

December 2, 2005

Docket No. 03033387
EA-05-152

License No. 29-30107-01

Mr. Martin Lowenthal
Regional Chief Executive
U.S. Engineering Laboratories, Inc.
903 East Hazelwood Avenue
Rahway, New Jersey 07065

SUBJECT: NOTICE OF VIOLATION

Dear Mr. Lowenthal:

This letter refers to the NRC inspection conducted at your facilities in Rahway, New Jersey, and three temporary job sites in Cranbury, New Jersey, on September 22, 2004, as well as at your facility in Broomall, Pennsylvania, on October 20, 2004. This letter also refers to a subsequent investigation completed by the NRC's Office of Investigations (OI) on June 27, 2005. The purpose of the OI investigation was to determine if employees at your Rahway facility made false statements to NRC inspectors regarding storage and security of licensed material.

In our letter sent to you on August 24, 2005, the NRC informed you that six apparent violations of NRC requirements were identified during the inspection, including an apparent violation related to the inadequate storage and security of licensed material. Our letter also noted that two apparent violations were being considered for escalated enforcement in accordance with the NRC Enforcement Policy. These apparent violations involved (1) the failure to properly secure licensed material, contrary to 10 CFR 20.1801/1802, and (2) the failure to provide materially accurate information to the NRC, contrary to 10 CFR 30.9. With respect to the apparent violation involving inaccurate information, a portable gauge user made statements to NRC inspectors during an inspection, and in a written statement subsequently submitted to the NRC, regarding the security and constant surveillance of an assigned gauge, which were preliminarily considered to be inaccurate. As noted in the Factual Summary of the OI Investigation Report attached to the letter, the apparent violation regarding the submittal of a materially inaccurate statement to the NRC was characterized as willful.

The August 24, 2005, letter also provided you the opportunity to (1) respond in writing to the apparent violations, (2) attend a Predecisional Enforcement Conference (PEC), or (3) request Alternative Dispute Resolution (ADR) to resolve any disagreement related to the NRC findings. In a telephone conversation on September 7, 2005, with Ms. Donna Janda of my staff, you indicated that you wished to attend a PEC.

On October 12, 2005, a PEC was conducted in the Region I office with you and members of your staff to discuss the apparent violations, their significance, their root causes, and your corrective actions. At this conference, you acknowledged the facts surrounding the apparent violations as described in the inspection report and provided the corrective actions you have taken or plan to take in response to these apparent violations. A copy of the PEC report was sent to you on October 26, 2005.

After considering all the information developed during the inspection and the OI investigation, and the information provided by you during the PEC, the NRC has concluded that no violation of 10 CFR 30.9 occurred. In reaching this conclusion, the NRC considered that the gauge user's statements that he had maintained constant surveillance and security over a portable nuclear gauge reflected his mistaken understanding of 10 CFR 20.1802. The gauge user believed he was providing adequate surveillance of the gauge to prevent damage. Because in context, his statements were more in the nature of an opinion regarding compliance with the requirement than statements of fact, his statements were not materially inaccurate within the meaning of 10 CFR 30.9. Therefore, we plan no action with respect to this matter.

Nonetheless, the NRC has determined that other violations of NRC requirements occurred. The violations are cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding them are described in the subject inspection report. The most significant violation involved the failure to: (1) maintain direct and constant surveillance of licensed material (a portable nuclear gauge) at a temporary job site contrary to 10 CFR 20.1802, and (2) properly store a gauge at another temporary job site contrary to 10 CFR 20.1801. Although it was determined that the sources remained in their shielded position during the time the gauges were not properly controlled or stored, and it was unlikely that unauthorized persons came into direct contact with the material during the time that the gauges were unattended, this violation is a concern to the NRC because (1) the failure to control nuclear gauges containing radioactive material could result in the loss or theft of licensed material, and (2) such sources can result in an unintended radiation dose to an individual if the sources are removed from the shielded position. Therefore, this violation is categorized at Severity Level III in accordance with the Enforcement Policy.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$3,250 is considered for a Severity Level III violation involving the loss of control of radioactive material with this level of radioactivity. Because your facility has not been the subject of escalated enforcement action within the last two years or two inspections, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section VI.C.2 of the Enforcement Policy. Credit for corrective actions is warranted because your corrective actions were considered prompt and comprehensive. These corrective actions were communicated to the NRC at the October 12, 2005, PEC, and included, but were not limited to (1) discussing the event at radiation safety meetings with employees and conducting additional training regarding safety of licensed material; (2) developing a new procedure regarding storage of gauges at temporary job sites, and training gauge users regarding the requirements of this new procedure; and (3) increasing the frequency of job site audits by cognizant management personnel.

Therefore, to encourage prompt and comprehensive correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation without a civil penalty for this Severity Level III violation. However, you should be aware that significant violations in the future could result in a civil penalty. In addition, issuance of this Notice constitutes escalated enforcement action that may subject you to increased inspection effort.

Four additional violations are also being cited as a result of the inspection. These violations are described in the enclosed Notice and they have been classified at Severity Level IV.

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 in this letter, in the inspection report issued on August 24, 2005, and during the PEC held on October 12, 2005, for which a PEC report was issued on October 26, 2005. Therefore, you are not required to respond or provide additional information regarding your corrective actions 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, if any, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. The NRC also includes significant enforcement actions on its Web site at www.nrc.gov; select **What We Do, Enforcement**, then **Significant Enforcement Actions**.

Sincerely,

/RA/ Original Signed by Marc Dapas for

Samuel J. Collins
Regional Administrator

Enclosure: Notice of Violation

cc:
State of New Jersey

M. Lowenthal
U. S. Engineering Laboratories, Inc.

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NOTICE OF VIOLATION

U. S. Engineering Laboratories, Inc.
Rahway, NJ

Docket No. 03033387
License No. 29-30107-01
EA-05-152

Based on NRC inspections conducted on September 22, 2004, and October 20, 2004, and on a subsequent OI investigation completed on June 27, 2005, five violations of NRC requirements were identified. The violations were discussed with you during an exit meeting following the inspections on October 27, 2004. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. 10 CFR 20.1801 requires that the licensee secure from unauthorized removal or access 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. As defined in 10 CFR 20.1003, *controlled area* means an area, outside of a restricted area but inside the site boundary, access to which can be limited by the licensee for any reason; and *unrestricted area* means an area, access to which is neither limited nor controlled by the licensee.

Contrary to the above, on September 22, 2004, the licensee did not secure from unauthorized removal or access, and did not control and maintain constant surveillance of a portable nuclear gauge containing licensed material in an unrestricted area. Specifically, an authorized user was in his pickup truck writing a report while the gauge was left unattended approximately 90 feet away, and large construction equipment (e.g., bulldozers and a roller) obstructed the user's view. Additionally, on the same day, at a separate temporary job site location, the licensee failed to ensure adequate control of licensed materials in that one portable nuclear density gauge was stored inside an unattended, unused, and unlocked room of a trailer at the site.

This is a Severity Level III violation (Supplement IV).

- B. 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 170 through 189.

49 CFR 172.301 requires, in part, that each package used in transport shall be marked with the proper identification number, preceded by "UN" or "NA" as appropriate for the material as shown in the 49 CFR 172.101 table. 49 CFR 172.324 requires, in part, that for each non-bulk package that contains a hazardous substance, the letters "RQ" shall be marked on the package in association with the proper shipping name. 49 CFR 172.403 requires, in part, that each package of radioactive material be labeled with two RADIOACTIVE labels on opposite sides of the package identifying the package contents, activity, and transport index. 49 CFR 172.600 requires, in part, that for each non-bulk package that contains a hazardous substance, emergency response information conforming to Subpart G of 49 CFR Part 172 be immediately available for use at all times the hazardous material is present. 49 CFR 177.817(a) requires that a carrier not transport a hazardous material unless it is accompanied by a shipping paper prepared in accordance with 49 CFR 172.200-203. Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.

Contrary to the above, on September 22, 2004, the licensee transported a portable nuclear density gauge containing licensed radioactive material to a temporary job site in Cranbury, New Jersey, and the carrying case (1) was not marked with the UN identification number (UN3332), (2) was not marked with "RQ" signifying a reportable quantity, (3) was not marked with a second RADIOACTIVE label, and the only label on the package did not identify the contents, the activity or the transport index, (4) was not accompanied by the required emergency response information, and (5) was not accompanied by the required shipping papers.

This is a Severity Level IV violation (Supplement V).

- C. License Condition 10 of License No. 29-30107-01 specifies the authorized locations where licensed material may be used or stored.

Contrary to the above, from February 28, 2002, to September 22, 2004, the licensee stored portable nuclear density gauges at locations not authorized on the license. Specifically, authorized users stored portable gauges containing licensed material inside their residences, locations which are not authorized by the license as an approved storage location.

This is a Severity Level IV violation (Supplement IV).

- D. License Condition 16 of License No. 29-30107-01, requires, in part, that the gauge, or its container, be locked when in storage.

Contrary to the above, on September 22 and October 20, 2004, neither a gauge nor its container were locked when in storage at the licensee's facility. Specifically, several Troxler Model 3411B gauges (serial numbers 11841, 8006 and 16983) located at two separate storage locations did not have either the gauge probe or container locked as required.

This is a Severity Level IV violation (Supplement VI).

- E. License Condition 20 of License No. 29-30107-01 requires, in part, that the licensee shall conduct its program in accordance with statements, representations, and procedures contained in the letter with attachments dated January 27, 2004.

In the attachment contained in the letter dated January 27, 2004, under the section regarding occupational dosimetry, the licensee committed to either maintaining documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of 10 percent of the allowable limits in 10 CFR Part 20, or providing dosimetry processed and evaluated by an NVLAP-approved processor that is exchanged at a frequency recommended by the processor. In the attachment under the section regarding operating and emergency procedures, the licensee indicated that it would implement the operating and emergency procedures in Appendix H of NUREG-1556, Volume 1, Revision 1 dated November 2001. These operating and emergency procedures require, in part, that the licensee not place hands, fingers, feet, or other body parts in the radiation field from an unshielded source, and not look under the gauge when the source rod is being lowered into the ground.

NOTICE OF VIOLATION

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Contrary to the above,

1. On September 22, 2004, the licensee did not maintain documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of 10 percent of the allowable limits in 10 CFR Part 20, nor did the licensee provide dosimetry processed and evaluated by an NVLAP-approved processor that is exchanged at a frequency recommended by the processor. Specifically, a gauge user who was conducting licensed activities was not wearing his dosimeter as required at the time of the inspection.
2. On the same day, two gauge users at a temporary job site in Cranbury, NJ placed their fingers in the radiation field from an unshielded source and looked under the gauge when the source rod was being lowered into the ground. Specifically, each gauge user placed his right hand on the source rod lever/handle, his left hand at the top side of the gauge, extended the source rod slightly and placed the extended source rod in the hole in the ground while watching the insertion of the source rod.

This is a Severity Level IV violation (Supplement VI).

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 in the letter transmitting this Notice, in NRC Inspection Report No. 030-33387/2004-001 issued on August 24, 2005, and during the PEC held on October 12, 2005. Therefore, no response to this Notice is required. 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-05-152" and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice.

If you contest the violation, 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.

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

Dated this 2nd day of December 2005