



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

May 9, 2017

Mr. Chris Dixon  
Radiation Safety Officer  
Acuren USA  
600 E. 57<sup>th</sup> Place, Suite B  
Anchorage, AK 99518

SUBJECT: NRC ROUTINE INSPECTION REPORT 030-38596/2017-001

Dear Mr. Dixon:

This letter refers to the routine, unannounced inspection conducted on March 27, 2017, at your facility in Anchorage, Alaska. 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 and members of your staff at the conclusion of the onsite portion of the inspection on March 27, 2017. A final telephonic exit briefing was conducted with you and other licensee representatives on May 9, 2017.

Based on the results of this inspection, the NRC identified one unresolved item regarding the use of Instadose devices to satisfy the regulatory requirements found in Title 10 of the *Code of Federal Regulations* (CFR) Part 34 for personnel monitoring during radiographic operations. The item is described in the enclosed report. The NRC will continue to review this open item and you will be advised by separate correspondence of the results of our deliberation on this matter. Because this item remains under NRC review, you are not required to respond to this matter at this time. Please be advised that the number and characterization of the issues described in the report may change as a result of further NRC review.

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, should you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Document 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 you choose to provide one, 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 report, please contact Mr. Jason vonEhr at 817-200-1186, or the undersigned at 817-200-1455.

Sincerely,

***/RA by JLThompson Acting For/***

Vivian H. Campbell, Chief  
Materials Licensing and Inspection Branch  
Division of Nuclear Materials Safety

Docket: 030-38596  
License: 50-32443-01

Enclosure:  
Inspection Report 030-38596/2017-001

cc:  
Clyde E. Pearce, Chief  
Radiological Health Program  
Section of Laboratories  
State of Alaska/DH&SS  
5455 Dr. Martin Luther King, Jr., Ave  
Anchorage, AK 99507-1270

NRC INSPECTION REPORT 030-38596/2017-001 DATED MAY 9, 2017.

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U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket: 030-38596

License: 50-32443-01

Report: 2017-001

EA No.: N/A

Licensee: Acuren USA

Location Inspected: 600 E. 57<sup>th</sup> Place, Suite B  
Anchorage, Alaska

Inspection Dates: March 27, 2017

Exit Meeting Date: May 9, 2017

Inspector: Jason E. vonEhr, Health Physicist  
Materials Licensing and Inspection Branch  
Division of Nuclear Materials Safety

Accompanied By: Mark R. Shaffer, Director  
Division of Nuclear Materials Safety

Approved By: Vivian H. Campbell, Chief  
Materials Licensing and Inspection Branch  
Division of Nuclear Materials Safety

Attachment: Supplemental Inspection Information

Enclosure

## **EXECUTIVE SUMMARY**

### **Acuren USA NRC Inspection Report No. 030-38596/2017-001**

This was a routine, unannounced inspection of licensed activities at a non-destructive testing company authorized by the U.S. Nuclear Regulatory Commission (NRC) Materials License 50-32443-01 to use byproduct material in NRC jurisdiction. The inspection included a review of the implementation of the radiation safety program at the company's main office in Anchorage, Alaska, as well as a review of records and activities of the field office in Kenai, Alaska. This report describes the results of this inspection

During the inspection, the inspector identified one unresolved item regarding the licensee's use of Instadose devices to satisfy the regulatory requirements in Title 10 of the *Code of Federal Regulations* Part 34 for personnel monitoring during radiographic operations.

This unresolved item remains under NRC review.

## REPORT DETAILS

### **1 Program Overview (87121)**

#### **1.1. Inspection Scope**

This was an unannounced, routine inspection of Acuren USA which was performed at their main office at 600 E. 57<sup>th</sup> Place, Suite B, in Anchorage, Alaska, on March 27, 2017. Acuren USA is authorized by NRC Materials License No. 50-32443-01 to use byproduct material in NRC jurisdiction for industrial radiography in areas of NRC jurisdiction. The licensee's Radiation Safety Officer (RSO) and other corporate staff are based in Akron, Ohio. The licensee's mailing address and main office is in Anchorage, Alaska, and its only field station is in Kenai, Alaska. At the time of the inspection, the licensee had a total of eight radiographers and radiographer's assistants split between the two offices, down significantly from about three years ago after Acuren USA lost a contract for work on the North Slope.

The NRC conducted routine inspections of the licensee on February 9, 2016 and on March 11, 2015, with no violations identified. The inspection conducted on April 10 and April 14, 2014, and subsequent reactive inspection conducted on May 5-8, 2014, identified seven violations, some of which included elements of willfulness. These violations were issued with an accompanying civil penalty on July 7, 2016. The licensee's corrective actions for these violations were reviewed as part of the March 2017 inspection.

### **2 Personnel Monitoring (87121)**

#### **2.1. Inspection Scope**

On March 27, 2017, the inspector reviewed the licensee's use of personnel monitoring devices. The inspector conducted an interview with the Site Radiation Safety Officer, the Corporate Radiation Safety Officer, and examined a selection of the licensee's monitoring devices and associated calibration, dosimetry, and job site records.

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

The licensee conducted a full review of their records after the inspection and concluded that they had begun full use of the Instadose direct ion storage dosimeter during the period May 1, 2015 through May 31, 2015. Starting on May 1, 2015, the licensee indicated that, according to their records review, they had discontinued the use of their traditional thermal luminescence dosimeters (TLD) or optically stimulated luminescence (OSL) badges to fulfill the regulatory requirements for personnel monitoring in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 34.

With the Instadose devices, the licensee no longer had a need to exchange or replace these devices periodically with Mirion Technologies, the manufacturer and National Voluntary Laboratory Accreditation Program (NVLAP) processor. Instead, the licensee's procedures and practice was to gather the Instadose devices from their monitored staff (and the vault storage locations, which also had an assigned Instadose device in addition to a Landauer badge) and download the dose via an USB port on a monthly

basis to the licensee's computers. This dose was then used as the dose of record for these monitored individuals.

10 CFR 34.47(a) states, in part, that the licensee may not permit any individual to act as a radiographer or a radiographer's assistant unless, at all times during radiographic operations, each individual wears, on the trunk of the body, a personnel dosimeter that is processed and evaluated by an accredited National Voluntary Laboratory Accreditation Program (NVLAP) processor.

10 CFR 34.47(a)(3) states that film badges must be replaced at periods not to exceed one month and other personnel dosimeters processed and evaluated by an accredited NVLAP processor must be replaced at periods not to exceed three months.

The use of Instadose devices starting on May 1, 2015 relative to the above regulatory requirements is an unresolved item, which remains under NRC review.

The inspector reviewed occupational exposure records for individuals and found that the maximum annual whole-body exposures were 700 millirem in 2016, and 121 millirem in 2017 to date. The inspector also reviewed documentation of pocket dosimeter and alarming ratemeter use on job sheets, and cross checked a sample of these instruments against their calibrations, and identified no issues.

### 2.3. Conclusions

The inspector identified one unresolved item regarding the licensee's use of Instadose devices to satisfy the regulatory requirements in 10 CFR Part 34 for personnel monitoring during radiographic operations.

## **3 Other Areas Inspected (87121)**

### 3.1. Inspection Scope

On March 27, 2017, the inspector toured the licensee's main office in Anchorage, Alaska, conducted an interview with the Radiation Safety Officer (who was the only staff on-site at the time of the inspection), examined a selection of radiographic equipment, and reviewed a selection of relevant records.

### 3.2. Observations and Findings

The inspector toured the licensee's facility, including the vault location with the radiographic equipment inside, and conducted independent radiation surveys using a RadEye G, serial number 370, calibrated on November 4, 2016. The inspector verified the inventory of record against the actual material on hand, including a calibration source and pipe crawler that are no longer used. Survey readings outside of the vault were essentially background levels.

The inspector reviewed the previous violations from the 2014 routine inspection and subsequent reactive inspection. The violations from that inspection are summarized below:

1. License Condition 19.A, regarding the failure to maintain constant surveillance over a radiation area perimeter.

2. 10 CFR 34.53, regarding the failure to conspicuously post a radiation area.
3. 10 CFR 20.1302(b)(1), regarding the failure to conduct a public dose assessment.
4. 10 CFR 34.43(e), regarding the failure to conduct field audits of radiographers and radiographer's assistants every 6 months.
5. 10 CFR 20.1101(c), regarding the failure to conduct an annual review of the radiation protection program content and implementation.
6. 10 CFR 34.43(d), regarding the failure to provide to radiographers and radiographer's assistants annual refresher safety training.
7. 49 CFR 172.704(c)(2), regarding the failure to provide recurrent hazmat refresher training every three years to applicable personnel.

With regards to Violations No. 1 and No. 2 above, the inspector was not able to observe a temporary job site and no radiographic personnel were available on-site to interview at the time of the inspection, and thus these violations remain open. Violations No. 3 through 7 were closed following review of pertinent information for each violation.

Violation No. 3 was closed following a review of public dose assessments with the maximum number of cameras expected within the vaults at the facilities in Anchorage and Kenai, Alaska, with records for surveys on both with calibrated instruments and trained personnel. Violation No. 4 was closed by reviewing all individuals who have conducted radiographic operations in the past year (the inspection period) and reviewing these individuals' field audits, or in lieu of a field audit, a record of satisfactory completion of a practical examination. The licensee's records were very organized and readily accessible, and no recurrent issues were identified. Violation No. 5 was closed with the review of the previous two calendar years of radiation protection program reviews, and discussion with the RSO and site RSO into the practice and completeness of the review. No issues were identified. Violation No. 6 was closed by reviewing the training records for all the radiographic personnel who had worked in the past year at Acuren USA, and discussing the training material with the site RSO, who provides the training. There were no issues identified. Finally, Violation No. 7 was closed by a review of the training records for radiographic personnel who had conducted licensed activities inside of the last year. All individuals reviewed had current hazmat training at the time of the inspection and had no lapse between the expiration of the training and successfully completing the refresher training.

### 3.3. Conclusions

The inspector reviewed other areas of the licensee's radiation safety program and observed no violations in these areas. In addition, the inspector reviewed the licensee's corrective actions relative to the 2014 routine inspection and subsequent reactive inspection, the violations for which were issued on July 7, 2016. The inspector closed out all the violations except for Violation Nos. 1 and 2, which were unable to be reviewed without access to staff who conduct radiography or the opportunity to observe a temporary job site.

#### **4 Exit Meeting Summary**

The NRC inspector presented the preliminary inspection findings at the conclusion of the onsite inspection on March 27, 2017, with the site RSO and license RSO (telephonically). The inspector discussed the unresolved finding with the licensee via a telephonic exit meeting on May 9, 2017. On the call were Mr. Justin Orth, site RSO, Mr. Steve Green, Alaska Division Manager, Mr. Chris Dixon, license RSO/Assistant Corporate Radiation Safety Director, Mr. Bruce Karie, Corporate RSO, and Mr. Frank Noble, Alaska General Manager. The licensee acknowledged the findings and did not dispute any of the details presented during the exit call.

## SUPPLEMENTAL INSPECTION INFORMATION

### PARTIAL LIST OF PERSONS CONTACTED

Justin Orth, Site Radiation Safety Officer  
Steve Green, Division Manager, Alaska  
Chris Dixon, Radiation Safety Officer

### INSPECTION PROCEDURES USED

87121 Industrial Radiography Programs  
87137 10 CFR Part 37 Materials Security Programs

### ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened

None

#### Closed

030-38596/14001-03	SLIII Problem	Failure to conduct public dose assessment (10 CFR 20.1302(b)(1))
030-38596/14001-04		Failure to conduct performance assessments of radiographers and radiographer's assistants every six months (10 CFR 34.43(e))
030-38596/14001-05		Failure to conduct an annual review of the radiation protection program content and implementation (10 CFR 20.1101(c))
030-38596/14001-06		Failure to provide annual refresher safety training for radiographers and radiographer's assistants (10 CFR 34.43(d))
030-38596/14001-07	SLIV Violation	Failure to provide hazmat refresher training at least once every three years (49 CFR 172.704(c)(2))

#### Discussed

030-38596/17001-01	Unresolved Item	The use of Instadose devices starting on May 1, 2015 relative to 10 CFR Part 34 is an unresolved item, which remains under NRC review.
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LIST OF ACRONYMS AND ABBREVIATIONS USED

ADAMS	Agencywide Document Access and Management System
CFR	<i>Code of Federal Regulations</i>
NRC	Nuclear Regulatory Commission
NVLAP	National Voluntary Laboratory Accreditation Program
OSL	Optically Stimulated Luminescence
RSO	Radiation Safety Officer
TLD	Thermal Luminescence Dosimeter