

Roldan, Lizette

From: Roldan, Lizette
Sent: Friday, August 12, 2011 9:56 AM
To: 'graham.richardv@epa.gov'
Subject: REQUEST FOR ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT CONTROL 575508

License No: 05-14892-02
Docket No.: 030-08754
Control No.: 575508

Dear Dr. Graham:

This is in reference to your letter received June 23, 2011 requesting an amendment to Nuclear Regulatory Commission License 05-14892-02. In order to continue our review, we need the following information:

1. Please confirm if you are requesting to remove 401 Park Avenue, West, Denver, Colorado from the license.
2. If you are requesting to remove the aforementioned location from the license, please submit the most recent inventory and leak test for all sealed sources used or stored at the location.
3. Please submit the manufacturer and model for the sealed sources you possess that use Cesium-137 and Americium-241 (i.e. for all gas chromatographs or other instruments that contain these isotopes). Please be specific in terms of isotope.
4. Please submit a maximum possession limit for all of the calibration sources listed on the license (i.e., Cesium-137, Cobalt-60 and Strontium-90).

Please reply to my attention at the Region IV Office and refer to Mail Control No. 575508. Please respond to this e-mail by September 12, 2011. You may reply via e-mail as long as you attach the document in a PDF format or by fax to 817-860-8263. If you have any questions you may call me at 817-276-6596 or email.

Sincerely,

Lizette Roldán-Otero, Ph.D.

Health Physicist
Nuclear Regulatory Commission
612 E. Lamar Blvd., Suite 400
Arlington, TX 76011
Office: 817-276-6596
Fax: 817-860-8263



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
<http://www.epa.gov/region08>

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SEP 12 2011

Ref: License No.: 05-14892-02
Docket No.: 030-08754
Control No.: 575508

DNMS

Dear Dr. Roldan-Otero:

Thank you for your reply dated August 12, 2011 regarding EPA Region 8's radioactive materials license amendment request. Let me respond to each of your queries individually:

1. Please confirm if you are requesting to remove 401 Park Avenue, West, Denver, Colorado from the license.

Yes, GSA terminated our lease for the warehouse at the Park Avenue address and moved our emergency response contractors to the address previously submitted on June 23, 2011. That location is: 555 W. 48th Avenue, STE# D, Denver, Colorado, 80210.

2. If you are requesting to remove the aforementioned location from the license, please submit the most recent inventory and leak test for all sealed sources used or stored at the location.

See attached document of inventory and date of wipe tests in Attachment 1. Radioactive materials and sources kept at the EPA Region 8 laboratory are shown in Attachment 2. Sealed sources for the GC/MS are shown in Attachment 3.

The sealed sources at the emergency response warehouse are primarily check sources associated with their respective radiation scanning meter. Other sources are at the EPA Region 8 laboratory (GC/MS instruments).

If you need individual wipe test confirmation please let me know as I will have to scan/fax each of the results to you.

3. Please submit the manufacturer and model for the sealed sources you possess that use Cesium-137 and Americium-241 (i.e. for all gas chromatographs or other instruments that contain these isotopes). Please be specific in terms of isotope.

See attached document. The below information comes from the inventory table:

No 5 7 5 5 0 8

<u>MANUFACT.</u>	<u>MODEL</u>	<u>S/N</u>	<u>SOURCE</u>
EBERLINE	BC-4	653	Cs-137 5uCi External Check Source
EBERLINE	BC-4	649	Cs-137 5uCi External Check Source
LUDLUM	Model 12	59822	Cs-137 1uCi External Check Source
LUDLUM	Model 12	65267	Cs-137 1uCi External Check Source
LUDLUM	Model 12	66619	Cs-137 1uCi External Check Source
LUDLUM	Model 12	59819	Cs-137 1uCi External Check Source
LUDLUM	Model 12	65313	Cs-137 1uCi External Check Source
LUDLUM	Model 19	62558	Cs-137 1uCi External Check Source
LUDLUM	Model 19	101629	Cs-137 1uCi External Check Source
LUDLUM	Model 19	69354	Cs-137 1uCi External Check Source
LUDLUM	Model 19	51859	Cs-137 1uCi External Check Source
LUDLUM	Model 2241-2	219188	Cs-137 1uCi External Check Source

SAM-935

Spectrum Tech.	RSS-5	Cs-137 5uCi External Check Source
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4. Please submit a maximum possession limit for all of the calibration sources listed on the license (i.e., Cesium-137, Cobalt-60 and Strontium-90).

Maximum possession limit for all calibration sources on the license:

Cesium-137

Warehouse

13 μ Ci (481 kBq)

EPA Regional Laboratory

46 uCi (1702 kBq)

Cobalt-60

Warehouse

2 μ Ci (74 kBq)

EPA Regional Laboratory

< 0.1 uCi (Oxford exempt quantity)

Strontium-90

Warehouse

0.101 μ Ci (3.7 kBq)

EPA Regional Laboratory

0.1 uCi (3.7 kBq)

Americium-241

Warehouse

0 μ Ci (0 kBq)

EPA Regional Laboratory

0.3 nCi (731 dpm—as of 3/1984) on
 planchet-secondary standard
 (0.01 kBq)

5. Any questions or clarifications regarding these questions can be directed back to myself, Dr. Richard Graham, EPA Region 8 Radiation Safety Officer, at (303) 312-7080 or at graham.richardv@epa.gov. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to be 'R. V. Graham', written in a cursive style.

Richard V. Graham, PhD
EPA Region 8 RSO

Attachment 1. EPA Region 8 Response Warehouse Radioactive Materials Inventory.



ID 1 = External sealed check source
ID 2 = Internal sealed and protected radiation source
This list does not include radiation monitoring equipment which does not contain either an internal or external radiation source.

Attachment 2. EPA Region 8 Laboratory Radioactive Materials Inventory.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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ATTACHMENT
2

Ref: Radiation Sources/Radiation Materials Inventory
EPA Region 8 Golden Laboratory

Reviewed and Updated:

Date: June 9, 2011

Item Description	Activity	Additional Information
Am-241	14.5cpm (12.85 cpm on 5.16.11) ~70 pCi on planchet- Secondary standard	Petri dish (1/24/84) 1st shelf
Am-241	0.3 nCi (731dpm) ORP-LVF	Received 3/84; Std #6 Top shelf
Mill tailings	EMSL Std #00875 10g	10g in scintillation vial 1st shelf
Pitch Blend	EMSL Std #08577 10g-mill tailings	10g in scintillation vial Top shelf
Pitch Blend	EMSL Std #08742 (1/4/1983)	10g in scintillation vial Top shelf
Ra-226 standards (3)	25 pCi (each)--- Total: 75 pCi	White powder in plastic vial 1st shelf
Ra-226	7 nCi-NMC Check Source	Lot#7956 9/28/79 Top shelf
Ra-226 (liquid 2° stds)	976.1 pCi/mL - (2/12/74) 1318 pCi/mL - (2/12/74) 9.8 pCi/mL - (8/13/73) 0.98 pCi/mL - (2/11/74) 49.5 pCi/mL - (5/26/76) 976.1 pCi/mL - (2/12/74) 1317.9 pCi/mL - (9/1/73)	Paint can outer container dated: 2/74 Top shelf



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No 5 7 5 5 0 8

ITEM DESCRIPTION	ACTIVITY	ADDITIONAL INFORMATION
Cs-137	10 μ Ci	Dosimeter calibrator S/N:267-310 (3.18.1982) 3d shelf
Uranium oxide	unknown	Petri dish; #7 DFC secondary standard--- Top Shelf
Ra-226	5 μ Ci: Source #: R-105 2/14/1964 S/N: 473	Check source 4th shelf
Pb-210 (2) Pb-210 (1)	0.005 μ Ci / 0.01 μ Ci total 0.0047 μ Ci (S/N:8016; 1980)	Planchet-Check sources 3 total (Gold Standard) 72NMC 1983 Top shelf
Po-210	Unknown	Baird-Atomic (ES-1) Top shelf
Ba-133	1.15 μ Ci	Check source (NEN 1/13/86) 2d shelf
Uranium Waste Rock	70 μ R/hr max @ 1'	1/4 lb 4th shelf
Ra standards (8 total) Radium (analytical grade)	Total 390 nCi 5.12 pCi/g	8 liquid standards Powder Top shelf
Radium 226 check sources (2)	3374 dpm on May, 1989	Pylon # 3150 Check sources S/N: 248+236 Top shelf
2-Radium Invigertors		Radon in water coolers 4th shelf
Cs-137 check sources (3 each)	3.78 μ Ci ea.	(2) - #CS-7A {Eberline Instrument Company}; (1) - #CS-7 (all exempt quantity} 7/73 2d shelf
Cs-137 (2 ea)	10 μ Ci	EPA/8/#2; exempt quantity 2d shelf

ITEM DESCRIPTION	ACTIVITY	ADDITIONAL INFORMATION
Cs-137 Check Source	5 μ Ci	Received 7/73; CS-7A-Eberline; Exempt quantity Top shelf
Cs-137 Check Source	0.46 μ Ci	S/N:62-213; 12/5/67 Top shelf
Pb-210	<0.1 μ Ci	Cloud chamber source; Jan 1996 Exempt quantity 2d shelf
Ra-226 Ra-226	1 μ Ci 15.12 pCi/g	#7956NMC STD#15; white powder, unknown weight
Tc-99 (3)	2, 170 cpm (7/20/1973) 2542 dpm 12/18/1981 12050dpm (4/85)	Lot # 114/70; Eberline Check sources Planchet (CS-13) 2ea. 2d shelf
Th 230 Standard	Alpha-905 cpm Beta-299 cpm (3/85)	Planchet (CS-12) 3d shelf
Bi 210	0.0239 μ Ci	NEN standard --- 4/11/1978 2d shelf
Th 230 (2)	2550 dpm 19400 dpm	EPA planchet stds (EPA/8 #1 and #2) #10376, #10377 3/1985 3d shelf
Uranium Liquid Standard ChemChek Standards	997 +/- 2 μ g/mL	Custom Grade Standard (CGU1-1; PSS124-47) Inorganic Ventures, Inc. Lot # Y-QU01075 2d shelf—under Chemchek Uraplex
Uranium Liquid Standard ChemChek Standards	1001 +/- 1 μ g/mL	Custom Grade Standard (CGU1-1; PSS107-158) Inorganic Ventures, Inc. Lot # T-U01056 2d shelf-- under Chemchek Uraplex
Uranium Liquid Standard ChemChek Standards	997 +/- 2 μ g/mL	Custom Grade Standard (CGU1-1; PSS107-226) Inorganic Ventures, Inc. Lot # X-U01061 2d shelf-- under Chemchek Uraplex
Thorium Liquid Standard ChemChek Standards	998 +/- 3 μ g/mL	Custom Grade Standard (CGTh1-1; PSS124-44) Inorganic Ventures, Inc. Lot # X-Th01064 2d shelf-- under Chemchek Uraplex

ITEM DESCRIPTION	ACTIVITY	ADDITIONAL INFORMATION
Co-60	<0.1 μ Ci	Oxford check source; exempt quantity 2d shelf
Tl-204 Check Source	1 μ Ci	Unk receipt; half-life = 3.6yrs 2d shelf
Sr-90	0.1 μ Ci	Oxford; exempt 2d shelf
Uranium-238	10,000 dpm 1 – CS#8 2 – RS# 478 (S/N: 713)	CHECK SOURCES 10,000 dpm 2d shelf
Thorium Liquid Standard ChemChek Standards	996 +/- 3 μ g/mL	Custom Grade Standard (CGTh1-1; PSS107-224) Inorganic Ventures, Inc. Lot # W-Th01063 2d shelf

Attachment 3. EPA Region 8 Laboratory Inventory Ni-63 Detectors.

ATTACHMENT
3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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SEP 12 2011

Ref:8TMS-L

MEMORANDUM

DNMS

TO: Richard Graham, Radiation Safety Officer
Office of Pollution Prevention, State and Tribal

FROM: Gregory J. Saunders, Environmental Scientist

SUBJECT: Inventory of GC, Ni⁶³ ECD Detectors

Current inventory of Ni⁶³ ECD detectors on
NRC License #: 05-14892-02 Expiration date July 31, 2015 Docket No. 030-08754

1. VICI (Valco Instruments Co. Inc.) portable ECD.
Model SRI 8610-20 GC, SN #480, EPA #869189,
(portable gas chromatograph).
Model 140BN, ECD Ni⁶³, S/N N314, 5mCi, 9/27/90.
Foil No. 6655.2
Location: 16194 W. 45th Drive, Golden, CO 80403-1790,
Room A-115.
2. VICI (Valco Instruments Co. Inc.) portable ECD.
Model SRI 8610-20 GC, EPA #419615,
(portable gas chromatograph).
Model 140BN, ECD Ni⁶³, S/N N063, 5mCi, Jan. 1986.
Foil No. 6655.2
Location: 16194 W. 45th Drive, Golden, CO 80403-1790,
Room A-115.
3. Model HP 5890A Series II GC, HP SN2938A25634, EPA # 966654,
Model G1223A, ECD Ni⁶³, S/N K5503, 15mCi, 05/99, &
Model G1223A, ECD Ni⁶³, S/N K5496, 05/99
Location: 16194 W. 45th Drive, Golden, CO 80403-1790,
A-115. **Returned to Agilent August 05, 2010**
4. Model HP 5890A Series II GC, HP SN2938A25107,
EPA # 820712, (Removed from the GC June 27, 1995)
Model 19235, ECD Ni⁶³, S/N L2480, 15mCi, 05/87, &
Location: 16194 W. 45th Drive, Golden, CO 80403-1790,
A-115. **Returned to Agilent August 05, 2010**

5. Model HP 6890 GC, HP SN U00023189, EPA # 965346,
Model G2397A, ECD Ni⁶³, S/N U0740, 15mCi, 7/98,
Model G2397A ECD Ni⁶³, S/N U1494, 15mCi, 8/99
Location: 16194 W. 45th Drive, Golden, CO 80403-1790,
Room B-138. Moved from D-104 December 31, 2008.
6. Model Agilent Technologies 6890 GC, Agilent Technologies
SN US00001046 EPA#
Model G1533A, ECD Ni⁶³, SN K3763, 15 mCi 02/97
Model G1533A, ECD Ni⁶³, SN K3757, 15 mCi 02/97
Location: 16194 W. 45th Drive, Golden, CO 80403-1790, Room D-121
Item #6 arrived at the laboratory March 2009.
ESAT contractor moved in from START contractor warehouse.
**This GC/dual ECDs has been taken back to START contractor warehouse
on or after February 25, 2011. Future wipe test and inventory
responsibilities belong to the ESAT contract.**
7. Model HP 6890 GC/MS G1530A, SN US00020501 EPA#965274
Model G2397A, ECD Ni⁶³, SN U5490, 15 mCi 04/03
Location: 16194 W. 45th Drive, Golden, CO 80403-1790, Room D-124
Item #6 arrived at laboratory May 2003.
This ECD will be returned to Agilent it is currently located in B-125.
8. Model Agilent Technologies 6890N GC (G1540N), Agilent Technologies
SN US10427007 EPA#965548
Model G2397A, ECD Ni⁶³, SN U7267, 15 mCi 06/04
Model G2397A, ECD Ni⁶³, SN U7268, 15 mCi 06/04
Location: 16194 W. 45th Drive, Golden, CO 80403-1790, Room D-104
Item #8 arrived at the laboratory July 2004.
9. Model Agilent Technologies 6890N GC (G1530N), Agilent Technologies
SN US10219027 EPA#965478
Model G2397A, ECD Ni⁶³, SN U8635, 15 mCi 06/05
Location: 16194 W. 45th Drive, Golden, CO 80403-1790, Room D-104
Item #8 arrived at the laboratory June 2005.

This inventory was conducted on May 31, 2011, by Gregory J. Saunders, Environmental Scientist.

Items #2 & #3 have been removed from the GCs and were returned to Agilent Technologies August 05, 2010.

Item #3 was acquired from EPA-National Enforcement Investigations Center, Denver Federal Center, Lakewood, CO.

Item#6 ESAT contractor moved in from START contractor warehouse.

This item#6 GC/dual ECDs has been taken back to START contractor warehouse located at 555 West 48th Ave., Suite D, Denver, CO 80216 warehouse manager phone 303-434-4692. Future wipe tests and inventory responsibilities belong to the ESAT contractor.

All wipe test are being performed by:

Detector Service Center, Inc.
9423 Chapel Hill - P.O. Box 1044
ph: (919) 469-0259
FAX:(919) 465-0662
Attn: Randy Watts
Radioactive Materials License Number NRC-092-0660-1

Inventory of above Ni⁶³ ECD was conducted on May 31, 2011.

Wipe samples will be taken August, 2011.

The anticipated inventory schedule for the upcoming year is as follows:

August	2011 *
November	2011
February	2012 *
May	2012

* Wipe test to be conducted. cc: Gregory J. Saunders

FCD: 2011-05-31 gsaunders, gs, E:\Ni63WipeTest_Inventory\Ni63Inv\NUCMay31_2011.doc