CFCLOGISTICS

P-8

June 6, 2005

Mr. John D Kinneman
United States Nuclear Regulatory Commission
Region I – Division of Nuclear Materials Safety
475 Allendale Road
King of Prussia, PA 19406-1415

Re: Final Decommissioning Report for License #37-30804-02 03036239

Dear Mr. Kinneman,

Please find the attached USNRC Form #314 (Attachment I) and enclosed documentation to terminate license #37-30804-02 and release all areas from restricted-access classification.

As demonstrated in this report, all radioactive sources have been accounted for and safely removed as well as the successful completion of all surveys. Therefore, proving there is no residual radioactive material remaining within the site.

As outlined in the decommissioning plan, a USNRC licensed vendor, MDS Nordion, verified the number of sources and removed them from the 4000 AM Drive facility. The inventory was verified through the use of two separate documents, the GRAY*STAR, Inc. loading pattern and Reviss inventory documents. (refer to Attachment II) The shipping of all radioactive material from Quakertown, PA to Ottawa, Canada has also been documented on the enclosed Bill of Ladings.

After the removal of all sources, MDS Nordion successfully inspected the following items: (refer to Attachment III, MDS Nordion Decommissioning Report & Forms)

- Pool Water
- Pool Surface
- DI Resin
- All Source Holders
- All Plenum Tubes
- Source Handling Tools
- Transport Containers

CFC LOGISTICS, INC
4000 AM Drive Quakertown, Pennsylvania 18951 (T) 215.529.3522 (F) 215.529.9512
www.cfclogistics.com

137121

NMSS/RGNI MATERIALS-002

A second vendor, RSO Inc., was used to verify the absence of radioactive material within the following filters: (refer to Attachment IV, RSO, Inc. Report of Sample Analysis)

- Three Pool Water Filters
- Two Plenum Air Filters

Once all equipment and water scan data was documented, the pool water was removed to gain access to the pool floor. A survey was performed around the top rim and bottom surface. This scan found no detectable radiation readings above normal background levels. (refer to Attachment V)

All source handling and support equipment have been accounted for and will be returned to the original manufacturer, CHL Systems, after final approval for their release has been granted by the USNRC.

After USNRC approves the termination of the CFC Logistics license, please return the financial assurance certificates for decommissioning to Mr. Jim Wood.

Sincerely,

Luke Trauger
Operations Manager / RSO

NRC FORM 314 (6-2004) 10 CFR 30.36(j)(1), 40.42(j)(1), 70.38(j)(1), and 72.54(j)(1)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0028 EXPIRES: 06/30/2007

Estimated burden per response to comply with this mandatory collection request: 30 minutes. This submittal is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0028), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

CERTIFICATE OF DISPOSITION OF MATERIALS

LICENSEE NAME AND ADDRESS
CFC Logistics
4000 AM Drive
Quakertown, PA 18951

LICENSE NUMBER: 37-30804-02
DOCKET NUMBER: 030-36239
LICENSE EXPIRATION DATE: August 31, 2013

A. LICENSE STATUS *(Check the appropriate box)*

[ ] This license has expired. [X] This license has not yet expired; please terminate it.

B. DISPOSAL OF RADIOACTIVE MATERIAL

(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)

The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:

[ ] 1. No radioactive materials have ever been procured or possessed by the licensee under this license.

[X] 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner.

[X] a. Transfer of radioactive materials to the licensee listed below:
MDS Nordion, Ottawa, Canada

[ ] b. Disposal of radioactive materials:

[ ] 1. Directly by the licensee:

[ ] 2. By licensed disposal site:

[ ] 3. By waste contractor:

[ ] c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.

C. SURVEYS PERFORMED AND REPORTED

[X] 1. A radiation survey was conducted by the licensee. The survey confirms:

[X] a. the absence of licensed radioactive materials

[ ] b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.

[X] 2. A copy of the radiation survey results:

[X] a. is attached; or [ ] b. is not attached (Provide explanation); or [ ] c. was forwarded to NRC on: _____ Date

[ ] 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and

[ ] a. The results of the latest leak test are attached; and/or [ ] b. No leaking sources have ever been identified.

The person to be contacted regarding the information provided on this form:

NAME	TITLE	TELEPHONE (Include Area Code)	E-MAIL ADDRESS
Jim Wood	President	215-368-2500 x8331	JWOOD@HGM.COM

Mail all future correspondence regarding this license to: Jim Wood

C. CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE	SIGNATURE	DATE
Luke Trauger RSO	[signature]	6/6/05

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

Cobalt-60 Loading Pattern For Genesis Irradiator(tm)

Total Activity: 938,300 curies

Pattern #3

2nd. Loading: Recommended by GRAY*STAR, Inc.

Decay Date: November 1, 2004

Total Number of Pencils: 82

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A (top):																
Source Number	15863EE	15563EE	15570EE		15865EE	17023EE	17071EE	17041EE	16935EE	17043EE	17115EE	17014EE		15862EE	15857EE	15573EE
Activity (curies)	9,800	10,200	10,300		10,700	11,700	11,800	11,900	11,900	11,800	11,700	11,700		10,300	10,200	10,100
Source Number	17118EE	17022EE	17089EE			17121EE	17120EE			17113EE	16963EE			17122EE	17088EE	17119EE
Activity (curies)	12,700	12,300	12,100			11,900	11,800			11,800	11,900			12,100	12,300	12,400
Source Number	15582EE	15566EE													15576EE	15694EE
Activity (curies)	11,000	10,300													10,500	10,700
Source Number	17086EE	16942EE													16939EE	17062EE
Activity (curies)	11,900	12,200													12,000	12,000
Holder Activity	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
B (middle):							17AF									
Source Number	16948EE	15564EE	15666EE	17114EE	17126EE		17071EE	15858EE	15693EE	17086EE		17005EE	17125EE	15572EE	15983EE	17108EE
Activity (curies)	12,000	10,300	10,400	11,800	11,700		12,000	10,600	10,600	12,000		11,700	11,800	10,400	10,400	12,000
Source Number		17069EE	17025EE											17103EE	17124EE	
Activity (curies)		11,900	12,000											12,000	11,800	
Holder Activity	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
C (bottom):																
Source Number	15578EE	15859EE	15689EE		17083EE	17010EE	17061EE	17112EE	17101EE	17046EE	15987EE	17067EE		17056EE	15864EE	15861EE
Activity (curies)	10,100	10,200	10,300		11,900	11,700	11,800	11,900	11,900	11,800	11,500	11,900		11,900	10,200	10,100
Source Number	17075EE	17072EE	17100EE			17123EE	17070EE			17013EE	17063EE			15571EE	17076EE	17106EE
Activity (curies)	12,400	12,300	12,100			11,900	11,800			11,800	12,100			10,400	12,300	12,400
Source Number	15696EE	15680EE													15575EE	15687EE
Activity (curies)	10,700	10,500													10,500	10,700
Source Number	17047EE	17107EE													17106EE	17065EE
Activity (curies)	12,000	12,000													12,000	12,000
Holder Activity	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PURIDEC
IRRADIATION TECHNOLOGIES

1st load

SOURCE LISTING FOR CFC LOGISTICS
CONTAINER NUMBER: 3750/06

1	15666EE	12.0
2	15689EE	11.9
3	15687EE	12.3
4	15696EE	12.3
5	15694EE	12.3
6	15693EE	12.2
7	15080EE	12.1
8	15983EE	12.0
9	15858EE	12.2
10	15857EE	11.8
11	15859EE	11.8
12	15863EE	11.1
13	15862EE	11.9
14	15861EE	11.7

OK

PURIDEC
IRRADIATION TECHNOLOGIES

1st Load

SOURCE LISTING FOR CFC LOGISTICS
CONTAINER NUMBER: 3750/07

[redacted]	[redacted]	[redacted]
1	15564EE	11.9
2	15582EE	12.7
3	15566EE	11.9
4	15570EE	11.9
5	15571EE	12.0
6	15572EE	12.0
7	15573EE	11.6
8	15575EE	12.1
9	15576EE	12.1
10	15578EE	11.6
11	15563EE	11.8
12	15864EE	11.8
13	15865EE	12.4
14	15987EE	13.3
[redacted]		

OK

PURIDEC
IRRADIATION TECHNOLOGIES

2nd Load

SOURCE LISTING FOR CFC LOGISTICS
CONTAINER NUMBER: 3750A/02

[illegible]	Source Number	[illegible]
1	17056EE	11.8
2	16963EE	11.9
3	16948EE	12.0
4	17014EE	11.6
5	17114EE	11.8
6	17013EE	11.8
7	17113EE	11.8
8	17112EE	11.8
9	17025EE	11.9
10	17108EE	11.9
11	17107EE	12.0
12	17106EE	12.0
13	17017EE	12.0
14	17022EE	12.2
15	17076EE	12.2
16	17072EE	12.3
17	17105EE	12.3
18	17075EE	12.4
[illegible]	[illegible]	[illegible]

PURIDEC
IRRADIATION TECHNOLOGIES

2nd Load

SOURCE LISTING FOR CFC LOGISTICS
CONTAINER NUMBER: 3750A/04

	Source Number	Current Source Activity (Curies)
1	17005EE	11.7
2	17043EE	11.7
3	17071EE	11.7
4	17061EE	11.7
5	17070EE	11.8
6	17046EE	11.8
7	17067EE	11.8
8	17041EE	11.9
9	17069EE	11.9
10	17066EE	11.9
11	17083EE	11.9
12	17047EE	11.9
13	17065EE	11.9
14	17062EE	12.0
15	17086EE	12.0
16	17063EE	12.0
17	17089EE	12.1
18	17088EE	12.3
	Total	212.0

OK

PURIDEC
IRRADIATION TECHNOLOGIES

2nd Load

SOURCE LISTING FOR CFC LOGISTICS
CONTAINER NUMBER: 3750A/05

[redacted]	[redacted]	[redacted]
1	17010EE	11.6
2	17115EE	11.7
3	17126EE	11.6
4	17023EE	11.7
5	17124EE	11.7
6	17125EE	11.7
7	17120EE	11.8
8	17123EE	11.8
9	17101EE	11.8
10	17121EE	11.9
11	16935EE	11.9
12	16939EE	12.0
13	17103EE	12.0
14	17122EE	12.0
15	17100EE	12.1
16	16942EE	12.2
17	17119EE	12.4
18	17118EE	12.7
[redacted]		

OK

STRAIGHT BILL OF LADING
ORIGINAL - NOT NEGOTIABLE

PAGE 1

SHIPMENT ID NUMBER
R200366/1

FREIGHT BILL PRO NO.
CARRIER USE

CARRIER NAME KRISKA TRANSPORT

CARRIER ADDRESS

SCAC DUNS

If Collect on Delivery shipments the letters

TRAILER / CAR NUMBER

TO:
Consignee MDS NORDION
Street 447 MARCH ROAD
OTTAWA, ONTARIO K2K 1X8
Destination (Code) CANADA
SECURITY #36905

ROUTE

FROM:
Shipper CFC LOGISTICS
Street 400 AM DRIVE
QUAKERTOWN, PA 18951
ATTN: LUKE TRAUGER
ZIP Origin TEL: 215-529-9522

SPECIAL INSTRUCTIONS
24 HOR EMERGENCY CONTACT #
MDS NORDION 613-592-2790

FOR PAYMENT SEND BILL TO:
Name
Street
City

SHIPPER'S INTERNAL DATA
TRUCK #2

SID NO.

SHIPPING UNITS	H/M	KIND OF PACKAGING, DESCRIPTION OF ARTICLES SPECIAL MARKS AND EXCEPTIONS	WEIGHT	RATE	CHARGES
3		CASES SO 200366 AVERAGE SURFACE HEAT FLUX EXCEEDS 15 W/M2 TARPS MAY BE REMOVED TO ALLOW FOR HEAT DISSIPATION. 11,117 KGS "RQ" RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE,7, UN2916 HIGHWAY ROUTE CONTROLLED QUANTITY COBALT 60, SPECIAL FORM, 12801 TBQ CHEMICAL FORM: ELEMENT PHYSICAL FORM: SOLID F168 #48 6347 TBQ, TRANSPORT INDEX: 5.5 F168 #52 6454 TBQ, TRANSPORT INDEX: 5.0 RADIOACTIVE YELLOW III CNSC CERT. CDN/2012/B(U), REV.21 US ENDORSEMENT USA/6306/B(U), REV.15 4, CLASS 7 PLACARDS REQUIRED 1 CASE INSTALLATION TOOLS (TB #3)			

COPY

REMIT C.O.D.
TO
ADDRESS

NOTE - Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by shipper to be not exceeding
$ PER KG

COD AMT:$

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Signature of Consignor

PREPAID
COLLECT X
TOTAL CHARGES $

FREIGHT CHARGES ALL PREPAID UNLESS MARKED COLLECT
CHECK BOX IF COLLECT

RECEIVED, SUBJECT TO THE CLASSIFICATION AND TARIFF OFFERED ON THE DATE OF THE ISSUE OF THIS BILL OF LADING, THE PROPERTY DESCRIBED ABOVE IN APPARENT GOOD ORDER, EXCEPT AS NOTED (CONTENTS AND CONDITION OF CONTENTS OF PACKAGES UNKNOWN), MARKED, CONSIGNED AND DESTINED AS INDICATED ABOVE WHICH SAID CARRIER (THE WORD CARRIER BEING UNDERSTOOD THROUGHOUT THIS CONTRACT AS MEANING ANY PERSON OR CORPORATION IN POSSESSION OF THE PROPERTY UNDER THE CONTRACT) AGREES TO CARRY TO ITS USUAL PLACE OF DELIVERY AT SAID DESTINATION, IN ON ITS ROUTE, OTHERWISE TO DELIVER TO ANOTHER CARRIER ON THE ROUTE TO SAID DESTINATION. IT IS MUTUALLY AGREED AS TO EACH CARRIER OF ALL OR ANY OF SAID PROPERTY OVER ALL OR ANY PORTION OF SAID ROUTE TO DESTINATION AND AS TO EACH PARTY AT ANY TIME INTERESTED IN ALL OR SAID PROPERTY, THAT EVERY SERVICE TO BE PERFORMED HEREUNDER SHALL BE SUBJECT TO ALL THE BILL OF LADING TERMS AND CONDITIONS IN THE GOVERNING CLASSIFICATION ON THE DATE OF SHIPMENT. SHIPPER HEREBY CERTIFIES THAT HE IS FAMILIAR WITH ALL THE BILL OF LADING TERMS AND CONDITIONS IN THE GOVERNING CLASSIFICATION AND SAID TERMS AND CONDITIONS ARE HEREBY AGREED TO BY THE SHIPPER AND ACCEPTED BY HIMSELF AND ASSIGNS.

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation.

SHIPPER	CARRIER
CFC LOGISTICS	KRISKA TRANSPORT
PER 5/19/05	PER DATE 05 MAY 19

* MARK WITH X OR RQ IF APPROPRIATE TO DESIGNATE HAZARDOUS MATERIALS OR HAZARDOUS SUBSTANCES AS DEFINED IN THE DEPARTMENT OF TRANSPORTATION REGULATIONS GOVERNING THE TRANSPORTATION OF HAZARDOUS MATERIALS. THE USE OF THIS COLUMN IS AN OPTIONAL METHOD FOR IDENTIFYING HAZARDOUS MATERIALS ON BILLS OF LADING PER SECTION 172.201(a)(1) (ii) OF TITLE 49, CODE OF FEDERAL REGULATIONS. ALSO, WHEN SHIPPING HAZARDOUS MATERIALS, THE SHIPPER'S CERTIFICATION STATEMENT PRESCRIBED IN SECTION 172.204(a) OF THE FEDERAL REGULATIONS MUST BE INDICATED ON THE BILL OF LADING, UNLESS A SPECIFIC EXCEPTION FROM THIS REQUIREMENT IS PROVIDED IN THE REGULATIONS FOR A PARTICULAR MATERIAL.

STRAIGHT BILL OF LADING
ORIGINAL - NOT NEGOTIABLE

PAGE 1

SHIPMENT ID NUMBER
R200366

FREIGHT BILL PRO NO.
CARRIER USE

CARRIER NAME KRISKA TRANSPORT

CARRIER ADDRESS

SCAC DUNS

Collect on Delivery shipments the letters

TRAILER / CAR NUMBER

TO: Consignee
MDS NORDION
447 MARCH ROAD
Street OTTAWA, ONTARIO K2K 1X8
CANADA
Destination (Code) SECURITY #36905

ROUTE

FROM: Shipper
CFC LOGISTICS
400 AM DRIVE
Street QUAKERTOWN, PA 18951
ATTN: LUKE TRAUGER
ZIP Origin TEL: 215-529-9522

SPECIAL INSTRUCTIONS
24 HOR EMERGENCY CONTACT #
MDS NORDION 613-592-2790

FOR PAYMENT SEND BILL TO:
Name
Street
City

SHIPPER'S INTERNAL DATA
TRUCK #1

SID NO.

SHIPPING UNITS	H/M	KIND OF PACKAGING, DESCRIPTION OF ARTICLES SPECIAL MARKS AND EXCEPTIONS	WEIGHT	RATE	CHARGES
3		CASES SO 200366 AVERAGE SURFACE HEAT FLUX EXCEEDS 15 W/M2 TARPS MAY BE REMOVED TO ALLOW FOR HEAT DISSIPATION GROSS WEIGHT: 16335 KGS. "RQ" RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE,7, UN2916 HIGHWAY ROUTE CONTROLLED QUANTITY COBALT 60, SPECIAL FORM, 19548 TBQ CHEMICAL FORM: ELEMENT PHYSICAL FORM: SOLID F168 #33 6302 TBQ, TRANSPORT INDEX: 5.0 F168 #42 6692 TBQ, TRANSPORT INDEX: 5.5 F168 #43 6554 TBQ, TRANSPORT INDEX: 6.0 RADIOACTIVE YELLOW III CNSC CERT. CDN/2012/B(U), REV. 21 US ENDORSEMENT USA/6306/B(U), REV. 15 4, CLASS 7 PLACARDS REQUIRED	COPY		

REMIT C.O.D.
TO
ADDRESS

NOTE - Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by shipper to be not exceeding
$ PER KG

COD AMT:$

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Signature of Consignor

PREPAID ☐
COLLECT ☒
TOTAL CHARGES $
FREIGHT CHARGES ALL PREPAID UNLESS MARKED COLLECT
CHECK BOX IF COLLECT ☐

RECEIVED, SUBJECT TO THE CLASSIFICATION AND TARIFF IF DIFFERED ON THE DATE OF THE ISSUE OF THIS BILL OF LADING, THE PROPERTY DESCRIBED ABOVE IN APPARENT GOOD ORDER, EXCEPT AS NOTED (CONTENTS AND CONDITION OF CONTENTS OF PACKAGES UNKNOWN), MARKED, CONSIGNED AND DESTINED AS INDICATED ABOVE WHICH SAID CARRIER (THE WORD CARRIER BEING UNDERSTOOD THROUGHOUT THIS CONTRACT AS MEANING ANY PERSON OR CORPORATION IN POSSESSION OF THE PROPERTY UNDER THE CONTRACT) AGREES TO CARRY TO ITS USUAL PLACE OF DELIVERY AT SAID DESTINATION, IN OR ITS ROUTE, OTHERWISE TO DELIVER TO ANOTHER CARRIER ON THE ROUTE TO SAID DESTINATION. IT IS MUTUALLY AGREED AS TO EACH CARRIER OF ALL OR ANY OF SAID PROPERTY OVER ALL OR ANY PORTION OF SAID ROUTE TO DESTINATION AND AS TO EACH PARTY AT ANY TIME INTERESTED IN ALL OR SAID PROPERTY, THAT EVERY SERVICE TO BE PERFORMED HEREUNDER SHALL BE SUBJECT TO ALL THE BILL OF LADING TERMS AND CONDITIONS IN THE GOVERNING CLASSIFICATION ON THE DATE OF SHIPMENT. SHIPPER HEREBY CERTIFIES THAT HE IS FAMILIAR WITH ALL THE BILL OF LADING TERMS AND CONDITIONS IN THE GOVERNING CLASSIFICATION AND THE TERMS AND CONDITIONS ARE HEREBY AGREED BY THE SHIPPER AND ACCEPTED BY HIMSELF AND ASSIGNS.

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation, according to applicable regulations of the Department of Transportation.

SHIPPER
CFC LOGISTICS
PER 5/19/05

CARRIER
KRISKA TRANSPORT
PER
DATE 05 MAY 19

MARK WITH X OR ROIE APPROPRIATE TO DESIGNATE HAZARDOUS MATERIALS OR HAZARDOUS SUBSTANCES AS DEFINED IN THE DEPARTMENT OF TRANSPORTATION REGULATIONS GOVERNING THE TRANSPORTATION OF HAZARDOUS MATERIALS. THE USE OF THIS COLUMN IS AN OPTIONAL METHOD FOR IDENTIFYING HAZARDOUS MATERIALS ON BILLS OF LADING PER SECTION 172.201 (a) (1) (ii) OF TITLE 49, CODE OF FEDERAL REGULATIONS. ALSO, WHEN SHIPPING HAZARDOUS MATERIALS, THE SHIPPER'S CERTIFICATION STATEMENT PRESCRIBED IN SECTION 172.204(a) OF THE FEDERAL REGULATIONS MUST BE INDICATED ON THE BILL OF LADING UNLESS A SPECIFIC EXCEPTION FROM THIS REQUIREMENT IS PROVIDED IN THE REGULATIONS FOR A PARTICULAR MATERIAL.

MDS Nordion *Voice: 613-592-3400 ext. 2524*
447 March Road *Fax: 613-591-7423*
Ottawa, Ontario, Canada K2K 1X8
www.mds.nordion.com

MDS Nordion

Science Advancing Health

To:	Mr. Luke Trauger CFC Logistics	**Date:**	Thursday, June 02, 2005
Sender:	Kevin O'Hara Senior Radiation Physicist	**Copy:**	Terry Kehoe Customer Quotation 2005118

Total # of pages including this page: 1

CFC Logistics, Quakertown, PA, USA - Irradiator Decommissioning Report

MDS Nordion has decommissioned CFC Logistics Category III Irradiator according to MDS Nordion internal procedure IN/OP 0165 Co60, 'Decommissioning Procedure for a Category IV Cobalt-60 Panoramic Wet Storage Gamma Irradiator'. The principles and philosophy of this procedure apply directly to a Category III irradiator.

All radiation sources were removed and returned to MDS Nordion. Eighty-two (82) sources totalling 938,300 Ci (as off 2004 Nov. 01) were shipped to MDS Nordion, which matches exactly with the number of sources that were in the irradiator.

The source rack and modules were wiped. All wipes were measured with a Bicron Surveyor 2000 pancake probe. All wipe contamination results indicated no detectable activity. Water samples were taken from the pool. All water samples were measured with a Multi-channel Analyzer. All water contamination results indicated no detectable activity. Resin samples were taken. All resin samples were measured with a Multi-channel Analyzer. All resin contamination results indicated no detectable activity.

Conclusion: All wipes, water and resin samples have been analyzed. All contamination results indicate no detectable activity. CFC Logistics Cat. III Irradiator, Quakertown, PA, USA is decommissioned. Since no detectable contamination was measured, CFC Logistics may choose to discharge the pool water into the sanitary sewage system (according to CFR 20.2003).

Sincerely,

K. O'Hara

Kevin O'Hara
Kevin P.J. O'Hara, Senior Radiation Physicist
Ion Technologies Business Unit, MDS Nordion Inc.
Tel: (613) 592-3400 Ext 2524
Fax: (613) 591-7423
email: kohara@mds.nordion.com
www.mds.nordion.com

ROUTINE WIPE TEST FOR CONTAMINATION AND LEAK TEST FORM

447 March Road, Kanata, Ontario, Canada K2K 1X8. Telephone: (613) 592-2790 Telefax: (613) 591-6815

Customer Information
Order No. 200366 Customer Name CFC Logistics
Customer's Location

Irradiator Type and Radiation Source Characteristics *Note: Initial all boxes*
Irradiator Type: non Nordion (e.g. JS-8900, GC-3000) Serial Number N/A Radiation Source Type: ^{60}Co AP or ^{137}Cs ☐

Wipe Test Details
Wipe Test Performed on:

1. Surface Tests
- ☐ Surface of Transport Package
- ☐ Category I & II Irradiators
- ☐ Plug and Cavity of Transport Package

2. Source Tests
- ☐ Underwater Source
- AP SOURCE HANDLING TOOLS
- AP OTHER: Decommission of Greystar Irradiator

(SPECIFY)

Description of Procedure Used: Initial One or more: ☐ J-Cloth AP Filter Paper ☐ Styrofoam ☐ Other:
Initial One or more: AP Wet Wipe AP Dry Wipe ☐ Other:

Survey Meter Details and Measurement Results
Survey Meter Make and Model: AP Bicron Surveyor 2000, with Pancake Probe ☐ Other (Specify)
Survey Meter S.N.: C5985 Calibration Expiry Date: Oct 22/04
Pancake Probe S.N.: B266G

Instrument Conversion Factor: **Source Tests**
825 cpm = 5 nCi (185 Bq) for ^{60}Co (see SE-CA-006 F1), or
N/A cpm = 5 nCi (185 Bq) for ^{137}Cs (see SE-CA-006 F1)

Background Reading: 35 cpm (A)
Gross Wipe Reading: 35 cpm (B)
Net Wipe Reading: 0 cpm (C) = (B) - (A). Choose the calculation I, or II.

1. Surface Tests

Wipe Test Results: AP Negative. Contamination < 0.4 Bq/cm². No further action is required. Retain all wipes for further testing.
☐ Positive. Contamination ≥ 0.4 Bq/cm². Outline initial corrective action on this form. Follow relevant SOP.

2. Source Tests

(I) Measured Removable Contamination = $\frac{\text{Net Wipe Reading (cpm)} \times 5\text{ nCi}}{\text{\_\_\_\_\_ cpm}}$ = ____ nCi Cobalt – 60

(II) Measured Removable Contamination = $\frac{\text{Net Wipe Reading (cpm)} \times 5\text{ nCi}}{\text{\_\_\_\_\_ cpm}}$ = ____ nCi Cesium – 137

Wipe Test Results: ☐ Negative. Contamination < 5 nCi. No further action is required. Retain all wipes for further testing.
☐ Positive. Contamination ≥ 5 nCi. Outline initial corrective action on this form. Follow relevant SOP.

ROUTINE WIPE TEST FOR CONTAMINATION AND LEAK TEST FORM

Initial the MDS Nordion Wipe Test Procedure Followed

☐ IN/IM 0273 Co60, Routine Wipe Test for the Detection of Radioactive Contamination for Submerged Cobalt 60 Source Assemblies

☐ IN/OP 0274 F000, Underwater Transport Package Unload Procedure (requires a separate form)

☒ IN/OP 0275 F000, Underwater Transport Package Load Procedure

☐ IN/OP 0276 CO60, Source Holder Load Procedure for a Wet Storage Irradiator

☐ IN/IM 0278 A000, Routine Wipe Test for ANSI Category I and II Irradiators (^{60}Co and ^{137}Cs)

☐ IN/OP 0282 F168, Procedure for the Receipt of an F-168 Transport Package

☐ IN/IM 0293 F000, Routine Wipe Test for the Detection of Radioactive Surface Contamination for a Type B(U) Transport Package

Reference Information Documents

1. IN/DS 0277 IR000, Radiation Survey Specification for Category III and IV Irradiators
2. IN/DS 0517 F168, Preparation for Shipment of the F-168 and F168-X Transport Packagings
3. IN/DS 1093 Z000, Information Document on Survey Meters use by MDS Nordion's Installation and Service Group
4. SE-CA-006, Calibration of a Detection System for the Measurement of Loose Contamination on Swipe

Standard Operating Procedure List and Proper Usage

1. Handling Tools Work Table - IN/IM 0273 Co 60
2. Source Rack - IN/IM 0273 Co 60
3. Building Survey - IN/DS 0277 IR000
4. Leak Test - IN/OP 0282 F168
5. Shipping Container and Inner Plug - IN/IM 0293 F000
6. Torque Specs and Return of Sources Procedure - IN/DS 0517 F168

Outline Initial Corrective Action (if required):

Corrective Action Taken by _____ (Name) _____ (Signature)

Corrective Action Performed on _____ (Date)

Wipe Test Performed by and Result Certified by A. Pallister (Name) [signature] (Signature)

Service Rep (Title) May 17/05 (Date)

For MDS Nordion Internal Use Only

Measurement Result Confirmed by [illegible] (Name) [illegible] (Signature)

MEASUREMENT RESULT CONFIRMED ON [illegible] (DATE)

ROUTINE WIPE TEST FOR CONTAMINATION AND LEAK TEST FORM

447 March Road, Kanata, Ontario, Canada K2K 1X8. Telephone: (613) 592-2790 Telefax: (613) 591-6815

Customer Information
Order No. 200366 Customer Name CFC Logistics
Customer's Location

Irradiator Type and Radiation Source Characteristics *Note: Initial all boxes*
Irradiator Type: Non Nordion (e.g. IS-3000, GC-3000) Serial Number N/A Radiation Source Type: ^{60}Co ☐, or ^{137}Cs ☐ AP

Wipe Test Details
Wipe Test Performed on:

1. Surface Tests
- ☐ Surface of Transport Package
- ☐ Category I & II Irradiators
- ☐ Plug and Cavity of Transport Package

2. Source Tests
- ☐ Underwater Source
- ☐ SOURCE HANDLING TOOLS
- ☐ OTHER: _____

(SPECIFY)

Description of Procedure Used: Initial One or more: ☐ I-Cloth ☐ Filter Paper ☐ Styrofoam ☐ Other: _____ AP
Initial One or more: ☐ Wet Wipe ☐ Dry Wipe ☐ Other: _____

Survey Meter Details and Measurement Results
Survey Meter Make and Model: ☐ Bicron Surveyor 2000, with Pancake Probe ☐ Other _____(Specify) AP
Survey Meter S.N.: C598E Calibration Expiry Date: Oct 22/04
Pancake Probe S.N.: B2666

Instrument Conversion Factor: **Source Tests**
825 cpm = 5 nCi (185 Bq) for ^{60}Co (see SE-CA-006 F1), or
N/A cpm = 5 nCi (185 Bq) for ^{137}Cs (see SE-CA-006 F1)

Background Reading: 35 cpm (A)
Gross Wipe Reading: 35 cpm (B)
Net Wipe Reading: 0 cpm (C) = (B) - (A). Choose the calculation I. or II.

1. Surface Tests

Wipe Test Results: ☐ Negative. Contamination < 0.4 Bq/cm². No further action is required. Retain all wipes for further testing. AP
☐ Positive. Contamination ≥ 0.4 Bq/cm². Outline initial corrective action on this form. Follow relevant SOP.

2. Source Tests

(I) Measured Removable Contamination = $\frac{\text{Net Wipe Reading (cpm)} \times 5\text{ nCi}}{\_\_\_\_\_\text{cpm}}$ = ____ nCi Cobalt – 60

(II) Measured Removable Contamination = $\frac{\text{Net Wipe Reading (cpm)} \times 5\text{ nCi}}{\_\_\_\_\_\text{cpm}}$ = ____ nCi Cesium – 137

Wipe Test Results: ☐ Negative. Contamination < 5 nCi. No further action is required. Retain all wipes for further testing.
☐ Positive. Contamination ≥ 5 nCi. Outline initial corrective action on this form. Follow relevant SOP.

ROUTINE WIPE TEST FOR CONTAMINATION AND LEAK TEST FORM

Initial the MDS Nordion Wipe Test Procedure Followed

- ☐ IN/IM 0273 Co60, Routine Wipe Test for the Detection of Radioactive Contamination for Submerged Cobalt 60 Source Assemblies
- ☐ IN/OP 0274 F000, Underwater Transport Package Unload Procedure (requires a separate form)
- ☑ IN/OP 0275 F000, Underwater Transport Package Load Procedure
- ☐ IN/OP 0276 CO60, Source Holder Load Procedure for a Wet Storage Irradiator
- ☐ IN/IM 0278 A000, Routine Wipe Test for ANSI Category I and II Irradiators (^{60}Co and ^{137}Cs)
- ☐ IN/OP 0282 F168, Procedure for the Receipt of an F-168 Transport Package
- ☐ IN/IM 0293 F000, Routine Wipe Test for the Detection of Radioactive Surface Contamination for a Type B(U) Transport Package

Reference Information Documents

1. IN/DS 0277 IR000, Radiation Survey Specification for Category III and IV Irradiators
2. IN/DS 0517 F168, Preparation for Shipment of the F-168 and F168-X Transport Packagings
3. IN/DS 1093 Z000, Information Document on Survey Meters use by MDS Nordion's Installation and Service Group
4. SE-CA-006, Calibration of a Detection System for the Measurement of Loose Contamination on Swipe

Standard Operating Procedure List and Proper Usage

1. Handling Tools Work Table - IN/IM 0273 Co 60
2. Source Rack - IN/IM 0273 Co 60
3. Building Survey - IN/DS 0277 IR000
4. Leak Test - IN/OP 0282 F168
5. Shipping Container and Inner Plug - IN/IM 0293 F000
6. Torque Specs and Return of Sources Procedure - IN/DS 0517 F168

Outline Initial Corrective Action (if required):

Corrective Action Taken by _____ (Name) _____ (Signature)

Corrective Action Performed on _____ (Date)

Wipe Test Performed by and Result Certified by A J Pollister (Name) [signature] (Signature)

Service Rep (Title) May 18/05 (Date)

For MDS Nordion Internal Use Only

Measurement Result Confirmed by _____ (Name) _____ (Signature)

MEASUREMENT RESULT CONFIRMED ON _____ (DATE)

Radiation Service Organization

RSO, Inc.

June 6, 2005

Luke Trauger
CFC Logistics
4000 AM Drive
Quakertown, PA 18951

Re Gamma Spectrum Analysis of Air and Water Filters

Dear Mr. Trauger,

RSO is please to provide you with the gamma spectrum analysis for the filter samples that was received by our lab on 5/23/05 (RSO job number 2005-554)

Method
The gamma spectrum analysis was conducted by using RSO's high purity germanium counting system. A NIST traceable mixed gamma standard in a 500-ml marinelli beaker configuration was used for both the energy and efficiency calibration of the counting system. Each filter was placed directly on top of the detector and a 15 minute gamma spectrum was collected. The gamma spectrum was analyzed by using Canberra Genie 2000 spectroscopy software and was compared to a library comprised of naturally occurring isotopes and other common isotopes (which included Co-60)

Results

See enclosed report of sample analysis.

Conclusions
In all five spectrums, no gamma lines were identified. For each spectrum, the Genie 2000 spectroscopy software calculated the minimum detectable concentration (MDC) values for each isotope in the library using the spectral data for each sample and the efficiency calibration. The Co-60 MDCs were reported on the enclosed analysis report. These sample results could be used as an indirect leak test. The results should provide reasonable assurance that none of the Co-60 sources had leaked any more than 0.005 uCi out of the system This assurance can be based on the sensitivity of this analysis reflected in the MDCs, the volume of air or water that passed through the filters and the efficiency of the filters for collection of Co-60 contaminants. Since the activity concentrations in all five sample were below the stated MDC values, the total activates in each would be at least an order of magnitude less that the 0.005 uCi leak test limit.

Thank you for this opportunity to be of service. If you have any questions please do not hesitate to contact me.

Sincerely,

David Bisson, CHP
Manager, Radiation Safety Services

Enclosures

DB

P.O. Box 1450, Laurel, Maryland 20725-1450
Washington (301) 953-2482 Fax (301) 498-3017 Baltimore (410) 792-7444

RSO, Inc.
Report of Sample Analysis

Job: CFC Logistics Irradiation

Job No : 2005-554

Sample Analysis: HPGe Gamma Spectroscopy

Equipment: RSO HPGe
Canberra Genie 2000
Spectroscopy Software

Analysis Date(s): 5/31/2005

Report Date: 5/31/2005

	Sample ID	Count Time (minutes)	Sample Size	Sample Matrix	Co-60 Activity Concentration pCi/g	Co-60 MDC pCi/g	Comment
1	Water Filter #1	15	687 g (Dry Weight)	Filter	< MDC	0.10	
2	Water Filter #2	15	617 g (Dry Weight)	Filter	< MDC	0.01	
3	Water Filter #3	15	221 g (Dry Weight)	Filter	< MDC	0.23	
4	Air Filter Red	15	27 g	Filter	< MDC	1.70	
5	Air Filter Brown	15	53 g	Filter	< MDC	0.67	

Error term shown is counting error only at the 2 sigma confidence level.

Prepared by: _____ 5/31/05
Signature David Bisson, Manager Radiation Safety Services Date

Reviewed by _____ CHP 5/31/05
Signature Date

Att David Bissen

RSO, Inc. CHAIN OF CUSTODY / SAMPLE INFORMATION FORM

5204 Minnick Road • Laurel, Maryland 20707 • 301-953-2482 • 410-792-7444 • FAX 301-498-3017

NAME: Luke Tranger/CFC Logistics	CONTRACT/P.O. NUMBER: 61345	(LAB USE ONLY)
ADDRESS: 4000 AM DRIVE	SAMPLE TURNAROUND TIME: 1 week	LAB CONTROL #:
Quakertown PA 18951	PROJECT NAME/#: Decommissioning	REVIEWED BY:
CONTACT: Luke Tranger	COMMENTS:	SAMPLER: L. Tr
PHONE 215-529-9522 FAX 215-529-9512		

SAMPLE ID	SAMPLE LOCATION	MATRIX	CONTAINER DESCRIPTION	# of CONTAINERS	DATE	TIME	ANALYSIS REQUIRED/COMMENTS
1	Water filter 1						Gam Ga: Co-60
2	water filter 2						"
3	water filter 3						"
4	Air filter Roof						"
5	Air filter Basem						"
							"

TRANSFERRED BY	RECEIVED BY	DATE	TIME	REMARKS:
[signature]	R Simons @ RSO Inc	5/23/05	10:05	
TRANSFERRED BY	RECEIVED BY	DATE	TIME	
TRANSFERRED BY	RECEIVED BY	DATE	TIME	

Irradiator Decommissioning Survey

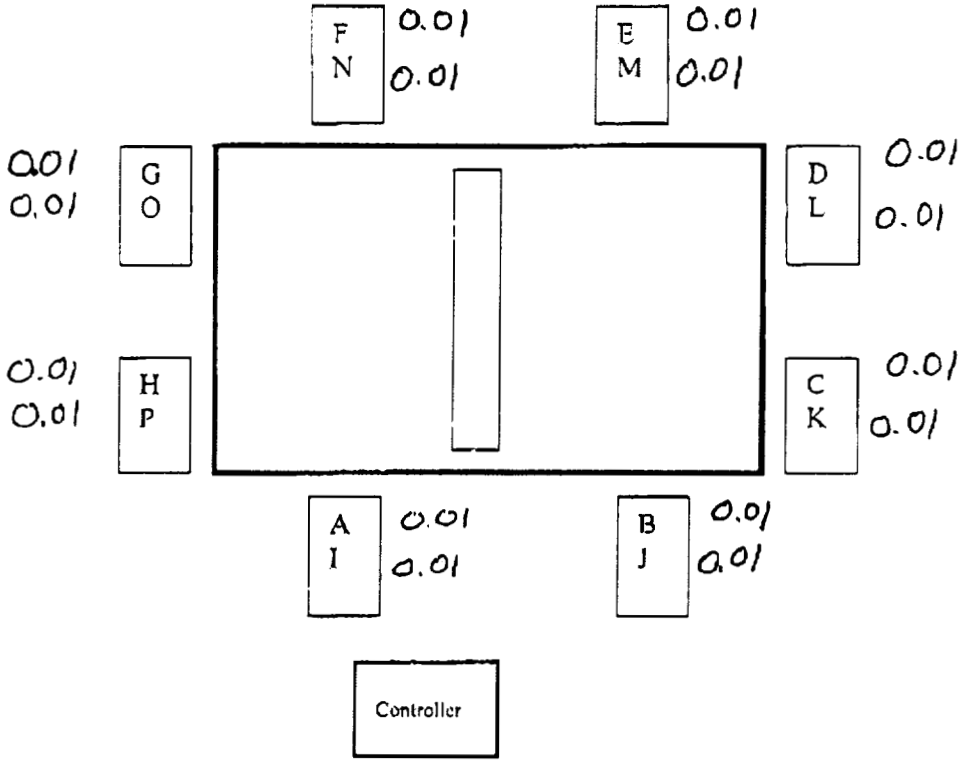
Meter Model # Ludlum 3 Probe Model # 44-38
Meter SN 193829 Probe SN PR 198897
Calibration Date: 3/7/05 Due: 3/7/06

Background Reading: 0.01 mR/hr

Name: Luke Tranger
Sign / Date : [signature] 6/6/05

A - H: Pool Rim
I – P: Pool Bottom

All Readings in mR/hr.



RSO, Inc.
P.O. Box 1450
Laurel, MD 20725
(301) 953-2482

Certificate of Calibration

RSO Job No. 5577

ISSUED TO: CFC Logistics
4000 AM Drive
Quakertown, PA 18951

INSTRUMENT: LUDLUM
MODEL: 3
TYPE: RATEMETER
SN: 193879

CONTACT: Luke Trauger
PHONE: (215) 529-9512

PO NO:

RSO, Inc. certifies that on 03/07/2005 the above described instrument was calibrated in a known radiation field using 137 Cs (662 keV) beam calibrator (J.L. Shepherd Model 28-6A, S/N 10056). Electronically pulsed using Ludlum 500,S/N 24781.

The results are tabulated below. Calibration is traceable to NIST.

Calibration Data

	RANGE	EXPECTED	OBSERVED		C.F.
X	0.1	0.05	0.05 *	mR/hr	1.00
		0.15	0.15 *	mR/hr	1.00
X	1	0.6	0.6	mR/hr	1.00
		1.5	1.5	mR/hr	1.00
X	10	5	5	mR/hr	1.00
		15	15	mR/hr	1.00
X	100	50	46	mR/hr	1.09
		150	150	mR/hr	1.00
			C.F. AVERAGE		1.01

* Electronically pulsed

Probe type(s) Probe1: SWGM Probe2: Probe3:

MODEL	SER#	WINDOW	GEOMETRY	VOLT	ISOTOPE 1	EFF.(%)	ISOTOPE 2	EFF.(%)	ISOTOPE 3	EFF.(%)	ISOTOPE 4	EFF.(%)
44-38	PR198897	CLOSED	PERPEND.	900								

INSTRUMENT CHECKS

1 mR/hr CHECK: N/A
BATTERY CHECK: NORMAL
CHECK SOURCE 1: N/A READING:
CHECK SOURCE 2: N/A READING:

ENVIRONMENTAL

TEMP: 20°C
PRESS: 754 mmHg
HUMID: 38 %

THE SUGGESTED RECALIBRATION DATE FOR THIS INSTRUMENT IS 03/07/2006

Calibrated By Richard Ramsey Reviewed By: Cal Date: 03/07/2005

Maryland License MD-33-021-01

11629

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

6/6/2005, and to inform you that the initial processing which includes an administrative review has been performed.

Termination 37-30804-02

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

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

_____.

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

Your action has been assigned **Mail Control Number** 137121.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03521
Status Code: 0
Fee Category: 3G
Exp. Date: 20130831
Fee Comments: _____
Decom Fin Assur Reqd: Y

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED
   Applicant/Licensee: CFC LOGISTICS, INC.
   Received Date: 20050606
   Docket No: 3036239
   Control No.: 137121
   License No.: 37-30804-02
   Action Type: Termination

2. FEE ATTACHED
   Amount: /
   Check No.: _____

3. COMMENTS

Signed [signature]
Date 6/7/2005

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /__/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:
   Amendment _____
   Renewal _____
   License _____

3. OTHER _____
   _____

Signed _____
Date _____