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April 27, 2023

Mr. Ryan Craffey  
Health Physicist  
US Nuclear Regulatory Commission  
Materials Inspection Branch, Region III  
2443 Warrenville Road  
Suite 210  
Lisle, Illinois 60532-4352

RE: Response to the Apparent Violations in Inspection Report No. 03033590/2021001(DRSS);  
EA-23-011

Dear Mr. Craffey:

Our written report to Inspection Report No. 03033590/2021001(DRSS); EA-23-011 is presented herein and submitted on this date and within the 30-day designated time frame.

Violation 1: Loss of Control – Title 10 of the *Code of Federal Regulations* (10CFR) Part 20.1802

1. Reason for Apparent Violation

- (i) Description of the licensed material involved, including kind, quantity, and chemical and physical form:
  - a. Troxler Portable Gauge, Model 3430, Serial No. 70894
  - b. Radionuclide: CS-137, 0.300GBq (8.000mCi), Serial No. 77-14705
  - c. Radionuclide: AM-241:BE, 1.480GBq (40.000mCi), Serial No. 78-10301
  - d. Troxler Gauge Certificate is attached with this letter
  
- (ii) Description of the circumstances under which the loss or theft occurred:
  - a. On Monday afternoon June 14th, 2021, G2 went to perform a leak test on Troxler gauge 70894 (Model No. 3430), which was due for a leak test the same date 6/14/21. G2 looked in our system to see which employee had the gauge. It was not checked out by anyone that day so we went through the storage room in Ann Arbor and then Troy to find the gauge and perform the test. The gauge was not present in either location. G2 began making phone calls to employees to see if an employee had the gauge and it was just not checked out properly in our system.
  
  - b. We reviewed our system and determined the gauge was last used by a former G2 employee on January 5, 2021. G2 was able to reach that person and he indicated he returned the gauge to the locked storage room in our Ann Arbor office on January 6, 2021. The gauge was not shown as having been used by any employee since that date within our system. We do not know when the gauge went missing or how the gauge was removed from the office. We also cannot confirm if the former employee actually returned the gauge on January 6, 2021. Calibration and leak tests were performed in December 2020 by ATSNUC, Inc. We contacted all service facilities that we use to see if it might be in for service, but we have been unable to locate the gauge. We are also checking with all service centers listed on the APNGA website to see if by chance some



other party has sent in/returned this gauge to one of those facilities.

- c. It was determined today 6/15/21, at approximately 3:30pm (less than 24 hours after the initial discovery) that we could not locate the gauge. Ryan Craffey with the US NRC, Materials Inspection Branch, Region III was contacted at 3:34pm to notify him of our situation. Mr. Craffey assisted us in identifying procedures and that the HOO.HOC should be informed by phone.

2. Corrective Steps that have been taken; results achieved:

- a. All Gauge Users interviewed for their knowledge of gauge location; unable to locate gauge from our inquiry.
- b. Last known Gauge User interviewed, unable to locate gauge.
- c. Service centers listed on the APNGA website were contacted to determine if they had any information regarding gauge. No information on gauge whereabouts were discovered from our inquiry.
- d. We have made inquiries to NRC representatives monitoring missing source material have reported no further information on gauge whereabouts.

3. Corrective Steps that have been, or will be, adopted to ensure against a recurrence of the loss or theft of licensed material:

- a. Reviewed License/Gauge Safety Procedures with Authorized Users.
- b. Reviewed License/Gauge Safety Procedures with Non-Authorized Users (Office Staff) with respect to Office Access/Restrictions and awareness of Approved Storage Facilities.
- c. Increase Gauge Inventory Check from 6-month intervals to monthly intervals.
- d. Modify Gauge Check-in Procedures to comply with NUREG 1556 Vol. 1 Revision 1, Section 19A – Gauge Sign-in. Written Log-in Sheets have been reimplemented.
- e. Database modifications are currently being programmed to comply with noted check-in requirements.

4. Corrective Steps have been implemented with the exception note in 3.e. above. Anticipated implementation for item 3.e. is June 1, 2023.

Violation 2 – Two instances in failure to follow operating and emergency procedures for gauge use, as required by Condition 19.A of Amendment No. 9 to NRC Materials License No. 21-26593-01

1. Reason for Apparent Violation

- a. Operating and emergency procedures in Appendix H of NUREG-1556, Vol. 1, Rev. 2 require authorized users to return the gauge to its proper locked storage location at the end of the work shift, and to log the gauge in the daily use log when it is returned to storage. Authorized user to did not comply with this operating procedure.
- b. A gauge log-in procedure was not in-place at the time of the violation. Failure to provide a gauge log-in procedure is a violation of License Condition 19.A of Amendment 9 to the G2 NRC Materials license.



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2. Corrective Steps that have been taken; results achieved:
  - a. Reviewed License/Gauge Safety Procedures with Authorized Users.
  - b. Reviewed License/Gauge Safety Procedures with Non-Authorized Users (Office Staff) with respect to Office Access/Restrictions and awareness of Approved Storage Facilities.
  - c. Increased Gauge Inventory Check from 6-month intervals to monthly intervals.
  - d. Modify Gauge Check-in Procedures to comply with NUREG 1556 Vol. 1 Revision 1, Section 19.A – Gauge Sign-in. Written Log-in Sheets have been reimplemented.
3. Corrective Steps that will be adopted to ensure against a recurrence of the loss or theft of licensed material:
  - a. Database modifications are currently being programmed to comply with noted check-in requirements of NUREG 1556 Vol. 1 Rev. 1, Section 19.A
4. Corrective Steps have been implemented with the exception note in 3.a. above. Anticipated implementation for item 3.a. is June 1, 2023.

G2 has reviewed the referenced NRC Inspection report in its entirety and the identified apparent violations. We further understand that one of the apparent violations involves the loss of a device containing regulated materials and that the NRC is considering proposing imposition of a civil monetary penalty. G2 understands that the number and characterization of the apparent violations described in the inspection report could change as a result of further NRC review but that G2 would be advised by separate correspondence of the results of any further NRC deliberations.

We appreciate your continued assistance and consideration in this matter.

Respectfully,

G2 Consulting Group, LLC

Bruce J. Wilberding, PE  
Principal/Radiation Safety Officer

Jason B. Stoops, PE  
Associate/Office Manager – Ann Arbor

## Ryan Craffey

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**From:** Bruce Wilberding <bwilberding@g2consultinggroup.com>  
**Sent:** Friday, April 28, 2023 12:32 PM  
**To:** Rhex Edwards; Ryan Craffey  
**Cc:** Jason Stoops P. E.  
**Subject:** [External\_Sender] Response to NRC Inspection Report No. 03033590  
**Attachments:** Response to the Apparent Violations in Inspection Report No. 03033590.pdf

**Follow Up Flag:** Flag for follow up  
**Flag Status:** Flagged

Our response to the apparent violations in Inspection Report No. 03033590 is attached for your review. We appreciate your consideration in this matter.

Regards  
Bruce J. Wilberding  
Radiation Safety Officer



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