



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION IV  
1600 E. LAMAR BLVD.  
ARLINGTON, TX 76011-4511

March 21, 2017

Mr. Jon O'Rullian  
Radiation Safety Officer  
Radiation Solutions, LLC  
343 E. 4<sup>th</sup> North, Suite 239  
Rexburg, ID 83440

SUBJECT: NRC INSPECTION REPORT 030-38691/2016-001 AND NOTICE OF VIOLATION

Dear Mr. O'Rullian:

This letter refers to the routine, announced inspection conducted on November 16, 2016, at your facility in Rexburg, Idaho, and during January 17-19, 2017, at temporary job sites located at Bluegrass Army Depot, Kentucky, and Redstone Arsenal, Alabama. The inspection was an examination of activities conducted under your license as they relate to public health and safety, to confirm compliance with the U.S. Nuclear Regulatory Commission's (NRC) rules, regulations, and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel. The preliminary inspection findings were discussed with you on November 16, 2016, at the conclusion of the onsite portion of the inspection at your Rexburg, Idaho, facility. A final telephonic exit briefing was conducted with you on March 6, 2017.

Based on the results of this inspection, the NRC has determined that one Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy, which can be found at the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The violation is cited and described in the enclosed Notice of Violation (Notice). The violation is being cited in the enclosed Notice because it was identified by the NRC during the inspection. The violation involved the failure to conduct leak tests in accordance with license commitments.

The violation that is cited in the Notice addresses your analysis of leak tests as a commercial service where you failed to check the instrument's counting efficiency using a standard source of the same radionuclide as the source being tested or one with similar energy characteristics. The inspectors also discussed several additional performance issues with you regarding your analysis of leak tests as a commercial service. Specifically: (1) the equation for minimum detectable activity used in your November 16, 2016, spreadsheet was improperly set up; (2) you were using a 2 Pi efficiency value in the equation for minimum detectable activity but should have been using the 4 Pi efficiency value; (3) in your equation for minimum detectable activity you were using a value for instrument efficiency that was determined in August 2013, but the specific instrument's detector (Geiger tube) was replaced in November 2015 and the efficiency was not determined after this replacement. Effective February 9, 2017, with the issuance of Amendment No. 3 of your NRC license, you are only authorized to possess and store leak test samples. Amendment No. 3, License Condition 9.J. further specifies that the license needs to

be amended to authorize commercial service to perform leak tests and sample analysis. In an email to you dated January 12, 2017, NRC provided you with a request for additional information regarding this matter. Your response to the Notice should include a review of all leak tests that have been performed under the license as a commercial service, including a review of your leak test procedures, analysis techniques and calculations, and each piece of equipment that was utilized to analyze leak tests.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The guidance in NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be helpful in preparing your response. You can find the Information Notice on the NRC website at: <http://pbadupws.nrc.gov/docs/ML0612/ML061240509.pdf>. Information regarding the reason for the violation, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance will be (was) achieved should be addressed. The NRC review of your response to the Notice will also determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure, and your response, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide 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 or proprietary information so that it can be made available to the Public without redaction.

Should you have any questions regarding this letter or the enclosed Notice, please contact Janine F. Katanic, PhD, CHP, at 817-200-1151 or the undersigned at 817-200-1191.

Sincerely,

*/RA/*

Ray L. Kellar, P.E., Chief  
Nuclear Materials Safety Branch A  
Division of Nuclear Materials Safety

Docket: 030-38691  
License: 11-35111-01

Enclosure:  
Notice of Violation

cc w/ enclosure: See next page

NRC INSPECTION REPORT 030-38691/2016-001 AND NOTICE OF VIOLATION DATED MARCH 21, 2017

cc w/ enclosure:

Mark Dietrich, Administrator  
 Technical Services Division  
 1410 North Hilton  
 Boise, ID 83706

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 State Department of Public Health  
 201 Monroe Street  
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 Montgomery, AL 36130-3017

Matthew W. McKinley, Administrator  
 Cabinet for Health & Family Services  
 Radiation Health Branch  
 275 East Main Street HS1C-A  
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Marie Felice-Luebeck  
 Radiation Safety Officer  
 Talen Montana, LLC  
 P.O. Box 38  
 Colstrip, MT 59323

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 J. Cassata, Region I

ADAMS ACCESSION NUMBER: **ML17066A195**

X SUNSI Review By: JFK		ADAMS X Yes <input type="checkbox"/> No	X Publicly Available <input type="checkbox"/> Non-Publicly Available	X Non-Sensitive <input type="checkbox"/> Sensitive	Keyword: N/A
OFFICE	RIV:NMSB-A	RIV:NMSB-A	RIV:C:NMSB-A		
NAME	JFKatanic	JEvonEhr	RLKellar		
SIGNATURE	<i>/RA/</i>	<i>/RA/</i>	<i>/RA/</i>		
DATE	03/08/17	03/07/17	03/21/17		

**OFFICIAL RECORD COPY**

## NOTICE OF VIOLATION

Radiation Solutions, LLC  
Rexburg, Idaho

Docket No. 030-38691  
License No. 11-35111-01

During an NRC inspection conducted on November 16, 2016, at the Radiation Solutions, LLC, facility in Rexburg, Idaho, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

License Condition 20 of NRC License 11-35111-01, Amendment No. 1, dated August 17, 2015, requires, in part, that the licensee conduct its program in accordance with the license application dated November 1, 2013. The license application dated November 1, 2013, Item 10, Leak Tests, states "Leak testing will follow the model procedures in Appendix O of NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses," dated November 2000."

Appendix O of NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses," dated November 2000, "Procedure for Performing Leak Testing and Analysis," states, in part, "Check the instrument's counting efficiency using a standard source of the same radionuclide as the source being tested or one with similar energy characteristics."

Contrary to the above, on March 28, 2016, the licensee failed to conduct its program in accordance with its license application dated November 1, 2013. Specifically, on March 28, 2016, the licensee analyzed 54 leak test samples for a customer (Talen Montana, LLC) and did not follow the model procedures in Appendix O of NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses," dated November 2000. The licensee analyzed leak tests for 54 gauges that contained cesium-137 sealed sources (28 Kay-Ray Model 7062-BP; 2 Ohmart-Vega Model 4100; 5 Ohmart-Vega Model SHLD1; 1 Ohmart-Vega Model A 2102; 4 Texas Nuclear Model TN-5202; and 14 Texas Nuclear Model TN-5192) and failed to check the instrument's counting efficiency using a standard source of the same radionuclide as the source being tested or one with similar energy characteristics.

This is a Severity Level IV Violation (Section 6.3.d.).

Pursuant to the provisions of 10 CFR 2.201, Radiation Solutions, LLC, is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region IV, 1600 E. Lamar Blvd., Arlington, Texas 76011, 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: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level; (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. 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 requiring information 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.

Enclosure

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Your response will be made available electronically for public inspection in the NRC Public Document Room or in the NRC's Agencywide 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 or proprietary information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

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

Dated this 21<sup>st</sup> day of March 2017