



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

EA-22-118

April 6, 2023

Paul J. Schmeisl, PE
Vice President
Soil and Materials Engineers, Inc.
43980 Plymouth Oaks Blvd.
Plymouth, MI 48170

SUBJECT: NOTICE OF VIOLATION; NRC ROUTINE INSPECTION REPORT NO.
03019574/2022001(DRSS) – SOIL AND MATERIALS ENGINEERS, INC.

Dear Paul Schmeisl:

This letter refers to the US Nuclear Regulatory Commission (NRC) inspection conducted on September 15, 2022, and October 28, 2022, at temporary job sites in Ann Arbor and Caro, Michigan, respectively, with continued in-office review through December 1, 2022. The purpose of the inspection was to review activities performed under your NRC license to ensure that the activities were being performed in accordance with NRC requirements. An exit meeting was held on January 6, 2023, with your radiation safety officer (RSO), Trevor Shaheen, to discuss an apparent violation involving the failure to secure or maintain control and constant surveillance of two portable moisture density gauges during work at temporary job sites. Inspection Report No. 03019574/2022001(DRSS) was issued on February 1, 2023, and can be found in the NRC's Agencywide Documents Access and Management System (ADAMS) at accession number ML23019A054. ADAMS is accessible from the NRC web site at <http://www.nrc.gov/reading-rm/adams.html>.

In the letter transmitting the inspection report, we provided you with the opportunity to address the apparent violation identified in the report by either attending a predecisional enforcement conference or by providing a written response before we made our final enforcement decision. In a letter dated March 1, 2023 (ML23073A372), you and Trevor Shaheen provided a response to the apparent violation.

Based on the information developed during the inspection and the information provided in your response to the inspection report dated, March 1, 2023, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation concerned two examples involving the failure to use a minimum of two independent physical controls that form tangible barriers to secure portable moisture density gauges from unauthorized removal when not under the control and constant surveillance of the licensee as required by Title 10 of the *Code of Federal Regulations* (CFR) 30.34(i); and the failure to control and maintain constant surveillance of the gauges when they were in unrestricted areas and not in storage as required by 10 CFR 20.1802 at job sites in Ann Arbor and Caro, Michigan.

The failure to secure a portable moisture density gauge is a significant safety and security concern because an unsecured gauge could be stolen and lead to potential exposures to

members of the public. In this case no exposures were identified. Therefore, this violation has been categorized in accordance with the NRC Enforcement Policy at Severity Level III. In accordance with the NRC Enforcement Policy, a base civil penalty in the amount of \$8750 is considered for a Severity Level III violation.

Because your facility has not been the subject of escalated enforcement actions within the last two inspections, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section 2.3.4 of the Enforcement Policy. Corrective actions included the following: (1) Trevor Shaheen met with the gauge users involved with the unsecured gauges the day of each incident to stress the importance of following the policy on gauge safety and security; (2) recorded videos discussing each of the incidents and provided to all authorized users as mandatory training; (3) provided a previous training video demonstrating the required gauge security procedures as required refresher training for all gauge users; and (4) performed audits of half the gauge users by October 31, 2022. Additional corrective actions included: (1) implementing bi-monthly meetings between the RSO and assistant RSOs to discuss operational, safety and security issues; (2) creating a dedicated Nuclear Gauge Radiation Safety channel on Microsoft Teams; (3) planning a minimum of three audits per year for each gauge users by staff trained to perform audits; planning a minimum of three audits during the first season of employment; (4) planning random audits by the RSO in addition to audits conducted by other staff; (5) providing Nuclear Moisture Density Gauge Safety and Hazardous Materials Transportation Training annually rather than every three years with quizzes at the end of both training sessions; and (6) developing an electronic form for audit tracking. Based on the above corrective actions, credit for *Corrective Action* is warranted.

To encourage prompt and comprehensive correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty. In addition, issuance of this Severity Level III violation constitutes escalated enforcement action that may subject you to increased inspection effort. The NRC also includes significant enforcement actions on its web site at (<http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>).

The NRC has concluded that information regarding: (1) the reason for the violation; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved is already adequately addressed on the docket in Inspection Report No. 03019574/2022001(DRSS) and your letter dated March 1, 2023. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room and in ADAMS, accessible from the NRC web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such

information. If you request withholding of such information, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

Sincerely,



Signed by Giessner, Jack
on 04/06/23

John B. Giessner
Regional Administrator

Docket No. 03019574
License No. 21-17158-02

Enclosure: Notice of Violation

cc w/encl: Trevor Shaheen
Radiation Safety Officer
State of Michigan

Letter to P. Schmeisl from J. Giessner dated April 6, 2023.

SUBJECT: NOTICE OF VIOLATION; NRC ROUTINE INSPECTION REPORT NO. 03019574/2022001(DRSS) – SOIL AND MATERIALS ENGINEERS, INC.

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NAME	MBurgess		DBetancourt		JGiessner			
DATE	3/28/2023		4/4/2023		4/6/2023			

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NOTICE OF VIOLATION

Soil and Materials Engineers, Inc.
Plymouth, Michigan

Docket No. 03019574
License No. 21-17158-02
EA-22-118

During a US Nuclear Regulatory Commission (NRC) inspection conducted on September 15, 2022, and October 28, 2022, at temporary job sites in Ann Arbor and Caro, Michigan, respectively, with continued in-office review through December 1, 2022, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 of the *Code of Federal Regulations* (10 CFR) 20.1802 requires licensees to 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 portable gauge licensees to 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.

Contrary to the above, on September 15, 2022, and October 28, 2022, the licensee failed to control and maintain constant surveillance of or use a minimum of two independent physical controls that form tangible barriers to secure a Troxler Model 3430 portable moisture density gauge (SN: 22052) containing nominally 8 millicuries of cesium-137 and 40 millicuries of americium-241 and a Troxler Model 4640B portable moisture density gauge (SN: 2429) containing nominally 9 millicuries of cesium-137, respectively, from unauthorized removal of the gauges when they were in unrestricted areas and not in storage at job sites in Ann Arbor and Caro, Michigan.

This is a Severity Level III violation (Enforcement Policy Section 6.3).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved, is already adequately addressed on the docket in Inspection Report No. 03019574/2022001(DRSS) and the licensee's letter dated March 1, 2023. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, (EA-22-118)," and send it to the US Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region III, Suite 210, 2443 Warrenville Road, Lisle, IL 60532-4352 within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or in the NRC's ADAMS, accessible from the

Enclosure

NRC web site at <http://www.nrc.gov/reading-rm/adams.html>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 6th day of April 2023.