

APPENDIX A

Revised January 17, 2001		
<b>FORM TI-1 CASE RESOLUTION</b>		
Case Status	<input type="checkbox"/> Open	<input checked="" type="checkbox"/> Closed
RCODE: 40935 Region: 4		
OLD - Complete Name, Address, Contact, Phone Number: <b>Brown &amp; Root</b> <b>Green River, WY 82935</b>		
NEW - Complete Name, Address, Contact, Phone Number: <b>Solvay Minerals, Inc.</b> <b>#1 Westvaco Road, 20 Miles West of Green River</b> <b>Green River, WY 82935</b> <b>Darrel Melvin</b> <b>307-875-6500 (Main Number), 307-872-6575 (Direct Line), 307-872-6510 (Facsimile)</b>		
Agreement State Licensee? (Double Check)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Moved to an Agreement State?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Describe Follow-up: (Telephone, Internet, Chamber of Commerce, Other) <b>Region IV contacted Halliburton representatives in Green River, WY, who referred the issue to the senior radiation safety officer for Halliburton Energy Services in Duncan, OK. The senior radiation safety officer successfully located the status of the gauges. All gauges had been disposed at Berthold Systems, Inc. in Germany during 1993. The senior radiation safety officer submitted copies of the radioactive material transfer and disposal records to Region IV.</b>		
Describe Communication with Registration Vendor: <b>No communication was determined to be necessary because the gauges were permanently disposed during 1993.</b>		
Vendor Follow-up Action: <b>No followup action is required by the vendor.</b>		
Final Action Taken: <b>The inspector updated Appendix B, Form TI-2, "Device Information," based on information provided by Halliburton Energy Services.</b>		
Cause of Bad Address/Lesson Learned: <b>Brown &amp; Root constructed a soda ash plant for Tenneco Oil during the early 1980's. Solvay Minerals later purchased the plant but removed and disposed of the gauges. Brown &amp; Root was a construction contractor that ordered and installed the gauges on behalf of Tenneco. Brown &amp; Root was not the owner of the gauges.</b>		

APPENDIX B

FORM TI-2 DEVICE INFORMATION

RCODE: 40935								
ID	Model Number <sup>1</sup>	Serial Number	Isotope	Activity (mCi)	Sold Date	Vendor	Status (A <sup>2</sup> or N <sup>3</sup> )	Comments
1	7062P	12834	Cs-137	100	1983-1	IL-01010-02	A	Disposed during 1993.
2	7063P	12443	Cs-137	200	1981-2	IL-01010-02	A	Disposed during 1993.
3	7063P	12452	Cs-137	200	1981-2	IL-01010-02	A	Disposed during 1993.
4	7063P	12453	Cs-137	200	1981-2	IL-01010-02	A	Disposed during 1993.
5	7062P	12444	Cs-137	100	1981-2	IL-01010-02	A	Disposed during 1993.
6	7062P	12445	Cs-137	100	1981-2	IL-01010-02	A	Disposed during 1993.
7	7062P	12446	Cs-137	100	1981-2	IL-01010-02	A	Disposed during 1993.
8	7062P	12447	Cs-137	100	1981-2	IL-01010-02	A	Disposed during 1993.
9	7062P	12448	Cs-137	100	1981-2	IL-01010-02	A	Disposed during 1993.
10	7062P	12449	Cs-137	100	1981-2	IL-01010-02	A	Disposed during 1993.
11	7062P	12450	Cs-137	100	1981-2	IL-01010-02	A	Disposed during 1993.
12	7062P	12451	Cs-137	100	1981-2	IL-01010-02	A	Disposed during 1993.
For additional GLD's received by the licensee identified during the inspection:								
ID	Model Number	Serial Number	Isotope	Activity	Sold Date	Vendor	How obtained	Comments
								None identified.

<sup>1</sup> Include only registerable gauges identified by Headquarters as "open" cases.

<sup>2</sup> Accounted for: A device is accounted for if (1) the device is located at the licensee's facility, (2) it has been verified that the device has been transferred to an authorized recipient or properly disposed, or (3) a reasonable assurance has been provided that the device has been transferred to an authorized recipient or properly disposed.

<sup>3</sup> Not Accounted for: A device is not accounted for if the location of the device is unknown and/or the licensee cannot provide a reasonable assurance that the device has been transferred to an authorized recipient for proper disposal.

APPENDIX C

FORM TI-3 GENERAL LICENSEE INSPECTION DOCUMENTATION	
RCODE: 40935	
General Licensee Information:	
Check Box if Current Complete Name, Mailing Address, Contact, and Phone Number is Same as Provided by ORNL. If not, include correct information below:	
<b>Solvay Minerals, Inc.</b> <b>#1 Westvaco Road, 20 Miles West of Green River</b> <b>Green River, WY 82935</b> <b>Darrel Melvin</b> <b>307-875-6500 (Main Number)</b> <b>307-872-6575 (Direct Line)</b> <b>307-872-6510 (Facsimile)</b>	
Results of inspection: (check the appropriate boxes)	
The general licensee of record is located at the address of record and	
<input checked="" type="checkbox"/>	all GLD are accounted for <b>The 12 sealed sources were shipped to Germany for disposal at Berthold Systems, Inc. during 1993.</b>
<input type="checkbox"/>	<u>not</u> all GLD are accounted for
The general licensee of record is <u>not</u> located at the address of record, however GLD are being used under new ownership at the address of record and	
<input type="checkbox"/>	all GLD are accounted for
<input type="checkbox"/>	<u>not</u> all GLD are accounted for
The general licensee of record is <u>not</u> located at the address of record, however they are using GLD at another location and	
<input type="checkbox"/>	all GLD are accounted for
<input type="checkbox"/>	<u>not</u> all GLD are accounted for;
Neither the general licensee of record nor the facility operated by the general licensee are located at the address of record and the site has been abandoned or is being used for an alternate purpose.	
Other: (explain)	
Gauge Information:	
ID	For each gauge for which status is unaccounted for (see last column of Form TI-2), provide any conclusions about location of the gauge:
<b>Not applicable - all gauges were accounted for.</b>	

Case Status	<input checked="" type="checkbox"/> Open	<input type="checkbox"/> Closed
RCODE: 40935 Region: 4		
OLD - Complete Name, Address, Contact, Phone Number: BROWN & ROOT GREEN RIVER, WY 82935		
NEW - Complete Name, Address, Contact, Phone Number:		
Agreement State Licensee? (Double Check)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Moved to an Agreement State?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Describe Follow-up: (Telephone, Internet, Chamber of Commerce, Other) CD-ROM INTERNET TELEPHONE (CONTACTED HEADQUARTERS OF BROWN & ROOT (713)676-301; HALLIBURTON ENERGY SERVICE, ROCK SPRINGS, WY (307)362-6311 (THESE TWO COMPANIES COMBINED ACCORDING TO INFORMATION PROVIDED BY BROWN & ROOT); SWEETWATER COUNTY LAND USE OFFICE (307)872-6475))		
Describe Communication with Registration Vendor:  NONE		
Describe Communication with non-Registration Vendor:  NONE		
Final Action Taken: NOTES ADDED TO MEMO FILED		
Cause of Bad Address/Lesson Learned: UNKNOWN  BROWN & ROOT HQ. CHECKED ITS REGISTER AND DOES NOT HAVE A BUSINESS IN GREEN RIVER, WYOMING. STATUS OF DEVICES NOT KNOWN.		

RCODE: 40935							
ID	Model Number <sup>1</sup> (separate line for each gauge)	Serial #	Isotope	Activity	Sold Date	Vendor	Status? (found/unknown)
1			CS137	100.000000000	19831	IL-01010-02	Unknown
2	7063P		CS137	200.000000000	19812	IL-01010-02	Unknown
3	7063P		CS137	200.000000000	19812	IL-01010-02	Unknown
4	7063P		CS137	200.000000000	19812	IL-01010-02	Unknown
5	7062P		CS137	100.000000000	19812	IL-01010-02	Unknown
6	7062P		CS137	100.000000000	19812	IL-01010-02	Unknown
7	7062P		CS137	100.000000000	19812	IL-01010-02	Unknown
8	7062P		CS137	100.000000000	19812	IL-01010-02	Unknown
9	7062P		CS137	100.000000000	19812	IL-01010-02	Unknown
10	7062P		CS137	100.000000000	19812	IL-01010-02	Unknown
11	7062P		CS137	100.000000000	19812	IL-01010-02	Unknown
12	7062P		CS137	100.000000000	19812	IL-01010-02	Unknown

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<sup>1</sup>Include only registration gauges and only include for open cases.



HALLIBURTON ENERGY SERVICES

2600 South Second Street / Post Office Drawer 1431 / Duncan, OK 73536-0432 / 580-251-3949 / Fax: 580-251-4745

January 10, 2001

U.S. Nuclear Regulatory Commission  
Division Of Nuclear Materials Safety  
Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011

Attn: Robert Evans

RE: RCODE 40935

Dear Mr. Evans:

The NRC requested information on the location of 12 gauges that were listed on the quarterly device distribution letters received from device manufacturers by the NRC in 1981 and 1983 respectively. The NRC database lists Brown & Root Green River, WY 82935 as the last known possessor of the gauges. Halliburton investigated this matter and found that these gauges were part of a soda ash plant built for Tenneco Minerals in the early 80's. This soda ash plant was then acquired by Solvay Minerals. Solvay Minerals was contacted about the whereabouts of the gauges and they provide the attached documentation which shows that the 12 gauges in question were sent to Berthold Systems, Inc. in Germany for disposal by Solvay Minerals in 1993.

If you should have any questions or need additional information to close this case, please advise.

Sincerely,

A handwritten signature in black ink, appearing to read 'Steve Woods', written over a circular stamp that also contains the name 'Steve Woods'.

Senior Radiation Safety Officer

Enclosures

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**Halliburton** Health, Safety & Environment

**Steve Woods**  
Radiation Safety Officer  
Halliburton Energy Services

2600 South 2nd Street  
Post Office Drawer 1431  
Duncan, OK 73536-0432

Office: 580-251-3936  
Fax: 580-251-4745  
Cellular: 580-618-0791  
Residence: 580-622-3523  
steve.woods@halliburton.com



# SOLVAY MINERALS

SOLVAY MINERALS, Inc.  
20 Miles West of Green River  
Westvaco Road  
Green River, WY 82935  
Tel: 307-875-6500  
Fax: 307-872-6510  
For missing pages, tel: 307-872-6575

Called Darrel Melvin on 1-10-01  
and asked if HES could provide  
the documents which were faxed  
to HES to the NRC in light of the  
below "Confidentiality Notice". Darrel  
Melvin stated "The documents were  
intended for HES to use as they needed and  
he had no problem with them being provided  
to the NRC". *Steve Woods 1-10-01*

## CONFIDENTIALITY NOTICE

This message contains information that may be confidential and is intended only for the use of the addressee. Any disclosure, copying, distribution or use of this information by anyone else is strictly prohibited. If you have received this in error, please notify us by telephone immediately at (307) 872-6575 so that we can arrange to retrieve it at no cost to you. Thank you.

DATE: 1-10-01

TO: HALI BURTON

ATTENTION: STEVE WOODS

FAX NUMBER: 580-251-4745

FROM: D. MELVIN

No. of pages including cover sheet: 2

MESSAGE: *I think this may be what you can use.  
It is our shipping doc. that list the sources by  
Serial # & Model & activity.*

*Darrel*

SHIPPING DOCUMENT



**SOLVAY  
MINERALS**

P. O. Box 1167  
#1 Westvaco Road  
Green River, Wyoming 82935  
307/875-6500

No. 000828

DATE: 25-Jun-93

P.O. # PS15271

SHIP VIA: \_\_\_\_\_

F.O.B. \_\_\_\_\_

RETURN AUTH. # \_\_\_\_\_

SHIP TO:

LABORATORIUM PROF. DR. BERTHOLD  
CALMBACHER STR. 22  
D-7547 BAD WILDBAD GERMANY

PREPAY [ ]

COLLECT [ ]

ATTENTION: \_\_\_\_\_

ITEM	QUANTITY/UNIT	TOC NUMBER	DESCRIPTION	VALUE	ACCT. CODE
1	9 EA		KAY RAY POINT SOURCE MOD.# 7062-P 100mci CS-137 SN 12444, 12445, 12446, 12447, 12448, 12449, 12450, 12451, 12834		41-3003
2	3 EA		KAY RAY POINT SOURCE MOD.# 7063-P 200mci CS-137 SN 12443, 12452, 12453		41-3003
PLEASE CALL LOU GEBS AT 307-872-6679 IF FURTHER INFORMATION IS NEEDED					

- |                           |     |                                  |                                     |
|---------------------------|-----|----------------------------------|-------------------------------------|
| 1. TO BE EXCHANGED        | [ ] | 6. TO BE INSPECTED & ADVISED     | [ ]                                 |
| 2. VENDOR TO ISSUE CREDIT | [ ] | 7. LOANED OUT                    | [ ]                                 |
| 3. TO BE RECONDITIONED    | [ ] | 8. SALE                          | [ ]                                 |
| 4. UNDER WARRANTY         | [ ] | 9. SERVICE EXCHANGE              | [ ]                                 |
| 5. TO BE REFILLED         | [ ] | 10. OTHER (EXPLAINED IN REMARKS) | <input checked="" type="checkbox"/> |

REMARKS: To be Disposed of.

RECEIVED BY: \_\_\_\_\_ CO. \_\_\_\_\_ DATE: \_\_\_\_\_

REQUISITIONING DEPT: SURE MAINT.

SUBMITTED BY: L R GEBS

BY: \_\_\_\_\_ PURCHASING AUTHORITY

APPROVED BY: [Signature]



# SOLVAY MINERALS

SOLVAY MINERALS, Inc.  
20 Miles West of Green River  
Westvaco Road  
Green River, WY 82935  
Tel: 307-875-6500  
Fax: 307-872-6510  
For missing pages, tel: 307-872-6575

## CONFIDENTIALITY NOTICE

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DATE: 1-9-01

TO: HALIBURTON

ATTENTION: STEVE WOODS

FAX NUMBER: 580-251-4745

FROM: Daniel Melvin

No. of pages including cover sheet: 4

MESSAGE: Original Sources that were installed at Tenneco Oil, Green River, WY.

Date: 8-19-93

BSI Log # 901 Operator Mary

Send to Telefax # 1-307-872-6539

Page 1 of 1

**BERTHOLD SYSTEMS, INC.**  
Process Control Instruments  
Hopewell Business & Industrial Park  
101 Corporation Drive  
Aliquippa, Pennsylvania 15001-4853  
Telephone: (412) 378-1900  
Telefax: (412) 378-1926  
Telex: 988393 (BERTHOLD SYST UD)

To: Lou Gehs

Company: Solvay Minerals  
#1 Westvaco Rd.  
Green River, WY 82935

From: Mary Dedola

Subject: **NOTIFICATION OF RECEIPT OF RETURNED SOURCES**

\*\*\*\*\*  
Dear Sir/Madame:

This is to certify that the following source(s) have been received by Berthold, GERMANY:

SOURCE	ISOTOPE	ACTIVITY	SERIAL #	DATE RECEIVED
Point	Cs-137	100 mCi	12444	7-19-93
Point	Cs-137	100 mCi	12445	7-19-93
Point	Cs-137	100 mCi	12446	7-19-93
Point	Cs-137	100 mCi	12447	7-19-93
Point	Cs-137	100 mCi	12448	7-19-93

Date: 8-19-93  
BSI Log # 901 Operator Mary  
Send to Telefax # 307-872-6539  
Page 1 of 1

**BERTHOLD SYSTEMS, INC.**  
Process Control Instruments  
Hopewell Business & Industrial Park  
101 Corporation Drive  
Aliquippa, Pennsylvania 15001-4863  
Telephone: (412) 378-1900  
Telefax: (412) 378-1925  
Telex: 988393 [BERTHLD SYST UD]

To: Lou Gebb

Company: Solvay Minerals  
#1 Westvaco Road  
Green River, WY 82935

From: Mary Dedola

Subject: **NOTIFICATION OF RECEIPT OF RETURNED SOURCES**

\*\*\*\*\*  
Dear Sir/Madame:

This is to certify that the following source(s) have been received by Berthold, GERMANY:

SOURCE	ISOTOPE	ACTIVITY	SERIAL #	DATE RECEIVED
Point	CS-137	200	12443	7-19-93
Point	CS-137	200	12452	7-19-93
Point	CS-137	200	12453	7-19-93

Date: 8-23-91

BSI Log # 932 Operator Mary

Send to Telefax # 307-872-6539

Page 1 of 1

**BERTHOLD SYSTEMS, INC.**

**Process Control Instruments**

Hopewell Business & Industrial Park  
101 Corporation Drive  
Aliquippa, Pennsylvania 15001-4863  
Telephone: (412) 378-1900  
Telefax: (412) 378-1926  
Telex: 988393 (BERTHLD SYST UD)

To: Lou Gebb

Company: Solvay Minerals  
#1 Westvaco Road  
Green River, WY 82935

From: Mary Dedola

Subject: NOTIFICATION OF RECEIPT OF RETURNED SOURCES

\*\*\*\*\*

Dear Sir/Madame:

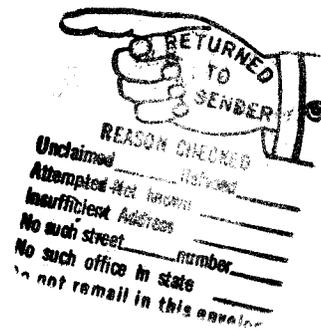
This is to certify that the following source(s) have been received by Berthold, GERMANY:

SOURCE	ISOTOPE	ACTIVITY	SERIAL #	DATE RECEIVED
Point	CS-137	100 mCi	12449	7-19-93
Point	CS-137	100 mCi	12450	7-19-93
Point	CS-137	100 mCi	12451	7-19-93
Point	CS-137	100 mCi	12834	7-19-93

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, DC 20555-0001

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

FIRST CLASS MAIL  
POSTAGE AND FEES PAID  
USNRC  
PERMIT NO. G-67



BROWN & ROOT (40935)  
GREEN RIVER, WY 82935

