



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

April 2, 2018

Mr. J. Orville McBride
President and Radiation Safety Officer
American Piping Inspection
17110 East Pine Street
Tulsa, OK 74116

SUBJECT: NRC ROUTINE INSPECTION REPORT 030-38579/2018-001

Dear Mr. McBride:

This letter refers to the routine, unannounced inspection conducted on March 5, 2018, at your facility in Tulsa, Oklahoma. 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. The preliminary inspection findings were discussed with John McCain, your Radiation Safety Compliance Manager, at the conclusion of the onsite portion of the inspection on March 5, 2018. A final telephonic exit briefing was conducted with you on March 19, 2018.

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 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>.

However, if you choose to respond, and if Security-Related Information is necessary to provide an acceptable response, please mark your entire response Security-Related Information in accordance with 10 CFR 2.390(d)(1) and follow the instructions for withholding in 10 CFR 2.390(b)(1). In accordance with 10 CFR 2.390(b)(1)(ii), the NRC is waiving the affidavit requirements for your response.

J. O. McBride

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Should you have any questions regarding this letter or the enclosed report, please contact Mr. James Thompson at 817-200-1538, or the undersigned at 817-200-1455.

Sincerely,

/RA/

Michael C. Hay, Chief
Materials Licensing and Inspection Branch
Division of Nuclear Materials Safety

Docket: 030-38579
License: 35-35011-01

Enclosure:
Inspection Report 030-38579/2018-001

cc:
Michael Broderick, Director
Radiation Management Section
Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, OK 73101-1677

NRC ROUTINE INSPECTION REPORT 030-38579/2018-001 - DATED APRIL 2, 2018.

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U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket: 030-38579

License: 35-35011-01

Report: 2018-001

Licensee: American Piping Inspection

Location Inspected: 17110 East Pine Street
Tulsa, OK 74116

Inspection Dates: March 5, 2018

Exit Meeting Date: March 19, 2018 (telephonic)

Inspector: Pete J. Hernandez, Health Physicist
Materials Licensing and Inspection Branch
Division of Nuclear Materials Safety

Accompanied By: James L. Thompson, Senior Health Physicist
Materials Licensing and Inspection Branch
Division of Nuclear Materials Safety

Approved By: Michael C. Hay, Chief
Materials Licensing and Inspection Branch
Division of Nuclear Materials Safety

Attachment: Supplemental Inspection Information

Enclosure

EXECUTIVE SUMMARY

American Piping Inspection NRC Inspection Report No. 030-38579/2018-001

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 35-35011-01 to use byproduct material in NRC jurisdiction. The inspection included a review of the records and activities at temporary job sites in NRC jurisdiction. This report describes the results of this inspection. This inspection was of limited scope because it was in the agreement state of Oklahoma.

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* (CFR) Part 34 for personnel monitoring during radiographic operations.

This unresolved item remains under NRC review.

REPORT DETAILS

1 Program Overview (87121 and 87137)

1.1. Inspection Scope

This was an unannounced, routine inspection of American Piping Inspection (API) which was performed at their main office at 17110 East Pine Street, in Tulsa, Oklahoma on March 5, 2018. API is authorized by NRC Materials License No. 35-35011-01 to use byproduct material for industrial radiography in areas of NRC jurisdiction. The licensee conducts industrial radiography in the NRC states of Wyoming and West Virginia and has licenses in Colorado, New Mexico, North Dakota, Ohio, and Oklahoma. Records for work in Wyoming are kept in Oklahoma, and records for work in West Virginia are kept in Ohio. API operates 140 trucks throughout the company. At the time of the inspection, the licensee had a total of four crews working in Wyoming as radiographers.

The NRC inspector used inspection procedures IP 87121 – Industrial Radiography Programs, and IP 87137 – 10 CFR Part 37 Materials Security Program. For both procedures the inspection was limited to reviewing records of work performed in NRC jurisdiction, records related to only those employees who had performed work in NRC jurisdiction, and discussion with the Radiation Safety Compliance Manager about those activities.

2 Personnel Monitoring (87121)

2.1. Inspection Scope

On March 5, 2018, the inspector reviewed the licensee's use of personnel monitoring devices in Wyoming. The inspector conducted an interview with the Radiation Safety Compliance Manager (RSCM), and examined a selection of the calibration records, dosimetry and job site records associated with those jobs.

2.2. Observations and Findings

The licensee's RSCM stated that they had been using Instadose direct ion storage dosimeters since they received their NRC license in October 2012. The Instadose devices are approved for use in the agreement states where API has licenses. The device is Bluetooth enabled to be read with an app on each individual's phone as often as they want. These readings populate an online database that is accessible by the individual or by an administrator (the RSO or RSCM) who can view everyone. The licensee instructs their radiographers to upload this data at least once a month and sends out a reminder when it is time. This dose is used as the dose of record for the 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 from the date of the license issuance on October 23, 2012, 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 was 1,104 millirem in 2017. The records for the direct reading dosimeters, operating alarming ratemeters, and survey meters used in NRC jurisdiction showed that all of the devices were within calibration when they were used. The licensee's site RSO was also aware of the Regulatory Issue Summary (RIS) 2017-006 regarding the use of combination dosimetry devices during industrial radiography but had not implemented it.

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 and 87137)

3.1. Inspection Scope

On March 5, 2018, the inspector arrived at the licensee's Tulsa, Oklahoma facility where he conducted an interview with the RSCM, examined a radiography truck outfitted exactly the same as the trucks used in NRC jurisdiction are outfitted, and reviewed a selection of relevant records.

3.2. Observations and Findings

The inspector and the RSCM discussed the activities the licensee had performed in NRC jurisdiction since the last inspection in March 2017. Four 2-man crews had worked in Wyoming since the last inspection. At least one member of each crew was deemed trustworthy and reliable and all of the individuals had received annual radiation safety training, biannual hazmat training, annual operations and emergency procedures manual training.

The licensee kept records of leak tests for their Cobalt-60 and Cesium-137 sources and the depleted uranium shielding, none of which had any signs of contamination. Their Iridium-192 sources were not leak tested because the licensee exchanges the sources every 2-3 months when the activity is reduced to below approximately 50-60 Curies. The sources are changed out at the licensee's main office and driven to the radiographers in licensee trucks.

3.3. Conclusions

The inspector reviewed other areas of the licensee's radiation safety program and observed no violations in these areas.

4 Exit Meeting Summary

The NRC inspector presented the preliminary inspection findings at the conclusion of the onsite inspection on March 5, 2018, with the RSCM. The inspector discussed the unresolved item with the licensee's RSO via a telephonic exit meeting on March 19, 2018. 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

Orville McBride, President and Radiation Safety Officer
John McCain, Radiation Safety Compliance Manager

INSPECTION PROCEDURES USED

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

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

030-38579/2018-01	Unresolved Item	The use of Instadose devices 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