



Br 3 The Dow Chemical Company  
Allyn's Point Plant  
1761 Route 12  
Gales Ferry, Connecticut 06335

April 6, 2010  
Licensing Assistance Team  
Division of Nuclear Materials Safety  
U.S. Nuclear Regulatory Commission, Region 1  
475 Allendale Road  
King of Prussia, PA 19406-1415

03012722

Re: Radiation License Number 06-15498-02 (Amendment 17), Dow Chemical, Allyn's Point Plant

To whom it may concern,

The Dow Chemical, Allyn's Point Styrofoam facility, located at 1761 Route 12, Gales Ferry, Connecticut has removed our Cadmium 109 source. As a result of this change, the Dow Chemical Company no longer possesses any ionizing radiation sources at the Allyn's Point site. The source was removed by a licensed Dow Chemical technician on February 25th, 2010 and shipped to Eckert and Ziegler Isotope Products, 1800 North Keystone Street, Burbank, California 91504, telephone (661) 309-1010. They received the source on March 2nd, 2010 (see attached return packing list confirmation receipt).

The source was used as part of the Dow Chemical Allyn's Point Styrofoam facility for the production of Styrofoam Brand insulation material in a Texas Nuclear Division Model XOLA ST-1 device, model CUCD2. Its purpose was to monitor levels of bromine in the final product by x-ray fluorescence. It consisted of a NRC approved encapsulated sealed source which was housed within the Texas Nuclear engineered (specifically for the Dow Chemical Company) device.

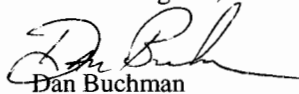
The source was manufactured by AED Technology QSA, and assayed in October 2005 as 10 mCi. The serial number is C7-921. The source is registered with the State of Connecticut under Invoice Number 00118, Account Number 3911. The source is also licensed with the United States Nuclear Regulatory Commission (US NRC), License number 06-15498-02 amendment number 17, last updated November 18, 2008.

As mentioned above, the source was removed by a Dow Chemical Company Licensed Technician and shipped to Eckert and Ziegler Isotope Products who have received and taken possession of the source. The Texas Nuclear Model XOLA ST-1 device has been inspected and found to be without any radioactive contamination. Both pre-removal and post removal wipe tests have been performed and also found to be free of any radioactive contamination (see attached wipe test records).

The Texas Nuclear Model XOLA ST-1 will remain in the Allyn's Point Styrofoam Plant for the foreseeable future. The device will be stored with other facility parts in the event that the facility is restarted in the future. The Allyn's Point site has 24 hour security coverage, 7 days per week. Security makes periodic rounds through the Styrofoam facility to ensure there are not any problems in the area.

If you need any further information please contact feel free to contact me at (860) 447-7324 .

Regards,

  
Dan Buchman

Allyn's Point Site Radiation Safety Officer  
The Dow Chemical Company, Allyn's Point Site  
1761 RT 12, Gales Ferry, CT 06335  
(860) 447-7324

RECEIVED  
REGION 1  
2010 APR - 8 AM 11: 21

144589

NMSS/RCN1 MATERIALS-002



TRCK # 4243 3584 7550

**RETURN PACKING LIST****B**

All information must be provided to ensure proper handling of your return.

**FROM:**

Company Name Dow Chemical  
Address 1761 R+ 12  
City Gales Ferry State CT Zip 06335  
Contact Name Jerry Cassidy  
Telephone 989-636-3463 Fax 989-638-9975  
E-mail: J.Cassidy@dow.com

**SEND TO:**

**Eckert & Ziegler**  
Isotope Products

1800 North Keystone Street  
Burbank, CA 91504

Tel 661-309-1010  
Fax 661-257-8303  
E-mail: nucmedsales@ezag.com

**RETURN #RA-4592**

**STOP:** This packing list must be affixed to the outside and a copy placed inside of the package. Each returned source to EZIP must be on a one-to-one exchange basis only. For additional returns, please contact EZIP customer service for additional cost considerations.

	Nuclide	Activity	Reference Date	Serial No.	Capsule Description	Source Wipe Test $\leq 5\text{nci}$
1)	<u>Co-60</u>	<u>10mCi</u>	<u>10/1/05</u>	<u>CT-921</u>	<u>CD932340010M</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2)						<input type="checkbox"/> Yes <input type="checkbox"/> No
3)						<input type="checkbox"/> Yes <input type="checkbox"/> No
4)						<input type="checkbox"/> Yes <input type="checkbox"/> No
5)						<input type="checkbox"/> Yes <input type="checkbox"/> No

If source is damaged, broken, or leaking, describe under "Capsule Description" section and submit a copy of last leak test. Keep a copy of this form for your records. It may be requested by your regulatory agency. I acknowledge that the above information is true to the best of my knowledge.

Contact's Signature

For EZIP Use only.

EZIP has received the radioactive sources listed above, except as noted below:

Receiver's Name Isidoro LanderosReceipt Date 02 MAR 10

Sources not received:

☒ N/A



**CUSTOMER REQUEST**  
**H & ES ANALYTICAL CHEMISTRY LABORATORY**

**DOW CHEMICAL U.S.A**

ES-AL-5275  
LS-0002-3044

Pre-Removal Wipe Test

Date: 1/15/2010	Plant Code: 05	Cost Center: 9831	Project/Task:	Date Needed By:	<input type="checkbox"/> Return Sample <input checked="" type="checkbox"/> Discard Sample
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SAMPLE OF: Cd109 Wipe Test

SAMPLE NUMBER(S): 1

SAFETY HAZARDS

☐ Toxic

☐ Skin Irritant

☐ Low Flash Point

☐ Explosive

☐ Spontaneous  
Flammable

☐ Non-Hazardous

☐ Lachrymator

☐ Unusual Chemical  
Reactive

NAME	DEPARTMENT	BUILDING	DOOR	PHONE
Dan Buchman	Site EH&S	46C		(860) 447-7324

RELATIVE ERROR SUFFICIENT,  
ETC.

APPROXIMATE LEVEL, ETC.

LOWER LIMIT, ETC.

ANALYSIS REQUEST AND REASON FOR REQUEST. (PLANT OR PROJECT RELATED). INDICATE  
DOLLAR (\$) VALUE TO DOW.

Cd109 Wipe test for Allyn's Point Styrofoam Plant. Send results to Dan Buchman (860) 447-7324

RESULTS:

ALL WIPES BELOW

DETECTION LIMIT OF

50 dpm/WIPE ( $2.3 \times 10^{-5}$   $\mu$ Cl/wipe)

INITIAL JM DATE 1/21/10

SIGNATURE: *Jamie M...*

PHONE:

8-3306

BUILDING:

1803

DATE FINISHED:

1/21/10

HOURS: 1

RESULTS PHONED:

REVIEWED BY:

*Mary K. Scherger*  
1-21-10

Saved: 09 Nov 2009 - 03:53 PM

DOW RESTRICTED -  
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Printed: 19 Jan 2010 - 01:00 PM

Page 7 of 8

Dawn Gilday



### PROBLEM: Wipe Test Analysis

DATE 1/21/10

BY Printer

REFERENCE ES-AL-5275  
PROGRAM NO. 5

**SCINTILLATOR: Econoflour II**

Rack Position	Sample Number	Sample I.D.	Rack Position	Sample Number	Sample I.D.
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[illegible]



**CUSTOMER REQUEST**  
**H & ES ANALYTICAL CHEMISTRY LABORATORY**

**DOW CHEMICAL U.S.A**

LS-6002-3070  
ES-AL-5293

Post Removal Wipe Test

Date: 2/25/2010	Plant Code: 05	Cost Center: 9831	Project/Task: NA	Date Needed By: ASAP	<input type="checkbox"/> Return Sample <input checked="" type="checkbox"/> Discard Sample
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SAMPLE OF: Wipe Tests for Cd109

SAMPLE NUMBER(S): 1, 2, 3, 4, 5, 6, 7, 8

SAFETY HAZARDS

<input type="checkbox"/> Toxic	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Low Flash Point
<input type="checkbox"/> Explosive	<input type="checkbox"/> Spontaneous Flammable	<input type="checkbox"/> Non-Hazardous
<input type="checkbox"/> Lachrymator		<input type="checkbox"/> Unusual Chemical Reactive

NAME	DEPARTMENT	BUILDING	DOOR	PHONE
Daniel Buchman	Allyn's Point Styrofoam	24		(860)447-7324

RELATIVE ERROR SUFFICIENT, ETC.	APPROXIMATE LEVEL, ETC.	LOWER LIMIT, ETC.
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ANALYSIS REQUEST AND REASON FOR REQUEST. (PLANT OR PROJECT RELATED). INDICATE  
DOLLAR (\$) VALUE TO DOW.

Please perform analysis on the following wipe test samples.

Wipe 1: Source, Wipe 2: Source holder, Wipe 3: Shipping container (lead)

Wipe 4: Shipping container (cardboard box), Wipe 5: Source box (outside shutter area)

Wipe 6: Source box (inside box source holder area), Wipe 7: Floor beneath source

Wipe 8: Roller downstream of source.

RESULTS:

**ALL WIPES BELOW  
DETECTION LIMIT OF  
50 dpm/WIPE ( $2.3 \times 10^{-5}$   $\mu$ CI/wipe)**  
INITIAL JM DATE 3/8/10

SIGNATURE: <i>Gannu Miller</i>	PHONE: 8-3306	BUILDING: 1803
DATE FINISHED: 3/8/10	HOURS: 1	RESULTS PHONED: <i>Mary K Scherz</i>
REVIEWED BY: <i>9-Mar-10</i>		

Saved: 09 Nov 2009 - 03:53 PM

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Page 7 of 8

Printed: 03 Mar 2010 - 03:53 PM

Dawn Gilday



## LIQUID SCINTILLATION COUNTING DATA

RECORD NO. LS-6002-3070

### PROBLEM: Wipe Test Analysis

**DATE** 3/8/10

BY Muter

**SAMPLE:** Wipe: (cotton swab used for wipe testing)

REFERENCE ES-AL-5293

PROGRAM NO.                     

**PREPARATION:** Wipe sample placed into 7 mL scintillation vial, with 4 mL Econoflour II added.

**SCINTILLATOR: Econoflour II**

**STANDARD: 14C unquenched, sealed source (Lot #CNY2802; 44,600 DPM)**  
**Acceptable range = 41,642 - 42,032 CPM in Window #2 (220-700 channels)**  
**Reference: ES-AL 4449, 01/14/05)**

[illegible]



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

4/6/2010, and to inform you that the initial processing which includes an administrative review has been performed.

☒ ALREADY. 06-15488-02  
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

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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** 144588.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.