November 26, 2012

EA-12-237
EN 48432
NMED 120632

Mr. Steven Brady, CEO
Anderson Engineering, Inc.
2045 W. Woodland St.
Springfield, Missouri 65807

SUBJECT: NRC REACTIVE INSPECTION REPORT NO. 03017919/2012001(DNMS) – ANDERSON ENGINEERING, INC.

Dear Mr. Brady:

On October 25, 2012, with continued in-office review through November 6, 2012, the U.S. Nuclear Regulatory Commission (NRC) conducted a reactive inspection of your facilities located in Springfield and Joplin, Missouri. The in-office review included the review of your leak test results. The purpose of the inspection was to review the circumstances, root and contributing causes, and proposed corrective actions for the reported event of a damaged portable gauge at a temporary job site in Joplin, Missouri. The event was reported to the NRC on October 22, 2012.

Based on the results of this inspection, an apparent violation 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 involved the failure to maintain control and constant surveillance of a portable gauge containing licensed materials when it was not in storage.

Since the NRC has not made a final determination in this matter, no Notice of Violation is being issued for this inspection finding at this time. The circumstances surrounding this apparent violation, the significance of the issues, and the need for lasting and effective corrective actions were discussed with you at the inspection exit meeting on November 7, 2012, and are described in detail in the enclosed inspection report and in the 30-day report from you to the NRC dated November 14, 2012.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either: (1) respond 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 conference 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 Tamara Bloomer at 630-829-9627 within 10 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. 03017919/12001(DNMS); EA-12-237**,"** 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 will be achieved.

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.

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 actions 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. However, 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 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. In addition, please be advised that the number and characterization of the apparent violation 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.

In accordance with Title 10 of the Code of Federal Regulations 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 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 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 available to the public without redaction.

Please feel free to contact Mr. Bill Lin of my staff if you have questions concerning this inspection. You can reach Mr. Lin at 630-829-9829.

Sincerely,

/RA/

Anne T. Boland, Director
Division of Nuclear Materials Safety

Docket No. 030-17919
License No. 24-20063-01

Enclosure:
Inspection Report No. 03017919/12001(DNMS)

cc w/encl: State of Missouri
John T. Snider, Vice President/
Engineering Manager

Please feel free to contact Mr. Bill Lin of my staff if you have questions concerning this inspection. You can reach Mr. Lin at 630-829-9829.

Sincerely,

/RA/

Anne T. Boland, Director
Division of Nuclear Materials Safety

Docket No. 030-17919
License No. 24-20063-01

Enclosure:
Inspection Report No. 03017919/12001(DNMS)

cc w/encl: State of Missouri
John T. Snider, Vice President/
Engineering Manager

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U.S. Nuclear Regulatory Commission
Region III

Docket No.	030-17919
License No.	24-20063-01
Report No.	03017919/2012001(DNMS)
EA No.	EA-12-237
NMED No.	120632
Licensee:	Anderson Engineering, Inc.
Facility:	2045 W. Woodland St. Springfield, Missouri 65807 915 East 3rd Street Joplin, Missouri
Date:	October 25, 2012, with continued in-office review through November 6, 2012
Inspector:	Bill C. Lin, Health Physicist
Approved By:	Tamara E. Bloomer, Chief Nuclear Materials Inspection Branch Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

Anderson Engineering, INC.
NRC Inspection Report 03017919/12001(DNMS)

This was a reactive inspection, conducted on October 25, 2012, at the licensee's facilities in Springfield and Joplin, Missouri, with continued in-office review through November 6, 2012. The licensee has offices in Springfield, Joplin, and Crocker, Missouri. The license authorizes use of portable gauges at temporary job sites within the U.S. Nuclear Regulatory Commission's (NRC) jurisdiction. As part of the inspection, the inspector reviewed the details regarding the licensee's reported event on October 22, 2012, concerning a damaged portable gauge at a temporary job site in Joplin, Missouri. The portable gauge contained a nominal 10 millicuries of cesium-137 and 50 millicuries of americium-241.

The inspector identified an apparent violation of NRC requirements in Title 10 of the Code of Federal Regulations (CFR) 20.1802 and 30.34(i). The apparent violation concerned the licensee's failure to maintain control and constant surveillance of a portable gauge when the gauge was not in storage, and to use a minimum of two independent physical controls that form tangible barriers when the gauge was not under constant surveillance. The licensee was performing density tests with a portable gauge at a temporary jobsite in Joplin, MO. Upon completion of one of the tests, the gauge operator secured the gauge source rod and was preparing for the next test when he noticed that a construction scraper was moving towards the gauge. The operator left the gauge unattended to speak with the oncoming scraper operator. However, after speaking with the scraper operator, the licensee's gauge operator noticed that other scrapers in the area had run over the gauge and damaged it. The gauge operator had failed to maintain constant surveillance of the gauge and failed to use two independent physical controls that formed tangible barriers to secure the portable gauge when it was not under the control or constant surveillance of the licensee.

As corrective actions, the laboratory manager for Anderson Engineering responded to the site and assisted the gauge operator in immediately blocking off the area surrounding the damaged gauge. The licensee performed radiation surveys of the area and all of the heavy construction equipment onsite. Once the licensee performed all of the applicable surveys and determined that the gauge was not leaking, the licensee placed the damage gauge in its original container for transport back to the licensee's secured facility. The licensee also counseled the gauge operator on the licensee's operating procedures for the portable gauges. The training was completed on October 22, 2012. The licensee's long term corrective actions were to require the gauge operator involved to present the incident and lessons learned during the licensee's annual radiation safety training. The licensee completed this action on November 6, 2012. The licensee also planned to discuss the incident with the temporary job site foreman at the job site where the event occurred to ensure that any equipment operators do not come close to the gauge operator in the future. For future gauge operations, the licensee plans to use its vehicles to form a protective barrier between the construction site equipment and the licensee's gauge operator to better protect the portable gauge from damage.

Report Details

1 Program Overview

Anderson Engineering, Inc. (licensee) was authorized under NRC Materials License No. 24-20063-01 to store and use portable gauges at the licensee's facilities in Springfield, Joplin, and Crocker, Missouri, and use the gauges at temporary jobsites within NRC jurisdiction. At the time of the inspection, the licensee employed approximately twenty authorized gauge users and possessed twelve portable gauges. The licensee's previous inspection was performed on April 8, 2008, at the licensee's facility in Springfield, Missouri. No violations of the NRC regulatory requirements were identified.

2. Sequence of Events

2.1 Inspection Scope

On October 25, 2012, the inspector reviewed the details of the reported event of a damaged portable gauge. The portable gauge contained a nominal 10 millicuries of cesium-137 and 50 millicuries of americium-241. The inspector visited the licensee's facilities in Springfield and Joplin, Missouri. During the inspection, the inspector interviewed the following licensee personnel: (1) The Radiation Safety Officer (RSO)/Chief Executive Officer; (2) Vice President/Engineering Manager; (3) two different laboratory managers at the Springfield and Joplin facilities; and (4) the gauge operator involved with the incident.

2.2 Observations and Findings

On October 22, 2012, at approximately 11:30 a.m., Anderson Engineering's gauge operator was performing density tests with a portable gauge at a temporary jobsite in Joplin, Missouri. Upon completion of one of the tests, the gauge operator secured the gauge source rod and was preparing for the next test when he noticed that a bulldozer was moving toward the gauge. The gauge operator inadvertently left the gauge unattended to speak with the oncoming bulldozer operator.

This was an apparent violation of 10 CFR 20.1802 and 10 CFR 30.34(i). Title 10 CFR 20.1802 requires that the licensee control and maintain constant surveillance of licensed material that is in controlled or unrestricted area and that is not in storage. Title 10 CFR 30.34(i) requires that each portable gauge licensee 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.

After speaking with the bulldozer operator, the licensee's gauge operator turned back to the gauge and noticed that the gauge had been run over and damaged by other scrapers that were in the area. As soon as the operator noticed the damage, he contacted the laboratory manager at the licensee's Joplin facility. The laboratory manager responded to the site and assisted the gauge operator in blocking off the area where the damaged gauge was located within 30 minutes of the event. The licensee performed radiation surveys of the damaged gauge, the area, and the scraper tires and, based on the surveys, the licensee determined that the sealed sources within the portable gauge were not damaged. After performing the applicable surveys, the

licensee secured the portable gauge within the gauge case and delivered the gauge to the licensee's secured facility in Joplin, Missouri. The licensee performed a wipe test on October 25, 2012. The licensee received the leak test result on October 31, 2012, which confirmed that the sealed sources within the damaged portable gauge had not leaked.

As corrective actions for the apparent violation, the licensee retrained the gauge operator on the licensee's operating procedures for the portable gauges. The training emphasized the importance of never leaving the portable gauge unattended and also placing the portable gauge with a minimum of two independent physical controls when the gauge is not under surveillance. The training was completed on October 22, 2012.

The licensee's long term corrective actions were to require the gauge operator involved to present the incident and lessons learned during the licensee's annual radiation safety training for all gauge users. The licensee completed this action on November 6, 2012. The licensee planned to discuss the incident with the temporary job site foreman to ensure that any equipment operators do not come close to the gauge operator in the future. For future gauge operations, the licensee planned to use its vehicles to form a protective barrier between the construction site equipment and the licensee's gauge operator to better protect the portable gauge from damage.

The licensee notified the NRC in accordance with 10 CFR 30.50. The licensee provided their 30-day written report on November 14, 2012, in accordance with 10 CFR 30.50(c)(2).

2.3 Conclusions

The inspector identified an apparent violation of 10 CFR 20.1802 and 10 CFR 30.34(i) involving licensee failure to maintain control and constant surveillance of the portable gauge when it was not in storage and use a minimum of two independent physical controls that form tangible barriers to secure portable gauges when the gauges were not under the control and constant surveillance of the licensee. The licensee took actions to restore compliance.

3 Radiation Safety Program

3.1 Inspection Scope

On October 25, 2012, the inspector also reviewed in detail the elements of the licensee's radiation safety program including records of the physical inventories, leak tests, and dosimetry records.

3.2 Observations and Findings

The inspector found that the licensee had maintained physical inventory records for all of the gauges and operational logs for the gauges during the construction season. The inspector determined that the licensee had completed the required leak tests on the portable gauges semi-annually.

NRC License No. 24-20063-01 required all nuclear gauge operators to wear personnel monitoring devices (dosimeters) to measure radiation exposure when using or transporting

gauges. The inspector observed that the licensee exchanged dosimeter badges at a monthly interval. The inspector did not identify any exposures that were in excess of NRC regulations.

The inspector also reviewed the licensee's records for the annual radiation safety training, the Department of Transportation Hazmat training, and the annual program audits. The licensee had performed all of the training in accordance with the regulatory requirements, and the annual audits were performed and documented on an annual basis.

3.3 Conclusions

The inspector noted no further violations of NRC requirements.

4 Exit Meeting Summary

The NRC inspector held the final telephonic exit meeting on November 7, 2012. The licensee did not identify any documents or processes reviewed by the inspector as proprietary. The licensee acknowledged the findings presented.

PARTIAL LIST OF PERSONNEL CONTACTED

* Steven Brady, Radiation Safety Officer and Chief Executive Officer
* John T. Snider, Vice President and Engineering Manager

* Attended telephonic exit meeting on November 7, 2012

INSPECTION PROCEDURES USED

IP 87124