 7% [illegible] type test performed

Section One: Radiation Survey Equipment Records (complete all relevant sections)

Survey **Level Meter** Make, **Model** & Serial #: _____

Survey Probe Type, Model & Serial #: _____

Calibration Date: / /

Is the survey **level** meter and probe operating properly: ☐ Yes ☐ **No**

Gamma Counter Make: _____

Gamma Counter Model #: _____

Serial #: _____

Calibration Date: ___/___/___

Liquid Scintillation Counter Make: Tri-Carb 3100TR

Liquid Scintillation Model #: 3100TR

Serial #: 424586

Calibration Date: 1/8/07

All field notes, drawings and survey/sampling results shall be attached to this document please see attachment

AREA SKETCH/DESCRIPTION:

SURVEY RESULTS:

ID	Alpha	Beta	Gamma		ID	Alpha	Beta	Gamma
1.					11.			
2.					12.			
3.					13.			
4.					14.			
5.					15.			
6.					16.			
7.					17.			
8.					18.			
9.					19.			
10.					20.			

Section Two: Discussion

Have the survey and wipe test results been attached to this report?	☒ Yes	☐ No
Were **all** surveys performed less than two times background?	☒ Yes	☐ No
Were all wipe tests less than 200 **dpm/100 cm^2?**	☒ Yes	☐ No
Have these results been reviewed by the Radiation Safety Officer (RSO)?	☒ Yes	☐ No

Survey or **Surveyors Signature(s):** _____ Date: 1-9-07

Principal Radiation User Signature: _____ Date: 1-9-07

RSO Signature: _____ Date: 1/15/07

Note: Reference checklist entitled "Radioactive Materials Equipment/Room Decommissioning – General Checklist" once this results have been reviewed and determined to be acceptable by the RSO.

Radioactive Materials **Equipment/Room** Decommissioning – General Checklist

Has a radioactive materials survey of the piece of equipment, room, room area, etc. been conducted?	☒ Yes	☐ No
Is the survey report signed by the RSO and does **he/she** have a copy of the report?	☒ **Yes**	☐ No
Have all radioactive labels, stickers, **markings** or references thereto been removed?	☑ **Yes**	☐ No
Has all waste be disposed of as radioactive waste **and placed** into the proper radioactive waste stream (dry solid, liquid, etc)	☒ Yes	☐ No
Has the appropriate sign been posted to indicate the equipment or room area has been cleared and deemed free of radioactive contamination?	☒ Yes	☐ No

Final Closeout Items:

Has all radioactive waste been picked up and removed from the Laboratory (coordinate with Willie Montford x3104)	☒ **Yes**	☐ No
Have the radioactive signs **(i.e.** laboratory placards, door signs,). etc.) been removed and disposed of accordingly	☐ **Yes**	☐ No

charts-smock copy

Equipment Release Form

This form shall be completed by the individual who requests **service/maintenance**, relocation, or disposal of equipment that may be contaminated with chemical, biological, or radiological materials. It shall also be completed before potentially contaminated equipment is involved in a renovation or construction activity

Requestor of Service, Relocation, or Disposal: Relocation Phone Extension: 6406

BACKGROUND INFORMATION:

Equipment Location: bldg K-015 Date: 1/10/07

Type of Equipment: Incubator Asset #: 000975 2000

Potential Contaminants *(Check all that apply):*

☐ Chemical ☐ Biological ☑ Radioactive ☐ None

Activity to be performed *(Check appropriate box):*

☐ Service/Maintenance (**not** requiring removal of equipment from the area)
☐ Service/Maintenance (requiring removal of equipment from the area)*
☑ Relocation*
☐ Disposal*
☐ Renovation/Construction*

Method of Decontamination: wash with radiowash and perform swipe test

Additional Information *(if applicable):*

Name of Person Decontaminating (if different from requestor): Suzette Haney Phone Ext: 6406

EQUIPMENT STATUS:

☐ EQUIPMENT UNABLE TO BE SUFFICIENTLY DECONTAMINATED - When decontamination is not feasible, decontaminate to the extent feasible and:

Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
- Inform affected employees of remaining contamination and safe handling procedures; and
- Contact Environmental, Health & Safety before releasing equipment from the area.

☑ EQUIPMENT IS SUFFICIENTLY DECONTAMINATED FOR SERVICE/MAINTENANCE, RELOCATION, OR DISPOSAL.

Suzette Haney

Signature **of Requestor** (or Authorized Radiation User for Radioactive Material Contamination)

Suzette Smock 1/15/07

***Radiation** Safety Release Signature *(only requited for equipment potentially contaminated with radioactive materials when such equipment will be removed from the area for service/maintenance, relocation, or disposal)*

POST THIS FORM ON THE EQUIPMENT

Radioactive Materials Survey – **Equipment/Room** Decommissioning

Date: / 1 07

Name of **Individual(s)** Performing Survey: Suzette Haneef

Radioactive Isotopes Previously Used: C14, H3

Suwey Performed: ☑ Equipment
☐ Area within Room, Fixed Components in Room, Floor, etc.

Department: DMPK
Building: OCD Room: K015 Floor: 1st

Equipment (if applicable):

Equipment **Description:** Incubator
Manufacturer: Forma Scientific
Model: 3540
Serial Number: 38037-2147

Survey Description:
Incubator washed with radiowash to rid of contaminents then swipe test performed and results ran by scintillation counter.

Section One: Radiation Suwey Equipment Records (complete all relevant sections)

Suwey Level Meter Make, Model & Serial #: _____

Suwey Probe Type, Model & Serial #: _____

Calibration Date: / /

Is the **survey** level meter and probe operating properly: ☐ Yes ☐ No

Gamma Counter Make: _____

Gamma Counter Model #: _____

Serial #: _____

Calibration Date: ___/___/___

Liquid Scintillation Counter Make: Packard

Liquid Scintillation Model #: Tricarb 3100TR

Serial #: 424586

Calibration Date: 07 I I 05

All field notes, drawings and survey/sampling results shall be attached to this document

AREA SKETCH/DESCRIPTION: See attachment A

SURVEY RESULTS:

ID	Alpha	Beta	Gamma		ID	Alpha	Beta	Gamma
1.					11.			
2.					12.			
3.					13.			
4.					14.			
5.					15.			
6.					16.			
7.					17.			
8.					18.			
9.					19.			
10.					20.			

Section Two: Discussion

Have the survey and wipe test results been attached to this report?	☑ **Yes**	☐ **No**
Were all surveys performed less than two times background?	☑ **Yes**	☐ No
Were all wipe tests less than 200 **dpm/100 cm^2?**	☑ **Yes**	☐ No
Have these results been reviewed by the Radiation Safety Officer (RSO)?	☑ **Yes**	☐ No

Survey or Surveyors **Signature(s):** Suzette Haney **Date:** 1/10/07

Principal Radiation User **Signature:** _____ **Date:** 1-15-07

RSO Signature: C. Smith **Date:** 1/15/07

Note: Reference checklist entitled "Radioactive Materials Equipment/Room Decommissioning – General Checklist" once this results have been reviewed and determined to be acceptable by the RSO.

Radioactive Materials **Equipment/Room** Decommissioning – General Checklist

Has a radioactive materials survey of the piece of equipment, room, room area, etc. been conducted?	☑ **Yes**	☐ No
Is the **survey** report signed by the RSO and does **he/she** have a copy of the report?	☑ **Yes**	☐ No
Have all radioactive labels, stickers, **markings** or references thereto been removed?	☑ **Yes**	☐ No
Has all waste be disposed of as radioactive waste and placed into the proper radioactive waste stream (dry solid, liquid, etc)		☐ **No**
Has the appropriate sign been posted to indicate the equipment or room area has been cleared and deemed free of radioactive contamination?	☑ **Yes**	• No

Final Closeout Items:

Mas all radioactive waste been picked up and removed from the Laboratory (coordinate with Willie Montford x3104)	☑ Yes	☐ No
Have the radioactive signs **(i.e.** laboratory placards, door signs, etc.) been removed and disposed of accordingly	☑ **Yes**	☐ No

Assay Definition-

Assay Description:

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070110_1012
Raw Results Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070110_1012
\20070110_1012.results
Comma-Delimited File Name: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070110_
1012\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\14C-Uptake_Maryla.lsa

Count Conditions-

Nuclide: 14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: 14C
Count Time (min): 2.00
Count Mode: Normal
Assay count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL
A	**0.0**	**156.0**
B	4.0	156.0
C	**0.0**	**0.0**

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
E				
C				

Cycle 1 Results

P#	S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES
21	1	2.00	23	24	29.98	303.40	1 control (BLANK)
21	2	*2.00*	23	*24*	33.15	315.27	2 BOTTOM
21	3	2.00	*20*	*22*	31.42	312.25	3 Right Side
21	4	2.00	15	16	33.35	310.46	4 left side
21	5	2.00	19	21	29.31	*306.51*	5 1st shelf
21	6	2.00	17	18	40.63	309.56	6 2nd shelf
21	7	2.00	24	26	26.11	310.64	7 3rd shelf
21	8	2.00	14	15	40.43	304.69	8 4th shelf
21	9	2.00	15	18	39.32	310.55	9 door and knob

Curtis Smock copy

Equipment Release Form

This form shall be completed by the individual who requests servicelrnaintenance,relocation, or disposal of equipment that may be contaminated with chemical, biological, or radiological materials. It shall also be completed before potentially contaminated equipment is involved in a renovation or construction activity

Requestor of Service, Relocation, or Disposal: Relocation Phone Extension: 6406

BACKGROUND INFORMA'I'ION:

Equipment Location: OCD Bldg K015 Date: 1/10/07

Type of Equipment: Bio Hood Asset #: _____

Potential Contaminants *(Check all that apply):*

☐ Chemical ☐ Biological ☑ Radioactive ☐ None

Activity to be performed (Check *appropriate box):*

☐ Service/Maintenance (**not** requiring removal of equipment from the area)
☐ Service/Maintenance (requiring removal of equipment from the area)'
☑ Relocation*
☐ Disposal*
Renovation/Construction*

Method of Decontamination: equipment washed with radiowash and swipe test performed

Additional **Information** *(if applicable):* _____

Name of Person Decontaminating (if different from requestor): Suzette Henry **Phone Ext**: 6405

EQUIPMENT STATUS:

☐ EQUIPMENT **UNABLE** TO BE SUFFICIENTLY DECONTAMINATED -When decontamination is not feasible, decontaminate to the extent feasible and:

Attach appropriate warning labels (e.g., radioactive, biohazard symbols);
Inform affected employees of remaining contamination and safe handling procedures; and
Contact Environmental. Health 8 Safety before releasing equipment from the area.

☑ EQUIPMENT IS SUFFICIENTLY DECONTAMINATED FOR SERVICEIMAINTENANCE, RELOCATION, OR DISPOSAL.

Suzette Henry
Signature **of Requestor** (or Authorized Radiation User for Radioactive Material Contamination)

Curtis Smock 1/15/07
***Radiation Safety** Release **Signature** *(only required'for equipment potentially contaminated with radioactive materials when such equipment will be removed from the area for service/maintenance, relocation, or disposal)*

POST THIS FORM ON THE EQUIPMENT

Radioactive Materials Survey – **Equipment/Room** Decommissioning

Date: 1/01/07

Name of **Individual(s)** Performing Survey: Suzette Haney

Radioactive Isotopes Previously Used: C14

Survey Performed: ☑ Equipment
☐ Area within Room, Fixed Components in Room, Floor, etc.

Department: DMPK
Building: OCD

Room: K015 Floor: 1st

Equipment (if applicable):

Equipment Description: Bio Hood
Manufacturer: The Baker Company
Model: Steril Guard III Advance (SG603)
Serial Number: 81143

Survey Description:
Wash Hood w/ radi. and perform
simple rst

Section One: Radiation Suwey Equipment Records (complete all relevant sections)

Suwey Level Meter Make, Model & Serial #: _____

Suwey Probe Type, Model & Serial #: _____

Calibration Date: / /

Is the suwey level meter and probe operating properly: ☐ Yes ☐ No

Gamma Counter Make: _____

Gamma Counter Model #: _____

Serial #: _____

Calibration Date: ____/____/____

Liquid Scintillation Counter Make: Packard

Liquid Scintillation Model #: 3100 TR

Serial #: 4245860

Calibration Date: 07/ /05

All field notes, drawings and survey/sampling results shall be attached to this document

See attachment

AREA SKETCH/DESCRIPTION:

SURVEY RESULTS:

ID	Alpha	Beta	Gamma		ID	Alpha	Beta	Gamma
1.					11.			
2.					12.			
3.					13.			
4.					14.			
5.					15.			
6.					16.			
7.					17.			
8.					18.			
9.					19.			
10.					20.			

Section Two: Discussion

Have the **survey** and wipe test results been attached to this report?	☑ **Yes**	☐ No
Were all **surveys** performed less than two times background?	☑ **Yes**	☐ No
Were all wipe tests less than 200 **dpm/100** cm^2?	☑ **Yes**	☐ No
Have these results been reviewed by the Radiation Safety Officer **(RSO)?**	☑ **Yes**	☐ **No**

Suwey or Surveyors **Signature(s):** Suzette Henry Date: 1/10/07

Principal Radiation User Signature: [signature] **Date:** 1-15-07

RSO Signature: C Swak **Date:** 1/15/07

Note: Reference checklist entitled "Radioactive Materials Equipment/Room Decommissioning – General Checklist" once this results have been reviewed and determined to be acceptable by the RSO.

Assay Definition-

Assay Description:

Assay Type: DPM (Single)
Report Name: Report1
output Data Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070110_1057
Raw Results Path: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070110_1057
\20070110_1057.results
Comma-Delimited File Name: C:\Packard\Tricarb\Results\Maryla\14C-Uptake_Maryla\20070110_
1057\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\14C-Uptake_Maryla.lsa

Count Conditions-

Nuclide: 14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: 14C
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL
A	0.0	156.0
B	4.0,	156.0
C	0.0	0.0

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

P#	S#	Count Time	CPMA	DPMI	SIS	tSIE	MESSAGES
21	1	2.00	18	19	30.47	309.46	1 CONTROL
21	2	2.00	15	16	25.84	312.34	2 BOTTOM
21	3	2.00	13	13	34.64	310.19	3 BACKWALL
21	4	2.00	16	17	19.65	315.37	4 SHIELD
21	5	2.00	18	19	33.79	307.46	5 left and right sides