



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, ILLINOIS 60532-4352

November 2, 2021

EA-21-146  
EN 55356  
NMED No. 210302 (closed)

Mr. Matthew Richardson  
Radiation Safety Officer  
Somat Engineering, Inc.  
26445 Northline Road  
Taylor, MI 48180

SUBJECT: NRC ROUTINE AND REACTIVE INSPECTION REPORT  
NO. 03029146/2021001(DNMS) – SOMAT ENGINEERING, INC.

Dear Mr. Richardson:

On August 5, 2021, an inspector from the U.S. Nuclear Regulatory Commission (NRC) conducted a routine inspection at a temporary job site in Portage, Michigan. The purpose of the routine inspection was to review activities under your NRC license to ensure that activities were performed in accordance with NRC requirements. Following the identification by the inspector of a problem with the control of radioactive material (a portable moisture density gauge) at this job site, a reactive inspection was conducted to further assess the adequacy of your activities under the license. This inspection consisted of the inspector's review of the circumstances surrounding a lost gauge in Waterford Township, Michigan, on July 15, 2021, and of onsite observations on August 25, 2021, at your facility in Taylor, Michigan, and at two temporary job sites in Detroit, Michigan. Mr. Ryan Craffey of my staff conducted a final exit meeting with you by telephone on October 20, 2021, to discuss the inspection findings. The enclosed inspection report presents the results of these inspections.

During these inspections, the NRC staff examined activities conducted under your license related to public health and safety. Additionally, the staff examined your compliance with the Commission's rules and regulations as well as the conditions of your license. Within these areas, the inspections consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of these inspections, three apparent violations of NRC requirements were identified and are being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's website at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The apparent violations concerned (1) the failure to control and maintain constant surveillance of a portable moisture density gauge after failing to secure it as required by Title 10 of the *Code of Federal Regulations* (10 CFR) 20.1802 and 10 CFR 30.34(i); (2) the failure to secure this gauge from shifting during

transport as required by 10 CFR 71.5(a) and 49 CFR 173.448(a); and (3) the failure to secure a second portable moisture density gauge from unauthorized removal or access as required by 10 CFR 20.1801 and 10 CFR 30.34(i).

Because the NRC has not made a final determination in this matter, the NRC is not issuing a Notice of Violation for these inspection findings at this time. Mr. Craffey discussed the circumstances surrounding these apparent violations, the significance of the issues, and the need for lasting and effective corrective action with you at the inspection exit meeting on October 20, 2021.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either: (1) respond in writing to the apparent violations addressed in this inspection report within 30 days of the date of this letter; (2) request a Predecisional Enforcement Conference (PEC); or (3) request Alternate Dispute Resolution (ADR). If a PEC is held, it will be open for public observation and the NRC will issue a press release to announce the time and date of the conference. **Please contact Michael Kunowski, Chief of the Materials Inspection Branch, at 630-829-9618 or [Michael.Kunowski@nrc.gov](mailto:Michael.Kunowski@nrc.gov) within ten days of the date of this letter to notify the NRC of your intended response.**

If you choose to provide a written response, it should be clearly marked as "Response to the Apparent Violations in Inspection Report No. 03029146/2021001(DNMS); EA-21-146," and should include for the apparent violations: (1) the reason for the apparent violations, or, if contested, the basis for disputing the apparent violations; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to avoid further violations; and (4) the date when full compliance was or will be achieved. In presenting your corrective actions, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violations. The guidance in NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be useful in preparing your response. You can find the information notice on the NRC website at: <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/1996/in96028.html>. Your response may reference or include previously docketed correspondence if the correspondence adequately addresses the required response. Your response should be sent to the NRC's Document Control Desk, Washington, DC 20555-0001, with a copy mailed to the NRC Region III Office, 2443 Warrenville Road, Suite 210, Lisle, IL 60532, within 30 days of the date of this letter. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision or schedule a PEC.

If you choose to request a PEC, it will afford you the opportunity to provide your perspective on the apparent violations and any other information that you believe the NRC should take into consideration before making an enforcement decision. The topics discussed during the PEC may include the following: information to determine whether a violation occurred, information to determine the significance of a violation, information related to the identification of a violation, and information related to any corrective actions taken or planned to be taken. If a PEC is held, it will be open for public observation, and the NRC will issue a press release to announce the time and date of the conference.

You may also request ADR with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a third party neutral. The technique that the NRC has decided to employ is mediation. Mediation is a voluntary, informal process in which a trained neutral (the "mediator") works with parties to help them reach

resolution. If the parties agree to use ADR, they select a mutually agreeable neutral mediator who has no stake in the outcome and no power to make decisions. Mediation gives parties an opportunity to discuss issues, clear up misunderstandings, be creative, find areas of agreement, and reach a final resolution of the issues. Additional information concerning the NRC's program can be obtained at <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr.html>. The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as a neutral third party. **Please contact ICR at 877-733-9415 within 10 days of the date of this letter if you are interested in pursuing resolution of this issue through ADR. In addition, if you choose ADR, also please contact Mr. Kunowski at the telephone number or email address listed above.**

In addition, please be advised that the number and characterization of the apparent violations described in the enclosed inspection report may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and any response you provide will be made available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC's website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, any response should not include any personal privacy, proprietary, or safeguards information so that it can be made publicly available without redaction.

Please feel free to contact Mr. Craffey of my staff if you have any questions regarding this inspection. Mr. Craffey can be reached at [Ryan.Craffey@nrc.gov](mailto:Ryan.Craffey@nrc.gov) or at 630-829-9655.

Sincerely,



Signed by Pelton, David  
on 11/02/21

David L. Pelton, Director  
Division of Nuclear Materials Safety

Docket No. 030-29146  
License No. 21-24685-01

Enclosure: Inspection Report No. 03029146/2021001(DNMS)

cc w/encl: State of Michigan

Letter to Matthew Richardson from David Pelton, dated November 2, 2021.

SUBJECT: NRC ROUTINE AND REACTIVE INSPECTION REPORT  
NO. 03029146/2021001(DNMS) – SOMAT ENGINEERING, INC.

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**U.S. Nuclear Regulatory Commission  
Region III**

Docket No. 030-29146

License No. 21-24685-01

Report No. 03029146/2021001(DNMS)

EA No./NMED No. EA-21-146 / 210302

Licensee: Somat Engineering, Inc.

Facility: 26445 Northline Road  
Taylor, MI

Temporary job sites on Fort Road  
Detroit, MI

Temporary job site on Interstate 94  
Portage, MI

Inspection Dates: August 5 - 25, 2021

Exit Meeting Date: October 20, 2021

Inspector: Ryan Craffey, Health Physicist

Approved By: Michael Kunowski, Chief  
Materials Inspection Branch  
Division of Nuclear Materials Safety

Enclosure

## **EXECUTIVE SUMMARY**

### **Somat Engineering, Inc. NRC Inspection Report 03029146/2021001(DNMS)**

This was unannounced routine inspection conducted at a temporary job site in Portage, Michigan. Following the identification by the inspector of a problem with the control of radioactive material (a portable moisture density gauge) at this job site, a reactive inspection was conducted to further assess the adequacy of activities under the license. This inspection consisted of the inspector's review of the circumstances surrounding a lost gauge in Waterford Township, Michigan, on July 15, 2021, and of onsite observations on August 25, 2021, at the main facility in Taylor, Michigan, and at a two temporary job sites in Detroit, Michigan.

As a result of these inspection activities, the NRC determined that three apparent violations of regulatory requirements occurred: (1) the failure to control and maintain constant surveillance of a portable moisture density gauge after failing to secure it as required by Title 10 of the *Code of Federal Regulations* (10 CFR) 20.1802 and 10 CFR 30.34(i); (2) the failure to secure this gauge from shifting during transport as required by 10 CFR 71.5(a) and 49 CFR 173.448(a); and (3) the failure to secure a different portable moisture density gauge from unauthorized removal or access as required by 10 CFR 20.1801 and 10 CFR 30.34(i).

The circumstances surrounding the event and the apparent violations, as well as a discussion of the root causes, contributing factors, and the licensee's corrective actions, are discussed in more detail in the following report.

## REPORT DETAILS

### **1 Program Overview and Inspection History**

Somat Engineering, Inc. (the licensee) was authorized by NRC Materials License No. 21-24685-01 to store portable moisture density gauges at its facilities in Taylor and Grand Rapids, Michigan, and to use these gauges at temporary job sites in NRC jurisdiction. The licensee had 21 gauges in Taylor and 7 in Grand Rapids. The licensee's radiation safety officer (RSO) was based in Taylor, assisted by a site RSO in Grand Rapids.

The NRC last performed a routine inspection of the licensee on October 31, 2016. No violations of NRC requirements were identified during that inspection.

Since then, the NRC performed one field inspection of the licensee, on July 18-19, 2018 at the Gerald R. Ford Airport in Grand Rapids. No violations of NRC requirements were identified during that inspection.

### **2 Sequence of Events and Licensee's Response**

#### **2.1 Inspection Scope**

The inspector visited the job site in Waterford where the incident occurred, interviewed licensee staff at the licensee's main office in Taylor, and reviewed a selection of records to obtain a detailed understanding of the circumstances surrounding the event and to evaluate the licensee's response.

#### **2.2 Observations and Findings**

##### **A. Sequence of Events Preceding the Incident**

On the morning of July 1, 2021, a technician working for the licensee took possession of a Troxler 3440 portable moisture density gauge (Serial No. 25423) from the office in Taylor. The gauge, manufactured in 1995, had been in the licensee's possession since 2007. It contained two sealed sources of radioactive material: cesium-137 (Cs-137), Serial No. 75-8257, assayed at 8.00 millicuries (mCi) in 1995 with approximately 4.39 mCi remaining by July 2021; and americium-241 in a beryllium matrix (Am-241:Be), Serial No. 47-21754, assayed at 40.0 mCi in 1995 with approximately 38.4 mCi remaining by July 2021. The technician was an authorized gauge user in his third year with the licensee. He had last completed gauge safety training and DOT hazmat refresher training on January 6, 2020.

The technician was assigned to a tarmac reconstruction project at the Oakland County International Airport in Waterford, Michigan. He arrived at 7:30 am and performed compaction testing for the rest of the morning. At around noon, the technician decided to break for lunch. He placed his testing equipment (including the gauge) on the tailgate of his vehicle, but as he began putting away this equipment received a call from a colleague needing help drawing up test locations for another project. The technician entered the cab of the vehicle to retrieve his logbook and help the colleague draw up locations. He then called another colleague to confirm

the locations, and after ending the call drove off the job site. He did not realize as he did so that he had not finished putting away his equipment. Notably, the gauge was still sitting on the tailgate, with only a trigger lock on the source rod handle as security.

The technician proceeded a tenth of a mile south on Sherwin Court, then took a left on Highland Road (M-59). As he was turning, the gauge fell from the tailgate and landed upright in an eastbound lane of traffic on Highland Road. The gauge transport container remained in the vehicle, secured by locked chains. The technician did not realize what had happened until returning to the job site from lunch. At first, he thought that he had only lost his tools (plate, hammer, etc.) since the transport container was still locked closed. However, after borrowing a set of tools from another technician on-site, the user went to get his book of test results, opened the case, and discovered that he was no longer in possession of the gauge.

#### B. Licensee's Response to the Incident

The technician immediately notified the licensee's RSO, and while waiting for him to arrive, he and a colleague who had driven over a new set of tools canvassed the businesses along Sherwin Court and at the intersection with Highland Road to see if any had recovered the lost equipment. A business on the south side of the intersection had recovered his tools, but not the gauge. The business did have security camera footage of the incident, however, which revealed that five minutes after the technician lost control of the gauge, a member of the public driving east on Highland Road stopped, picked it up and drove off in the same direction.



*Figure 1: Member of the public retrieving the licensee's gauge*

Upon learning this, the technician contacted the police to file a report. The licensee's RSO arrived shortly thereafter and met with the Waterford Police officer who responded. The next day, the RSO contacted the department to emphasize the significance of the loss and potential it presented to members of the public. The department thereafter assigned a detective to the case. The RSO spoke with the

detective the same day and provided him with additional information including still images of the incident. However, the detective closed the case six days later, citing an absence of leads.

Starting on July 16, the RSO began canvassing the area where the incident occurred at least weekly in hopes of finding the gauge or the vehicle in the still images. The RSO also contacted twelve local salvage yards, six pawn shops, and numerous gauge manufacturers and service providers, requesting that they notify him if the gauge entered their possession. The technician also posted regularly to local social media groups, seeking help identifying the individual who picked up the lost gauge. The licensee received a tip that the individual who recovered their gauge had turned right on Oakland Boulevard from Highland Road after stopping. As of the date of this report, however, the gauge remains at large.

### C. Findings

The inspector identified two closely related apparent violations of NRC requirements:

Title 10 of the *Code of Federal Regulations* (CFR) 20.1802 requires that the licensee control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage.

Title 10 CFR 30.34(i) requires that each portable gauge licensee use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.

The licensee's failure to adequately secure a portable moisture density gauge (Troxler 3440 s/n 25423) containing 4.39 mCi of Cs-137 and 38.4 mCi of Am-241 using at least two independent physical controls is an apparent violation of 10 CFR 20.1801 and 10 CFR 30.34(i).

In addition, Title 10 CFR 71.5(a) requires that each licensee who transports licensed material outside the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the DOT regulations in 49 CFR Parts 107, 171 through 180, and 390 through 397, appropriate to the mode of transport.

Title 49 CFR 171.448(a) states that each shipment of Class 7 (radioactive) materials must be secured to prevent shifting during normal transportation conditions.

The licensee's failure to secure this portable moisture density gauge for transport is an apparent violation of 10 CFR 71.5(a) and 49 CFR 171.448(a).

The root cause of both violations was a lack of focus. The technician became distracted by a phone call as he was putting away equipment. As a contributing factor, he incorrectly assumed that he had secured the gauge and other equipment as he left the job site.

As corrective action, the licensee suspended the technician for three days without pay, temporarily removed him from density work, had him retake the radiation safety and hazmat training courses and had him complete a review of the program and on-the-job training with his field supervisor. The training was completed on July 16, 2021, and the suspension was served July 20-22. The licensee also sent a memo to all technicians reiterating requirements and expectations for maintaining control of portable gauges and revised its field policies and field training to further reiterate these requirements and expectations. These actions were completed on July 15.

## 2.3 Conclusions

The inspector identified two apparent violations: 10 CFR 20.1802 and 10 CFR 30.34(i) for the failure to control and maintain constant surveillance of a moisture density gauge; and 10 CFR 71.5(a) and 49 CFR 173.448(a) for the failure to properly secure a moisture density gauge from shifting during transport.

## **3 Notification and Reporting**

### 3.1 Inspection Scope

The inspector discussed the applicable reporting requirements with the licensee's RSO and reviewed the initial notification and written report for the event.

### 3.2 Observations and Findings

The gauge was lost at approximately 12:30 p.m. Eastern Time on July 15, 2021. The licensee's RSO contacted the NRC Operations Center at approximately 4:15 p.m. the same day. The notification resulted in Event Number (EN) 55356, reportable under 10 CFR 20.2201(a)(1)(i) as an event involving lost, stolen, or missing material in an aggregate quantity equal to or greater than 1,000 times the quantity specified in Appendix C to Part 20 under such circumstances that it appears to the licensee that an exposure could result to persons in unrestricted areas. The event was recorded in the Nuclear Materials Events Database (NMED) under Item No. 210302.

On August 12, 2021, the licensee submitted its written report to the NRC. The report included a description of the licensed material involved, a description of the circumstances under which the loss occurred, a statement of disposition of the licensed material involved, actions taken to recover the material, and procedures and measures that have been or will be adopted to ensure against recurrence. On August 18, 2021, the licensee submitted a supplement to its original report, elaborating on the potential for radiation exposure from the gauge.

### 3.3 Conclusions

The inspector determined that the licensee made all required notifications and reports within the required time periods, and that the licensee's written report contained all required information.

## 4 NRC Assessment of the Event

### 4.1 Inspection Scope

The inspector visited the job site in Waterford where the incident occurred, interviewed involved staff at the licensee's office in Taylor, and reviewed a selection of records to evaluate the circumstances of the event and the licensee's response.

### 4.2 Observations and Findings

#### A. Root Cause and Contributing Factors

The inspector concluded that the root cause of the event was a lack of focus. The technician became distracted by phone calls as he was putting away equipment. As a contributing factor, he incorrectly assumed that he had secured the gauge and other equipment upon leaving the job site.

The inspector moreover concluded that the licensee's policies, procedures and measures for security and transportation of licensed material were adequate and did not cause or contribute to the event. Rather, the technician did not implement them.

#### B. Independent Assessment of Radiation Exposure

The inspector reviewed the licensee's assessment of possible radiation exposure from the lost gauge and found it reasonable given the circumstances of the loss.

The inspector reviewed available time-lapse security camera footage of the incident and concluded that the member of the public who retrieved the gauge received negligible gamma and neutron exposure while doing so. The source rod of the gauge remained locked in the shielded position, and the individual was near the gauge for only a short time.

To evaluate the potential for and significance of exposure to members of the public since then, the inspector performed Varskin+ skin dose calculations using the decay-corrected activity of the Cs-137 source and physical characteristics described in Safety Evaluation No. MA-1059-S-924-S from the NRC's Sealed Source and Device Registry. Were an individual to defeat the trigger lock on the source rod and extend the Cs-137 source – a plausible worst-case scenario – he or she would need to maintain direct contact with the source for over 11 hours to reach the minimum threshold of 200 rad at which the least significant (Grade I) cutaneous radiation injuries (CRI) such as skin reddening and slight edema could occur, per the Centers for Disease Control and Prevention's *Brochure for Physicians on Cutaneous Radiation Injury*. Grade II CRI would require over 80 hours of direct contact and Grade III would require over 220 hours. The inspector concluded that it was unlikely a member of the public would maintain direct contact with the Cs-137 source for that long.

The inspector also noted that contact dose rates calculated for this source (0.05 rad per hour beta and 18 rad per hour gamma) were not sufficient to cause symptoms of Acute Radiation Syndrome (ARS), as the required dose would need to be greater than 30 rem received in a matter of minutes over the entire body. Using the

Varskin+ data adjusted for deep dose, an individual would need to be in contact with the source for too long (over 6.5 hours) to reach the minimum threshold for ARS, assuming inconceivably that the entire body was in direct contact with the source during that time.

The inspector also considered the potential for dose from exposure to neutrons emitted by the device's Am-241:Be source. Based on the radiation profiles in Safety Evaluation No. NC-646-D-130-S, the dose from these neutrons is a fraction (4% to 33%) of that from the gammas emitted by the Cs-137 source in its shielded position. Although the neutrons could contribute additional measurable dose to individuals in close proximity, the fact that the source is fixed inside a threaded cavity within the base of the gauge means that direct contact with it is less likely. Therefore, the inspector concluded that any additional neutron exposure would not be significant enough to alter the overall assessment.

This assessment is consistent with the International Atomic Energy Agency's characterization of such sources in Safety Guide RS-G-1.9, *Categorization of Radioactive Sources*. From the text of EN 55356:

*"Sources that are "Less than IAEA Category 3 sources," are either sources that are very unlikely to cause permanent injury to individuals or contain a very small amount of radioactive material that would not cause any permanent injury. Some of these sources, such as moisture density gauges or thickness gauges that are Category 4, the amount of unshielded radioactive material, if not safely managed or securely protected, could possibly - although it is unlikely - temporarily injure someone who handled it or were otherwise in contact with it, or who were close to it for a period of many weeks."*

#### 4.3 Conclusions

The inspector had no findings in this area and concluded that the lost gauge did not present a substantial potential for significant injury to members of the public.

### **5 Observations at Other Temporary Job Sites**

#### 5.1 Inspection Scope

The inspector visited temporary job sites in Portage and Detroit to evaluate the conduct of licensed activities in the field.

#### 5.2 Observations and Findings

On August 5, 2021, the inspector was returning home from another inspection when he noticed a gauge transportation case in a Somat Engineering truck parked at a construction site on the ramp to Interstate 94 exit 78 in Portage. The inspector pulled over, walked up to the vehicle, and confirmed via surveys that a gauge was present inside the locked transport case. The truck itself was running unattended, with the doors to the cab unlocked. Moreover, the transport case was secured to the vehicle with only a single locked chain. The other chain was present on the truck but was not locked or otherwise in use.

The inspector asked nearby workers to whom the truck belonged, and a short time later the technician returned to the truck (he was several hundred yards away, inspecting concrete at the time). He confirmed that the keys were in the truck, inside the center console, and stated that he left the truck running to power the yellow caution light on top of the cab, which he believed was required to be on whenever the vehicle was parked at a job site on an active road. The technician also stated that he had removed the second locking chain from the gauge case to unload his wheelbarrow but had forgotten to lock it back up afterwards.

Title 10 CFR 20.1802 requires that the licensee control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage.

Title 10 CFR 30.34(i) requires that each portable gauge licensee use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.

The licensee's failure to control and maintain constant surveillance of and use a minimum of two independent physical controls on a portable moisture density gauge (Troxler 3400 Series s/n 23955) nominally containing 8 mCi of Cs-137 and 40 mCi of Am-241 is an apparent violation of 10 CFR 20.1802 and 10 CFR 30.34(i).

The inspector concluded that the root cause of the violation was a lack of attention to detail. The technician did not realize that leaving the vehicle running represented inadequate control of it and its contents, nor did he realize that he left the second chain unlocked.

As corrective action, the technician shut off the vehicle and removed the keys after confirming that caution lights were not required when his vehicle was inside the construction barrels. The licensee's management thereafter sent another memo to all technicians reiterating requirements and expectations for maintaining control of vehicles and their contents.

While at the job site in Portage, the inspector also interviewed the technician and observed him perform several compaction tests. The technician implemented adequate ALARA practices and was knowledgeable of radiation protection principles and licensee procedures. The gauge and its transport case were in good condition, and shipping papers were present in the vehicle within arm's reach of the driver.

On August 25, 2021, the inspector also visited two temporary job sites along Fort Street in Detroit: one at the intersection of West End Street, the other at the intersection of Dagoon Street. The inspector observed licensee technicians perform several compaction tests at these sites, both associated with construction of the Gordie Howe International Bridge and related customs facilities. The technicians maintained control and constant surveillance of their gauges at all times, implemented adequate ALARA practices and were knowledgeable of radiation protection principles and licensee operating and emergency procedures. The gauges and their transport cases were in good condition; independent surveys in the vicinity of these device were consistent with the radiation profiles mentioned in section 4.2.B of this report and were well below DOT limits for transport on public highways.

### 5.3 Conclusions

The inspector identified one apparent violation for the failure to secure a portable moisture density gauge as required by 10 CFR 20.1802 and 10 CFR 30.34(i).

## **6 Radiation Safety Program**

### 6.1 Inspection Scope

The inspector visited the licensee's main office in Taylor, interviewed additional staff, and reviewed a selection of additional records to evaluate the licensee's continued oversight of its radiation safety program.

### 6.2 Observations and Findings

At the office in Taylor, the inspector toured the portable gauge storage room. The area was properly posted, and all licensed material was secured behind at least two barriers. Gauges present in storage were in good condition, as were their transport containers. The inspector performed independent and confirmatory surveys in the vicinity of the room; readings in unrestricted areas were well below limits to members of the public.

The inspector reviewed the licensee's continued implementation of its radiation safety program, including measures for material accountability, gauge maintenance, sealed source leak testing, and gauge user training. The inspector reviewed a selection of leak test results, utilization logs, public dose calculations, and annual program audits.

### 6.3 Conclusions

The inspector had no findings in this area.

## **7 Exit Meeting Summary**

The NRC inspector presented preliminary inspection findings following the onsite inspection on August 25, 2021. The licensee did not identify any documents or processes reviewed by the inspector as proprietary. The licensee acknowledged the findings presented. The inspector conducted a final exit meeting with the licensee on October 20, 2021.

**LIST OF PERSONNEL CONTACTED**

- Zachary Brindley – Gauge User
- Adrian Hernandez – Gauge User
- Alan Majka – Gauge User
- # Matthew Richardson – Radiation Safety Officer
  
- # Attended preliminary and final exit meetings on August 25 and October 20, 2021, respectively.

**INSPECTION PROCEDURES USED**

- IP 87103 – Inspection of Materials Licensees Involved in an Incident or Bankruptcy Filing
- IP 87124 – Fixed and Portable Gauge Program

- END -