



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

June 13, 2008

Docket No. 03033013  
EA-08-177

License No. 45-25229-01

Carl Benson  
Manager of Geotechnical & Environmental  
McKinney and Company  
100 South Railroad Avenue  
Ashland, VA 23005

SUBJECT: INSPECTION 03033013/2008001, MCKINNEY AND COMPANY,  
ASHLAND, VIRGINIA SITE

Dear Mr. Benson:

On May 12, 2008, Judith Joustra of this office conducted a safety inspection at 210 Railroad Avenue, Ashland, Virginia, 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 license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selective examination of representative records. The findings of the inspection were discussed with you at the conclusion of the inspection. The enclosed report presents the results of this inspection.

Based on the results of this inspection, three apparent violations were identified of which one is being considered for escalated enforcement in accordance with the NRC Enforcement Policy. The current Enforcement Policy is available at <http://www.nrc.gov/about-nrc/regulation/enforcement/enforce-pol.html>. The apparent violation being considered for escalated enforcement involves the failure to comply with 10 CFR 30.34(i). Specifically, on May 12, 2008, only one physical control was used to secure portable gauges containing licensed radioactive material in the form of sealed sources from unauthorized removal.

The circumstances surrounding this apparent violation, the significance of the issue, and the need for lasting and effective corrective action were discussed with you and your Radiation Safety Officer at the conclusion of the inspection on May 12, 2008. The corrective actions for all three apparent violations are adequately described on the docket in the enclosed inspection report, and the NRC has concluded that it has sufficient information to make an enforcement decision.

The enforcement decision for these apparent violations will be handled in separate correspondence at a later date. However, before the NRC makes its final enforcement decision regarding the apparent violation of 10 CFR 30.34(i), we are providing you an opportunity to review the inspection report. In about seven days Marie Miller, Chief, Materials Security and Industrial Branch, will call you to discuss the inspection report and whether you wish to attend a predecisional enforcement conference or provide a written response before the NRC makes its enforcement decision.

The NRC notes that since it understands your corrective actions, it may not be necessary to conduct a predecisional enforcement conference (PEC) or review a written response from you in order to enable the NRC to make an enforcement decision. In addition, since your facility has not been the subject of escalated enforcement actions within the last two years, and based on our understanding of your corrective actions, a civil penalty may not be warranted in accordance with Section VI.C.2 of the NRC Enforcement Policy.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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 Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Current NRC regulations are included on the NRC's website at <http://www.nrc.gov>; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material; Regulations, Guidance, and Communications**. 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 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

For any questions concerning this matter, please contact Ms. Miller at 610-337-5205.

Sincerely,

*/RA J. D. Kinneman for/*

Brian Holian, Director  
Division of Nuclear Materials Safety

Enclosure: Inspection Report No. 03033013/2008001

cc w/encl:  
Paul Burch, Radiation Safety Officer  
Commonwealth of Virginia

The NRC notes that since it understands your corrective actions, it may not be necessary to conduct a predecisional enforcement conference (PEC) or review a written response from you in order to enable the NRC to make an enforcement decision. In addition, since your facility has not been the subject of escalated enforcement actions within the last two years, and based on our understanding of your corrective actions, a civil penalty may not be warranted in accordance with Section VI.C.2 of the NRC Enforcement Policy.

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Brian Holian, Director  
Division of Nuclear Materials Safety

Enclosure: Inspection Report No. 03033013/2008001

cc w/encl:  
Paul Burch, Radiation Safety Officer  
Commonwealth of Virginia

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## **EXECUTIVE SUMMARY**

McKinney and Company  
NRC Inspection Report No. 03033013/2008001

This was a routine safety inspection conducted on May 12, 2008, at the licensee's facility located in Ashland, Virginia, continuing with an in-office review through June 2, 2008. The inspection consisted of a review of the licensee's radiation safety procedures related to the possession and use of licensed radioactive material, observations by the inspector, interviews with personnel, and a selective review of records. The licensee possesses Troxler Electronic Laboratories portable gauges.

Three apparent violations were identified: 1) failure to use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, when the portable gauges are not under the control and constant surveillance of the licensee, specifically while the gauges were in storage at the licensee's Ashland, Virginia facility, as required by 10 CFR 30.34(i); 2) failure to provide HAZMAT training as required by 49 CFR 172.704(c)(2); and 3) failure to lock a gauge or its outer container while the gauge was in storage as required by Condition 18 of License No. 45-25229-01.

## **REPORT DETAILS**

### **I. Organization and Scope of the Program**

a. Inspection Scope

The inspection included a review of the licensee's activities, and organizational structure.

b. Observations and Findings

The licensee possesses portable moisture density gauges, each containing cesium-137 (Cs-137) and americium-241 (Am-241):beryllium in the form of sealed sources. The devices are used to measure physical properties of materials at various temporary job sites within NRC jurisdiction. At the time of this inspection, portable gauges were located in a storage area at the licensee's facility located at 210 Railroad Avenue, Ashland, Virginia. One portable gauge was in the possession of an authorized user for use at temporary job sites, as needed. There are currently seven individuals authorized to use the portable gauges. As of May 1, 2008, the licensee's Radiation Safety Officer (RSO), as identified in Condition 12 of NRC License No. 45-25229-01, is no longer a full time employee of the licensee. The RSO is available on an as needed basis until the licensee names another individual to replace the current RSO.

c. Conclusions

The inspection did not identify any violations or safety concerns regarding organization and scope of the program.

### **II. Material Receipt, Use, Transfer, and Control**

a. Inspection Scope

The inspector toured the licensee's 210 Railroad Avenue facility, and reviewed the licensee's program for complying with 10 CFR 30.34(i).

b. Observations and Findings

The inspector observed that portable gauges were stored in a locked room inside the licensee's facility. The inspector observed that an adjacent door leading to the exterior of the facility was unlocked and the area was not under control and constant surveillance of the licensee. The inspector determined that the exterior door had been left unlocked during business hours, and licensee personnel are not always present in the immediate area. There were no additional methods in place for securing the portable gauges inside the locked storage room. The licensee stated that employees may not always be present in the area adjacent to the portable gauge storage room but may be in other rooms close by.

The licensee's failure 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 is an apparent violation of 10 CFR 30.34(i).

The inspector asked the licensee to unlock the portable gauge storage room door. The inspector observed that one portable gauge, Serial No. 22165 was not locked nor was its outer container. Failure to lock either the gauge or its outer container while the gauge is in storage is an apparent violation of Condition 18 of License No. 45-25229-01.

c. Conclusions

The inspector identified an apparent violation of 10 CFR 30.34(i), in that, the licensee failed to use a minimum of two independent physical controls that form tangible barriers to secure portable gauges whenever the portable gauges are not under the control and constant surveillance of the licensee. The licensee immediately locked the facility exterior door, and on May 14, 2008, installed an specific type of latch to the existing portable gauge storage room door handle, a latch guard, specific type of hinges were put in place on the exterior of the existing door storage room door, and an additional lock was added on the portable gauge storage room door.

The inspector also identified an apparent violation of Condition 18 of License No. 45-25229-01, in that, the licensee failed to either lock a gauge or its outer container while the gauge was in storage. The licensee stated that they will assure that the gauge is locked or its outer container as required by Condition 18 of License No. 45-25229-01.

### **III. Training of Workers**

a. Inspection Scope

The inspection included a review of authorized user and HAZMAT training records.

b. Observations and Findings

During the on site inspection the licensee could not provide training records for all current portable gauge users. The inspector requested that the licensee search for the training records for four of the licensee's authorized portable gauge users and send the records to the inspector.

The licensee's RSO stated in a letter to the NRC dated May 15, 2008, that he misunderstood the regulations and therefore the recurrent HAZMAT training had not been provided as required. The licensee's RSO also stated that current portable gauge users are now enrolled in Troxler training to be conducted on June 12, 2008. The licensee's May 15, 2008, letter did not contain training certificates as requested by the inspector.

On May 27, 2008, the inspector spoke with the licensee's RSO and requested that the training records be sent. On June 2, 2008, the authorized user's training records for the four individuals in question were received by the NRC. Each of the four individuals had successfully completed the Troxler training course. However, recurrent HAZMAT training as required by 49 CFR 172.174(c)(2) had not been provided once every three years.

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 license 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 172.702 requires that each HAZMAT employer shall ensure that each HAZMAT employee is trained and tested, and that no HAZMAT employee performs any function

subject to the requirements of 49 CFR Part 171 - 177 unless trained, in accordance with Subpart H of 49 CFR Part 172. The terms HAZMAT employer and HAZMAT employee are defined in 49 CFR 171.8.

49 CFR 172.704(c)(2) states that a HAZMAT employee shall receive training required by this subpart at least once every three years. As of May 12, 2008, the licensee, a HAZMAT employer, did not ensure that four HAZMAT employees, who performed functions subject to the requirements of 49 CFR Parts 171 - 177 were trained as required. Specifically, one employee had not received HAZMAT training since December 1989; one employee had not received HAZMAT training since November 1991; one employee had not received HAZMAT training since April 1995; and one employee had not received HAZMAT training since April 1998.

c. Conclusions

The inspector identified an apparent violation of 49 CFR 172.704(c)(2), in that, the licensee failed to provide recurrent HAZMAT training to four HAZMAT employees at least once every three years. In the licensee's May 15, 2008, letter the licensee stated that current users of the portable gauges are enrolled in a Troxler training course on June 12, 2008.

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

The inspector discussed the preliminary conclusions, as described in this report, with the licensee's Manager of GeoTechnical and Environmental at the conclusion of the on-site inspection on May 12, 2008. The inspector discussed the activities reviewed, the inspection findings, and the apparent violation.

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

Licensee

Carl Benson, Manager of GeoTechnical and Environmental

Paul Burch, Radiation Safety Officer (by telephone)

Grayson Smith, Authorized User