

February 7, 2014

EA-14-001

Mr. Alan Griffiths  
Public Works Director  
City of Kirksville  
2001 N. Osteopathy  
Kirksville, MO 63501

SUBJECT: NRC SPECIAL INSPECTION REPORT NO. 03017623/2013002(DNMS) –  
CITY OF KIRKSVILLE

Dear Mr. Griffiths:

On December 17, 2013 through January 10, 2014, an inspector from the U.S. Nuclear Regulatory Commission (NRC) conducted an in-office review of the circumstances surrounding the City of Kirksville's (the City) transfer of a Troxler moisture density gauge to BRS Construction of Edina, Missouri. The NRC initiated a review of these circumstances after BRS Construction contacted a member of the Region III Materials Licensing Branch on December 5, 2013 to discuss the transfer. A final exit meeting to discuss the inspection findings was held between Mr. Craig Dawson of your staff and Mr. Craffey of my staff by telephone on January 21, 2014.

During this in-office review, NRC staff evaluated activities conducted under the City's license related to public health and safety. Additionally, the staff examined the City's compliance with the Commission's rules and regulations as well as the conditions of its license. Within these areas, the review consisted of interviews with personnel and an examination of records related to the transfer of the gauge.

Based on the results of this inspection, one apparent violation of NRC requirements by the City was identified and is being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is available on the NRC's website at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The apparent violation concerned the City's transfer of byproduct material to a person not authorized to receive such byproduct material under the terms of a specific license issued by the Commission or Agreement State, contrary to Title 10 of the *Code of Federal Regulations* (10 CFR) 30.41(a) and (b)(5).

Because the NRC has not made a final determination in this matter, the NRC is not issuing a Notice of Violation for the finding at this time. The circumstances surrounding this apparent violation, the significance of the issue, and the need for lasting and effective corrective actions were discussed with Mr. Dawson at the inspection exit meeting on January 21, 2014.

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; or (2) request a Predecisional Enforcement Conference (PEC). 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 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. 03017623/2013002(DNMS); EA-14-001," 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's 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 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.

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.

As 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 on 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.

A. Griffiths

- 3 -

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, 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 Ryan Craffey of my staff if you have any questions regarding this inspection. Mr. Craffey can be reached at 630-829-9655.

Sincerely,

***/RA by AnnMarie Stone Acting for/***

Patrick L. Loudon, Director  
Division of Nuclear Materials Safety

Docket No. 030-17623  
License No. 24-18995-01

Enclosure:  
Inspection Report No. 03017623/2013002(DNMS)

cc w/encl: Craig Dawson, Engineering Technician  
State of Missouri

A. Griffiths

- 3 -

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, 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 Ryan Craffey of my staff if you have any questions regarding this inspection. Mr. Craffey can be reached at 630-829-9655.

Sincerely,

*/RA by AnnMarie Stone Acting for/*

Patrick L. Loudon, Director  
Division of Nuclear Materials Safety

Docket No. 030-17623  
License No. 24-18995-01

Enclosure:  
Inspection Report No. 03017623/2013002(DNMS)

cc w/encl: Craig Dawson, Engineering Technician  
State of Missouri

DISTRIBUTION w/encl:  
See next page

**ADAMS Accession Number: ML14043A086**

DOCUMENT NAME: G:\DNMSIII\Work in progress\LTR-Choice Letter Narrative Report - City of Kirksville Revised.doc

Publicly Available     Non-Publicly Available     Sensitive     Non-Sensitive

To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII-DNMS		RIII-DNMS		RIII-EICS		RIII-DNMS
NAME	RJCraffey:ps*RJC		ATMcCraw*ATM		SKOrth*SKO		PLLouden*AMS for
DATE	2/05/14		2/05/14		2/06/14		2/07/14

**OFFICIAL RECORD COPY**

Letter to Alan Griffiths from Patrick L. Loudon dated February 7, 2014

SUBJECT: NRC INSPECTION REPORT NO. 03017623/2013002(DNMS) –  
CITY OF KIRKSVILLE

DISTRIBUTION w/encls:

OCADistribution  
Mark Satorius  
Michael Weber  
Roy Zimmerman  
Nick Hilton  
Kerstun Day  
Marvin Itzkowitz  
Catherine Scott  
Brian Holian  
Michele Burgess  
Robert Sun  
Brice Bickett

Carolyn Evans  
Heather Gepford  
Holly Harrington  
Hubert Bell  
Cheryl McCrary  
Seth Coplin  
Cynthia Pederson  
Darrell Roberts  
Patrick Loudon  
Ann Marie Stone  
Allan Barker  
Harral Logaras  
James Lynch

Viktoria Mitlyng  
Prema Chandrathil  
Patricia Lougheed  
Paul Pelke  
Magdalena Gryglak  
Patricia Buckley  
Carole Ariano  
MIB Inspectors  
RidsOEMAILCenterResource

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

Docket No. 030-17623

License No. 24-18995-01

Report No. 03017623/2013002(DNMS)

EA No. EA-14-001 & EA-14-002

Licensee: City of Kirksville, Missouri

Facility: 201 S. Franklin Street  
Kirksville, MO 63501

In-Office Review Dates: December 17, 2013 - January 10, 2014

Exit Meeting Date: January 21, 2014

Inspector: Ryan J. Craffey, Health Physicist

Approved By: Aaron T. McCraw, Chief  
Materials Inspection Branch  
Division of Nuclear Materials Safety

Enclosure

## **EXECUTIVE SUMMARY**

### **City of Kirksville NRC Inspection Report 03017623/2013002(DNMS)**

This inspection consisted of an in-office review of the circumstances surrounding the unauthorized transfer of a Troxler moisture density gauge by the City of Kirksville, Missouri, (the City) to BRS Construction of Edina, Missouri, on December 5, 2013.

On December 17, 2013, the inspector identified two apparent violations of NRC requirements as a result of the transfer of byproduct material to a person not authorized to receive such material under the terms of a specific license issued by the Commission or Agreement State. Specifically, the City of Kirksville failed to comply with Title 10 of the *Code of Federal Regulations* (10 CFR) 30.41(a) and (b)(5) by transferring byproduct material to a person not authorized to receive byproduct material under the terms of a specific license, and BRS Construction failed to comply with 10 CFR 30.3 when it took possession of the portable gauge – containing 8.0 millicuries of cesium-137 and 40.0 millicuries of americium-241 – without authorization by a specific license.

As corrective action for the apparent violations, BRS Construction returned the gauge to the City on December 6, 2013. The City then arranged for the transfer of the device to another prospective buyer, after first verifying that this new buyer was authorized by a valid Agreement State license to possess the gauge. The transfer was made via common carrier on December 18, 2013, and shortly thereafter the City submitted a request to terminate its NRC license, as it no longer possessed any licensable radioactive material. Neither the City nor BRS Construction has any further plans to possess or use such material.

## **REPORT DETAILS**

### **1 Program Overview**

The City is authorized by NRC Materials License No. 24-18995-01 to use cesium-137 and americium-241 in Troxler 3400 series moisture density gauges for measuring physical properties of materials. The license authorizes the possession of one such gauge. The Radiation Safety Officer, an Engineering Technician, reports to the City Engineer, a position that is currently vacant. The City Engineer reports to the Director of Public Works.

The NRC last performed a routine inspection of the City of Kirksville on February 4, 2013. No violations were identified as a result of the inspection. Prior to this, on June 26, 2008 the NRC performed a routine inspection and identified one Severity Level III violation of 10 CFR 30.34(i) for failure to adequately secure its portable gauge. The NRC verified during a followup inspection on December 17, 2008 that the City took corrective actions to restore compliance and to address recurrence. No additional violations were identified as a result of this followup inspection.

### **2 Transfer of Licensed Material**

#### **2.1 Inspection Scope**

On December 17, 2013 through January 10, 2014, the inspector reviewed elements of the licensee's radiation safety program relating to the transfer of its Troxler moisture density gauge, through interviews with representatives of both the City and BRS Construction, and an examination of records related to the transfer.

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

On November 27, 2013, the City completed the sale of its only portable gauge, a Troxler model 3430 containing 8.0 millicuries (mCi) Cesium-137 and 40.0 mCi Americium-241, to BRS Construction of Edina, Missouri, a company that was not authorized to possess such material. The City was not fully aware of the NRC's licensing requirements at the time of the sale, and failed to verify that this company was properly licensed to possess this material prior to transfer.

Consequently, in the early afternoon of December 5, 2013, a representative of BRS Construction took possession of the gauge and all related records and transported the material to the company's facility in Hurdland, Missouri. The gauge remained locked in its case in the back seat of the representative's quad-cab pickup during transit. The representative stored the gauge that night in an unused building on the company's premises, placing the locked case in a locked room within the locked building in accordance with the City's directions for ensuring that the gauge was adequately secured at all times.



Later that afternoon, the representative contacted Region III to learn more about the NRC's requirements for possession and use of portable gauges. After discussing the matter with a member of the Materials Licensing Branch, the representative decided that it was no longer in the best interests of the company to pursue the ownership of a portable gauge containing radioactive material. After then discussing the matter with the City (who had been contacted by a member of the Materials Inspection Branch shortly after the representative's call to the Region), the two parties agreed that the City should retake possession of the gauge, and that a new buyer should be found.

At about 8:30 am on December 6, 2013, the representative of BRS brought the gauge and its records back to the City. The City then contacted another prospective buyer, HD Calibration Services (an active State of Tennessee licensee with authorization to possess Troxler 3400 series portable gauges) who accepted the offer to purchase the gauge by reimbursing BRS Construction for the amount originally paid to the City.

On December 18, 2013, after receiving a copy of HD Calibration Service's license, the City transferred its gauge to the company by way of R&L Carriers, whom the company had selected to transport the gauge. The company confirmed receipt of the gauge to the City via email on December 27, 2013.

The inspector identified two apparent violations of NRC Regulations for the transfer of byproduct material to a person not authorized to receive such material under the terms of a specific or general license issued by the Commission or Agreement State. Specifically, the City of Kirksville failed to comply with 10 CFR 30.41(a) and (b)(5) by transferring byproduct material to a person not authorized to receive byproduct material under the terms of a specific license, and BRS Construction failed to comply with 10 CFR 30.3 when it took possession of the portable gauge without authorization by a specific or general license.

The inspector determined that the root cause of both violations was a lack of understanding of NRC regulatory requirements. The apparent City did not realize that their portable gauge could only be transferred to a person already authorized to receive such a device under a specific or general license, and BRS Construction did not realize that a specific license was required prior to taking possession of a portable gauge containing radioactive material.

The inspector also identified inadequate communications and a lack of due diligence as contributing factors. When the City asked a representative of the gauge manufacturer in late October 2013 about what their responsibility as sellers was for the buyer's license, the representative responded with brief instructions for communicating the transaction to the NRC. The City did not pursue the original question any further. In addition, the original buyer made little or no attempt to fully understand the regulatory requirements of owning a gauge prior to taking possession of one.

Both parties restored compliance with NRC requirements when BRS Construction returned the gauge to the City on December 6, 2013. The City also verified that the second prospective buyer had a valid NRC or Agreement State license authorizing possession of a Troxler 3430 gauge before transferring it again.

To address recurrence, the City and BRS Construction are now familiar with the requirements for transferring licensed material. The City also sent a completed NRC Form 314, dated December 20, 2013, and received by Region III on December 26, 2013, requesting the termination of its license. The City no longer possesses any licensable radioactive material, and has no plans of doing so again in the future. BRS Construction similarly indicated that it no longer has any intention of possessing licensable radioactive material, either.

### **2.3 Conclusions**

The inspector identified two apparent violations. The first apparent violation is for the City's failure to comply with 10 CFR 30.41(a) and (b)(5) when it transferred byproduct material to a person not authorized to receive such byproduct material under the terms of a specific or general license issued by the Commission or an Agreement State. The second apparent violation results from BRS Construction's failure to comply with 10 CFR 30.3 when it took possession of byproduct material without authorization by a specific or general license.

### **3 Exit Meeting Summary**

The NRC inspector presented preliminary findings to both parties involved (the City and BRS Construction), following the in-office review on January 21, 2014. Neither identified any documents or processes reviewed by the inspector as proprietary. The City and BRS Construction acknowledged the findings presented.

### **LIST OF PERSONNEL CONTACTED**

- # Craig Dawson, Engineering Technician – City of Kirksville
- # Michael Schrage – BRS Construction
  
- # Participated in exit meetings on January 21, 2014

### **INSPECTION PROCEDURES USED**

87124: Fixed and Portable Gauge Programs