



## WOLF RUN MINING COMPANY

May 12, 2016

A subsidiary of:



Director, Office of Nuclear Materials Safety  
And Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Re: Termination of NRC License for (1) Berthold LB-7440 formerly located at the Baybeck Preparation Plant and Notice of disposal.

Dear Sir,

Attached you will find the details regarding the testing and attempted repair of the Berthold LB-7440 nuclear density gauge that was in use at the Wolf Run Mining Company – Baybeck Coal Preparation Plant. This was the only gauge at this facility and it was not replaced as the facility ceased processing coal in late 2007.

The gauge failed an audit on 10/31/2006 that was performed by John Hagley, Sales and Application Engineer for SABIA, INC.. Repairs were attempted on site but was unsuccessful and SABIA INC disposed of the gauge on 1/24/2007.

Apparently the paperwork was not filed or was somehow lost in the processing of the disposal. Email has attachment showing the removal of the complete gauge from the Baybeck Preparation Plant. I was not at this facility during that time period but it was handled by SABIA Inc. and the contact information for SABIA INC. is as follows:

John Hagley  
Sales and Application Engineer - SABIA Inc.  
Office: 304 743 5942 Cell - 304 634 6175 Email: [jhagley@sabiainc.com](mailto:jhagley@sabiainc.com)

Please feel free to give me a call if you have any questions or require any additional information. Thanks!

Sincerely,  
ICG Beckley, LLC

Terry Allison  
Radiation Safety Officer  
Office: 304 929 4280  
Email: [TAllison@archcoal.com](mailto:TAllison@archcoal.com)

*Terry Allison* 5-19-2016

2221 Old Eccles Road - P.O. Box 49 - Eccles, West Virginia 25836  
Phone: (304) 929 4260 \* Fax: (304) 929 4297

GLTS



2300 N. Yellowstone Hwy  
Idaho Falls, ID 83401  
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Fax: 208-528-8880

**Industrial Radiology Specialists**  
NRC License # 11-27727-01

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January 2, 2007

ICG Baybeck  
353 Baylor Drive  
Eccles, WV 25836

Attn: Basil McKinney

Subject: Repair of Berthold Density Gauge

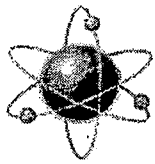
On December 20, 2006 an attempt was made to repair the shutter mechanism on the Berthold Density gauge serial number LB7440-63-1. The handle could not be repaired. The old handle was broken off. The screws in the front of the gauge were also too corroded to open. The shutter was forced into the closed position. It was then wedged into place with screws so that it cannot be opened. A radiation survey was performed to verify that the shutter was actually closed. The readings are attached. It is recommended but to remove the gauge.

Please file this letter in case anyone has any questions regarding the state of the device.

If you have any questions please contact me at 304-733-6131 or email me at the address below.

Sincerely,

John W. Hagley  
Sales and Service Engineer  
[jhagley@sabiainc.com](mailto:jhagley@sabiainc.com)

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### Fixed Gauge Radiation Survey Form

Customer Name: ICG Baybeck  
Address: 353 Baylor Drive, Eccles WU 25836  
Site Contact: Basil McKinney  
Telephone Number: 304-253-5454  
Product Brand: Berthold  
Model: LB-7440  
S/N: 63-1  
Isotope: Cs-137 50uCi

|   |  |
|---|--|
| <div style="display: flex; justify-content: space-between;"><div><input checked="" type="checkbox"/> Density</div><div><input type="checkbox"/> Level</div></div> <div style="text-align: center; margin-top: 20px;"></div> | <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> Continuous Level</div></div> <div style="text-align: center; margin-top: 20px;"></div> |
|---|--|

Shutter

Process



ON



ON



OFF



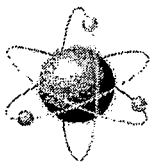
OFF

|           |     |     |      |      |      | Max  |
|-----------|-----|-----|------|------|------|------|
| mRem/hr   | A   | B   | C    | D    | E    | F    |
| Contact   | 0.2 | 0.3 | 0.1  | 0.1  | 0.1  | <0.1 |
| 12 Inches | 0.1 | 0.1 | <0.1 | <0.1 | <0.1 |      |

Performed by: John Hagley

Date: 12-20-06

Point F was taken with the gauge removed and shutter closed.



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### PORTABLE AND FIXED GAUGE AUDIT CHECKLIST

Licensee's Name: ICG Baybuck License No.: Gen. 1

Auditor: J. Hagley License Expiration Date: \_\_\_\_\_

Signature of Auditor: [Signature] Date of Audit: 10-31-06

RSO at time of Audit: \_\_\_\_\_

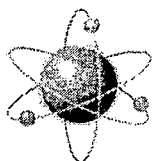
#### 1. AUDIT HISTORY

- A. Last audit of this location conducted on (date): None
- B. Were previous audits conducted yearly? [10 CFR 20.1101] ☐ Yes ☒ No
- C. Were records of previous audits maintained? [10 CFR 20.2102] ☐ Yes ☒ No
- D. Were any deficiencies identified during the last two audits or two years, whichever is longer? ☐ Yes ☒ No
- E. Were corrective actions taken? (Look for repeated deficiencies). ☐ Yes ☒ No

Comments: No audits were conducted

#### 2. ORGANIZATION AND SCOPE OF PROGRAM

- A. If the mailing address or places of use changed, was the license amended?
- ☐ Yes ☐ No ☒ N/A



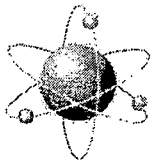
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- B. If ownership changed or bankruptcy filed, was NRC prior consent obtained or was NRC notified? ☐ Yes ☐ No ☒ N/A
- C. 1. If the RSO was changed, was the license amended? ☐ Yes ☐ No ☒ N/A
2. Does the new RSO meet NRC training requirements? ☐ Yes ☐ No ☒ N/A
3. Is the RSO fulfilling his/her duties? ☐ Yes ☐ No
4. To whom does the RSO report? \_\_\_\_\_
- D. If the designated contact person for NRC changed, was NRC notified?  
☐ Yes ☐ No ☒ N/A
- E. Sealed Sources and Devices
1. Does the license authorize all of the NRC regulated radionuclides contained in gauges possessed? ☒ Yes ☐ No
2. Are the gauges as described in the Sealed Source and Device (SSD) Registration Certificate or Sheet? ☒ Yes ☐ No
3. Have copies of (or access to) SSD Certificates? ☒ Yes ☐ No
4. Have manufacturers' or distributors manuals for operation and maintenance?  
[10 CFR 32.210] ☒ Yes ☐ No
5. Are the actual uses of gauges consistent with the authorized uses listed on the license? ☒ Yes ☐ No



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E. Sealed Sources and Devices (continued)

6. Are the location of the gauges compatible with the "Conditions of Normal Use" and "Limitations and/or Other Consideration of Use" on the SSD Registration Certificates? ☒ Yes ☐ No

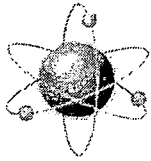
Comments:

3. TRAINING AND INSTRUCTION TO WORKERS

- A. 1. Were all workers who are likely to exceed 100 mrem/year instructed per *10 CFR 19.12*? ☐ Yes ☐ No ☒ N/A
2. Refresher training provided, as needed *10 CFR 19.12*? ☐ Yes ☒ No  
☐ N/A

3. Records maintained? ☐ Yes ☒ No ☐ N/A

- B. 1. Did each portable gauge operator attend an approved course prior to using the portable gauge? ☐ Yes ☐ No ☒ N/A
2. Did each authorized user of fixed gauges receive training and instruction given at the time of gauge installation or equivalent training and instruction before using gauges? ☐ Yes ☒ No ☒ N/A



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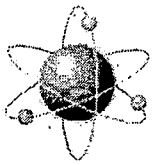
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- C. Are training records maintained for each gauge operator? ☐ Yes ☒ No
- D. Did interviews with operators reveal that they know the emergency procedures?  
☐ Yes ☒ No
- E. 1. Did this audit include observations of operators using the portable gauge(s) in a field situation? ☐ Yes ☒ No
- If yes, was the operator proficient and safe in:
- a. Operating the gauge? ☐ Yes ☐ No
  - b. Performing routine cleaning and lubrication? ☐ Yes ☐ No
  - c. Transporting gauge? ☐ Yes ☐ No
  - d. Storing gauge? ☐ Yes ☐ No
2. Did this audit include observations of authorized users operating the fixed gauge(s)? ☐ Yes ☒ No
- If yes, was the operator proficient in:
- a. Operating the gauge? ☐ Yes ☐ No
  - b. Performing routine cleaning and lubrication? ☐ Yes ☐ No
- F. HAZMAT training provided, as required? [49 CFR 172.700, 701, 702, 703, 704]  
☐ Yes ☐ No ☒ N/A

Comments:



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#### 4. RADIATION SURVEY INSTRUMENTS

- A. Does the licensee possess a survey meter? ☐ Yes ☒ No
1. If yes, does it meet the NRC's criteria? **[10 CFR 20.1501]** ☐ Yes ☐ No
2. If yes, are calibration records maintained? **[10 CFR 20.2103(a)]** ☐ Yes ☐ No
3. If no, is a survey meter readily available? ☐ Yes ☐ No

#### 5. GAUGE INVENTORY

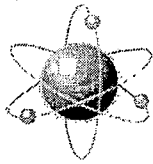
- A. Is a record kept showing the receipt of each gauge? **[10 CFR 30.51(a)(1)]**  
☒ Yes ☐ No
- B. Are all gauges physically inventoried every six months? ☐ Yes ☒ No
- C. Are records of inventory results maintained? ☐ Yes ☒ No

Comments:

#### 6. PERSONNEL RADIATION PROTECTION

- A. Are ALARA considerations incorporated into the radiation protection program?  
**[10 CFR 20.1101(b)]** ☐ Yes ☒ No
- B. Were prospective evaluations performed showing that unmonitored individuals receive less than 10% of the limit? ☐ Yes ☒ No





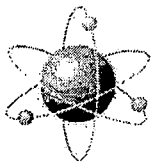
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- C. Did unmonitored users' activities change during the year which could put them over 10% of the limit? ☐ Yes ☒ No
- D. If yes to C. above, was a new evaluation performed? ☐ Yes ☐ No
- E. Is external dosimetry required (individuals likely to receive greater than 10% of the limit)? ☐ Yes ☒ No ☐ N/A
1. Is dosimetry provided to required users? ☐ Yes ☐ No ☐ N/A
2. Is the dosimetry supplier NVLAP approved? **[10 CFR 20.1501©]**  
☐ Yes ☐ No ☐ N/A
3. Are the dosimeters exchanged at the correct frequency? ☐ Yes ☐ No ☐ N/A
4. Are dosimetry reports reviewed by the RSO when they are received?  
☐ Yes ☐ No ☐ N/A
5. Completion of NRC Forms or equivalent **[10 CFR 20.2104(d), 2106©]**
- a. NRC-4 "Cumulative Occupational Exposure History"  
☐ Yes ☐ No ☐ N/A
- b. NRC-5 "Occupational Exposure Record for a Monitoring Period"  
☐ Yes ☐ No ☐ N/A
6. Declared pregnant worker / embryo / fetus
- a. If a worker declared her pregnancy, did the licensee comply with **[10 CFR 20.1208]**? ☐ Yes ☐ No ☒ N/A
- b. Were records kept of embryo/fetus dose per **[10 CFR 20.2106(e)]**  
☐ Yes ☐ No ☒ N/A



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F. Are records of exposures, surveys, monitoring, and evaluations maintained?

[10 CFR 20.2102, 2103, 2106] ☐ Yes ☒ No

Comments:

## 7. PUBLIC DOSE

A. Is public access to gauges controlled in a manner to keep doses below 100 mrem in a year? [10 CFR 20.1301(a)(1)] ☒ Yes ☐ No

B. Has a survey or evaluation been performed per [10 CFR 20.1501(a)]?

☒ Yes ☐ No

1. Have there been any additions or changes to the storage, security, or use of surrounding areas that would necessitate a new survey or evaluation?

☐ Yes ☒ No

C. Do unrestricted area radiation levels exceed 2 mrem in any one hour? [10 CFR 20.1301(a)(2)]? ☐ Yes ☒ No

D. Is gauge access controlled in a manner that would prevent unauthorized use or



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removal? [10 CFR 20.1801] ☒ Yes ☐ No

E. Records maintained? [10 CFR 20.2103, 2107] ☒ Yes ☐ No

## 8. OPERATING AND EMERGENCY PROCEDURES

A. Have operating and emergency procedures been developed? ☐ Yes ☒ No

B. Do they contain the required elements? ☐ Yes ☒ No

C. Does each individual working with the gauges have a current copy of the operating and emergency procedures (including lock-out procedures and emergency telephone numbers)? ☐ Yes ☒ No

D. Is a lock-out warning sign posted at each entryway to an area where it is possible to be exposed to the beam? ☐ Yes ☐ No ☒ N/A

E. Did any emergencies occur? ☐ Yes ☒ No

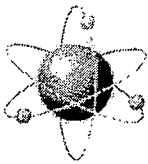
1. If so, were they handled properly? ☐ Yes ☐ No

2. Were appropriate corrective actions taken? ☐ Yes ☐ No

3. Was NRC notification or reporting required? [10 CFR 20.2201, 22202, 2203]

☐ Yes ☐ No

Comments:



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## 9. LEAK TESTS

A. Was each sealed source leak tested every 6 months or at other prescribed intervals?

☐ Yes ☒ No

B. Was the leak test performed as described in correspondence with the NRC and according to the license? ☒ Yes ☐ No

C. Are records of results retained with the appropriate information included?

☒ Yes ☐ No

D. Were any sources found leaking? ☐ Yes ☒ No

If yes, was NRC notified? ☐ Yes ☐ No

## 10. MAINTENANCE OF GAUGES

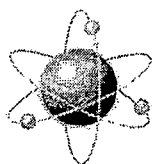
A. Are manufactures' or distributors' procedures followed for routine cleaning and lubrication of gauge? ☒ Yes ☐ No

B. Was each on-off mechanism tested for proper operation every 6 months or at other prescribed intervals? ☐ Yes ☒ No

C. Does the source or source rod remain attached to the portable gauge's during cleaning? ☐ Yes ☐ No ☒ N/A

D. Is non-routine maintenance performed where the source or source rod is detached from the portable gauge? ☐ Yes ☐ No ☒ N/A

E. Has repair and maintenance of components related to the radiological safety of



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fixed gauge's been performed? ☐ Yes ☒ No

- F. If yes to D. or E. above, was it performed according to license requirements (e.g., extent of work, individuals performing the work, procedures, dosimetry, survey instrument, compliance with **[10 CFR 20.1301]** limits)? ☐ Yes ☐ No

Comments:

**11. TRANSPORTATION** ☒ N/A

- A. DOT-7A or other authorized packages used? **[49 CFR 173.415, 416(b)]**

☐ Yes ☐ No

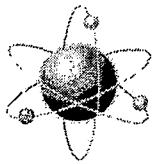
- B. Package performance test records on file? ☐ Yes ☐ No

- C. Special form sources documentation? **[49 CFR 173.476(a)]** ☐ Yes ☐ No

- D. Package has 2 labels (ex. Yellow-II) with TI, Nuclide, Activity, and Hazard Classification? **[49 CFR 172.403, 173.441]** ☐ Yes ☐ No

- E. Package properly marked? **[49 CFR 172.301, 304, 310, 324]** ☐ Yes ☐ No

- F. Package closed and sealed during transport? **[49 CFR 173.475(f)]** ☐ Yes ☐ No



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G. Shipping papers prepared and used? **[49 CFR 172.200(a)]** ☐ Yes ☐ No

H. Shipping papers contain proper entries? **[49 CFR 172.200, 201, 202, 203, 204, 604]**

1. Shipping name? ☐ Yes ☐ No

2. Hazard class? ☐ Yes ☐ No

3. Identification number (UN number)? ☐ Yes ☐ No

4. Total quantity? ☐ Yes ☐ No

5. Package Type? ☐ Yes ☐ No

6. Nuclide(s)? ☐ Yes ☐ No

7. RQ? ☐ Yes ☐ No

8. Radioactive material? ☐ Yes ☐ No

9. Physical and chemical form? ☐ Yes ☐ No

10. Activity? ☐ Yes ☐ No

11. Category of label? ☐ Yes ☐ No

12. TI? ☐ Yes ☐ No

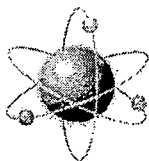
13. Shippers name? ☐ Yes ☐ No

14. Certification and signature? ☐ Yes ☐ No

15. Emergency response phone number? ☐ Yes ☐ No

16. Cargo aircraft only (if applicable)? ☐ Yes ☐ No ☐ N/A

I. Shipping papers within drivers reach and readily accessible during transport? **[49**



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**CFR 177.817(e)]**    ☐ Yes   ☐ No

J.    Package secured against movement? **[49 CFR 177.834]**    ☐ Yes   ☐ No

K.    Placarded on vehicle, if required? **[49 CFR 172.504]**    ☐ Yes   ☐ No   ☐ N/A

L.    Proper overpacks, if used? **[49 CFR 173.25]**    ☐ Yes   ☐ No   ☐ N/A

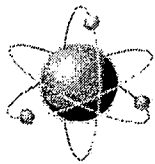
M.    Any incidents reported to DOT? **[49 CFR 171.15, 16]**    ☐ Yes   ☐ No

Comments:

**12.    AUDITOR'S INDEPENDENT SURVEY MEASUREMENTS (IF MADE)**

A.    Describe the type, location and results of measurements..    ☒ Not made

| TYPE | LOCATION | RESULTS |
|------|----------|---------|
|      |          |         |
|      |          |         |
|      |          |         |
|      |          |         |
|      |          |         |
|      |          |         |
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|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |

B. Do any radiation levels exceed regulatory limits? ☐ Yes ☐ No

### 13. NOTIFICATION AND REPORTS

A. Was any radioactive material lost or stolen? ☐ Yes ☒ No

If yes, were reports made? [10 CFR 20.2201, 30.50] ☐ Yes ☒ No

B. Did any reportable incidents occur? ☐ Yes ☒ No

If yes, were reports made? [10 CFR 20.2202, 30.50] ☐ Yes ☐ No

C. Did any overexposures and high radiation levels occur? ☐ Yes ☒ No

If yes, was it reported? [10 CFR 20.2203, 30.50] ☐ Yes ☐ No

If any events (as described in items A through C above) did occur, what was the root cause?

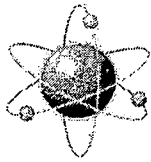
Were corrective actions appropriate? ☐ Yes ☐ No

E. Is the licensee aware of the telephone number for NRC Emergency Operations Center? [(301) 816-5100] ☐ Yes ☒ No

### 14. POSTING AND LABELING

A. NRC-Form 3 "Notice to Workers" posted? [10 CFR 19.11] ☐ Yes ☒ No





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B. NRC regulations, license documents posted or a notice posted? **[10 CFR 19.11]**

☐ Yes ☒ No

C. Other posting and labeling? **[10 CFR 20.1902, 1904]** ☐ Yes ☐ No ☒ N/A

Comments:

## 15. RECORD KEEPING FOR DECOMMISSIONING

A. Records kept of information important to decommissioning? **[10 CFR 30.35(g)]**

☐ Yes ☒ No

B. Records include all information outlined? **[10 CFR 30.35(g)]** ☐ Yes ☐ No

## 16. BULLETINS AND INFORMATION NOTICES

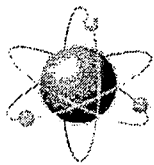
A. NRC Bulletins, NRC Information Notices, NMSS Newsletters received?

☐ Yes ☒ No

B. Appropriate training and action taken in response? ☐ Yes ☒ No

## 17. SPECIAL LICENSE CONDITIONS OR ISSUES

A. Did auditor review special license conditions or other issues (e.g., non-routine maintenance)? ☒ Yes ☐ No



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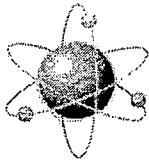
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Comments:

**18. DEFICIENCIES IDENTIFIED IN AUDIT; CORRECTIVE ACTIONS**

Summarize problems/deficiencies identified during audit.

*See cover Letter*



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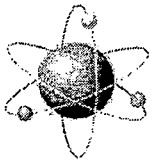
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If problems/deficiencies identified in this audit, describe corrective actions planned or taken.

C. Are corrective actions planned or taken at ALL licensed locations (not just location audited)? ☐ Yes ☐ No

D. Provide any other recommendations for improvement.



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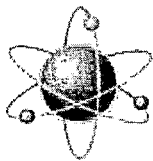
**19. EVALUATION OF OTHER FACTORS**

A. Is senior licensee management appropriately involved with the radiation protection program and/or RSO oversight? ☐ Yes ☐ No

B Does RSO have sufficient time to perform his/her radiation safety duties?  
☐ Yes ☐ No

C Does licensee have sufficient staff to support the radiation protection program?  
☐ Yes ☐ No

Comments:



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November 17, 2006

ICG Baybeck  
353 Baylor Drive  
Eccles, WV 25836

Attn: Basil McKinney

#### LEAK TEST CERTIFICATES & SEMI-ANNUAL INVENTORY

To meet the requirements of the U.S. NRC and Agreement States concerning semi-annual inventories of radioactive materials, the following radioactive sources are considered present and accounted for as per the leak test certificates.

One device were inventoried and leak tested on October 31, 2006 at the ICG Baybeck Prep Plant, located in Eccles, WV .

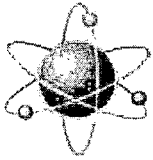
Please find the attached certificate (if necessary) to account for each device and removable contamination below allowable limits.

The next inventory is due April 30, 2007. The next leak test is due October 30, 2009. If you have any questions or concerns, please call myself at (304) 733-6131.

Sincerely,

John W. Hagley

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## Nuclear Source Leak Test Report

| Company Name: ICG-Baybeck Prep Plant   | Customer's Instrument Model and S/N:<br>Berthold LB 7440<br>SN: LB7440-63-1 |                      |              |                      |                                     |           |       |
|--|---|----------------------|--------------|----------------------|-------------------------------------|-----------|-------|
| Address: 353 Baylor Drive<br>Eccles, WV 25836  | Date of Leak Test: 10-31-06   |                      |              |                      |                                     |           |       |
| Site Contact: Basil McKinney<br>Phone Number: 304-253-5454   | SABIA Engineer Name: John Hagley<br>Signature: <i>John W. Hagley</i>        |                      |              |                      |                                     |           |       |
| List all instruments used to perform the leak test:<br><table border="1"><thead><tr><th><u>Instrument</u></th><th><u>Model</u></th><th><u>Serial Number</u></th></tr></thead><tbody><tr><td>SE International<br/>Radiation Alert</td><td>Inspector</td><td>08644</td></tr></tbody></table> |   | <u>Instrument</u>    | <u>Model</u> | <u>Serial Number</u> | SE International<br>Radiation Alert | Inspector | 08644 |
| <u>Instrument</u>  | <u>Model</u>  | <u>Serial Number</u> |              |                      |                                     |           |       |
| SE International<br>Radiation Alert  | Inspector   | 08644                |              |                      |                                     |           |       |
| Reason for Leak Test:<br>Commission    Decommission    Refurbishment    Periodic Wipe <b>X</b><br>Other _____  |   |                      |              |                      |                                     |           |       |
| Shutter Check:                      Pass                      Fail <b>X</b> N/A  |   |                      |              |                      |                                     |           |       |

### Test Results :

|                                       |                                  |                               |
|---------------------------------------|----------------------------------|-------------------------------|
| Sealed Source Serial Number<br>Cs-137 | Source Activity<br>Level milliCi | Smear Contamination<br>Levels |
| LB7440-63-1                           | 50                               | < 0.005 uCi                   |
|                                       |                                  |                               |
| Sealed Source Serial Number<br>Cf-252 | Source Activity<br>Level µgrams  | Smear Contamination<br>Levels |
|                                       |                                  |                               |
|                                       |                                  |                               |
|                                       |                                  |                               |
|                                       |                                  |                               |
|                                       |                                  |                               |
|                                       |                                  |                               |
|                                       |                                  |                               |
| Sealed Source Serial Number<br>Am-241 | Source Activity<br>Level milliCi | Smear Contamination<br>Levels |
|                                       |                                  |                               |
|                                       |                                  |                               |

The Leak Test results documented by this report were obtained using a wipe (smear with a cloth patch) test in accordance with ANSI N5.10 – 1968 Appendix Section B2.1. A nuclear source such as the Cf252, Cs137 and Am241 isotopes tested herein are deemed acceptable by State and Federal authorities if the contamination found on a smear is less than 0.005 microcuries. Alpha, Beta, and Gamma contamination is measured in the Cf252 smear and Beta and Gamma in the Cs137 smear.

**CON-WAY****STRAIGHT BILL OF LADING****DRIVER PLEASE NOTE  
IF SINGLE SHIPMENT  
CHECK BOX BELOW****[K]****SHIP FROM  
PLE****D UNLESS MARKED COLLECT****☒ COLLECT****ORIGINAL - NOT NEGOTIABLE**

|   |           |   |                 |                                     |   |
|---|-----------|---|-----------------|-------------------------------------|---|
| <b>PRO NO.</b><br>400-586211<br>Driver's signature acknowledges receipt of freight only. Unless otherwise agreed to under separate contract, terms and conditions of tariff CONWAY 199 apply. |           | <b>CWCE</b>   |                 |                                     |   |
| <b>MM</b> 24002 <b>ED</b> SPCL <b>DEST</b> SIC  |           |   |                 |                                     |   |
| <b>SHIPPER (FROM)</b><br>ICG Coal - Bayback Prep Plant<br>STREET 353 Baylor Drive<br>CITY, STATE/PROVINCE, ZIP/POSTAL CODE Eccles, WV25836 (TELEPHONE) 304-253-5454                           |           | <b>CONSIGNEE (TO)</b><br>SABIA, Inc<br>STREET 2300 North Yellowstone Hwy Bay #3<br>CITY, STATE/PROVINCE, ZIP/POSTAL CODE Idaho Falls, ID 83401 (TELEPHONE) 208-528-8878                             |                 |                                     |   |
| <b>BILL TO SABIA, INC</b><br>STREET 7944 Convooy Ct<br>CITY, STATE/PROVINCE, ZIP/POSTAL CODE SAN DIEGO, CA 92111 (TELEPHONE) 858-279-4000   |           | <b>CUSTOMS BROKER</b><br>STREET<br>CITY, STATE/PROVINCE, ZIP/POSTAL CODE (TELEPHONE)  |                 |                                     |   |
| <b>ACCOUNT CODE</b>   |           | <input type="checkbox"/> <b>CON-WAY Guaranteed!</b> <input type="checkbox"/> <b>CON-WAY DEFERRED</b>  |                 |                                     |   |
| <b>NUMBER SHIPPING UNITS</b>  | <b>MM</b> | <b>KIND OF PACKAGING, DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS</b>   | <b>NMFC NO.</b> | <b>CLASS OR DENSITY OF ARTICLES</b> | <b>WEIGHT (Subject to Correction)</b><br>Cltb Ckg |
| 1   | X         | Radioactive Material, Type A Package, Non Special Form Non Fissile, Class 7, UN2915, Cesium Chloride as a metallic solid, USA DOT 7A Type A Packages Packed in Overpack x 0.188 GBq TI 0.67 white I | 164900-2        | 100                                 | 50  |
| Emergency Contact: Chemtrec 800-424-9300  |           |   |                 |                                     |   |
| <b>COD AMOUNT: \$</b>   |           | <b>COD</b> <input type="checkbox"/> Prepaid <input checked="" type="checkbox"/> Collect   |                 | <b>REMIT COD TO:</b>                |   |
| <input type="checkbox"/> U.S. <input type="checkbox"/> Canadian   |           | <b>Fee:</b>   |                 | <b>ADDRESS:</b>                     |   |
| <b>NOTE:</b> Consignee's company check made payable to the Shipper will be accepted by Con-Way and forwarded to shipper unless otherwise directed to do so by the shipper.                    |           |   |                 |                                     |   |
| <b>CITY:</b>  |           | <b>STATE/PROVINCE</b>   |                 | <b>ZIP/POSTAL CODE</b>              |   |

Notice: Unless the Shipper completes the requirements as provided below, Carrier's liability shall be limited as stated herein and in Tariff CONWAY-189, which may be obtained by request. Carrier shall in no event be liable for loss of profit, income, interest, attorney fees, or any special, incidental or consequential damages. Where the rate or NMFC classification is dependent on value, shippers are required to state specifically in writing the declared value of the property. For this purpose the declared value of the property is hereby specifically stated by the Shipper to be not exceeding \$ \_\_\_\_\_. Also, paragraph number 2 on the reverse side of this Bill of Lading sets forth released value terms and conditions.

Carrier liability with shipment originating within the United States: Unless the Shipper declares excess value on the Bill of Lading, requests excess liability coverage and pays an additional charge, Carrier's maximum liability is \$25 per pound per individual lost or damaged piece within the shipment, subject to \$150,000 maximum total liability per shipment, and provided further that Carrier's liability on household goods, articles other than new articles, such as used and/or refurbished articles, or personal effects shall not exceed ten cents per pound per individual lost or damaged piece within the shipment. For this purpose the declared value of the property is hereby specifically stated by the Shipper to be \$ \_\_\_\_\_, and Shipper agrees to pay an additional charge for excess liability coverage. Total declared value may not exceed \$850,000 per shipment.

Carrier liability with shipment originating within Canada: Unless the Shipper agrees to a Special Agreement, declares the value in the box below and agrees to pay the excess liability charge by initialing where indicated, Carrier's maximum liability is CAN\$2 per pound (CAN\$4.41 per kilogram) per individual lost or damaged piece within the shipment, subject to a maximum total liability per shipment of CAN\$20,000, and provided further that Carrier's liability on household goods, used and/or refurbished articles, or personal effects shall not exceed ten cents (CAN) per pound per individual lost or damaged piece within the shipment.

**SPECIAL AGREEMENT:** Declared Value: CAN \$ \_\_\_\_\_ per pound. (Declared value may not exceed CAN \$100,000 per shipment.)  
Shipper agrees to pay excess liability charge: \_\_\_\_\_ (Shipper's Initials)

**COMMODITY DESCRIPTION(S):** By signing this Bill of Lading, I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/precarried, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

**Shipment Received:** The shipment is received subject to Tariff CONWAY-189, Carrier's pricing schedules, terms, conditions and rules maintained at Carrier's general offices in effect on the date of issue of this Bill of Lading, as well as the National Motor Freight Classifications, the Hazardous Materials Transportation Regulations (Title 49 - CFR, Subtitle B, Chapter I, Sub Chapter A-C), and the Household Goods Mileage Guide (HHGG 105 Series) for shipments originating in the United States; and the Canadian Motor Vehicle Transport Act, the Transportation of Dangerous Goods Act, and the regulations in force in the provincial jurisdiction at the time and place of the shipment for shipments originating in Canada. The property described on this Bill of Lading is in apparent good order, but only to the extent that it is unopened and visible without further inspection and except as noted or marked. The property is consigned and destined as indicated above. The word Carrier as defined throughout this contract as meaning any person or corporation in possession of the property under this contract. Carrier agrees to carry the property to its destination, if 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 the destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all of this Bill of Lading's terms and conditions in effect on the date of shipment, including, but not limited to, the "Terms and Conditions" listed on the back side of this Bill of Lading.

|  |   |
|--|---|
| <b>SHIPPER</b><br>SABIA, Inc             | <b>CARRIER</b><br>CON-WAY TRANSPORTATION SERVICES, INC.<br>CON-WAY CANADA EXPRESS, INC. |
| <b>AUTHORIZED SIGNATURE</b><br>J. C. 9/1 | <b>AUTHORIZED SIGNATURE</b><br>K. 10/25/07  |

04032-001 (002) Lite U.S.A.

(CONWY)

NUMBER OF UNITS RECEIVED 1





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Idaho Falls, ID 83401  
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Fax: 208-528-8880

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## -PACKING LIST-

Sold to:

Ship to: SABIA Inc  
2300 N. Yellowstone Hwy  
Idaho Falls, ID 83401

P.O. #  
FTC contract #  
Shipped VIA

Customer License # (if applicable):

Date Shipped: 01-24-07

FOB:

Source Data: as of

| Ser. # | Model # | Content | Output  | Contamination/100 sq. cm.<br>(per source)   |
|--------|---------|---------|---------|---|
| 63-1   | LB-7440 | Cs-137  | 188 MBq | alpha < $9 \times 10$ (exp-6) $\mu$<br>beta/gamma < $45 \times 10$<br>(exp-6) $\mu$ |

Shipping Container: US-DOT 7A Type A  
Model # Overpack Ser #

Wt.

Seal # FTC

| Radiation levels: | gamma | neutron | total |           |
|-------------------|-------|---------|-------|-----------|
| Surface:          | 0.3   | + N/A   | = 0.3 | mRem      |
| At one meter:     | 0.1   | + N/A   | = 0.1 | mRem (TI) |

Instrument ser #: Ludlum Model 2401 SN:204299

Contamination level: alpha <  $9 \times 10$  (exp-6) micro curies/100 sq. cm.  
beta/gamma <  $45 \times 10$  (exp-6) micro curies/100 sq. cm.

NOTICE: A radiation safety specialist should be present when this container is opened.

### CERTIFICATIONS:

SPECIAL FORM: At the time of shipment the sources in this shipment met the requirements for special form.

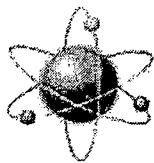
LEAK TEST: The sources in this shipment have passed the helium bubble pressure leak test.

The products covered by this document are certified to meet the requirements of the contract.

Field  
Engineer

Date

1-24-07

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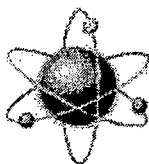
## Nuclear Source Leak Test Report

|   |   |
|---|---|
| Company Name: ICG-Baybeck Prep Plant  | Customer's Instrument Model and S/N:<br>Berthold LB 7440<br>SN: LB7440-63-1 |
| Address: 353 Baylor Drive<br>Eccles, WV 25836   | Date of Leak Test: 01-24-07   |
| Site Contact: Basil McKinney<br>Phone Number: 304-253-5454  | SABIA Engineer Name: John Hagley<br>Signature: <i>John W. Hagley</i>        |
| List all instruments used to perform the leak test:   |   |
| <u>Instrument</u><br>SE International<br>Radiation Alert  | <u>Model</u><br>Inspector<br><u>Serial Number</u><br>08644                  |
| Reason for Leak Test:<br>Commission <input type="checkbox"/> Decommission <input checked="" type="checkbox"/> Refurbishment <input type="checkbox"/> Periodic Wipe <input type="checkbox"/><br>Other <input type="checkbox"/> _____ |   |
| Shutter Check: Pass <input type="checkbox"/> / Fail <input checked="" type="checkbox"/> N/A <input type="checkbox"/><br><b>Permanently in the OFF position</b>  |   |

### Test Results :

|  |  |  |
|--|--|--|
| Sealed Source Serial Number<br>Cs-137<br>LB7440-63-1 | Source Activity<br>Level milliCi<br>50 | Smear Contamination<br>Levels<br>< 0.005 uCi |
| Sealed Source Serial Number<br>Cf-252                | Source Activity<br>Level µgrams        | Smear Contamination<br>Levels                |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| Sealed Source Serial Number<br>Am-241                | Source Activity<br>Level milliCi       | Smear Contamination<br>Levels                |
|  |  |  |
|  |  |  |

The Leak Test results documented by this report were obtained using a wipe (smear with a cloth patch) test in accordance with ANSI N5.10 – 1968 Appendix Section B2.1. A nuclear source such as the Cf252, Cs137 and Am241 isotopes tested herein are deemed acceptable by State and Federal authorities if the contamination found on a smear is less than 0.005 microcuries. Alpha, Beta, and Gamma contamination is measured in the Cf252 smear and Beta and Gamma in the Cs137 smear.



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## RADIOACTIVE SOURCE SHIPMENT SURVEY RECORD

### A. Source Data

1. Type of Source: Cs-137
2. Quantity of Sources: 1
3. Type of radiation emitted: Alpha, Beta, Gamma
4. Source Identification: LB7440-63-1

### B. Shipping Package Data

1. Type: DOT 7A Type A
2. Model No.:
3. Serial No.:
4. Approx. Weight: 50 lbs

### C. Radiological Control

1. Container Survey – Contamination, mCi/100 sq. cm.

Outer Surface:

2. Container Survey – Radiation, mRem/hr.

Surface

1 Meter from Surface

Gamma - 0.3

Gamma - <0.1

Neutron - N/A

Neutron - N/A

Total = 0.3

Total = <0.1

\* TI = <0.1 (\* = transport index when rounded to next higher tenth) 49CFR173.389(i)

### Survey Instruments Used:

### Model#

### SN#

Gamma: Ludlum

2401-EC

204299

Neutron: N/A

### D. Name and Address of Shipper:

SABIA, Inc  
2300 N. Yellowstone Hwy.  
Idaho Falls, ID 83401

### E. Name and Title of Person Generating Form:

John W. Hagley  
Sr. Field Service Engineer

**SABIA** INC

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Idaho Falls, ID 83401  
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**24 Hr Response (800) 424-9300**

## EMERGENCY RESPONSE INFORMATION RADIATION SOURCES

|                     |  |            |   |            |
|---------------------|--|------------|---|------------|
| Source:             | <u>Cs-137</u>  | Activity:  | <u>188</u> MBq  |            |
| Form:               | Solid  | Date:      | <u>01-24-07</u>   |            |
| Shipment No.        |  | UN Number: | <u>2915</u>   |            |
| Dose rates: Contact | <u>0.3</u> Mrem/Hr   | 3 feet     | <u>50.1</u> Mrem/Hr   | NOT A FIRE |
| HAZARD              |  |            |   |            |
|                     | Cs-137   |            | Cf-252  |            |
| Radiation Hazard:   | Gamma - dose<br>Beta - contamination   |            | Neutron, Gamma - dose<br>Alpha - contamination                                    |            |
| Description:        | Cesium Chloride<br>powder double<br>encapsulated in a<br>stainless steel<br>capsule. |            | Phalladium cermet wire<br>double encapsulated in<br>a stainless steel<br>capsule. |            |
| Dimensions:         | ¼ in. diameter<br>½ in. length   |            | ⅜ in. diameter<br>1 ½ in. length  |            |

**INSTRUCTIONS:****Source Intact**

- **DO NOT TOUCH SOURCE**
- Place source back into the shipping container or a secured storage area. When handling Cs-137 and Cf-252, use remote handling tools (tongs or pliers). The detector assembly can be handled directly.
- When moving the source, keep as much distance as possible between person and the source.

**Source Crushed**

- **DO NOT TOUCH BROKEN CAPSULE OR POWDER**
- Rope off area approximately 10 feet around the source.
- Keep personnel away from area to prevent contamination.
- Personnel who may have walked through contaminated area or have accidentally touched the source should be segregated into a holding area to be checked for contamination.
- Notify the Radiological Emergency Response Organization in the area in which the accident occurred.




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### Activity Report for Service Performed in the Field

[illegible]

  
Customer Signature

1-24-07  
Date