



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
2443 WARRENVILLE RD. SUITE 210  
LISLE, IL 60532-4352

August 11, 2022

EN: 55662  
NMED No. 220007 (Closed)  
EA-22-018

Ms. Katherine Banicki  
President & CEO  
Testing Engineers & Consultants, Inc.  
1343 Rochester Road  
Troy, MI 48083

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES  
—\$24,000; NRC INSPECTION REPORT NO. 03014016/2021001(DNMS) –  
TESTING ENGINEERS & CONSULTANTS, INC.

Dear Ms. Banicki:

This letter refers to the U.S. Nuclear Regulatory Commission (NRC) inspection conducted on December 1 through 3, 2021, and January 3 and 4, 2022, at your Troy, Michigan office, with continued in-office review through March 21, 2022. The purpose of this inspection was to ensure that activities performed under your NRC license were being performed in accordance with NRC requirements. The inspection encompassed whether you (Testing Engineers & Consultants, Inc. (TEC) or Licensee) have complied with security measures to protect against the loss of regulated devices; regulations concerning safe handling, transportation, and storage of the devices; employee safety training; and device labeling. The inspector also investigated the circumstances under which two portable moisture density gauges were lost. The in-office review included a review of information related to your radiation safety program, including your written report dated January 17, 2022, describing the missing gauges. Ms. Deborah A. Piskura of my staff conducted a final exit meeting by videoconference with you and members of your staff on March 21, 2022, to discuss the inspection findings. The inspection report was issued on April 20, 2022.<sup>1</sup>

In the letter transmitting the inspection report, we identified sixteen apparent violations which were being considered for escalated enforcement action in accordance with the NRC Enforcement Policy, and we provided TEC with the opportunity to either request a predecisional enforcement conference (PEC) or request alternative dispute resolution. You chose to attend a PEC, which was held on June 13, 2022.

After considering the information developed during the inspection and the information you provided at the PEC, the NRC has determined that violations of NRC requirements occurred and is proceeding with enforcement action. These violations are cited in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) (Enclosure 1) and the circumstances

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<sup>1</sup> See Agencywide Documents Access and Management System (ADAMS), accession no. ML22089A180, <http://www.nrc.gov/readingrm/adams.html>.

surrounding them are described in detail in the subject inspection report. The violations were evaluated in accordance with the current Enforcement Policy, which is included on the NRC's Web site at <https://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

### **Violations**

The NRC has determined that four Severity Level III (SLIII) violations occurred, which are categorized in accordance with the NRC Enforcement Policy as escalated enforcement actions.

Violation A involved your failure to control and maintain surveillance over two portable moisture density gauges, leading to their loss. The loss of the gauges was discovered during an inventory TEC undertook in response to the inspector's inquiry. It is not known when the gauges were lost, and it is not known if the lost gauges are in their locked transport cases or if the source rods are locked in their shielded position. Therefore, this violation is of significant concern to the NRC because the regulated material is still missing and the source was not locked in a shielded position, a member of the public could potentially receive a dose exceeding regulatory limits.

The inspector observed Violation B as it occurred when a TEC employee left a portable gauge outside of its transport case and inside the passenger compartment of an unlocked vehicle (with the engine running) at the Troy field office. The employee did not maintain constant visual surveillance of the gauge or vehicle. While no overexposure actually occurred, NRC considers this a serious violation because of the potential for unauthorized possession or use of the material and the potential for overexposure to members of the public from its misuse.

Violation C involved your failure, for an unknown period of time, to have two working locks on the Troy, Michigan gauge storage room in violation of 10 CFR 30.34(i). The storage room held twenty-two regulated gauges. This violation had potential serious consequences if one or more gauges were stolen.

Violation D occurred when the Radiation Safety Officer (RSO) named in your license retired in July 2021, and there was no one acting in that position until November 2021. This violation had serious consequences because it was a contributing factor in the other violations found during the inspection.

In addition, twelve Severity Level IV (SLIV) violations of NRC requirements occurred and are being cited in the enclosed Notice. The SLIV violations involve handling, labeling, transporting, and securing gauges and preventing excessive doses to the public. The circumstances surrounding them are described in detail in the subject inspection report. These violations were also evaluated in accordance with the NRC Enforcement Policy.

In accordance with the NRC Enforcement Policy, a base civil penalty is considered for escalated enforcement violations. A base civil penalty in the amount of \$8,000 is considered for an SLIII violation by a licensee of TEC's type (see Tables 8A.e and 8B of the Enforcement Policy).

### **Identification and Corrective Actions**

Because TEC's facility has been the subject of escalated enforcement actions within the past two routine inspections, the NRC considered whether credit was warranted for identification and corrective actions in accordance with the civil penalty assessment process in Section 2.3.4 of

the Enforcement Policy.<sup>2</sup> Where a licensee that has been recently subject to escalated enforcement action is not entitled to credit for either identification or corrective action, the NRC will normally assess twice the base civil penalty.

The NRC does not give credit for identification or correction of violations that involve lost sources (Violation A).

Identification credit for Violation D is warranted because TEC recognized that the RSO listed on its license had left the company, and TEC filed an application to amend its license to include the name of the new RSO in November 2021, prior to the inspection at issue. No identification credit is warranted for Violations B or C, or any of the SLIV violations, because they were NRC-identified during the inspection.

Credit for corrective actions is warranted for all violations for which the NRC considers corrective action. As described in the inspection report, TEC took corrective actions to prevent future loss and mishandling of gauges. To prevent future incidents similar to that cited in Violation B and Violation L, TEC obtained additional chains and locks to secure gauges within vehicles during transportation. To address Violation C, TEC had a locksmith repair the broken lock on the Troy storage room door on December 6, 2021. To correct Violation D, on Nov. 11, 2021, TEC applied to amend its license to designate a new RSO. The amendment was granted on January 6, 2022.

As documented in the inspection report, TEC also took action and made commitments to correct the various SLIV violations. To address Violation E, TEC committed to complete a review of its radiation protection program for activities conducted in 2021 by April 30, 2022. To remedy Violation F, TEC committed to transfer gauges to the device manufacturer or an authorized service provider to replace the worn labeling with legible labels. To address Violation G, TEC committed to perform leak tests on its gauges that have been in storage since 2009 by March 1, 2022. NRC will verify that TEC has fulfilled these commitments in a follow-up inspection.

To correct Violation H, TEC performed a physical inventory of its gauges immediately after the onsite inspection in December 2021. To address Violations I and L and to comply with its License Condition 16, TEC obtained additional padlocks to secure the gauge source rods and the transportation cases and instructed its gauge personnel on using of the padlocks on either the transportation case or the gauge source rod. In addition, TEC changed the lock codes for the Troy storage room to allow access only to members of management. This change requires gauge users to directly contact a member of management to access the gauge storage room.

The manager of construction services now maintains a locator for the job site, the gauge user and the make, model and serial number of the gauge that was assigned to the authorized gauge user.

To address Violation J, on June 27, 2022, TEC provided documentation of its evaluation of public dose, specifically considering members of its staff who were non-gauge users but who worked in the vicinity of the gauge storage rooms.

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<sup>2</sup> During a routine inspection in 2014, the inspector identified a violation of 10 CFR 30.34(i) in that TEC had not been using two independent physical controls to secure portable gauges from unauthorized removal. See Notice of Violation, EA-14-221 (ML15057A597). The following routine inspection, in 2019, found no violations. See Inspection Report No. 03014016/2019001 (ML19231A037).

To correct Violation K and to comply with Condition 19 of its license, TEC created an inventory log sheet to be maintained by the construction manager. This log sheet is updated daily to list the specific gauges and the assigned gauge users for the respective device.

To address Violations M, N, O, and P, TEC provided instruction to its gauge personnel at the Troy office on methods to properly block and brace a package, the proper location to stow a shipping paper during transport, and the proper locations to stow gauges within a vehicle (with emphasis on not storing a gauge in the passenger compartment). TEC also instructed its gauge personnel at the Troy office on methods to secure gauges with two tangible barriers.

### **Penalties Assessment**

To emphasize the importance of control of licensed material, and of identification of violations, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice). For Violation A, a penalty in the amount of \$8000 is assessed. According to Table 8A, item f.3 of the Enforcement Policy, the base civil penalty for a lost portable gauge is \$7000 per device. However, under section 3.1.2D.4 of the Enforcement Manual, based on the disposal costs for portable moisture density gauges, the NRC would normally assess a civil penalty of \$3500 for the loss of a portable gauge, or \$7000 for the loss of two gauges. Based on Tables 8A and 8B of the Enforcement Policy, for a licensee of your type, the base civil penalty for an SLIII violation not involving lost sources would be \$8,000. Therefore, in this case, in order to provide an equivalent deterrent effect, the NRC is assessing a civil penalty of \$8,000 for the two lost sources. For Violation B, because no identification credit was earned, but corrective action credit was earned, a penalty in the base amount of \$8000 is assessed for the SLIII violation. For Violation C, because no identification credit was earned, but corrective action credit was earned, a penalty in the base amount of \$8000 is assessed for the SLIII violation. For Violation D, because both identification credit and corrective action credit were earned, no civil penalty is assessed for the SLIII violation. No civil penalty is imposed for the twelve SLIV violations (Violations E – P in the attached Notice).

Issuance of this Notice constitutes escalated enforcement action that may subject TEC to increased inspection effort.

### **Licensee Response**

You may choose to pay the proposed civil penalties by submitting your payment, with the invoice enclosed (Enclosure 2) to this letter, to the following address:

Office of the Chief Financial Officer  
U.S. Nuclear Regulatory Commission  
P.O. Box 979051  
St. Louis, MO 63197

In addition, you may pay the proposed civil penalties in accordance with [NUREG/BR-0254](#). When using NUREG/BR-0254 to pay the civil penalties, the invoice number should be used as the “enforcement action identifier” when submitting your payment through one of the approved methods listed in the brochure. The NRC may consider a request for additional time to pay the proposed civil penalty, including the option to enter into an installment agreement, if payment of the civil penalty as a lump sum in the required timeframe would pose a financial hardship. To request additional time to pay, you must submit a written request, with appropriate justification

explaining your financial hardship, to [NRCCollections.Resource@nrc.gov](mailto:NRCCollections.Resource@nrc.gov). All requests should be submitted in sufficient time to allow the NRC the ability to review your request for additional time to pay before the 30-day payment period expires.

If you disagree with this enforcement sanction, you may deny one or more of the violations described in the Notice, or you may request alternative dispute resolution (ADR) with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a neutral third party. 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 ADR program can be found at <https://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. If you are interested in pursuing this issue through the ADR program, please contact: (1) the ICR at (877) 733-9415; and (2) Diana Betancourt-Roldan, Enforcement/Investigations Officer at 630-810-4373 or [Diana.Betancourt-Roldan@nrc.gov](mailto:Diana.Betancourt-Roldan@nrc.gov) within 10 days of the date of this letter. You may also contact both ICR and Diana Betancourt for additional information. Your submitted signed agreement to mediate using the NRC ADR program will stay the 30-day time period for payment of the civil penalties and the required written response, as identified in the enclosed notice, until the ADR process is completed.

The NRC has concluded that information regarding: (1) the reason for the violations; (2) the corrective steps that have been taken; (3) the corrective steps that will be taken; and (4) the date when full compliance was achieved is already adequately addressed on the docket in NRC Inspection Report No. 03014016/2021001(DNMS) and during the June 13, 2022, PEC. 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 the NRC's Rules of Practice in 10 CFR 2.390, a copy of this letter and the enclosures will be made available electronically for public inspection in the NRC's Public Document Room or from ADAMS. The NRC also includes significant enforcement actions on its Web site at [http://www.nrc.gov/reading\\_rm/doc\\_collections/enforcement/actions/](http://www.nrc.gov/reading_rm/doc_collections/enforcement/actions/).

If you have any questions concerning this matter, please contact Diana Betancourt-Roldan, Enforcement/Investigations Officer of my staff at 630-810-4373.

Sincerely,



Signed by Giessner, Jack  
on 08/11/22

John B. Giessner  
Regional Administrator

Docket No. 030-14016  
License No. 21-18668-01

Enclosures:

1. Notice of Violation and Proposed Imposition  
of Civil Penalty
2. Invoice EA-22-018

cc w/encl: State of Michigan

Letter to K. Banicki from J. Giessner dated August 11, 2022.

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES; NRC INSPECTION REPORT NO. 03014016/2021001(DNMS) – TESTING ENGINEERS & CONSULTANTS, INC.

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NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Testing Engineers & Consultants, Inc.  
Troy, Michigan

Docket No. 030-14016  
License No. 21-18668-01  
EA-22-018

Several violations were identified as a result of the NRC's inspection conducted December 1-3, 2021, and January 3, 2022, with in-office review through March 21, 2022, of the licensee's facilities in Troy, Michigan and its satellite office in Ann Arbor, Michigan.

In accordance with the NRC Enforcement Policy, the NRC proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalties are set forth below:

I. Violations Assessed a Civil Penalty

- A. Title 10 of the Code of Federal Regulations (10 CFR) 20.1801 requires that a licensee secure from unauthorized removal licensed materials that are stored in controlled or unrestricted areas. 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.

Contrary to the above, between January 18, 2021 and December 17, 2021, TEC failed to control and maintain constant surveillance of, and to secure from unauthorized removal, two Troxler Model 3411B portable gauges. Specifically, during an inventory conducted in December 2021, TEC was unable to locate two Troxler portable moisture density gauges Model 3411B, each containing 8 millicuries of cesium-137 and 44 millicuries of americium-241 sealed sources, and reported the sources as lost.

This is a Severity Level III violation (Enforcement Policy 6.7c.10.(a)) and the lost source policy applies to it.  
Civil Penalty: \$8000 (EA-22-018).

- B. 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.

10 CFR 30.34(i) requires each portable gauge licensee 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.

Condition 16 of License No. 21-18668-01, Amendment 21 (corrected copy), requires that each portable nuclear gauge shall have a lock or outer locked container (e.g., transportation case) designed to prevent unauthorized or accidental removal of the



sealed source from its shielded position, and that the gauge or its container must be locked when in transport, storage, or when not under the direct surveillance of an authorized user.

Contrary to the above, on December 2, 2021, TEC failed to control and maintain constant surveillance of a portable nuclear gauge in an unrestricted area, failed to use a minimum of two independent physical controls that formed tangible barriers to secure the portable gauge from unauthorized removal, and failed to lock the portable gauge or its container when not under the direct surveillance of an authorized user. Specifically, at its Troy, Michigan field office, TEC stored a Troxler Model 3411B portable gauge with an unlocked source rod in the passenger compartment of an unlocked vehicle with the engine running, outside of its transportation case and without a TEC employee maintaining control and constant surveillance of the portable gauge.

This is a Severity Level III violation (Enforcement Policy 6.3c.3).  
Civil Penalty: \$8000 (EA-22-018).

- C. 10 CFR 30.34(i) requires, in part, 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.

Contrary to the above, between December 1 and December 4, 2021, TEC did not use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever portable gauges were not under the control and constant surveillance of the licensee. Specifically, TEC stored portable gauges at its Troy, Michigan office within a storage room that had only one operational lock and no additional physical barriers inside the room to prevent the removal of gauges.

This is a Severity Level III violation (Enforcement Policy 6.3c.3).  
Civil Penalty: \$8000 (EA-22-018).

## II. Violations Not Assessed a Civil Penalty

- D. License Condition 11 of License No. 21-18668-01, Amendment 21 (corrected copy), names a specific individual as the Radiation Safety Officer (RSO) for the licensee.

Contrary to the above, from July 2021 to November 2021, TEC failed to have the specific individual named in in Condition 11 serving as the RSO. Specifically, the RSO named in Condition 11 resigned his employment with TEC in July 2021.

This is a Severity Level III violation (Enforcement Policy 6.3c.11.(d)).

- E. 10 CFR 20.1101(c) requires that a licensee periodically (at least annually) review the radiation protection program content and implementation.

Contrary to the above, between March 2018 and December 3, 2021, TEC did not periodically (at least annually) review its radiation protection program content and

implementation. Specifically, the RSO's records revealed that TEC's most recent review of its radiation protection program had been in March 2018.

This is a Severity Level IV violation (Enforcement Policy 6.7d.6).

- F. 10 CFR 20.1904(a) requires the licensee to ensure that each container of licensed material bears a durable, clearly visible label bearing the words "CAUTION, RADIOACTIVE MATERIAL," or "DANGER, RADIOACTIVE MATERIAL." The label must also provide sufficient information (such as the radionuclides present, an estimate of the quantity of radioactivity, the date for which the activity is estimated, etc.) to permit individuals handling or using the containers, or working in the vicinity of the containers, to take precautions to avoid or minimize exposures.

Contrary to the above, on December 1 and 2, 2021, and January 3, 2022, TEC failed to ensure that portable moisture/density gauges containing millicurie quantities of cesium-137 and americium-241 sealed sources bore durable, clearly visible labels providing sufficient information about the radionuclides present and the quantity of radioactivity, to permit individuals handling or using the container, or working in the vicinity of the container, to take precautions to avoid or minimize exposure. Specifically, the original engraved labels on several gauges at TEC's Troy, Michigan facility and Ann Arbor, Michigan facility had been worn smooth and were illegible. Although the gauges had been retrofitted with new labels, the new labels identified the cesium-137 sources within the gauges but did not identify the americium-241 sources within the gauges.

This is a Severity Level IV violation (Enforcement Policy 6.7d.6).

- G. License Condition 13.C of License No. 21-18668-01, Amendment No. 21 (corrected copy), requires, in part, that no sealed source may be stored for a period of more than ten years without being tested for leakage and/or contamination.

Contrary to the above, from 2009 to December 1, 2021, a period of more than ten years, the licensee stored sealed sources without testing them for leakage and/or contamination. Specifically, TEC stored ten portable gauges at its Troy, Michigan field office that it had not leak tested since 2008.

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

- H. License Condition 15 of License No. 21-18668-01, Amendment No. 21 (corrected copy), requires the licensee to conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license.

Contrary to the above, from approximately 2018 to December 4, 2021, TEC did not perform a physical inventory every six months to account for all sources and/or devices received and possessed under the license. Specifically, TEC's records indicated that physical inventories of gauges at the Troy, Michigan office had not been documented since the NRC routine inspection in 2019.

This is a Severity Level IV violation (Enforcement Policy 6.3d.10).

- I. License Condition 16 of License No. 21-18668-01, Amendment No. 21 (corrected copy) provides: "Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport or storage, or when not under the direct surveillance of an authorized user."

Contrary to the above, TEC failed to have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position when in transport, storage, or when not under the direct surveillance of an authorized user. Specifically, on December 1, 2021, the Licensee had 15 portable nuclear gauges in a storage room at its Troy field office which did not have locks on either the source rods or the transportation cases to prevent unauthorized or accidental removal of the sealed source from its shielded position.

This is a Severity Level IV violation (Enforcement Policy 6.3d.10).

- J. 10 CFR 20.1301 requires licensees to conduct operations so as to limit doses to individual members of the public to no more than .1 rem (100 millirem) in a year.

10 CFR 20.2107(a), "Records of Dose to Individual Members of the Public," requires licensees to maintain records sufficient to demonstrate compliance with the dose limits for individual members of the public in 10 CFR 20.1301.

Contrary to the above, as of January 4, 2022, TEC did not maintain documentation sufficient to demonstrate compliance with the dose limit of 100 millirem per year to individual members of the public. Specifically, the Licensee did not maintain documentation of its evaluation of public dose to members of its staff who were non-gauge users but who worked in the vicinity of the gauge storage rooms.

This is a Severity Level IV violation (Enforcement Policy 6.3d.3).

- K. License Condition 19 of License No. 21-18668-01, Amendment 21 (corrected copy) provides: "Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the [Licensee's Application dated December 27, 2016, and letter dated May 18, 2017]."

The Licensee's December 27, 2016, Application, Item 10.6, "Radiation Safety Program-Operating, Emergency, and Security Procedures," stated that the Licensee would implement and maintain the operating, emergency, and security procedures in NUREG-1556, Vol. 1, Rev. 2 "Consolidated Guidance About Materials Licenses," Appendix G. The list of Operating Procedures in Appendix G of NUREG-1556, states, in part, that portable gauges will be signed out "in a logbook (that remains at the storage location), including the date(s) of use, name(s) of the authorized users who will be responsible for the gauge, and the temporary job site(s) where the gauge will be used."

Contrary to the above, as of December 2, 2021, TEC failed to ensure that the gauges at its Troy, Michigan office were signed out in a logbook that included the dates of use, names of authorized users, and job sites. Specifically, although TEC

had a log sheet at its Troy office, only one or two individuals filled it out and they only did so intermittently.

This is a Severity Level IV violation (Enforcement Policy 6.3d.3).

- L. 10 CFR 71.5(a) requires that a licensee who transports licensed material outside of 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 regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 107, 171-180, and 390-397.

49 CFR 173.22(a) requires, in part, that “a person may offer a hazardous material for transportation in a packaging or container required by this part only in accordance with the following: (1) The person shall class and describe the hazardous material in accordance with parts 172 and 173 of this subchapter, and (2) The person shall determine that the packaging or container is an authorized packaging, including part 173 requirements, and that it has been manufactured, assembled, and marked in accordance with the requirements in part 173.

Contrary to the above, on December 2, 2021, TEC transported a portable gauge containing hazardous material without using a package or container that complied with 49 CFR part 173. Specifically, on that date a TEC employee transported a portable gauge from a temporary job site in Detroit, Michigan to the Licensee’s field office in Troy, Michigan without putting the gauge in its authorized Type A package (its transportation case) and instead stowing it unpackaged on the floorboard of the passenger compartment of his truck.

This is a Severity Level IV violation (Enforcement Policy 6.8d.4; 6.8d.5).

- M. 10 CFR 71.5(a) requires that a licensee who transports licensed material outside of 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 regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 107, 171-180, and 390-397.

49 CFR 173.448(a) provides that each shipment of radioactive materials be secured to prevent shifting during normal transportation conditions.

Contrary to the above, on December 2, 2021, the Licensee transported a portable gauge containing radioactive materials, outside the site of usage, or on a public highway, while the gauge was not secured to prevent shifting during normal transportation conditions. Specifically, the Licensee’s employee transported a gauge from a temporary job site to TEC’s field office on the floorboard of the passenger compartment of the vehicle, outside of its approved shipping case and with no means to prevent shifting during transportation.

This is a Severity Level IV violation (Enforcement Policy 6.8d.5).

- N. 10 CFR 71.5(a) requires that a licensee who transports licensed material outside of 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 regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 107, 171-180, and 390-397.

49 CFR Part 172, "Hazardous Materials Regulations," subpart H specifies the training that must be provided to employees transporting hazardous materials. Section 172.704(c) provides that employees must be provided initial training and recurrent training at least once every three years.

Contrary to the above, as of December 1, 2021, TEC did not provide initial training and recurrent hazmat training. Specifically, the RSO's training files identified three gauge users who had not received initial training and four gauge users who had not received recurrent training within three years of their initial training.

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

- O. 10 CFR 71.5(a) requires that a licensee who transports licensed material outside of 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 regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 107, 171-180, and 390-397.

49 CFR 177.817(e) provides that "A driver of a motor vehicle containing hazardous material, and each carrier using such a vehicle, shall ensure that the shipping paper required by this section is readily available to, and recognizable by, authorities in the event of accident or inspection."

49 CFR 177.817(e)(2)(i) requires that when the driver is at the vehicle's controls, the shipping paper must be readily visible to a person entering the driver's compartment or in a holder mounted to the inside of the driver's side door.

Contrary to the above, on December 2, 2021, the licensee transported a portable moisture-density gauge containing licensed material outside the site of usage, as specified on the NRC license, or on a public highway, and the driver of the vehicle did not ensure that the shipping paper was readily visible to a person entering the driver's compartment. Specifically, while a TEC employee was transporting the portable gauge from a temporary job site to TEC's field office, the shipping paper was stored within a crate with other paperwork on the front passenger seat of the vehicle and not readily visible to a person entering the driver's compartment.

This is a Severity Level IV violation (Enforcement Policy 6.8d.5).

- P. 10 CFR 71.5(a) requires that a licensee who transports licensed material outside of 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 regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 107, 171-180, and 390-397.

49 CFR 173.448(c) provides that packages bearing labels prescribed in 49 CFR § 172.403 (pertaining to Class 7 radioactive materials) "may not be carried in compartments occupied by passengers, except in those compartments exclusively reserved for couriers accompanying those packages."

Contrary to the above, on December 2, 2021, the Licensee carried radioactive materials in the passenger compartment of an occupied vehicle. Specifically, a TEC employee transported a portable gauge from a temporary job site to TEC's field office in the passenger compartment of the company pickup truck he was driving.

This is a Severity Level IV violation (Enforcement Policy 6.8d.5).

The NRC has concluded that information regarding the reasons for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in 03014016/2021001(DNMS) and during the June 13, 2022, PEC. However, if the description herein does not accurately reflect your position or your corrective actions, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 within 30 days of the date of the letter transmitting this Notice of Violation. In that case, or if you choose to respond, clearly mark your response as a Reply to a Notice of Violation, and send it to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S., Nuclear Regulatory Commission, Region III and the Document Control Desk, Washington, DC 20555-0001.

TEC may pay the cumulative amount of the civil penalties through one of the following two methods:

1. Submit the payment with the enclosed invoice for Civil Penalties EA-22-018, issued to Testing Engineers & Consultants, Inc., to the following address:

Office of the Chief Financial Officer  
U.S. Nuclear Regulatory Commission  
P.O. Box 979051  
St. Louis, MO 63197

OR

2. Submit the payment in accordance with [NUREG/BR-0254](#).

You may protest the imposition of the civil penalties in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. Should the Licensee fail to answer within 30 days of the date of this Notice, the NRC will issue an order imposing the civil penalty. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny one or more of the violations listed in this Notice, in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty or penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalties, the response should address the factors addressed in Section 2.3.4 of the Enforcement Policy. Any written answer addressing these factors pursuant to 10 CFR 2.205 should be set forth separately from the statement or explanation provided pursuant to 10 CFR 2.201, but it may incorporate parts of the 10 CFR

2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205 to be due, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses noted above (i.e., Reply to Notice of Violation, Statement as to payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Mark Lombard, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III and the Document Control Center, 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 Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, the response should not include any personal privacy, proprietary, classified or safeguards 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, then please provide a bracketed copy of the response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request that such material is withheld from public disclosure, it must specifically identify the portions of the response sought to be withheld and provide in detail the bases for the claim (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). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

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

Dated this 11<sup>th</sup> day of August 2022



Testing Engineers & Consultants, Inc.  
1343 ROCHESTER ROAD  
TROY, MI 48083





08/10/2022

**Address/Customer Information**

Testing Engineers & Consultants, Inc.  
1343 ROCHESTER ROAD  
TROY, MI 48083

**Customer Codes**

Account Code: L000000203/1

**Bill Information**

Bill Number: EA-22-018  
Amount Due: \$24,000.00  
Due Date: 09/09/2022

**Contact Us**

Phone Number: 301-415-7554  
Fax Number: 301-415-4135  
Email Address: Fees.Resource@nrc.gov

**Remit to Address**

Office of the Chief Financial Officer  
U.S. Nuclear Regulatory Commission  
P.O. Box 979051  
St. Louis, MO 63197

**Bill Summary**

Initial Charges	\$24,000.00
Discount	0.00
Surcharge	0.00
Interest Charges	0.00
Penalty Charges	0.00
Admin Charges	0.00
Bill Amount	\$24,000.00
Collected	0.00
Applied Credit	0.00
Adjustments	0.00
Amount Due	\$24,000.00

**Credit Summary**

Applied Credit	\$0.00
Unapplied Credit	0.00
Credit Total	\$0.00

**Comments:**

For questions, contact (301) 415-7554 or by email at Fees.Resource@nrc.gov. For NRC debt collection procedures, including interest and penalty provisions, see 31 U.S.C. 3717, 4 CFR 101-105, AND 10 CFR 15.

Invoice is for Civil Penalty EA-22-018, issued to Testing Engineers Consultants, Inc.

For questions, contact the NRC Financial Services and Operations Branch at (301) 415-7554 or by email at Fees.Resource@nrc.gov. For NRC debt collection procedures, including interest and penalty provisions, see 31 U.S.C. 3717, 4 CFR 101-105 and 10 CFR 15. If this invoice is related to an Order Imposing a Civil Penalty, Testing Engineers Consultants, Inc. is required to pay the Civil Penalty within 30 days of the Order date. If payment is in response to a Notice of Violation and Proposed Imposition of a Civil Penalty, please follow the instructions in the Notice. The NRC may consider a request for additional time to pay the Civil Penalty, including the option to enter into an installment agreement, if appropriate. All requests for additional time to pay an invoice must be submitted in writing, with appropriate justification, to NRCCollections.Resource@nrc.gov, and should be submitted sufficiently ahead of time to allow the NRC time to review the request for additional time to pay within the 30-day payment period. This Invoice is related to the Civil Penalty proposed or imposed under EA-22-018, issued to Testing Engineers Consultants, Inc. Please include this reference number on your payment method (see attached Payments Methods Brochure).

**Customer Information**

L000000203/1  
Testing Engineers & Consultants, Inc.  
1343 ROCHESTER ROAD  
TROY, MI 48083

**Change of Address:**

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**Phone:** \_\_\_\_\_

**Remittance Information**

Office of the Chief Financial Officer  
U.S. Nuclear Regulatory Commission  
P.O. Box 979051  
St. Louis, MO 63197

**This Payment References the following Bill:**

EA-22-018

**Outstanding Amount Due:** \$24,000.00

**Amount Enclosed:** \_\_\_\_\_