



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE RD. SUITE 210  
LISLE, IL 60532-4352

March 8, 2016

EA-16-035  
EN 51305  
NMED No. 150454 (Closed)

Mr. Mark Sieracke, Principle  
Weaver Consultants Group  
400 Ann Street, Suite 201A  
Grand Rapids, MI 49504

SUBJECT: NRC SPECIAL INSPECTION REPORT NO. 03038128/2016001(DNMS)  
WEAVER CONSULTANTS GROUP

Dear Mr. Sieracke:

On January 21, 2016, an inspector from the U.S. Nuclear Regulatory Commission (NRC) conducted a special inspection at your Grand Rapids, Michigan facility. The purpose of the inspection was to review the facts and circumstances associated with an event involving damage to a portable gauge that occurred on August 10, 2015, and selected activities performed under your NRC license to ensure that activities were being performed in accordance with NRC requirements. Mr. Edward Kulzer of my staff held an exit meeting with Mr. Jeffrey Blum of your staff on February 26, 2016, to discuss the inspection findings.

During this inspection, the NRC staff examined activities conducted under your license related to public health and safety. Additionally, the staff examined your compliance with the Commission's rules and regulations as well as the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, one apparent violation of NRC requirements was identified and is being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's website at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The apparent violation concerned the licensee's apparent failure to maintain constant surveillance of a portable gauge containing licensed material that was in an unrestricted area and not in storage, and use a minimum of two independent physical controls that form tangible barriers to secure the gauge from unauthorized removal when the gauge was not under the control and constant surveillance of the licensee, as required by Title 10 of the *Code of Federal Regulations* (CFR) 20.1802 and 10 CFR 30.34(i).

Because the NRC has not made a final determination in this matter, the NRC is not issuing a Notice of Violation for this inspection finding at this time. The circumstances surrounding this

apparent violation, the significance of the issue, and the need for lasting and effective corrective action were discussed with your aforementioned staff member at the inspection exit meeting on February 26, 2016.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either: (1) respond in writing to the apparent violation addressed in this inspection report within 30 days of the date of this letter; (2) request a Predecisional Enforcement Conference (PEC); or (3) provide no further response. If a PEC is held, it will be open for public observation, and the NRC will issue a press release to announce the time and date of the conference. **Please contact Aaron T. McCraw at 630-829-9650 within ten days of the date of this letter to notify the NRC of your intended response.**

If you choose to provide a written response, it should be clearly marked as "Response to the Apparent Violation in Inspection Report No. 0308128/2016001(DNMS); EA-16-035," and should include, for the apparent violation: (1) the reason for the apparent violation, or, if contested, the basis for disputing the apparent 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 was or will be achieved. In presenting your corrective actions, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violation. The guidance in NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be useful in preparing your response. You can find the information notice on the NRC website at: <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/1996/in96028.html>. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response.

If you choose to request a PEC, the conference will afford you the opportunity to provide your perspective on the apparent violation and any other information that you believe the NRC should take into consideration before making an enforcement decision. The topics discussed during the conference may include the following: information to determine whether a violation occurred, information to determine the significance of a violation, information related to the identification of a violation, and information related to any corrective actions taken or planned to be taken.

Because your facility has not been the subject of escalated enforcement action within the last two years or two inspections, a civil penalty may not be warranted in accordance with Section 2.3.4 of the Enforcement Policy. In addition, based upon NRC's understanding of the facts and your corrective actions, it may not be necessary to conduct a PEC in order to enable the NRC to make a final enforcement decision. Our final decision will be based on your confirming on the license docket that the corrective actions previously described to the staff have been or are being taken.

In addition, please be advised that the number and characterization of the apparent violations described in the enclosed inspection report may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

Based on the results of this inspection, a violation of 10 CFR 30.50(c)(2) was also identified. The violation concerned failure to submit the written, followup report for the aforementioned

M. Sieracke

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damaged gauge event to the NRC within 30 days of the initial report. In accordance with Section 2.3.1 of the NRC Enforcement Policy, the violation was categorized as minor. As such, the minor violation does not warrant enforcement action; therefore, you are not required to respond to the minor violation.

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 you choose to provide one, will be made available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC's 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 publicly available without redaction.

Please feel free to contact Edward Kulzer of my staff if you have any questions regarding this inspection. Mr. Kulzer can be reached at 630-829-9875.

Sincerely,

***/RA Christine Lipa Acting for/***

John B. Giessner, Director  
Division of Nuclear Materials Safety

Docket No. 030-38128  
License No. 21-32761-01

Enclosure:  
IR No. 03038128/2016001(DNMS)

cc w/encl: Jeffrey Blum, Radiation  
Safety Officer  
State of Michigan

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cc w/encl: Jeffrey Blum, Radiation  
Safety Officer  
State of Michigan

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DATE	3/7/2016		3/7/2016		3/8/2016		3/8/2016	

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Letter to Mark Sieracke from John Giessner dated March 8, 2016

SUBJECT: NRC SPECIAL INSPECTION REPORT NO. 03038128/2016001(DNMS)  
WEAVER CONSULTANTS GROUP

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**U.S. Nuclear Regulatory Commission  
Region III**

Docket No.	030-38128
License No.	21-32761-01
Report No.	03038128/2016001(DNMS)
EA No./NMED No.	16-035/150454
Licensee:	Weaver Consultants Group
Facility:	400 Ann Street, Suite 201A Grand Rapids, Michigan
Inspection Date:	January 21, 2016
Exit Meeting Date:	February 26, 2016
Inspector:	Edward L. Kulzer Health Physicist
Approved By:	Aaron T. McCraw, Chief Materials Inspection Branch Division of Nuclear Materials Safety

Enclosure

## **EXECUTIVE SUMMARY**

### **Weaver Consultants Group NRC Inspection Report No. 03038128/2016001(DNMS)**

On January 21, 2016, an inspector from the U.S. Nuclear Regulatory Commission (NRC) conducted a special inspection to review the facts and circumstances associated with an event involving damage to a portable gauge containing approximately 8 millicuries (mCi) of cesium-137 and 40 mCi of americium-241.

The inspector determined that, on August 10, 2015, an Authorized User (AU) did not control and maintain constant surveillance of a gauge when it was in an unrestricted area and not in storage at a temporary job site. While the AU was reviewing paperwork, he found that he needed additional forms. He did not have any additional forms with him in the field and would have to return to the field office. He forgot that he had left the gauge behind the truck. He backed up the truck to return to the field office and struck the gauge.

The inspector identified an apparent violation of Title 10 of the *Code of Federal Regulations* (CFR) 20.1802 and 10 CFR 30.34(i) involving the licensee's failure to maintain constant surveillance of a portable gauge containing licensed material that was in an unrestricted area and not in storage, and use a minimum of two independent physical controls that form tangible barriers to secure the gauge from unauthorized removal when the gauge was not under the control and constant surveillance of the licensee (gauge control and security). In addition, the inspector identified a minor violation involving the licensee's failure to submit the followup written report of the damaged gauge event to the NRC within 30 days of the initial report.

The root cause of the damaged gauge event and the apparent violation involving gauge control and security was AU distraction. The root cause of the minor violation involving failure to submit the followup written report of the damaged gauge event to the NRC within 30 days of the initial report was that the licensee's Radiation Safety Officer (RSO) was unaware of the requirement.

As immediate corrective action to achieve compliance with the apparent violation involving gauge control and security, the AU maintained constant surveillance and control of the damaged gauge until it was put back into secured storage at the licensee's base facility. As long-term corrective actions to prevent similar events and the apparent violation involving gauge control and security, the licensee: (1) re-trained all AUs on the rule to not leave the gauge where someone can run over it; and (2) re-trained all AUs on the need to maintain constant surveillance of the gauge when it is in use.

As corrective action to prevent a similar violation involving failure to submit the followup written report of damaged gauge events to the NRC within 30 days of the initial report, the licensee committed to amend its procedures to include a reminder to submit a written followup event report to the NRC within 30 days of the initial event report.

## REPORT DETAILS

### **1 Program Overview and Inspection History**

Weaver Consultants Group (licensee) is authorized under NRC Materials License No. 21-32761-01 to use licensed material for measuring physical properties of materials with nuclear gauging devices. Licensed material is authorized to be used at the licensee's facilities in Grand Rapids, Michigan, and at temporary job sites of the licensee anywhere in the United States where the NRC maintains jurisdiction for regulating the use of licensed material. The licensee possessed and used a Troxler Model No. 3440, Serial No. 39264, portable gauge (gauge) for measuring physical properties of materials at temporary job sites in Michigan where the NRC maintained jurisdiction. The gauge contains a nominal 8 mCi of cesium-137 and a nominal 40 mCi of americium-241 sources.

The licensee was previously inspected by the NRC on November 3, 2014, and April 19, 2010. No violations of NRC regulatory requirements were identified as a result of those inspections.

### **2 Damaged Gauge Event**

#### **2.1 Inspection Scope**

On January 21, 2016, the inspector interviewed the RSO who responded to the damaged gauge event that occurred on August 10, 2015. The RSO described his understanding of the event and activities that resulted in damage to the gauge. The inspector determined that the AU involved in the event was no longer working for the company, and was therefore unavailable to be interviewed.

#### **2.2 Observations and Findings**

##### **a. Event Chronology**

On August 10, 2015, the AU prepared to use the gauge at a temporary job site at the West Slope of the Clinton County Landfill, 2700 North State Road 39, in Frankfort, Indiana. The gauge was stored securely at the licensee's base facility in accordance with 10 CFR 30.34(i). The storage area was posted with a "Caution Radioactive Material" sign and NRC Form 3. The gauge case was marked and labeled as required. The gauge transportation case hasps were both padlocked with access limited to authorized persons. In addition, the cesium source rod was locked in the shielded position.

The AU loaded the case containing the gauge into the bed of a pickup truck and secured the gauge in accordance with 10 CFR 30.34(i). In addition, the gauge was blocked and braced as required. The AU used a proper shipping paper during transportation of the gauge.

After arrival at the temporary job site, the AU used the gauge to complete 17 moisture density readings and placed the gauge on the ground behind his Ford F-150 pickup truck. The AU realized that he did not have enough blank forms to complete his next series of readings. The AU went to the cab of the truck to look for additional forms. The

AU found that there were no blank forms, and then he started the truck and backed up in an attempt to return to the field office to obtain additional forms.

The AU had left the gauge behind the truck as he searched the truck cab for additional forms. During the time that the AU was looking for the forms in the cab of the truck, the AU did not maintain control and constant surveillance of the gauge and did not use a minimum of two independent physical controls that form tangible barriers to secure the gauge from unauthorized removal. In addition, the AU did not control and maintain constant surveillance of the gauge when it was in an unrestricted area and not in storage. While the AU was searching for the forms, he forgot that he had left the gauge behind the truck. He subsequently backed the truck up and struck the gauge.

Title 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. Title 10 CFR 30.34(i) requires that each portable gauge licensee shall 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. The licensee's apparent failure to: (1) maintain constant surveillance of a portable gauge containing licensed material that was in an unrestricted area and not in storage; and (2) use a minimum of two independent physical controls that form tangible barriers to secure the gauge from unauthorized removal when the gauge was not under the control and constant surveillance of the licensee, is an apparent violation of 10 CFR 20.1802 and 10 CFR 30.34(i).

The inspector determined that the root cause of the apparent violation and the damaged gauge event was AU distraction, incident to trying to find the additional forms needed to record the next series of readings.

### Event Response

The AU immediately stopped the vehicle and assessed the situation. The AU identified that the gauge was damaged. The AU notified the Radiation Safety Officer of the incident, photographed the gauge, and sent the picture to the RSO. The RSO went to the site, with a survey instrument, and conducted an ambient exposure rate survey of the gauge to verify that the sources were shielded.

The RSO contacted InstroTek Inc. regarding how to safely ship the damaged gauge to them for assessment, and eventual decommissioning. InstroTek instructed the RSO to: (1) affix packaging tape around the cesium-137 source rod handle and the bottom of the gauge to prevent the cesium-137 source from being pulled out of the shielded position from the top of the gauge; and (2) obtain leak test samples for both of the sources, in accordance with the instructions.

The RSO drove the damaged gauge from the temporary job site to the licensee's base facility with packaging tape around the cesium-137 source rod handle and the bottom of the gauge. During the transfer, the gauge was in the case and secured as required.

In accordance with InstroTek's instructions, the RSO: (1) kept the packaging tape around the cesium-137 source rod handle and the bottom of the gauge; (2) properly collected the leak test samples; (3) sent the leak test samples to InstroTek, Inc. for

analysis; and (4) secured the gauge as required until the leak test results were received. After receipt of the negative leak test results, the AU: (1) kept the packaging tape around the cesium-137 source rod handle and the bottom of the gauge; and (2) shipped the gauge in its transportation case to InstroTek Inc. for decommissioning.

As long-term corrective actions to prevent similar events and violations of 10 CFR 20.1802 and 10 CFR 30.34(i), the licensee: (1) re-trained all AUs on the rule to not leave the gauge where someone can run over it; (2) re-trained all AUs on the need to maintain constant surveillance of the gauge when it is in use.

### 2.3 Conclusions

The inspector identified an apparent violation of 10 CFR 20.1802 and 10 CFR 30.34(i) involving the licensee's apparent failure to maintain constant surveillance of a portable gauge containing licensed material that was in an unrestricted area and not in storage, and failure to use a minimum of two independent physical controls that form tangible barriers to secure the gauge from unauthorized removal when the gauge was not under the control and constant surveillance of the licensee. The licensee implemented immediate and long-term corrective actions to prevent a similar event and violations of 10 CFR 20.1802 and 10 CFR 30.34(i).

## 3 **Notifications**

### 3.1 Inspection Scope

The inspector reviewed Event Notification 51305 dated August 10, 2015, and the licensee's 30-day response letter dated February 12, 2016, regarding the licensee's notification to the NRC of the damaged gauge event pursuant to 10 CFR 30.50.

### 3.2 Observations and Findings

Title 10 CFR 30.50(b)(2) requires, in part, that each licensee notify the NRC Operations Center by telephone within 24 hours after the discovery of events involving licensed material when equipment is disabled or fails to function as designed when: (1) the equipment is required by regulation or license condition to prevent releases exceeding regulatory limits, to prevent exposures to radiation and radioactive materials exceeding regulatory limits, or to mitigate the consequences of an accident; (2) the equipment is required to be available and operable when it is disabled or fails to function; and (3) no redundant equipment is available and operable to perform the required safety function. The inspector noted that the licensee notified the NRC Operations Center on August 10, 2015, to notify the NRC about the damaged gauge event within 8 hours of the event.

Title 10 CFR 30.50(c)(2) requires, in part, that each licensee who makes a report required by paragraph (a) or (b) of 10 CFR 30.50 shall submit a written followup report to the NRC within 30 days of the initial report. The licensee's written followup report to the NRC, dated February 12, 2016, was more than 30 days later than the licensee's August 10, 2015, initial report. As such, the inspector identified a minor violation of 10 CFR 30.50(c)(2) involving the licensee's failure to submit the followup report to the NRC in a timely manner.

The cause of the minor violation was that the licensee's RSO was unaware of the requirements in 10 CFR 30.50(c)(2). As corrective action to prevent a similar violation, the licensee committed to amend its procedures to include a reminder to submit a written followup event report to the NRC within 30 days of the initial event report.

### 3.3 Conclusions

The inspector identified a minor violation of 10 CFR 30.50(c)(2) involving licensee failure to submit the follow-up report to the NRC within 30 days of the initial report. The licensee implemented corrective actions to prevent future violations of 10 CFR 30.50(c)(2).

## 4 **Exit Meeting Summary**

The NRC inspector presented the final inspection findings via telephone on February 26, 2016. The licensee did not identify any documents or processes reviewed by the inspectors as proprietary. The licensee acknowledged the findings presented.

### **LIST OF PERSONNEL CONTACTED**

# Jeffrey Blum, RSO

# Participated in the final exit meeting on February 26, 2016

### **INSPECTION PROCEDURES USED**

87124: Fixed and Portable Gauge Programs

87103: Inspection of Material Licensees Involved in an Incident or Bankruptcy Filing