



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

September 20, 2016

Docket No. 03038262

License No. 06-31405-01

Franco Balassone, P.E.  
Executive Vice President  
HAKS Material Testing Group  
36 River Street  
Bridgeport, CT 06604

**SUBJECT: NRC INSPECTION REPORT NO. 03038262/2016001, HAKS MATERIAL TESTING GROUP AND NOTICE OF VIOLATION**

Dear Mr. Balassone:

On July 27, 2016, and with continuing in-office review until August 30, 2016, John Miller and Leo Wardrobe of this office conducted a reactive safety inspection at the above address and at a temporary jobsite, 425 Oakwood Avenue, West Hartford, Connecticut. The inspection focused on the theft of a portable nuclear gauge that was reported to the NRC on July 26, 2016. The findings of the inspection were discussed with you, Chris Genduso, Assistant Vice President, and Richard Hallahan, Senior Vice President by telephone on August 30, 2016. The enclosed report presents the results of this inspection.

The NRC identified no violations associated with portable gauge security because the device was properly locked in accordance with NRC requirements.

However, based on the results of the inspection at the temporary jobsite and in accordance with the NRC Enforcement Policy, the NRC has determined that three Severity Level IV violations of NRC requirements occurred. The violations involved: 1) Failure to clearly mark on the RADIOACTIVE label the transportation index, radioisotope and activity as required by 10 CFR 71.5(a) and 49 CFR 172.403(g); 2) Failure to describe the hazardous material on the shipping paper as required by 10 CFR 71.5(a) and 49 CFR 172.200(a); and 3) Failure to provide copies of the licensee's Operating and Emergency Procedures to all gauge users and at each job site as required by License Condition 19 of NRC License 06-31405-01.

The violations are cited in the enclosed Notice of Violation (Notice), because the violations were identified by the NRC. Also, Item A.1 as listed in the Notice is a repeat violation that was identified during a previous inspection of your licensed program. Although we had verified that you took corrective action to address the previous violation, the current violation is of concern, because your preventative actions were not effective in preventing recurrence and indicate a lack of attention to detail. Because of the potential for radiation exposure to employees and the public which could result from failure to comply with NRC requirements, you must conduct your program according to NRC regulations, the conditions of your NRC license, and the representations made in your application.

During our inspection exit telephone conference on August 30, 2016, you indicated that you have taken corrective and preventative actions to address each violation and that HAKS Material Testing Group is committed to radiation safety and to compliance with NRC regulations and licensed conditions. Further, you stated verbally that you have taken the following corrective and preventative actions:

- 1) The assistant vice president is performing inspections to verify that the technicians are complying with the regulatory requirements; and
- 2) The executive vice president is implementing methods of enforcement to ensure a high level of compliance.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, 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](http://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](http://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).

Please contact John Miller at 610-337-5089 if you have any questions regarding this matter.

Sincerely,

*/RA/*

Blake Welling, Chief  
Commercial, Industrial, R&D and Academic Branch  
Division of Nuclear Materials Safety

Enclosures:

1. Notice of Violation
2. Inspection Report No. 03038262/2016001

cc: Gonzalo Lopez, Radiation Safety Officer  
Chris Genduso, Assistant Vice President  
State of Connecticut

During our inspection exit telephone conference on August 30, 2016, you indicated that you have taken corrective and preventative actions to address each violation and that HAKS Material Testing Group is committed to radiation safety and to compliance with NRC regulations and licensed conditions. Further, you stated verbally that you have taken the following corrective and preventative actions:

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- cc: Gonzalo Lopez, Radiation Safety Officer  
Chris Genduso, Assistant Vice President  
State of Connecticut

Distribution:

B. Bickett, RI

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OFFICE	DNMS/RI	N	DNMS/RI	DNMS/RI		
NAME	LWardrobe\bw for\		JMiller\bw for\	BWelling\bw		
DATE	9/20/16		9/20/16	9/20/16		

OFFICIAL RECORD COPY

## NOTICE OF VIOLATION

HAKS Material Testing Group  
Bridgeport, CT

Docket No. 03038262  
License No. 06-31405-01

During an NRC inspection conducted on July 27, 2016, three violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. License Condition No. 18 of NRC License No. 06-31405-01 requires the licensee to conduct licensed activities in accordance with 10 CFR 71 regarding transportation of licensed materials.

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, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the Department of Transportation (DOT) regulations in CFR parts 107, 171 through 180, and 390 through 397.

1. 49 CFR 172.403(g)(3) requires, in part, that the following applicable items of information must be entered in the blank spaces on the RADIOACTIVE label: (1) contents including the names of the radionuclides; (2) activity; and (3) the transport index.

Contrary to the above, the licensee transported licensed material on public highways and the contents, activity, and transport index were not entered in the blank spaces on the RADIOACTIVE labels. Specifically, on July 27, 2016, the licensee transported a portable nuclear moisture/density gauge containing nominally 44 millicuries of Am-241 and 10 millicuries of Cs-137 from Bridgeport, Connecticut to West Hartford, Connecticut, and the licensee failed to enter the radionuclide, the activity and the transport index on the two RADIOACTIVE labels on the shipping case.

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

2. 49 CFR 172.200(a) requires, in part, that each person who offers a hazardous material for transportation shall describe the hazardous material on the shipping paper.

Contrary to the above, the licensee offered a hazardous material for transportation and did not describe the hazardous material on a shipping paper. Specifically, on July 27, 2016, the licensee transported a portable nuclear moisture/density gauge containing nominally 44 millicuries of Am-241 and 10 millicuries of Cs-137 from Bridgeport, Connecticut to West Hartford, Connecticut, and the licensee failed to describe the hazardous material on a shipping paper.

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

- B. License Condition 19.A of NRC License No. 06-31405-01 requires, in part, that the licensee conduct its program in accordance with the statements, representations, and procedures contained in the application dated March 11, 2010.

Item 10, "Radiation Safety Program - Operating and Emergency Procedures," of the license application dated March 11, 2010, requires, in part, that the licensee provide copies of the operating and emergency procedures to all gauge users and at each job site.

Contrary to the above, the licensee did not provide operating and emergency procedures at a jobsite. Specifically, on July 27, 2016, the licensee was working at a jobsite in West Hartford, Connecticut, and a copy of the operating and emergency procedure was not provided at the site.

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

Pursuant to the provisions of 10 CFR 2.201, HAKS Material Testing Group 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.

Notice of Violation

HAKS Material Testing Group

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

Dated This 20th day of September 2016

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

INSPECTION REPORT

Inspection No. 03038262/2016001  
Docket No. 03038262  
License No. 06-31405-01  
Licensee: HAKS Material Testing Group  
Locations Inspected: Office: 36 River Street, Bridgeport, CT 06604  
Jobsite: 425 Oakwood Ave, West Hartford, CT 06110  
Inspection Dates: 7/27/2016 through 8/30/2016

Inspector: */RA BWellington for/* 9/20/16  
John Miller, Health Physicist  
Commercial, Industrial, R&D and  
Academic Branch  
Division of Nuclear Materials Safety  
date

Inspector: */RA/* 9/20/16  
Leo Wardrobe , Health Physicist  
Commercial, Industrial, R&D and  
Academic Branch  
Division of Nuclear Materials Safety  
date

Approved By: */RA/* 9/20/16  
Blake Welling, Chief  
Commercial, Industrial, R&D and  
Academic Branch  
Division of Nuclear Materials Safety  
date

## EXECUTIVE SUMMARY

HAKS Material Testing Group  
NRC Inspection Report No. 03038262/2016001

The NRC conducted a reactive inspection at HAKS Material Testing Group's facility located in Bridgeport, Connecticut following a report to the NRC on July 26, 2016 (EN 52124) of theft of licensed nuclear material.

HAKS Material Testing Group is an engineering consulting company that possesses and uses Troxler Electronic Laboratories, Inc. Model 3400 and Humboldt Scientific Model 5001 series portable nuclear moisture/density gauges. The licensee reported a theft of a portable nuclear moisture/density gauge from the trunk of an authorized user's (AU) personal vehicle. The portable nuclear moisture/density gauge was later recovered when an individual tried to sell the device at a local pawn shop.

The inspectors interviewed the site assistant vice president and the radiation safety officer (RSO) at the licensee's facility located at 36 River Street, Bridgeport, Connecticut. The inspectors also interviewed an AU at a temporary jobsite in West Hartford, Connecticut about the theft and performed a field inspection.

The NRC identified no violations associated with portable gauge security because the device was properly locked in accordance with NRC requirements.

Based on observations at the temporary jobsite, the NRC identified three Severity IV violations of NRC requirements:

- (1) Failure to clearly mark on the RADIOACTIVE label, the transportation index, radioisotope and activity as required by 10 CFR 71.5(a) and 49 CFR 172.403(g);
- (2) Failure to describe the hazardous material on the shipping paper as required by 10 CFR 71.5(a) and 49 CFR 172.200(a); and
- (3) Failure to provide copies of the licensee's operating and emergency procedures to all gauge users and at each job site as required by License Condition 19 of NRC License 06-31405-01.

Licensee management stated they would correct these issues and verify compliance.



## REPORT DETAILS

### **I. Organization, Management Oversight, and Scope of the Program**

#### a. Inspection Scope

The inspectors reviewed the organization, management oversight and scope of the program using Inspection Procedure 87124.

#### b. Observations and Findings

HAKS Material Testing Group is authorized under NRC License No. 06-31405-01 to use sealed sources containing americium-241 and cesium-137 in Troxler Models 3400 series and Humboldt Scientific Model 5001 series portable nuclear moisture/density gauge(s) for measuring physical properties of materials. The license authorizes storage and use at their facility in Bridgeport, Connecticut and use of the portable nuclear moisture/density gauges(s) at temporary job sites within NRC jurisdiction. The assistant vice president and RSO were knowledgeable of the licensee's safety/security program and were actively involved with the program implementation.

#### c. Conclusions

No violations were identified.

### **II. Event Follow-up**

#### a. Inspection Scope

The inspection was conducted using Inspection Procedure 87103, focusing on a portable nuclear moisture/density gauge that was reported stolen on July 26, 2016. During the inspection, the inspectors reviewed the licensee's records and discussed the implementation of its radiation safety procedures with the assistant vice president, including the procedures for accountability of licensed material; transportation of the gauges; the security of the portable nuclear moisture/density gauge(s); and training of authorized users (AUs).

#### b. Observations and Findings

On July 26, 2016, the licensee reported that a portable nuclear moisture/density gauge was stolen from an AU's personal vehicle. The portable nuclear moisture/density gauge was later recovered when an individual tried to sell the device at a local pawn shop.

The theft occurred while the vehicle was parked at the AU's residence. The AU stated that when he went to his car on the morning of July 26, he noticed that the trunk of his car was slightly open, the portable nuclear moisture/density gauge was missing, the car was unlocked and personal items were missing from his vehicle. He stated that the

gauge had been properly locked in the trunk and chained to the trunk hinge the previous night. He also stated that the vehicle had been locked. The theft was reported to local law enforcement (Department of Police, Bridgeport, CT, Incident Report 160726-031) and to the NRC (Event Notification 52124).

The inspectors reviewed the police report, which stated that personal items, in addition to the gauge, had been taken from the vehicle. The report also stated that there was no obvious signs of a break-in.

At the licensee's facility in Bridgeport, Connecticut, the portable nuclear moisture/density gauges that were not being used in the field were secured to an eye-bolt in the floor with a cable and were under direct observation of the licensee. When not under observation, a second physical control was used to provide two tangible barriers as required by 10 CFR 30.34(i). Licensee staff stated that gauge(s) were sometimes stored in the AUs' vehicles at their residences the night before departing for an early assignment at a temporary jobsite.

The inspectors conducted a temporary jobsite inspection in West Hartford, Connecticut and interviewed the AU that had the portable nuclear moisture/density gauge stolen from his vehicle. Upon arrival at the site, the inspectors observed that a portable gauge was properly secured and locked in the trunk of the AU's vehicle inside of its shipping container.

At the temporary jobsite, the inspectors identified that the AU did not have a copy of his operating and emergency procedures, as required. The AU also did not have a shipping paper associated with the transport of the portable nuclear moisture/density gauge from the office to the temporary jobsite in West Hartford, Connecticut. In addition, the two DOT required Yellow-II RADIOACTIVE labels were blank and there was no indication of the radioisotope, activity, or transport index. All three of these issues were violations of NRC requirements.

The stolen portable gauge was recovered by local law enforcement during the afternoon of July 26, after an individual attempted to sell it at a local pawn shop. The gauge was intact and undamaged; however, the gauge was not in its shipping container. Subsequent leak tests of the sources and radiation measurements of the gauge confirmed that there was no leakage of contamination or compromise of shielding.

c. Conclusions

The NRC identified no violations associated with portable gauge security because the device was properly locked in accordance with NRC requirements.

Based on observations at the temporary jobsite, the NRC identified three Severity IV violations of NRC requirements:

(1) Failure to clearly mark on the RADIOACTIVE label, the transportation index, radioisotope and activity as required by 10 CFR 71.5(a) and 49 CFR 172.403(g);

(2) Failure to describe the hazardous material on the shipping paper as required by 10 CFR 71.5(a) and 49 CFR 172.200(a); and

(3) Failure to provide copies of the licensee's operating and emergency procedures to all gauge users and at each job site as required by License Condition 19 of NRC License 06-31405-01.

Licensee management stated they would correct these issues and verify compliance.

### **III. Closure of Previous Violations**

#### **a. Inspection Scope**

The NRC reviewed the effectiveness of the licensee's corrective actions for five violations that were identified during a previous inspection performed on December 16, 2015.

#### **b. Observations and Findings**

During an inspection performed on December 16, 2015, the NRC identified five Severity Level IV violations: (1) the failure to use two independent controls to secure portable gauges from unauthorized removal whenever the gauges were not under licensee control or constant surveillance as required by 10 CFR 30.34(i), (2) the failure to block and brace packages as required by 49 CFR 177.842(d), (3) the failure to properly label transport cases containing gauges with radioactive material were not labeled with the transport index as required by 49 CFR 172.403(g)(3), (4) the failure to complete the utilization log when signing in or signing out gauges from storage as required by License Condition Number 19, and (5) the failure to properly maintain a gauge so that the shutter for the cesium-137 source rod closed after use of the gauge as required by License Condition Number 19.

The licensee's corrective action for Violations (1), (2), (4), and (5) were effective. These violations are closed. However, the corrective action taken for violation (3) did not prove effective. The NRC identified a repeat violation, as the licensee failed to enter the radionuclide, the activity, and the transport index on the two RADIOACTIVE labels on the shipping case.

#### **c. Conclusions**

The licensee implemented effective corrective actions for four of the five violations identified during the inspection on December 16, 2015. The violation for failing to record the transport index on the Yellow-II RADIOACTIVE label was repeated and the corrective action did not prove effective.

#### **IV. Exit Meeting**

On August 30, 2016, an exit meeting was conducted via telephone to discuss the results of the inspection. HAKS Material Testing Group acknowledged the information.

#### **PARTIAL LIST OF PERSONS CONTACTED**

##### Licensee

Chris Genduso – Assistant Vice President\*  
Gonzalo Lopez – Radiation Safety Officer/Authorized User  
Darell Foreman – Technician/Authorized User  
Angel Llanos – Detective, Bridgeport Police  
Franco Balassone – Executive Vice President\*  
Richard Hallahan – Senior Vice President\*  
\*Participated in telephonic exit conference.

#### **INSPECTION PROCEDURES USED**

NRC Inspection Procedure 87124, “Fixed and Portable Gauge Programs”  
NRC Inspection Procedure 87103, “Inspection of Material Licensees Involved in an Incident or Bankruptcy Filing”

#### **LIST OF DOCUMENTS REVIEWED**

Department of Police, Bridgeport, CT, Incident Report 160726-031  
NRC Event Notification 52124