



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

January 21, 2011

Mr. Rick L. Tripp
Plant Managing Director
PacifiCorp Energy
Dave Johnston Steam Electric Plant
1591 Tank Farm Road
Glenrock, WY 82637

SUBJECT: RESPONSE TO NRC INSPECTION REPORT 030-36612/2010-001 AND
NOTICE OF VIOLATION

Dear Mr. Tripp:

Thank you for your letter dated January 7, 2011, in response to the violation identified in our letter and Notice of Violation (Notice) dated December 28, 2010. We have reviewed your letter and find your response and corrective actions to be responsive to our concerns.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions about this letter, please contact Martha Poston-Brown at 817-860-8181 or the undersigned at 817-860-8287.

Sincerely,

A handwritten signature in cursive script, reading "Vivian H. Campbell", is written over a horizontal line.

Vivian H. Campbell, Chief
Nuclear Materials Safety Branch A

Docket: 030-36612
License: 49-27781-01

cc w/enclosure:
Copy of licensee's response

Scott W. Ramsey, Radiological Services Supervisor
Wyoming Office of Homeland Security
2421 East 7th Street
Cheyenne, WY 82001

PacifiCorp Energy

- 2 -

cc w/enclosure:

E. Collins, RA

R. Caniano, D:DNMS

C. Cain, DD:DNMS

J. Whitten, C:NMSB-B

R4DNMS_MS-A

Hard copy:

RIV Materials Docket File

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ADAMS	X Yes <input type="checkbox"/> No	X SUNSI Rev Complete	Reviewer Initials:	MRP
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RIV:C:NMSB-A		C:NMSB-A		
MRPoston-Brown;dlf		VHCampbell		
1/19/11 <i>MC</i>		1/19/11 <i>MC</i>		

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T=Telephone

E=E-mail

F=Fax

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JAN 10 REC'D

DNMS



DAVE JOHNSTON STEAM ELECTRIC PLANT

1591 TANK FARM ROAD • GLENROCK, WYOMING 82637 • PHONE (307) 995-5000 • FAX (307) 995-5020

January 7, 2011

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Re: Reply to a Notice of Violation
NRC INSPECTION REPORT 030-36612/2010-001 AND NOTICE OF VIOLATION

Dear Sir or Madam:

In connection with the inspection conducted at PacifiCorp's Dave Johnston power plant by Ms. Marta Poston-Brown and Ms. Vivian H. Campbell on November 17, 2010, and in response to the subsequent notice of violation dated December 28, 2010, please find the following explanation which includes corrective measures taken by PacifiCorp to achieve compliance.

BACKGROUND:

In October 2009, the Dave Johnston Plant's Safety and Security Coordinator, Tom Miller, was terminated. In addition to Mr. Miller's safety and security duties, he was also the plant's Radiation Safety Officer.

In addition to Mr. Miller's termination, PacifiCorp's contract with ThermoFisher Scientific expired in April of 2009, and was not renewed until November 2009. ThermoFisher Scientific is the supplier of the radioactive source and is contracted to perform the shutter checks, leak tests, and assist with the inventory. Although a contract with ThermoFisher was in place in late 2009, the necessary work release was not initiated to conduct these tasks because the plant did not identify anyone to pick up those responsibilities after Mr. Miller's termination.

CORRECTIVE ACTIONS:

After the inspection on November 17, 2010, PacifiCorp initiated the following corrective actions:

- A. In response to violation D, on December 2, 2010, Mr. Anderson conducted the periodic (annual) review of the radiation protection program content and implementation in accordance with 10 CFR 20.1101(c). See Attachment 1.

- B. In response to violations A, B and C, on December 12-14, 2010, Mr. Rob Belnap of ThermoFisher Scientific conducted the leak test in accordance with Condition 13 of NRC materials license 49-27781-01. In addition, Mr. Belnap completed the test of the on-off mechanism (shutter) as required by Condition 16 of NRC materials license 49-27781-01, and Mr. Belnap completed the physical inventory of the sealed sources required by Condition 15 of NRC materials license 49-27781-01. See Attachment 2.
- C. Upon completion of Mr. Belnap's leak test certification, the Sealed Source Leak Test and Inventory Record was filled out by the Dave Johnston Plant's Compliance Manager, Alan Dugan. See Attachment 3.

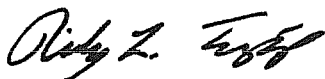
STEPS TO PREVENT FUTURE OCCURRENCE:

PacifiCorp has taken the following steps to prevent future occurrence:

- A. The Dave Johnston Plant recognizes the need for a Radiation Safety Office on site and has named Mr. Alan Dugan to fulfill that requirement. Mr. Dugan will be attending Radiation Safety Officer training in Las Vegas, Nevada, January 10 – 14, 2011. Upon completion of Mr. Dugan's training, PacifiCorp will submit an amendment to NRC material license 49-27781-01 naming him as Radiation Safety Officer.
- B. PacifiCorp utilizes an electronic compliance management system for other regulatory requirements. The compliance management system generates task assignments with due dates and has a robust reminder system to a variety of personnel to ensure all required actions are completed. All of the requirements of NRC materials license 49-27781-01 have been added to the system to ensure continued compliance.

Should you have questions or need clarification, please feel free to contact Mr. Alan Dugan at (307) 995-5046 or myself at (307) 995-5001.

Sincerely,



Ricky L. Tripp
Plant Managing Director

Attachments

Reply to a Notice of Violation
January 7, 2011
Page | 3

cc: Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
612 East Lamar Blvd, Suite 400
Arlington, TX 76011-4125

Scott W. Ramsay
Wyoming Radiation Control Program Director
Radiological Services Supervisor
Wyoming Office of Homeland Security
2421 E. 7th Street
Cheyenne, Wyoming 82001

Dana Ralston - NTO
Derald Anderson – NTO
Alan Dugan – Dave Johnston Plant

Attachment 1

Fixed Gauge Audit Checklist

12-01-2010

Suggested Fixed Gauge Audit Checklist

Note: All areas indicated in audit notes may not be applicable to every license and may not need to be addressed during each audit. For example, licensees do not need to address areas which do not apply to their activities and activities which have not occurred since the last audit need not be reviewed at the next audit.

Licensee's name Dave Johnston Plant License No. 49-27781-0
 Date of This Audit 12-2-10 Date of Last Audit 9-17-08
[Signature] Date 12-2-10
 (Auditor Signature)

 (Management Signature) Date _____

Audit History

- A. Last audit of this location conducted on (date) 9-17-08
 B. Were previous audits conducted at intervals not to exceed 12 months? [10 CFR 20.1101] No
 C. Were records of previous audits maintained? [10 CFR 20.2102] yes
 D. Were any deficiencies identified during last two audits or two years, whichever is longer? No
 E. Were corrective actions taken? (Look for repeated deficiencies). N/A

Organization and Scope of Program

- A. If the mailing address or places of use changed, was the license amended? N/A
 B. If ownership changed or bankruptcy filed, was NRC prior consent obtained or was NRC notified? N/A
 C. Radiation Safety Officer
 1. If the RSO was changed, was license amended? yes
 2. Does new RSO meet NRC training requirements? yes
 3. Is RSO fulfilling his/her duties? yes
 4. To whom does RSO report? Tom Davis

APPENDIX H

D. If the designated contact person for NRC changed, was NRC notified? *Yes*

E. Sealed Sources and Devices

1. Does the license authorize all of the NRC regulated radionuclides contained in gauges? *Yes*
2. Are the gauges as described in the Sealed Source and Device (SSD) Registration Certificate? *Yes*
3. Have copies of (or access to) SSD Certificates? *Yes*
4. Have manufacturers' or distributor's manuals for operation and maintenance? *Yes*
[10 CFR 32.210]
5. Are the actual uses of gauges consistent with the authorized uses listed on the license? *Yes*
6. Are the location of the gauges compatible with the "Conditions of Normal Use" and "Limitations and/or Other Considerations of Use" on the SSD Registration Certificates? *Yes*

Training and Instructions to Workers

- A. Were all workers who are likely to exceed 1 mSv (100 mrem) in a year instructed per [10 CFR 19.12]? Refresher training provided, as needed [10 CFR 19.12]? Records maintained? *Training provided by Manufacturer*
- B. Did each AU receive training and instruction given at the time of gauge installation or equivalent training and instruction before using gauges? *Yes*
- C. Are training records maintained for each AU? *Yes*
- D. Did individuals who perform non-routine operations receive training before performing these operations? *N/A*
- E. Did interviews with AUs reveal that they know the emergency procedures? *Yes*
- F. Did this audit include observations of AUs using the gauge? *No*
- G. Did this audit include observations of workers performing routine cleaning and lubrication on the gauge? *No*
- H. HAZMAT training provided, if required? [49 CFR 172.700, 172.701, 172.702, 172.703, 172.704] *Yes - on site team*

Radiation Survey Instruments *N/A*

- A. If the licensee is required to possess a survey meter, does it meet the NRC's criteria? [10 CFR 20.1501]
- B. Are calibration records maintained [10 CFR 20.2103(a)]?

Gauge Inventory

- A. Is a record kept showing the receipt of each gauge? [10 CFR 30.51(a)(1)] *Yes*
- B. Are all gauges physically inventoried every six months? *Yes*
- C. Are records of inventory results with appropriate information maintained? *Yes*

Personnel Radiation Protection

- A. Are ALARA considerations incorporated into the radiation protection program?
[10 CFR 20.1101(b)] *Yes*
- B. Were prospective evaluations performed showing that unmonitored individuals receive $\leq 10\%$ of limit? [10 CFR 20.1502(a)] *Yes*
- C. Did unmonitored individuals' activities change during the year which could put them over 10% of limit? *No*
- D. If yes to C. above, was a new evaluation performed? *N/A*
- E. Is external dosimetry required (individuals likely to receive $>10\%$ of limit,)? And is dosimetry provided to these individuals? *Not Required*
 - 1. Is the dosimetry supplier NVLAP approved? [10 CFR 20.1501(c)]
 - 2. Are the dosimeters exchanged monthly for film badges and quarterly for TLD's?
 - 3. Are dosimetry reports reviewed by the RSO when they are received?
 - 4. Are the records NRC Forms or equivalent? [10 CFR 20.2104(d), 20.2106(c)]
 - a. NRC-Form 4 "Cumulative Occupational Exposure History" completed?
 - b. NRC-Form 5 "Occupational Exposure Record for a Monitoring Period" completed?
 - 5. Declared pregnant worker/embryo/fetus
 - a. If a worker declared her pregnancy, did licensee comply with [10 CFR 20.1208]? *None*
 - b. Were records kept of embryo/fetus dose per [10 CFR 20.2106(e)]? *N/A*
- F. Are records of exposures, surveys, monitoring, and evaluations maintained [10 CFR 20.2102, 20.2103, 20.2106] *Yes*

APPENDIX H

Public Dose

- A. Is public access to gauges controlled in a manner to keep doses below 1 mSv (100 mrem) in a year? 10 CFR 20.1301(a)(1)] *Yes*
- B. Has a survey or evaluation been performed per 10 CFR 20.1501(a)? 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 0.02 mSv (2 mrem) in any one hour? [10 CFR 20.1301(a)(2)] *No*
- D. Is gauge access controlled in a manner that would prevent unauthorized use or removal? *Yes* [10 CFR 20.1801]
- E. Records maintained? [10 CFR 20.2103, 20.2107] *Yes*

Operating and Emergency Procedures

- A. Have operating and emergency procedures been developed? *Yes*
- B. Do they contain the required elements? *Yes*
- 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*
- 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*
- E. Did any emergencies occur? *No*
1. If so, were they handled properly? *N/A*
 2. Were appropriate corrective actions taken? *N/A*
 3. Was NRC notification or reporting required? [10 CFR 20.2201, 20.2202, 20.2203] *N/A*

Leak Tests

- A. Was each sealed source leak tested every 6 months or at other prescribed intervals? *No, 240 mired*
- B. Was the leak test performed according to the license? *Yes* *240 mired*
- C. Are records of results retained with the appropriate information included? *Yes*
- D. Were any sources found leaking and if yes, was NRC notified? *No*

Maintenance of Gauges

- A. Are manufacturer's or distributor's procedures followed for routine cleaning and lubrication of gauge? *Yes, but 2010 missed. Will be completed Dec. 2010*
- B. Was each on-off mechanism tested for proper operation every 6 months or at other prescribed intervals? *No*
- C. Are repair and maintenance of components related to the radiological safety of the gauge performed by the manufacturer, distributor or person specifically authorized by the NRC or an Agreement State and according to license requirements (e.g., extent of work, procedures, dosimetry, survey instrument, compliance with 10 CFR 20.1301 limits)? *Yes*
- D. Are labels, signs, and postings identifying gauges containing radioactive material, radiation areas, and lock-out procedures/warnings clean and legible? *Yes*

Transportation *N/A*

(Note: This section will not apply if you have not transported gauges during the period covered by this audit.)

- A. DOT-7A or other authorized packages used? [49 CFR 173.415, 173.416(b)]
- B. Package performance test records on file?
- C. Special form sources documentation? [49 CFR 173.476(a)]
- D. Package has two labels (ex. Yellow-II) with TI, Nuclide, Activity, and Hazard Class? [49 CFR 172.403, 173.441]
- E. Package properly marked? [49 CFR 172.301, 172.304, 172.310, 172.324]
- F. Package closed and sealed during transport? [49 CFR 173.475(f)]
- G. Shipping papers prepared and used? [49 CFR 172.200(a)]
- H. Shipping papers contain proper entries? {Shipping name, Hazard Class, Identification Number (UN Number), Total Quantity, Package Type, Nuclide, RQ, Radioactive Material, Physical and Chemical Form, Activity (SI units required), category of label, TI, Shipper's Name, Certification and Signature, Emergency Response Phone Number, Cargo Aircraft Only (if applicable)} [49 CFR 172.200, 172.201, 172.202, 172.203, 172.204, 172.604]
- I. Shipping papers within drivers reach and readily accessible during transport? [49 CFR 177.817(e)].
- J. Package secured against movement? [49 CFR 177.834]
- K. Placards on vehicle, if needed? [49 CFR 172.504]

APPENDIX H

L. Proper overpacks, if used? [49 CFR 173.25]

M. Any incidents reported to DOT? [49 CFR 171.15, 171.16]

Auditor's Independent Survey Measurements (If Made)

A. Describe the type, location, and results of measurements. Does any radiation level exceed regulatory limits? [10 CFR 20.1501(a) & 20.1502(a)] *None*

Notification and Reports

A. Was any radioactive material lost or stolen? Were reports made? [10 CFR 20.2201, 30.50] *No*

B. Did any reportable incidents occur? Were reports made? [10 CFR 20.2202, 21.21, 30.34, 30.36, 30.50] *No*

C. Did any overexposures and high radiation levels occur? Reported? [10 CFR 20.2203, 30.50] *No*

D. If any events (as described in items a through c above) did occur, what was root cause? Were corrective actions appropriate? *N/A*

E. Is the management/RSO/shift foreman licensee aware of telephone number for NRC Emergency Operations Center? [(301) 816-5100] *Yes*

Posting and Labeling

A. NRC-Form 3 "Notice to Workers" posted? [10 CFR 19.11] *Yes*

B. NRC regulations, license documents posted or a notice posted? [10 CFR 19.11, 21.6] *Yes*

C. Other posting and labeling? [10 CFR 20.1902, 20.1904] *N/A*

Record Keeping for Decommissioning *N/A*

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

B. Records include all information outlined in [10 CFR 30.35(g)]?

Bulletins and Information Notices

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

B. Appropriate training and action taken in response? *Yes*

Special License Conditions or Issues

- A. Did auditor review special license conditions or other issues (e.g., non-routine operations)? *No*

Deficiencies Identified in Audit; Corrective Actions

- A. Summarize problems/deficiencies identified during audit. *Missed heads tests & maintenance for 2010.*
- B. If problems/deficiencies identified in this audit, describe corrective actions planned or taken.
Are corrective actions planned or taken at ALL licensed locations (not just location audited)?
Include date(s) when corrective actions are implemented. *Leads test & maintenance will be completed by Dec. 17, 2010*
- C. Provide any other recommendations for improvement.

Evaluation of Other Factors

- A. Senior licensee management is appropriately involved with the radiation protection program and/or RSO oversight? *Yes*
- B. RSO has sufficient time to perform his/her radiation safety duties? *Yes*
- C. Licensee has sufficient staff to support the radiation protection program? *Yes*

Attachment 2

ThermoFisher Scientific Leak Test Certification
and Field Service Activity Report

12-14-2010

ThermoFisher SCIENTIFIC

Thermo Gamma Metrics, LLC
10010 Mesa Rim Road
San Diego, CA 92121

Tel: +1-800-488-4399
Fax: +1-858-546-1734
www.thermo.com

LEAK TEST CERTIFICATE

CUSTOMER	Pacificorp	TEST DATE	12/14/2010
SITE NAME	Dave Johnson	RSO	Derald Anderson
SITE ADDRESS	1591 Tank Farm Rd, Coal Co. Rte		
SITE ADDRESS	Glenrock, WY 82637	LICENSE #	49-27781-01
DEVICE TYPE	CB-HI (CQM)	DEVICE S/N	840021
TEST REASON	Source Replenishment		

TEST PERFORMED BY:	Rob G. Belnap	SIGNATURE	<i>Rob G. Belnap</i>	DATE	12/14/2010
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TEST EQUIPMENT

MODEL	Eberline 600	S/N	2228	CALIBRATION DUE DATE	12/30/2010
MODEL	Eberline SHP-270	S/N	609	CALIBRATION DUE DATE	12/30/2010
MODEL	Eberline SHP-360	S/N	653	CALIBRATION DUE DATE	12/30/2010

CERTIFICATIONS

- Special Form:
- ☒ Californium 252 (CF-252) CfPd cermet or Cf-Pd alloy
 - ☒ Cesium 137 (Cs-137) Cesium Chloride
 - ☐ Americium 241 (Am-241) Americium Chloride
 - ☐ Other Type: _____

- Leak Test:
- ☒ The sources listed below have passed the ANSI N5.10-1968, Appendix B, section B2.1 Wipe (Smear) Test with removable Alpha and Beta/Gamma surface contamination less than, or equal to, 0.005 μCi .
Note: A sealed source may be leaking if it has removable contamination that is found to be equal to or greater than 0.005 μCi (185 Becquerel)

- Inventory:
- ☒ The sources listed below were verified to be in above device.

Reference Data: 0.005 μCi = 185 Bq 1 Bq = 27 pCi $\text{CFM} / (2.22 \times 10^6) = \mu\text{Ci}$ 1 μg = 0.537 mCi

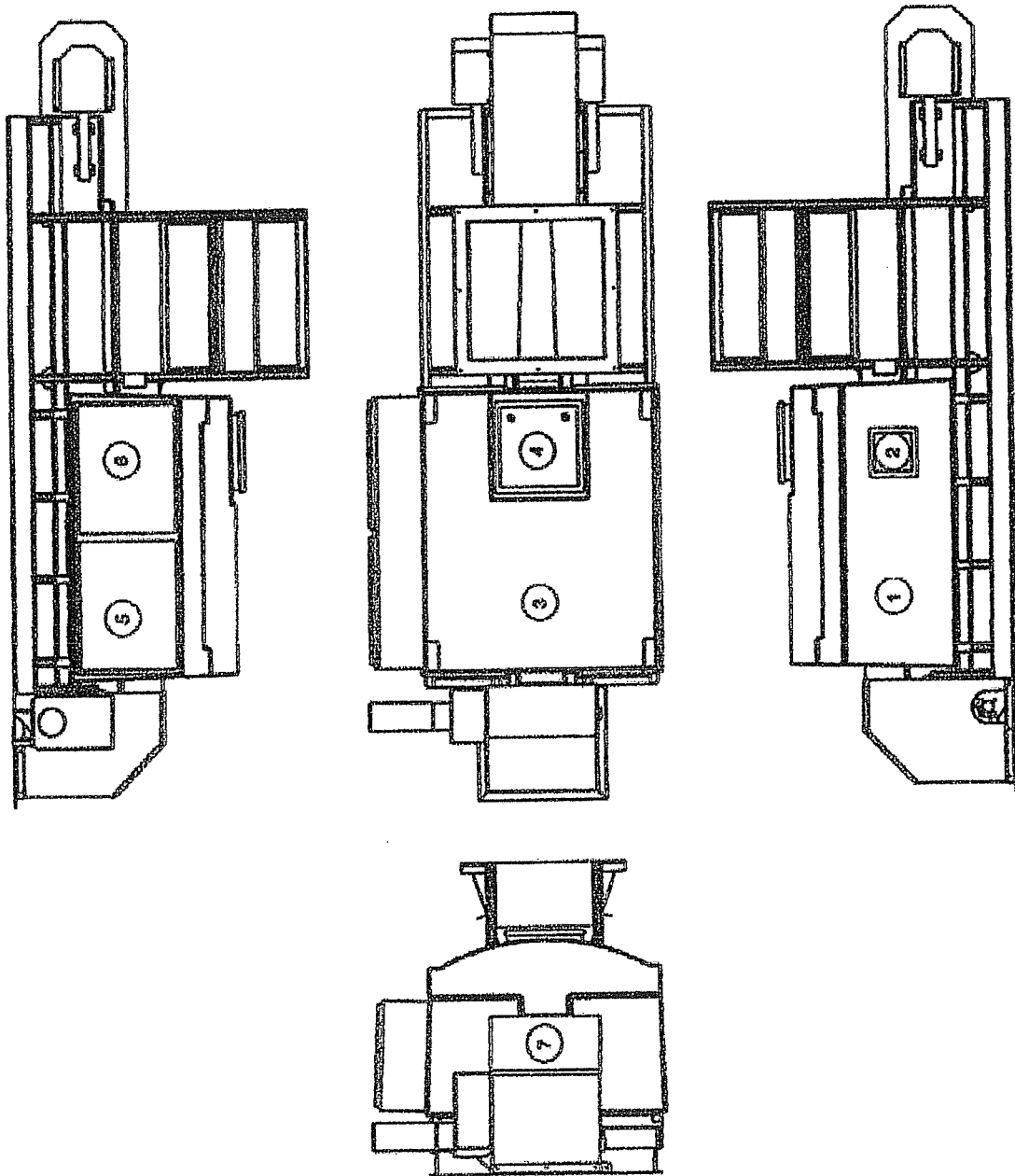
SOURCE DATA

Serial Number	Isotope	Amount (μg)	Amount (mCi)	Manufacture	Status	Contamination
FTC-CF-Z2303	CALIFORNIUM 252	4.67	2.51	Frontier Technology	Installed	0
FTC-CF-Z3144	CALIFORNIUM 252	4.42	2.37	Frontier Technology	Installed	0
V-954	CESIUM-137	14.21	7.63	E&Z Isotope Products	Installed	0
FTC-CF-4057	CALIFORNIUM 252	9.43	5.06	Frontier Technology	Installed	0

Radiation Device Survey

Device S/N: 840021

Survey Data





Radioactive Materials Shipping Notification

RECEIVER INFORMATION:

Company: PacificCorp

Site: Dave Johnston Power Plant

Address: 1591 Tank Farm Road, Coal Co, Wt

Glenrock, WY 82637

RSO Contact: Derald Anderson

Telephone: 801-220-4155

Email: derald.anderson@pacificcorp.com

TECHNICAL INFORMATION

<u>Source Isotope</u>	<u>Quantity</u>	<u>~ Activity (ug)</u>
<u>Cf-252</u>	<u>1</u>	<u>10</u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

The RSO has been notified that the radioactive sources are ready for shipment and approves shipment of sources to customer site.

Requested ship date: **08/06/2010**

Although every attempt will be made to meet requested ship date, due to external factors there are no guarantees. This is also the case with the receive date.

Thermo Fisher Scientific:

By: Rob G. Belnap Title: FSE Date: 8/2/2010



STRAIGHT BILL OF LADING

ISO-9001 & 14001

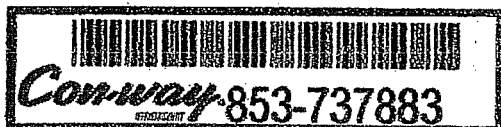
DRIVER PLEASE NOTE

IF SINGLE SHIPMENT
CHECK BOX BELOWSHIPPER
PLEASE NOTE

FREIGHT CHARGES ARE PREPAID UNLESS MARKED COLLECT

☒ COLLECT

ORIGINAL - NOT NEGOTIABLE



SHIPPER (FROM)		DATE		P.O. NO.		SHIPPER NO.	
Frontier Technology Corporation		August 2010		3000069801		A50642	
STREET		CUSTOMER'S SPECIAL REFERENCE NUMBER		Attn: Tom Miller			
1641 Burnett Drive		CONSIGNEE (TO)		PacifiCorp - Dave Johnston Plant			
CITY, STATE/PROVINCE, ZIP/POSTAL CODE		STREET		1591 Tank Farm Road, Coal Co Rte			
Xenia, OH 45385		CITY, STATE/PROVINCE, ZIP/POSTAL CODE		Glenrock, WY 82637			
(TELEPHONE)		CITY, STATE/PROVINCE, ZIP/POSTAL CODE		(TELEPHONE)			
937-376-5691		Glenrock, WY 82637		307.436.2119			
BILL TO		CUSTOMS BROKER					
Thermo Gamma Metrics, LLC		STREET					
STREET		CITY, STATE/PROVINCE, ZIP/POSTAL CODE		(TELEPHONE)			
10010 Mesa Rim Road		San Diego, CA 92121		858.450.9811			
CITY, STATE/PROVINCE, ZIP/POSTAL CODE		ACCOUNT CODE		<input type="checkbox"/> Con-way GUARANTEED			
(TELEPHONE)							
858.450.9811							
NUMBER OF UNITS		CLASS OF CARRIER, DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS		CLASS OF CARRIER		WEIGHT	
1		Radioactive Material, Type A Package, Special Form Non Fissile		100		275	
X		Class 7, UN3332 Californium-252 solid CFRG alloy		164900 ₂			
		1 Type A Package X 0.2GBq. TI: 2.1					
		Labeled "RADIOACTIVE YELLOW III". Radioactive placards required - 4 offered.					
		Emergency contact CHEMTREC 1 800-424-9300					
COD AMOUNT: \$		COD <input type="checkbox"/> Prepaid		PERMIT COD TO			
<input type="checkbox"/> U.S. <input type="checkbox"/> Canadian		Fee: <input type="checkbox"/> Collect		ADDRESS			
NOTE: 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.				CITY		STATE/PROVINCE ZIP/POSTAL CODE	

Notice: Unless the Shipper completes the requirements as provided below, Carrier's liability shall be limited as stated herein and in Tariff CON-WAY-199, 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 below, requests excess liability coverage and pays an additional charge, Carrier's maximum liability is \$25.00 per pound per individual lost or damaged piece within the shipment, subject to \$100,000.00 maximum total liability per shipment, and provided further that Carrier's liability on articles other than new articles, including but not limited to used, remanufactured or refurbished articles, shall not exceed ten cents (\$.10) per pound per individual lost or damaged piece within the shipment. And, provided further, that Carrier's liability on household goods and personal effects shall not exceed ten cents (\$.10) 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 \$650,000.00 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\$2.00 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\$20,000.00, and provided further that Carrier's liability on articles other than new articles, including but not limited to used, remanufactured or refurbished articles, shall not exceed ten cents (\$.10) (CAN\$) per pound per individual lost or damaged piece within the shipment. And, provided further, that Carrier's liability on household goods and personal effects shall not exceed ten cents (\$.10) (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 \$100,000.00 per shipment.)
Shipper agrees to pay excess liability charge: _____ (Shipper's initials)

Shipper Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are properly classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable governmental laws and regulations as well as Carrier's terms and NMFC classifications.

Shipment Received: The shipment is received subject to Tariff CON-WAY-199, 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 (NMFC), the Hazardous Materials Transportation Regulations (Title 49 - CFR, Subtitle B, Chapter 1, Sub Chapter A-C), and the Household Goods Mileage Guide (HGM 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 is 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. In the event no markings are indicated on the Bill of Lading stating that the shipment is to be billed as PPD or COL, all shipments will be billed as PPD. 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.

SHIPPER	CARRIER
Frontier Technology Corporation	<input checked="" type="checkbox"/> CON-WAY FREIGHT INC.
AUTHORIZED SIGNATURE	<input type="checkbox"/> CON-WAY FREIGHT-CANADA INC. 8/7/10
Treva L. Janzon	AUTHORIZED SIGNATURE DATE
	1 PM
04102-00 (8/07) Printed in USA	NUMBER OF UNITS RECEIVED 1

Thermo Gamma Metrics, LLC./PacifiCorp DJ Johnston, WY
16 August 2010

PACKING LIST-DECLARATION OF CONFORMITY
FRONTIER TECHNOLOGY CORPORATION
1641 Burnett Drive, Xenia Ohio 45385
Tel: 937/376-5691 Fax: 937/376-5692

CONSIGNEE: PacifiCorp - Dave Johnston Plant
1591 Tank Farm Road,
Coal Co Rte
Glenrock, WY 82637
Attn: Tom Miller
Tel: 307-436-2119

License: NRC 49-27781-01
REFERENCES: A50642 3000069801

SOURCE DATA: as of 16 August 2010
Serial No. **Model** **Content (activity)** **Output (n/s)** **Contamination/100 cm²**
FTC-CF-4057 **100** **10.3 ug. (0.2 GBq.)** **2.4×10^7** **alpha < 9×10^{-6} uCi**
beta/gamma < 45×10^{-6} uCi

SHIPPING CONTAINER: US-DOT 7A Type A
Model #50220 **Serial # 1279** **Weight 275 lbs. (125 K.)** **Seal #FTC**
Radiation level (mrem/hr): **surface** **at one meter**
gamma **10.0** **0.6**
neutron **15.0** **1.5**
TOTAL **25.0** **2.1 (TI)**

Survey Instruments Used: Gamma R02 1522 Neutron PNR4 1004
Contamination level: alpha < 9×10^{-6} uCi/100cm²
beta/gamma < 45×10^{-6} uCi/100cm²

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

CERTIFICATIONS

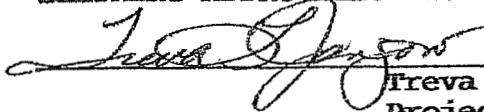
SPECIAL FORM: At the time of shipment the source in this shipment met the requirements for special form.

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

CERTIFICATE OF ORIGIN: The Cf-252 neutron source, Frontier Technology Corporation Model 100, serial number FTC-CF-4057 and the Type A shipping package, Model 50220, serial number 1279 are the product of the United States of America.

CERTIFICATE OF CONFORMANCE: The products covered by this document are certified to meet the requirements of the contract.

SHIPMENT APPROVALS: 16 August 2010


Treva L. Janzow
Projects Manager


Katharene N. Varga
Documents Review

SHIP 50220 s/n 1279

Thermo Gamma Metrics, LLC./PacifiCorp DJ Johnston, WY
16 August 2010

FRONTIER TECHNOLOGY CORPORATION
RADIOACTIVE SOURCE SHIPMENT SURVEY RECORD

A. Source Data

1. Type of source: Cf-252
2. Quantity of source: 1
3. Type of radiation emitted: neutron, gamma
4. Source identification: FTC-CF-4057

B. Shipping Package Data

1. Type A
2. Model No. 50220
3. Serial No. 1279
4. Approximate weight 275 lbs. (125 K.)

C. Radiological Control

1. Container Survey - contamination, microcuries/100 cm²
Outer Surface: alpha $<9 \times 10^{-6}$
beta/gamma $<45 \times 10^{-6}$
2. Container Survey - radiation, mrem/hr

	Surface	1 meter from surface
Gamma	10.0	0.6
Neutron	15.0	1.5
Total	25.0	2.1 *

*=transport index when rounded to next higher tenth, 49CFR173.389(i)
Survey instruments used: Gamma: RO2 1522 Neutron: PNR4 1004

D. Name and address of shipper: FRONTIER TECHNOLOGY CORPORATION
1641 Burnett Drive
Xenia, Ohio 45385 U.S.A.
Tel: 937/376-5691
Fax: 937/376-5692

E. Name and title of person generating form: Treva L. Janzow
Projects Manager

SHIP 50220 s/n 1279

Thermo Gamma Metrics, LLC./PacifiCorp DJ Johnston, WY
16 August 2010

FRONTIER TECHNOLOGY CORPORATION
RADIOACTIVE SOURCES LEAK TEST CERTIFICATE

CURRENTLY, STATE AND FEDERALLY ISSUED RADIOACTIVE MATERIALS LICENSES DEFINE A SEALED RADIATION SOURCE AS LEAKING IF REMOVABLE CONTAMINATION IS FOUND ON THE SOURCE IN EXCESS OF 0.005 MICROCURIES.

THIS IS TO CERTIFY THAT THE FOLLOWING LISTED SOURCE HAS BEEN TESTED FOR REMOVABLE SURFACE CONTAMINATION WITH THE LEVEL OF REMOVABLE CONTAMINATION OBSERVED ON THE SOURCE SURFACE BEING AS LISTED BELOW.

METHOD OF TEST:

- ☒ DRY WIPE TEST PER PARAGRAPH A2.1.2 OF AMERICAN NATIONAL STANDARD N542; SEALED RADIOACTIVE SOURCES, CLASSIFICATION (ANSI STANDARD N542-1977, NBS HANDBOOK 126).
☐ OTHER (DESCRIBE):

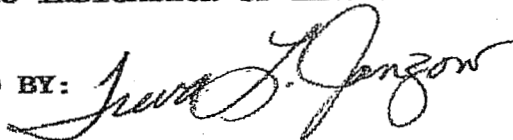
SOURCE DESCRIPTION - ISOTOPE - CONTENT as of 16 August 2010
FTC-CF-4057 Cf-252 10.3 ug.

TEST FOR: ALPHA, BETA/GAMMA
REMOVABLE SURFACE CONTAMINATION (MICROCURIES):

alpha $< 9 \times 10^{-6} \text{ uCi/100 cm}^2$
beta/gamma $< 45 \times 10^{-6} \text{ uCi/100 cm}^2$

FROM THE RECORDED RESULTS THERE IS NO INDICATION OF LEAK IN THE SOURCE.

SIGNED BY:



PRINTED NAME: TREVA L. JANZOW
TITLE: PROJECTS MANAGER

FRONTIER TECHNOLOGY CORPORATION
1641 BURNETT DRIVE
XENIA, OHIO 45385 U.S.A.

TEL: 937/376-5691
FAX: 937/376-5692

SHIP 50220 s/n 1279



Thermo Gamma Metrics, LLC
10010 Mesa Rim Road
San Diego, CA 92121

Tel: +1-800-488-4399
Fax: +1-858-546-1734
www.thermo.com

Field Service Activity Report (FSAR)

CUSTOMER	Pacificorp	SITE NAME	Dave Johnson
SITE ADDRESS	1591 Tank Farm Rd, Coal Co. Rte		
CITY / STATE	Glenrock, WY	ZIP CODE	82637
SITE CONTACT	Derald Anderson	TITLE	Safety Manager
CONTACT TEL	(801) 220-4155	EMAIL	derald.anderson@pacificorp.com
SITE ALIAS			

Equipment Detail

MODEL	CQM	SERIAL	840021	WO#	31533
PRIMARY FSE	Robin Belnap				

Case Detail

CASE NUMBER	00021341	ORIGINAL REQUEST DATE	12/12/2010 3:01:00 PM
CASE ASSIGNED FSE	Robin Belnap	TOTAL HRS	16
SUBJECT	Radiation Leak Test and Source Replenishment		

Service Detail

Date	Subject	Component	Hours
12/13/2010	Travel		7.00
Description	Depart Home office to customers' area		

Date	Subject	Component	Hours
12/14/2010	Travel		0.50
Description	Depart hotel to customer's site.		

Date	Subject	Component	Hours
12/14/2010	Radiation Work		3.50
Description	<p>Once onsite met with key personal, Jim Ritter- Alan Dugan-Sam Evans. We discussed what was to be accomplished during visit, it was determined first and foremost that Dave Johnston stays current with their "Radiation Work" due to the fact they were out of compliance regarding leak testing.</p> <p>Tasks performed during this visit were Source Replenishment, Leak Testing and Schedule PM.</p>		

ThermoFisher SCIENTIFIC

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SOURCE REPLENISHMENT:

- Preformed source barrel survey/leak test on new source – Documentation verification: All Passed
- Run the 3 CRS for 30 minutes each, before installing the new source due to the fact we did not have any FAT files and needed to achieve a baseline.
- Installed new source, performed leak test and radiation survey of device.
- Ran the 3 CRS 15 minutes each.
- Collect factory spectra from CRS run before new source. Collect field spectra from CRS after new source.

LEAK TEST

Radiation Source Wipe/Contamination Leak Test

- Radiation Source Wipe was performed during visit.
- Performed a radiation source contamination test according to U.S. NRC guidelines.
- Forwarded LTC to Site RSO via email

Date	Subject	Component	Hours
12/14/2010	Semi Annual PM		3.50
Description			
Semi-Annual PM			
Hard disk diagnostics were used to determine the condition of the hard disk(s), indicating fragmentation and bad sectors.			
Inspection of Major Sub-System Operation and Parameters			
<ul style="list-style-type: none"> • Temperature set points were checked. • Diagnostics, parameters that indicate the health and proper operation of the main detector and associated sub-system(s) were viewed and recorded. • Data is collected to establish performance baselines and historical trends. 			
System Software Back-up for Restoration			
<ul style="list-style-type: none"> • The system configuration and database were backed up 			
Inspect and Check Systems			
<ul style="list-style-type: none"> • Inspection of Basic Maintenance performed by Site • Inspection of Mechanical and Electrical Components • Identification of Preventive/Planned Replacement Components • Entire system is inspected for physical damage. • All filters were cleaned or replaced, as necessary. • Liners were inspected for wear. • All electronics were thoroughly checked. Power supplies were checked and adjusted if necessary; cables and connections were inspected; fans were checked; all boards were inspected visually for dust buildup and heat damage; and all controls, sensors and indicators were checked. Modems, keyboards, and monitors were tested. 			
Support			
<ul style="list-style-type: none"> • Complete and maintain radiation source records and provide unlimited support regarding record keeping, documentation management, and compliance. 			

Date	Subject	Component	Hours
12/14/2010	travel		0.50
Description			
Depart site to Casper, WY			

Date	Subject	Component	Hours
12/13/2010	Document Prep		1.00
Description			
Prepare documents for visit.			



Thermo Gamma Metrics, LLC
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San Diego, CA 92121
Parts Required

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www.thermo.com

Customer *

I have reviewed this report and agree with its content:

CUSTOMER SIGNATURE	DATE	CUSTOMER NAME (Please print)

** Note: In a continual effort to provide excellent customer service we periodically survey our customers through an independent firm. If you receive a survey we appreciate the time spent to complete as your feedback is important to us.*

Attachment 3

Sealed Source Leak Test and Inventory Record

12-14-2010

Sealed Source Leak Test and Inventory Record

Date of Inventory: 12-14-2010 Location: COAL YARD SOURCE LOCATION

NRC License Number: 49-27781-01 Type of Source: DENSITY

Source Model/Serial Number: Z2303 Gauge Model/Serial Number: 840021

Manufacturer: THERMOFISHER SCIENTIFIC

Isotope and Initial Activity: CALIFORNIUM -252 24.3 μ g

Current Isotope Activity: 4.67 μ g

Status: Active X Inactive Leak Test Results**: <0.005 μ ci

Samples Analyzed Using: LSC Gamma Counter Other EBERLINE 600, SHP-270, SHP-360

Leak Test Performed By: ROB BELNAP - THERMOFISHER SCIENTIFIC

**See Leak Test Certificate for additional information.

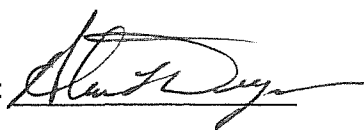
Inventory Performed By: ROB BELNAP & ALAN L. DUGAN

Signature: 

Sealed Source Leak Test and Inventory Record

Date of Inventory: 12-14-2010 Location: COALYARD SOURCE LOCATION
NRC License Number: 49-27781-01 Type of Source: DENSITY
Source Model/Serial Number: Z3144 Gauge Model/Serial Number: 840021
Manufacturer: THERMO FISHER SCIENTIFIC
Isotope and Initial Activity: CALIFORNIUM-252 10.29 μ g
Current Isotope Activity: 4.42 μ g
Status: Active X Inactive Leak Test Results**: <0.005 μ Ci
Samples Analyzed Using: LSC Gamma Counter Other EBERLINE 600, SHP-270,
SHP-360
Leak Test Performed By: ROB BELNAP - THERMO FISHER SCIENTIFIC

**See Leak Test Certificate for additional information.

Inventory Performed By: ROB BELNAP & ALAN L. DUGAN Signature: 

Sealed Source Leak Test and Inventory Record

Date of Inventory: 12-14-2010 Location: COAL YARD SOURCE LOCATION

NRC License Number: 49-27781-01 Type of Source: DENSITY

Source Model/Serial Number: V-954 Gauge Model/Serial Number: 840021

Manufacturer: THERMOFISHER SCIENTIFIC

Isotope and Initial Activity: CESIUM -137 10mCi

Current Isotope Activity: 7.63 mCi

Status: Active X Inactive Leak Test Results**: <0.005μCi

Samples Analyzed Using: LSC Gamma Counter Other EBERLINE 600, SHP-270
SHP-360

Leak Test Performed By: ROB BELNAP - THERMOFISHER SCIENTIFIC

**See Leak Test Certificate for additional information.

Inventory Performed By: ROB BELNAP &
ALAN L. DUGAN

Signature: 

Sealed Source Leak Test and Inventory Record

Date of Inventory: 12-14-10

Location: COAL YARD SOURCE LOCATION

NRC License Number: 49-27781-01

Type of Source: DENSITY

Source Model/Serial Number: 4057 Gauge Model/Serial Number: 840021

Manufacturer: THORMOFISHER SCIENTIFIC

Isotope and Initial Activity: CALIFORNIUM 252 9.43

Current Isotope Activity: 9.43

Status: Active X Inactive Leak Test Results**:

Samples Analyzed Using: LSC Gamma Counter Other EBERLINE 600, SHP-270
SHP-360

Leak Test Performed By: ROB BELNAP - THORMOFISHER SCIENTIFIC

**See Leak Test Certificate for additional information.

Inventory Performed By: ROB BELNAP &
ALAN L. DUGAN

Signature: 