



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

February 15, 2022

Mr. Richard D. Olson, P.E.
Principal
Terracon Consultants, Inc.
10841 S. Ridgeview Road
Olathe, KS 66061

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 03032764/2021001(DNMS) AND
NOTICE OF VIOLATION – EARTH EXPLORATION, INC. – A TERRACON
COMPANY

Dear Mr. Olson:

On November 17 and 19, 2021, an inspector from the U.S. Nuclear Regulatory Commission (NRC) conducted a routine inspection at your office in Indianapolis, Indiana, and at a temporary job site near Wheatfield, Indiana, with continued in-office review through February 2, 2022. The purpose of the inspection was to review activities performed under your NRC license to ensure that activities were being performed in accordance with NRC requirements. The in-office review included a review of training and leak test records that were unavailable at the time of the inspection. Mr. Jason Draper of my staff conducted a final exit meeting by telephone with Curtis Bradburn and other members of your staff on February 2, 2022, to discuss the inspection findings. This letter presents the results of the inspection.

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

Based on the results of this inspection, the NRC has determined that three Severity Level IV violations of NRC requirements occurred. The violations were evaluated in accordance with the NRC Enforcement Policy, which is included on the NRC's website at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The violations concerned: (1) the individual listed in Condition 12 of your license as the Radiation Safety Officer (RSO) did not perform as RSO; (2) the failure to perform leak tests of sealed sources in three portable nuclear gauges as required by Condition 13.A of your license; and (3) the failure to ensure that all hazmat employees were trained in accordance with Subpart H of 49 CFR 172, as required by 10 CFR 71.5(a). These violations were identified by the inspector, and as such are cited in the enclosed Notice of Violation (Notice).

As corrective action for violation 1, prior to the inspection, on March 12, 2021, you submitted a request to name a new RSO on the license. This request was approved, and the license updated on April 16, 2021. As corrective action for violation 2, you performed leak tests on the three gauges by December 2, 2021, and received analysis results showing that the sources were not leaking. As corrective action for violation 3, you provided refresher training to the three hazmat employees who had not received training in the previous three years.


Prior to the inspection, you submitted a license amendment request to transfer all locations of use and licensed material to the Terracon Consultants, Inc. license 15-27070-01, and terminate the Earth Exploration, Inc. – A Terracon Company license 13-26408-01. On January 7, 2022, this transfer and termination was approved by the NRC. While the violations cited occurred under the now terminated license, your licensed activities continue under the Terracon Consultants, Inc. license; therefore, you are still required to address any corrective actions associated with these violations.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. 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>. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with the NRC's "Rules of Practice" in 10 CFR 2.390, a copy of this letter, its enclosure, and your response 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, your 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. Draper of my staff if you have any questions regarding this inspection. Mr. Draper can be reached at 630-829-9839 or jason.draper@nrc.gov.

Sincerely,

 Signed by Kunowski, Michael
on 02/15/22

Michael A. Kunowski, Chief
Materials Inspection Branch
Division of Nuclear Materials Safety

Docket Nos. 030-32764, 030-32176
License Nos. 13-26408-01, 15-27070-01

Enclosure: Notice of Violation

cc w/encl: Adam Maier, Terracon RSO
Curtis C. Bradburn, Earth Exploration RSO
Michael T. Moir, Group Manager
State of Indiana
State of Kansas

Letter to Richard Olson from Michael Kunowski dated February 15, 2022.

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COMPANY

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OFFICE	RIII-DNMS		RIII-ORA		RIII-DNMS			
NAME	JDraper:brt		RChazell		MKunowski			
DATE	02/11/22		02/14/22		02/15/22			

OFFICIAL RECORD COPY

NOTICE OF VIOLATION

Earth Exploration, Inc. – A Terracon Company
Indianapolis, Indiana

License No. 13-26408-01
Docket No. 030-32764

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted on November 17 and 19, 2021, with continued in-office review through February 2, 2022, three violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. Condition 12 of Amendment No. 13 to NRC License No. 13-26408-01 states that the Radiation Safety Officer (RSO) for the license was a specifically named individual.

Contrary to the above, between January 8, 2021, and April 16, 2021, the licensee failed to have the named individual on the license serve as the RSO. Specifically, the employment of the RSO named on the license was terminated on January 7, 2021.

This is a Severity Level IV violation (Enforcement Policy Section 6.3.d.8).

- B. Condition 13.A of Amendment No. 15 to NRC License No. 13-26408-01 states, in part, that sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State. Certificate of Registration NC-646-D-130-S specifies the leak test frequency for Troxler 3400 Series portable moisture density gauges as 12 months.

Contrary to the above, between September 1, 2021, and December 2, 2021, the licensee failed to test sealed sources for leakage and/or contamination at intervals not to exceed 12 months, as specified in the Certificate of Registration (NC-646-D-130-S). Specifically, the licensee previously leak tested three Troxler Model 3440 portable gauges (SNs: 27261, 22603, and 18314), containing sealed sources of cesium-137 (nominal activity 8 millicuries) and americium-241:beryllium (nominal activity 40 millicuries) on September 1, 2020, October 6, 2020, and November 5, 2020, respectively. The licensee did not again test the sources for leakage and or contamination until November 18, 2021, December 2, 2021, and December 1, 2021, respectively, intervals in excess of 12 months, and the sources were not otherwise exempted from testing.

This is a Severity Level IV violation (Enforcement Policy Section 6.7.d.4).

- C. Title 10 CFR Part 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 172.702 requires that each hazmat employer ensure that each hazmat employee is trained and tested, and that no hazmat employee performs any function subject to the requirements of 49 CFR Parts 171-177 unless trained, in accordance with Subpart H of 49 CFR Part 172. The terms Hazmat Employer and Hazmat Employee are defined in 49 CFR 171.8.

Title 49 CFR 172.704(c)(2) requires, in part, that a hazmat employee receive the training required by this subpart at least once every three years.

Contrary to the above, between February 5, 2019, and December 2, 2021, the licensee did not provide recurrent training at least once every three years to three hazmat employees that satisfied the requirements in Subpart H of 49 CFR Part 172, and the licensee otherwise meets the definition of a hazmat employer in 49 CFR 171.8. Specifically, the individuals had not received this training since last completing it on February 5, 2016, March 29, 2018, and April 9, 2018, respectively.

This is a Severity Level IV violation (Enforcement Policy Section 6.3.d.4).

Pursuant to the provisions of 10 CFR 2.201, Earth Exploration, Inc. is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region III, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) the reason for the violations, or, if contested, the basis for disputing the violations or their severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC Agencywide Documents Access and Management System (ADAMS), accessible from the NRC's website 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.

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, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

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

Dated this 15th day of February 2022.