

Draper, Jason

From: Dennis Bittner <bittnerengineering@bittnerengineering.com>
Sent: Thursday, August 22, 2019 2:37 PM
To: Draper, Jason
Subject: [External_Sender] Leak Test and Annual Audit
Attachments: Scan0326.pdf

Hi Jason,

Attached are the Leak Test Certificate for Gauge 9019 and our Annual Portable Gauge Audit report. Thank you.

Dennis Bittner

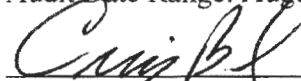
ANNUAL PORTABLE GAUGE AUDIT

Licensee: Bittner Engineering, Inc.

License No. 21-26010-01

Audit Date: August 1, 2019

Audit Date Range: August 1, 2019 - July 31, 2020



Auditor Signature

Craig Bal



Management Signature

Dennis B. Bittner

1. AUDIT HISTORY

Audits have been conducted in the past, however detailed reports were not maintained. Going forward, Annual Audits will be conducted prior to the beginning of the construction season (typically May 1) and annually thereafter.

With the exception of sending gauges to Troxler periodically for calibration, there has been no need to send gauges out for service.

2. ORGANIZATION AND SCOPE OF PROGRAM

The Radiation Safety Officer has been changed from Lewis Vaillencourt to Craig Bal. Notification has been sent to NRC and acknowledgment of license change has been received.

All gauges are authorized by the license and described in the SSD registration certification.

Manufacturer O & M manuals are available and the use and locations of use are as documented.

3. TRAINING AND INSTRUCTIONS TO WORKERS

All gauge users have current training for the use of Nuclear Testing Equipment and Hazmat training.

On-going training on proper use of the gauges is provided in conjunction with weekly meetings with gauge users and documented in weekly reports.

4. RADIATION SURVEY INSTRUMENTS

In the event of an emergency, the users are directed to contact local law enforcement to provide a survey meter.

5. GAUGE INVENTORY

Usage records are maintained. The gauges are properly stored in a secure area that is an occupied area so constant surveillance is provided.

6. PERSONNEL RADIATION PROTECTION

Laundauer is contracted to provide and process badges for gauge users on a regular basis. Reports are generated on a monthly basis and include historical exposure history.

7. PUBLIC DOSE

All gauges are stored in a restricted area which will eliminate exposure and severely limit unauthorized use or removal.

8. OPERATING, EMERGENCY AND SECURITY PROCEDURES

Each operator and each transport vehicle is provided with copies of emergency procedures and emergency telephone numbers. There have been no emergencies.

9. LEAK TESTS

Leak tests for all gauges are current and will be performed in accordance with the time frames for active and inactive gauges.

Leak test results are maintained and none of the gauges were found to be leaking.

10. MAINTENANCE OF GAUGES

Routine maintenance of gauges is performed by the users and the source rod remains in place at all times. Any maintenance or service requiring detachment of the source rod will be performed by Troxler.

11. TRANSPORTATION

The RSO is responsible to complete and/or supervise preparation, packaging, labeling and preparing gauges for shipping and completing required paper work. No gauges were shipped during the past year.

12. AUDITOR'S INDEPENDENT SURVEY MEASUREMENTS

No independent survey measurements were made by the licensee.

13. NOTIFICATIONS AND REPORTS

No reportable incidents occurred within the last year.

14. POSTING AND LABELING

A current copy of NRC Form 3 is posted near the gauge storage area.

NRC regulations and license documents are stored in a file cabinet near the gauges.

15. DECOMMISSIONING

No gauges were decommissioned during the last year.

16. GENERIC COMMUNICATIONS AND NEWSLETTER

Communications are circulated to gauge operator. Appropriate training and action is implemented as needed.

17. SPECIAL LICENSE CONDITIONS OR ISSUES

None.

18. EVALUATION OF OTHER FACTORS

Senior Licensee Manager is directly involved with RSO oversight and provides sufficient time for RSO to discharge his duties.

19. DEFICIENCIES IDENTIFIED IN AUDIT AND CORRECTIVE ACTIONS

No deficiencies were noted. Plans were made to have one of the gauges in storage shipped to Troxler for calibration and any maintenance required.

On-going communications between Management, RSO and other gauges users takes place.

**Troxler Electronic Laboratories, Inc.**

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DENNIS BITTNER
BITTNER ENGINEERING
113 SOUTH 10TH STREET
PO Box 713
ESCANABA, MI 49829

Cust ID: 4052

LEAK TEST CERTIFICATE**DEVICE:****Model:** 3411**Serial No:** 9019**SEALED SOURCES:**

Serial No.	Measure Date	Nuclide	GBq	mCi
47-5488	04/06/1982	Am-241:Be	1.48	40
750-2213	09/16/1997	Cs-137	0.296	8

LEAK TEST ANALYSIS:**Sample collected on:** 08/06/2019**Sample analyzed on:** 08/14/2019 5:40:02 AM **Position:** 5**Analyzed by:** RM

	ALPHA	BETA-GAMMA
Conversion factor (cpm/Bq)	1.25E+01	1.97E+01
Background measurement (cpm)	0	25
Sample measurement (cpm)	0	24
Activity (Bq)	< MDA	< MDA
Min. Detectable Activity (Bq)	3.5E-01	1.3E+00

This certifies that the leak test results are:☒ **Less than 185 Bq (0.005 uCi)**☐ **Greater than 185 Bq (0.005 uCi)**