



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 31, 2006

Docket No. 03034791  
EA No. 06-202  
NMED Item No. 050507

License No. 29-30465-01

Frank G. Pennisi  
Vice President/Radiation Safety Officer  
Materials Testing Inc.  
180 Mill Road  
Edison, NJ 08817

SUBJECT: INSPECTION 03034791/2006001, MATERIALS TESTING INC., EDISON,  
NEW JERSEY AND THE TEMPORARY JOB SITE IN PRINCETON,  
NEW JERSEY, EXERCISE OF ENFORCEMENT DISCRETION, AND NOTICE  
OF VIOLATION

Dear Mr. Pennisi:

On July 11 and 12, 2006, Sattar Lodhi of this office conducted a safety inspection at the above address and at one of your temporary job sites in Princeton, New Jersey, 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 selected examination of representative records. Additional information provided in the telephone conversation on July 26, 2006, between you and Francis Perez of your organization and Sattar Lodhi of this office was also examined as part of the inspection. The findings of the inspection were discussed with of your organization at the conclusion of the inspection.

Based on the results of this inspection, it appears that your activities were not conducted in full compliance with NRC requirements. A Notice of Violation (Notice) is enclosed that categorizes each violation by severity level. The violations include a violation of 10 CFR 30.34(i) as described in the Notice. Although violations of 10 CFR 30.34(i) are normally categorized at Severity Level III and considered for escalated enforcement action, because (1) one physical control existed to prevent loss or theft of the portable gauge, (2) you retained possession of the gauge, (3) the violation was not wilful, and (4) you have not previously been cited for a violation of 10 CFR 30.34(i), we are exercising enforcement discretion to categorize this violation at Severity Level IV. However, future violations of 10 CFR 30.34(i) will be categorized at Severity Level III and considered for escalated enforcement action.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will

F. Pennisi  
Materials Testing Inc.

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determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

Current NRC regulations are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Toolkit Index Page**. The current Enforcement Policy is included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **What We Do, Enforcement**, then **Enforcement Policy**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

Your cooperation with us is appreciated.

Sincerely,

***Original signed by Sattar Lodhi, Ph.D.***

John D. Kinneman, Chief  
Security and Industrial Branch  
Division of Nuclear Materials Safety

Enclosure:  
Notice of Violation

cc:  
State of New Jersey

F. Pennisi  
Materials Testing Inc.

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## **NOTICE OF VIOLATION**

Materials Testing Inc.  
Edison, NJ

Docket No. 03034791  
License No. 29-30465-01  
EA No. 06-202

During an NRC inspection conducted on July 11, 12, and 26, 2006, nine violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. 10 CFR 30.34(i) requires that each 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 July 12, 2006, at the licensee's temporary job site in Princeton, New Jersey, the licensee stored a Troxler Model 3411B, Serial No. 9103 portable gauge in a locked unattended vehicle that was parked in an unrestricted area. The locked vehicle provided only one physical control that formed a tangible barrier to secure the gauge from unauthorized removal.

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

- B. 10 CFR 20.2201(b) requires, in part, that each licensee required to make a report of theft or loss of licensed material by telephone under 10 CFR 2201(a), within 30 days after making the telephone report, make a written report as set forth in the regulation.

Contrary to the above, on August 27, 2005, the licensee reported by telephone (Event No. 41953) of theft of a Troxler Model 3411B portable gauge that contained 8 millicuries of cesium 137 and 40 millicuries of americium 241, and as of July 12, 2006, a period of more than 30 days had elapsed and the licensee did not made a written report.

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

- C. 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, the licensee did not review at least annually the radiation protection program content and implementation. Specifically, the licensee last conducted a review of the program on February 9, 2005, and as of July 12, 2006, a period of more than a year had elapsed and the licensee had not reviewed its radiation protection program.

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

- D. 10 CFR 71.5(a) requires, in part, 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 comply with the applicable requirements in 49 CFR parts 170 through 189 appropriate for the mode of transport.

- (1) 49 CFR 173.448(a) requires that each shipment of radioactive materials be secured to prevent shifting during normal transportation conditions.

Contrary to the above, on July 12, 2006, the licensee transported a Troxler Model 3411B, Serial No. 9103, containing 8 millicuries of cesium 137 and 40 millicuries of americium 241 in a transport container, to a job site in Princeton, New Jersey, and the container was not secured to prevent shifting during transport.

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

- (2) 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.

49 CFR 172.202(a) requires, in part, that shipping description of a hazardous material on the shipping paper include the identification number prescribed for the material as shown in Column 4 of 49 CFR 172.101 table.

Contrary to the above, on several occasions during 2006, the licensee transported portable gauges to its temporary job sites and the identification numbers of the Bills of Lading was UN2974 instead of UN3332.

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

- E. Condition 15 of NRC License No. 29-30465-01 requires that the licensee conduct a physical inventory every six months or at other interval approved by NRC, to account for all sealed sources and/or devices received and possessed under the license.

Contrary to the above, the licensee last conducted inventory of its devices on January 3, 2006, and as of July 12, 2006, had not conducted an inventory to account for all devices received and possessed under the license. Specifically, the licensee possessed a Troxler Model 4640, Serial No. 673, but the device was not included in the inventory and the licensee did not have information as to when exactly the device was acquired.

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

- F. Condition 16 of NRC License No. 29-30465-01 requires, in part, that each portable nuclear gauge or its container be locked when in storage.

Contrary to the above, on July 11, 2006, the licensee had six gauges stored at its facility, and five of these gauges or their respective containers did not have operable locks and were not locked.

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

- G. Condition 22 of NRC License No. 29-30465-01 requires, in part, that the licensee conduct its program in accordance with procedures contained in Application dated June 25, 1998.

Section 8.17, Item 10 of the application dated June 25, 1998, requires that the licensee implement and maintain operating and emergency procedures described in Appendix H of NUREG 1556, Volume 1, "Consolidated Guidance About Materials Licenses: Program Specific Guidance about Portable Gauge Licenses," dated May 1997.

- (1) The Operating Procedures in Appendix H to NUREG 1556, Volume 1, require, in part that a gauge be signed out in a log book, including the date of use, and upon return log the gauge into the daily use log when it is returned to storage.

Contrary to the above, the licensee's records of use of gauges did not include the dates of removal and return of the gauges. Specifically, a Troxler Model 3411B, Serial No. 9103 was not in storage and the use log book did not include the date it was taken out for use. Similarly, an Humboldt Model 5001C, Serial No. 1611 was taken out on February 16, 2006, and its return date was not entered, and it was taken out again on April 6, 2006, was still in use.

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

- (2) The Operating Procedures in Appendix H to NUREG 1556, Volume 1 require that the gauge be returned to its proper locked storage location at the end of the work shift.

Contrary to the above the licensee did not return the gauges to their proper locked storage locations at the end of the work shift. The licensee allowed its authorized users to store the gauges either in their vehicles outside their residences or in their residences, the locations not authorized on the license for storage. Specifically, an Humboldt Model 5001C, Serial No. 1609 was signed out on October 6, 2005, for use at a temporary job site and as of July 12, 2006, it had not been returned to storage location, and the licensee's records indicated that the gauge was not in use every day during this interval. For example, the gauge was not used during the period from October 21 through October 27, 2005.

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

Pursuant to the provisions of 10 CFR 2.201, Materials Testing Inc., 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.

Dated This 31 day of August 2006