



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PA 19406-2713

July 18, 2014

Docket No. 03034756
EA-14-127

License No. 52-25436-01

Nelson Munoz, P.E.
President
Advanced Soil Engineering
P.O. Box 1288
Isabela, PR 00662

**SUBJECT: NRC INSPECTION REPORT NO. 03034756/2014001, ADVANCED SOIL
ENGINEERING, ISABELA, PUERTO RICO SITE AND NOTICE OF VIOLATION
AND EXERCISE OF ENFORCEMENT DISCRETION**

Dear Mr. Munoz:

On June 4, 2014, Steven Courtemanche of this office conducted a safety inspection at State Road PR 2, Kilometer 108.9, Isabela, Puerto Rico of activities authorized by the above listed NRC license. The inspection was an examination of your licensed activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selective examination of representative records. Additional information provided in your correspondence received June 10, 2014, was also examined as part of the inspection. The findings of the inspection were discussed with you at the conclusion of the inspection via telephone on June 24, 2014.

Based on the results of this inspection and in accordance with the NRC Enforcement Policy, the NRC has determined that five Severity Level IV violations of NRC requirements occurred. The violations involved: 1) the failure to periodically review the radiation safety program content and implementation; 2) the failure to use two independent physical controls that form tangible barriers to secure a portable gauge from unauthorized removal, whenever the gauge was not under the control and constant surveillance of the licensee as required by 10 CFR 30.34(i); 3) the failure to ensure that HAZMAT employees receive training required by 49 CFR 172.704(c)(2) at least once every three years; 4) the failure to leak test, for removable contamination, the sealed sources in the CPN Model MC-1 gauges at an interval not exceeding an annual basis; and, 5) the failure to complete the gauge log book with all of the required information when signing the gauges out of and into storage.

Regarding the violation of 10 CFR 30.34(i), such violations are normally categorized at Severity Level III and considered for escalated enforcement action. However, because: (1) one physical control existed to prevent loss or theft of the portable gauges; (2) you retained possession of the gauges; (3) the violation was isolated in nature; and (4) no indication of programmatic weakness was identified, in accordance with NRC Enforcement Guidance Memorandum (EGM) 11-004, "Interim Guidance for Dispositioning Violations of Security Requirements for Portable Gauges," the NRC is exercising enforcement discretion to categorize this violation as Severity Level IV.

The violations are cited in the enclosed Notice of Violation (Notice), because the violations were identified by the NRC. You are required to respond to this letter within 30 days and should follow the instructions specified in the enclosed Notice when preparing your response. Also, Items A, C, D, and E as listed in the Notice are repeat violations that were identified during the previous inspection of your licensed program. These were documented in the Notice of Violation enclosed with our letter dated February 26, 2009. Although we had verified that you took corrective action to address the previous violations, the current violations are of concern, because your preventative actions were not effective in preventing recurrence and indicate a lack of attention to detail.

During our inspection exit meeting on June 24, 2014, you indicated that in 2009 you initiated a paper calendar tracking system for the tasks. You further indicated that when your office switched to an Outlook Calendar system on computers, the tasks were not made part of the Outlook Calendar. Lastly, you indicated that individuals responsible for the use and storage of the gauges will be retrained in the requirements for the security of the gauge and how to complete the log book for the gauges. You stated that you will take corrective and preventative actions to address each violation and that Advanced Soil Engineering is committed to radiation safety and to compliance with NRC regulations and licensed conditions. Further, you stated verbally that you will take the following corrective and preventative actions:

- 1) A task will be placed on an Outlook Calendar system so that the Radiation Safety Officer and administrative assistant will be notified when future reviews of the radiation safety program content and implementation would be required,
- 2) The gate and door to the portable gauge storage area were secured prior to the end of the inspection. The Radiation Safety Officer will speak to all of the authorized users and remind them of the requirement to secure the gate and door after placing portable gauges in the room for storage,
- 3) HAZMAT training and testing will be provided by the licensee. The task will be placed on an Outlook Calendar system so that the Radiation Safety Officer and administrative assistant will be notified when future HAZMAT training and testing would be required,
- 4) Leak tests for removable contamination from sealed sources will be performed and the wipes sent for analysis for those gauges in active use. The task will be placed on an Outlook Calendar system so that the Radiation Safety Officer and administrative assistant will be notified when future tests would be required, and
- 5) The RSO will speak to the individuals involved and remind them of the requirement to completely fill out the information in the gauge log.

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 or from the NRC document system (ADAMS), accessible from the NRC 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 available to the Public without redaction.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Med, Ind, & Academic Uses**; then **Regulations, Guidance and Communications**. The current Enforcement Policy is included on the NRC's website at www.nrc.gov; select **About NRC, Organizations & Functions; Office of Enforcement; Enforcement documents**; then **Enforcement Policy (Under 'Related Information')**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

The NRC's Safety Culture Policy Statement became effective in June 2011. While a policy statement and not a regulation, it sets forth the agency's *expectations* for individuals and organizations to establish and maintain a positive safety culture. You can access the policy statement and supporting material that may benefit your organization on NRC's safety culture Web site at <http://www.nrc.gov/about-nrc/safety-culture.html>. We strongly encourage you to review this material and adapt it to your particular needs in order to develop and maintain a positive safety culture as you engage in NRC-regulated activities.

Please contact Steven Courtemanche at 610-337-5075 if you have any questions regarding this matter.

Sincerely,

/RA D. S. Collins for/

James W. Clifford, Director
Division of Nuclear Materials Safety

Enclosure:
Notice of Violation

cc w/Encl: Rafael Gonzalez, Radiation Safety Officer
Commonwealth of Puerto Rico

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Enclosure:
Notice of Violation

cc w/Encl: Rafael Gonzalez, Radiation Safety Officer
Commonwealth of Puerto Rico

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*see previous concurrence

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NOTICE OF VIOLATION

Advanced Soil Engineering
Isabela, PR

Docket No. 03034756
License No. 52-25436-01
EA-14-127

During an NRC inspection conducted on June 4, 2014, five violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

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

Contrary to the above, as of June 24, 2014, the licensee had not reviewed the radiation protection program content and implementation annually. Specifically, reviews of the radiation protection program content and implementation were conducted in 2009, 2010, and 2011; but not in 2012 or 2013.

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

- B. 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.

Contrary to the above, on June 4, 2014, the licensee did not use a minimum of two independent physical controls to form tangible barriers to secure portable gauges from unauthorized removal whenever gauges were not under the control and constant surveillance of the licensee. Specifically, the licensee's portable gauge storage area provided for three independent physical controls forming tangible barriers, but two of the barriers were not engaged. Namely, a lockable gate and door to the room where the portable gauges were stored were not secured.

This is a Severity Level IV violation (EGM-11-004).

- C. 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 regulation appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 170 through 189.

49 CFR 172.704(c)(2) states that a HAZMAT employee shall receive training required by this subpart at least once every three years.

Contrary to the above, as of June 24, 2014, the licensee did not ensure that authorized users (HAZMAT employees), who performed the functions subject to the requirements of 49 CFR 171 – 177 were trained as required. Specifically, all authorized users had not received HAZMAT training since March 14, 2009, a period in excess of three years.

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

- D. Condition 13.A. of NRC License Number 52-25436-01 requires that sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State. The leak test requirement for CPN Model MC-1 gauges is annual.

Contrary to the above, as of June 24, 2014, the licensee had not performed the required annual leak test on all gauges since May 2012, a period in excess of the annual requirement, and the gauges had been used subsequent to the leak test in May 2012.

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

- E. Condition 20 of NRC License No. 52-25436-01 requires, in part, that the licensee conduct its program in accordance with statements, representations, and procedures contained in the application dated June 30, 2008.

Item 10 of Appendix B to the letter dated June 30, 2008, requires that the licensee develop, implement, maintain, and distribute Operating and Emergency Procedures that will meet the Criteria in the section entitled "Radiation Safety Program – Operating and Emergency Procedures," in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.

Paragraph 3 of Operating Procedures in Appendix H of NUREG-1556, Vol. 1, Rev. 1, requires, in part, that a gauge be signed out in a log book, including the dates of use, names of authorized users who will be responsible for the gauge, and the temporary job site where the gauge will be used.

Contrary to the above, as of June 24, 2014, the licensee did not ensure that when a gauge was signed out in the log book or signed into the log book that the dates of use, names of authorized users who were responsible for the gauge, the temporary job site where the gauge was used, and the date when the gauge was returned to storage was included in the log. For example, the log book was not fully completed on the following days: February 13, 27 and 28, 2012; March 22, 2012 (The gauge that was used was not included.); October 25, 26 and 28, 2012; and March 19, 27, and April 9, 2014 (The gauge was not signed back in.).

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

Pursuant to the provisions of 10 CFR 2.201, Advanced Soil Engineering is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region I, **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 for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (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 will be achieved. Your response may reference or include previous 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.

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response which contests an enforcement action shall be submitted under oath or affirmation.

Your response will be placed in the NRC Public Document Room (PDR) and on the NRC Web site. To the extent possible, it should, therefore, not include any personal privacy, proprietary, or safeguards information so that it can be made publically available without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

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

Dated This 18th day of July 2014