



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

November 2, 2015

Docket No. 03017254  
EA-15-184

License No. 06-19279-01

James Quill, P.E.  
Owner  
Megan, LLC  
d/b/a Fairfield Testing Laboratory  
525 John Street, Second Floor  
Bridgeport, CT 06604

**SUBJECT: NRC INSPECTION REPORT NO. 03017254/2015001, MEGAN, LLC, D/B/A  
FAIRFIELD TESTING LABORATORY, BRIDGEPORT, CONNECTICUT SITE  
AND TEMPORARY JOBSITES**

Dear Mr. Quill:

On August 11 and 12, 2015, Steven Courtemanche of this office conducted a safety inspection at the above address and temporary jobsites in Ansonia and Stamford, Connecticut with continuing in-office review through October 14, 2015. 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 selective examination of representative records. Additional information provided in a telephone conversation on September 1, 2015, between Dennis Kiesley of your staff and Steven Courtemanche of this office was also examined as part of the inspection. The findings of the inspection were discussed with you by telephone at the conclusion of the inspection on October 14, 2015. The enclosed report presents the results of this inspection.

Based on the results of this inspection, one apparent violation was identified and is being considered for escalated enforcement in accordance with the NRC Enforcement Policy. The current Enforcement Policy is located on the NRC's website at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

The apparent violation involved 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).

We noted that when the inspector informed your staff of the apparent violation, you took the following prompt corrective actions: (a) the vehicle was secured immediately upon identification; (b) the technician was suspended from licensed activities pending retraining; (c) RSO audits of work at temporary jobsites were increased; and (d) the incident was discussed in the October 2015 Annual Radiation Safety Training to all employees.

The circumstances surrounding the apparent violation, the significance of the issues, and the need for lasting and effective corrective action were discussed with members of your staff on

August 12, 2015, at the conclusion of the onsite inspection, and again with you on October 14, 2015, via telephone at the exit meeting.

The NRC has not made a final determination in this matter, a Notice of Violation is not being issued at this time. Please be advised that the number and characterization of the apparent violation described herein may change as a result of further NRC review.

Before the NRC makes its enforcement decision, we are providing you an opportunity to: (1) respond to the apparent violation addressed in this inspection report in writing within **30 days** from the date of this letter, (2) request a Pre-decisional Enforcement Conference (PEC), or (3) request Alternate Dispute Resolution (ADR). Please contact Blake Welling at 610-337-5205 **within 10 days** of the date of this letter, to inform us as to which of the above three options you choose.

If you choose to provide a written response, the response should be clearly marked as a "Response to Apparent Violations in Inspection Report No. 03017254/2015001; EA-15-184," and sent to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region I, 2100 Renaissance Boulevard, King of Prussia, PA 19406. The response should include: (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; and (4) the date when full compliance will be achieved. Specifically, the NRC requires additional information pertaining to the long-term corrective actions and preventive actions for the violation described in the inspection report. In particular, the NRC needs to understand what actions were taken or planned on a company-wide basis and what actions were taken or planned to prevent a repeat occurrence of similar violations. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision or schedule a PEC.

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 Enclosure 2, an excerpt from NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be helpful.

If you choose to request a PEC, the meeting should be held in our office in King of Prussia, PA, within 30 days of the date of this letter. The PEC 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 the violation occurred, information to determine the significance of the violation, information related to the identification of the violation, and information related to any corrective actions taken or planned to be taken. If a PEC is held, it will be open for public observation and the NRC will issue a press release to announce the conference time and date.

Because the NRC is considering a civil penalty in this case for the apparent violation, in lieu of a PEC, you may also request ADR with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a neutral third party. The technique that the NRC has decided to employ is mediation. Mediation is a voluntary,

informal process in which a trained neutral person (the “mediator”) works with parties to help them reach resolution. If the parties agree to use ADR, they select a mutually agreeable neutral mediator who has no stake in the outcome and no power to make decisions. Mediation gives parties an opportunity to discuss issues, clear up misunderstandings, be creative, find areas of agreement, and reach a final resolution of the issues. Additional information concerning the NRC's program can be obtained at <http://www.nrc.gov/aboutnrc/regulatory/enforcement/adr.html>. The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as a neutral third party. Please contact ICR at 877-733-9415 within 10 days of the date of this letter if you are interested in pursuing resolution of this issue through ADR.

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). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

In accordance with 10 CFR 2.390 of the NRC's “Rules of Practice,” a copy of this letter, its enclosures, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from NRC's Agency-wide Documents Access and Management System (ADAMS), accessible from the NRC Web site 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.

If you have any questions related to this matter, please contact Mr. Welling of my staff at 610-337-5205.

Sincerely,

*/RA/*

Daniel S. Collins, Director  
Division of Nuclear Materials Safety

Enclosures:

1. Inspection Report No. 03017254/2015001
2. Excerpt from Information Notice 96-28,  
“Suggested Guidance Relating to Development  
and Implementation of Corrective Action”

cc w/Enclosures: Dennis Kieley, Radiation Safety Officer  
State of Connecticut

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If you have any questions related to this matter, please contact Mr. Welling of my staff at 610-337-5205.

Sincerely,  
/RA/

Daniel S. Collins, Director  
Division of Nuclear Materials Safety

Enclosures:

1. Inspection Report No. 03017254/2015001
2. Excerpt from Information Notice 96-28, “Suggested Guidance Relating to Development and Implementation of Corrective Action”

cc w/Enclosures: Dennis Kieley, Radiation Safety Officer  
State of Connecticut

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## EXECUTIVE SUMMARY

Megan, LLC; d/b/a Fairfield Testing Laboratory  
NRC Inspection Report No. 03017254/2015001

Megan, LLC (Megan) is an engineering firm that operates in the State of Connecticut under NRC License No. 06-19279-01. The license authorizes the possession and use of portable moisture/density gauges (gauges) containing sealed sources of radioactive material to measure the properties of construction materials anywhere in the United States where the NRC has jurisdiction.

In August 2015, the NRC conducted an unannounced inspection as a follow-up to an October 2014 inspection which resulted in an escalated enforcement action (EA-14-188). The inspection was conducted at Megan's offices in Bridgeport, CT and at temporary jobsites in Ansonia and Stamford, CT.

Based on the results of the August 2015 inspection, an apparent violation of NRC requirements was identified for the failure to use two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever the portable gauges were not under the control and constant surveillance of the licensee as required by 10 CFR 30.34(i). During the 2014 inspection, a violation of the same requirement, under different circumstances, was identified. (See Section IV)

Following the inspection, Megan, took the following corrective actions: (1) the vehicle was secured immediately upon identification; (2) the technician was suspended from licensed activities pending retraining; (3) RSO audits of work at temporary jobsites were increased; and (4) the incident was discussed in the October 2015 Annual Radiation Safety Training to all employees.

## REPORT DETAILS

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

#### a. Inspection Scope

The inspector reviewed the organization and scope of the licensee's portable gauge program. Information was gathered through direct inspection, review of records and interviews with cognizant individuals.

#### b. Observations and Findings

Megan is authorized under NRC License 06-19279-01 to possess and use byproduct material for measuring physical properties of materials with portable moisture-density gauges (gauges) in areas of NRC jurisdiction within the United States. Licensed material is authorized to be stored at the licensee's facility located in Bridgeport, Connecticut. Gauges were used daily for moisture-density testing at a number of projects in Connecticut. James Quill is the owner of Megan. The company employs eight individuals involved in gauging operations. The radiation safety officer (RSO) reports directly to the company owner. Individuals using the gauges, Authorized Users (AU), report to the RSO.

#### c. Conclusions

No violations were identified.

### **II. Management Oversight of the Program**

#### a. Inspection Scope

The inspector reviewed the management oversight of licensed activities and the implementation of the radiation safety program. Information was gathered through interviews with the company owner, the RSO, and authorized gauge users; and the review of records.

#### b. Observations and Findings

The inspector interviewed the company owner, the RSO, and authorized gauge users (AUs) regarding oversight of the licensee's program. The inspector determined that the RSO performed periodic audits of AU's activities at temporary jobsites. A review of the annual audit for 2014 by the inspector determined that the audit was performed in accordance with 10 CFR 20.1101.

The inspector confirmed that the RSO was the individual named on the license. The previous violation is closed. (See section entitled "Items Open, Closed and Discussed").

#### c. Conclusions

No violations were identified.

### III. Facilities and Equipment

a. Inspection Scope

The inspector toured the facility and examined the gauges used by the licensee to perform licensed activities.

b. Observations and Findings

The facilities were as described in the license. The licensee possesses six CPN International Model MC Series gauges, two Troxler Electronic Laboratories Model 3440 gauges and one Humboldt Model 5001EZ gauge. Each gauge contains one cesium-137 and one americium-241 sealed source. At the time of the inspection, four of the gauges were in use.

c. Conclusions

No violations were identified.

### IV. Material Receipt, Use, Transfer, and Control

a. Inspection Scope

The inspector interviewed the RSO and AUs, and reviewed records to examine the licensee's program involving material receipt, use, transfer, and control.

b. Observations and Findings

The inspector interviewed gauge users about their knowledge of how to secure gauges from access by unauthorized individuals. Except for the instance below, the gauge users were knowledgeable of how to maintain proper security. On August 12, 2015, the inspector, with the RSO, visited two separate temporary jobsites. At one of the temporary jobsites, the inspector observed that the gauge was kept in a locked trunk of the car with the locked transportation case secured to the vehicle. However, the vehicle was unlocked allowing access to a mechanism which could be used to open the trunk of the vehicle. The gauge user was in a trailer at the temporary jobsite and was not keeping the gauge under control and constant surveillance.

The inspector determined that the gauges stored at the Bridgeport facility were in a secured fenced area and the locked transportation cases were secured to an immovable object within the fenced area to prevent unauthorized access or removal from the licensee's storage area. During interviews with the RSO, the inspector determined that access to the inside of the fenced area was limited to the licensee's AUs. The RSO also stated that he periodically checks the storage area to ensure that gauges are not left unattended outside of the fenced area.

The inspector confirmed that the licensee did not exceed its possession limits listed on the license. Also, the inspector reviewed the utilization logs and confirmed that the logs contained all of the required information in NUREG-1556, Volume 1, Revision 1, Appendix H as committed to by License Condition 19.A. The previous violation is closed. (See section entitled "Items Open, Closed and Discussed").

c. Conclusions

The following apparent violation was identified during the inspection and is being considered for escalated enforcement:

10 CFR 30.34(i) requires, in part, 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.

Contrary to the above, on August 12, 2015, the licensee did not use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges were not under the control and constant surveillance of the licensee. Specifically, a locked transportation case containing a gauge was secured to a vehicle inside the locked trunk of the vehicle with the doors of the vehicle being unlocked. Access to the trunk, bypassing the lock, could be gained within the vehicle leaving only one barrier in place.

The RSO performed the following corrective actions: (1) the vehicle was secured immediately upon identification; (2) the technician was suspended from licensed activities pending retraining; (3) RSO audits of work at temporary jobsites were increased; and (4) the incident was discussed in the October 2015 Annual Radiation Safety Training.

**V. Training of Workers**

a. Inspection Scope

The inspector reviewed training records and interviewed the RSO and AUs to determine the extent of training provided to AUs.

b. Observations and Findings

The inspector's review of the training records determined that Annual Radiation Safety Refresher Training and HAZMAT training were provided to all AUs at the required interval. The interview of the RSO determined that appropriate topics were covered. Interviews with the AUs determined a good, working knowledge of the licensee's Operating and Emergency Procedures as well as Department of Transportation regulations.

The inspector confirmed that all AUs had received HAZMAT training within the past three years in accordance with the Department of Transportation regulations. The previous violation is closed. (See section entitled "Items Open, Closed and Discussed").

c. Conclusions

No violations were identified.

**VI. Radiation Surveys**

a. Inspection Scope

The inspector performed radiation dose rate surveys of the areas surrounding the storage area for gauges at Bridgeport, CT and of the gauges at the storage area and temporary jobsites.

b. Observations and Findings

The inspector conducted independent surveys of several gauges and the storage location using NRC's Ludlum Model 2401P (SN181605; Cal Due 07/08/2016). The dose rates were determined to be well below the regulatory limits for dose to members of the public about the storage area. Also, the gauge radiation dose rates were comparable to the manufacturers' published radiation dose rates in the Sealed Source and Device Evaluation for the respective gauges.

The inspector confirmed that the licensee had access to a radiation survey meter in accordance with License Condition 19.A and that the RSO was knowledgeable in its use. The previous violation is closed. (See section entitled "Items Open, Closed and Discussed").

c. Conclusions

No violations were identified.

**VII. Radiation Protection**

a. Inspection Scope

The inspector interviewed the RSO and AU, reviewed records, and observed how AU wore dosimetry.

b. Observations and Findings

The inspector interviewed the RSO and AUs to determine how the gauges were used and what procedures were taken to protect the AU and the general public from radiation exposure. The inspector reviewed the licensee's personnel dosimetry records. The examination of the records determined that none of the AU received a radiation dose in excess of 10 percent of the regulatory limits for an occupationally-exposed individual. At the temporary jobsites, the inspector observed that dosimetry was worn properly by the AUs.

c. Conclusions

No violations were identified.

**VIII. Transportation**

a. Inspection Scope

The inspector interviewed AUs and observed how gauges were transported on public highways by the licensee.

b. Observations and Findings

The inspector determined that the gauges were properly secured during transport, that the transportation cases were appropriately marked and labeled, and that the AUs had the proper shipping papers. Interviews of the AUs by the inspector determined that the AUs were knowledgeable about how to transport the gauges.

c. Conclusions

No violations were identified.

**IX. Exit Meeting**

On August 12, 2015, the inspector discussed the preliminary findings of the inspection with the company owner and RSO. On October 14, 2015, a telephonic exit meeting was conducted with the company owner and the RSO. Licensee representatives acknowledged the inspector's findings.

## **PARTIAL LIST OF PERSONS CONTACTED**

### Licensee

#\*James Quill, P.E., Owner  
#\*Dennis Kieley, RSO  
Darek El-Ayoub, Technician  
Carlos Ruiz, Technician

## **INSPECTION PROCEDURES USED**

NRC Inspection Procedure 87124, "Fixed and Portable Gauge Programs"

## **ITEMS OPEN, CLOSED, AND DISCUSSED**

The following apparent violation was identified:

Failure to use a minimum of two independent physical controls to secure portable gauges from unauthorized removal, a violation of 10 CFR 30.34(i). (Section II) (repeat)

The following violations were closed:

1. Failure to confine its possession of byproduct material to the activity limits authorized in Item 8 of its license, a violation of Item 8 of the NRC License. The licensee amended its license for the additional licensed material and were within its current possession limits.
2. Failure to comply with the terms and conditions of the license for possession or access to a radiation survey meter, a violation of Condition 19-A of the NRC license. The licensee has access to a radiation survey meter.
3. Failure to inform the NRC that a new RSO had been appointed, a violation of Condition 12 of the NRC license. The licensee informed the NRC of the change and amended its license. There has been no change of RSO since the last inspection.
4. Failure to comply with the terms and conditions of the license for maintaining a log book of gauge activities, a violation of License Condition 19-A. The log book was maintained with the entries as required by License Condition 19-A, i.e., Appendix H of NUREG-1556, Volume 1, Revision 1.
5. Failure to comply with the terms and conditions of the license for transporting licensed material, a violation of 10 CFR 71.5. HAZMAT training was provided to all employees at the required interval.