UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

September 14, 2016

EA-16-172

Mr. Brian Kruer
Hartford Quality Assurance
20 West 7th Street
New Albany, IN 47150

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 03037549/2016001(DNMS) – HARTFORD QUALITY ASSURANCE

Dear Mr. Kruer:

On June 17, 2016, an inspector from the U.S. Nuclear Regulatory Commission (NRC) conducted a routine inspection at your facility in New Albany, Indiana, with continued in-office review through August 18, 2016. The purpose of the inspection was to review activities performed under your NRC license to ensure that activities were being performed in accordance with NRC requirements. The purpose of the in-office review was to review information that was not immediately available at the time of the onsite inspection and to assess the adequacy of the security measures for your materials. Mr. Luis Nieves of my staff conducted a final exit meeting by telephone with Mr. Charles Bradshaw of your staff on August 18, 2016, to discuss the inspection findings. The enclosed inspection report (Enclosure 1) presents the results of the inspection.

During this inspection, the NRC staff examined activities conducted under your license related to public health and safety. Additionally, the staff examined your compliance with the Commission's rules and regulations as well as the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, three apparent violations of NRC requirements were identified and are 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. Two of the apparent

Enclosure 2 contains Sensitive Unclassified Non-Safeguards Information. When separated from Enclosure 2, Enclosure 1 and its transmittal letter are decontrolled.

violations concerned the licensee's failure to: (1) wear at all times during radiographic operations, a direct reading dosimeter and an operating alarm rate meter, as required by Title 10 of the *Code of Federal Regulations* (CFR) Section 34.47(a), and (2) provide required training and demonstrate understanding of the training for an individual acting as a radiographer's assistant as required by 10 CFR 34.43(c)(1) and 34.43(c)(3). The third apparent violation is of a security-related nature and is discussed in the non-public Security Addendum (Enclosure 2).

Because the NRC has not made a final determination in this matter, the NRC is not issuing a Notice of Violation for these inspection findings at this time. The circumstances surrounding these apparent violations, the significance of the issues, and the need for lasting and effective corrective action were discussed with Mr. Charles Bradshaw at the inspection exit meeting on August 18, 2016.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either: (1) respond in writing to the apparent violations addressed in this inspection report within 30 days of the date of this letter; or (2) request a Predecisional Enforcement Conference (PEC). **Please contact Aaron T. 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 Violations in Inspection Report No. 030-37549/2016001(DNMS); EA-16-172," and should include, for the apparent violations: (1) the reason for the apparent violations, or, if contested, the basis for disputing the apparent violations; (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 violations. 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. In addition, if you choose to provide a written response, please mark your entire response, "Security-Related Information-Withhold from Public Disclosure under Title 10 of the *Code of Federal Regulations* (CFR) 2.390." In accordance with 10 CFR 2.390(b)(ii), the NRC is waiving the affidavit requirements for your response to this letter. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information.

If you choose to request a PEC, the conference will afford you the opportunity to provide your perspective on the apparent violations 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. If a PEC is held, the NRC will issue a press release to announce the time and date of

the conference. Portions of the PEC will be closed to the public due to the security-related nature of one of the findings.

Because 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 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. 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. The NRC is concerned that the lack of management oversight is a common denominator for the apparent violations. If you choose to provide a written response concerning the apparent violations, please also address how you intend to address this concern.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and Enclosure 1 will be 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. However, Enclosure 2 contains security-related information; its disclosure to unauthorized individuals could present a security vulnerability. Therefore, Enclosure 2 to this letter and your response will not be made available electronically for public inspection. Enclosure 2 to this letter must be protected from unauthorized disclosure.

Please feel free to contact Mr. Luis Nieves of my staff if you have any questions regarding this inspection. Mr. Nieves can be reached at 630-829-9571.

Sincerely,

/RA/

John B. Giessner, Director
Division of Nuclear Materials Safety

Docket No. 030-37549
License No. 13-32671-01

Enclosure:
1. IR 03037549/2016001(DNMS)(public)
2. Security Addendum (non-public)

cc w/encls: Mr. Charles Bradshaw, RSO
cc w/encl 1: State of Indiana

the conference. Portions of the PEC will be closed to the public due to the security-related nature of one of the findings.

Because 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 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. 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. The NRC is concerned that the lack of management oversight is a common denominator for the apparent violations. If you choose to provide a written response concerning the apparent violations, please also address how you intend to address this concern.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and Enclosure 1 will be 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. However, Enclosure 2 contains security-related information; its disclosure to unauthorized individuals could present a security vulnerability. Therefore, Enclosure 2 to this letter and your response will not be made available electronically for public inspection. Enclosure 2 to this letter must be protected from unauthorized disclosure.

Please feel free to contact Mr. Luis Nieves of my staff if you have any questions regarding this inspection. Mr. Nieves can be reached at 630-829-9571.

Sincerely,

/RA/

John B. Giessner, Director
Division of Nuclear Materials Safety

Docket No. 030-37549
License No. 13-32671-01

Enclosure:
1. IR 03037549/2016001(DNMS)(public)
2. Security Addendum (non-public)

cc w/encls: Mr. Charles Bradshaw, RSO
cc w/encl 1: State of Indiana
DISTRIBUTION w/encl:
See next page

ADAMS Accession Number: ML16260A078

☒ 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	E	RIII-DNMS	E	RIII-EICS	E	RIII	E
NAME	LNieves:cl/ps		AMcCraw		RSkokowski		JGiessner	
DATE	9/8/2016		9/13/2016		9/13/2016		9/14/2016	

OFFICIAL RECORD COPY

Letter to Brian Kruer from John B. Giessner dated September 14, 2016

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 03037549/2016001(DNMS) – HARTFORD QUALITY ASSURANCE

DISTRIBUTION w/encl:

RidsSecyMailCenter
OCADistribution
Victor McCree
Glenn Tracy
Patricia Holahan
Robert Fretz
Kerstun Norman
Cynthia Pederson
Darrell Roberts
Edward Williamson
Jody Martin
Scott Moore
Daniel Collins
Michele Burgess
Robert Sun
Sophie Holiday
Brian Holian
Michael Layton
Shyrl Coker
Brice Bickett
David Gamberoni
Michael Hay
Richard Skokowski
Holly Harrington
Hubert Bell
Kimberly Howell
David D'Abate
Jeremy Bowen
John Giessner
Christine Lipa
Aaron McCraw
MIB Inspectors
Allan Barker
Harral Logaras
James Lynch
Viktoria Mitlyng
Prema Chandrathil
Kenneth Lambert
Paul Pelke
Magdalena Gryglak
Sarah Bakhsh
RidsOemailCenter

U.S. Nuclear Regulatory Commission
Region III

Docket No.	030-37549
License No.	13-32671-01
Report No.	03037549/2016001(DNMS)
EA No./NMED No.	EA-16-172
Licensee:	Hartford Quality Assurance
Facility:	20 West 7th Street New Albany, Indiana 47150
Inspection Dates:	June 17, 2016, with continued in office review through August 18, 2016
Exit Meeting Date:	August 18, 2016
Inspector:	Luis Nieves, Health Physicist
Approved By:	Aaron T. McCraw, Chief Materials Inspection Branch Division of Nuclear Materials Safety

Enclosure 2 contains Sensitive Unclassified Non-Safeguards Information. When separated from Enclosure 2, Enclosure 1 and its transmittal letter are decontrolled.

Enclosure 1

EXECUTIVE SUMMARY

Hartford Quality Assurance
NRC Inspection Report 030-37549/2016001(DNMS)

On June 17, 2016, the U.S. Nuclear Regulatory Commission (NRC) conducted a routine inspection of Hartford Quality Assurance (the licensee). As a result of the inspection, the NRC identified three apparent violations.

During the inspection, the inspector observed two licensee employees performing radiographic operations at a temporary job site at Globe Mechanical in New Albany, Indiana. The inspector identified an apparent violation of Title 10 of the *Code of Federal Regulations* (CFR) Section 34.47(a), which requires, 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 direct reading dosimeter, an operating alarm ratemeter, and a personnel dosimeter. The radiographer's assistant was not wearing an alarm ratemeter or a direct reading dosimeter.

The inspector determined that the root cause of the apparent violation was that the radiographer's assistant forgot to put on his equipment. As immediate corrective action, the radiographer's assistant put on his alarm ratemeter and direct reading dosimeter before continuing with the radiography work.

The inspector identified an apparent violation of 10 CFR 34.43(c)(1), which requires, in part, that the licensee may not permit any individual to act as a radiographer's assistant until the individual is instructed in the requirements described in 10 CFR Part 34; 10 CFR 30.7, 30.9, 30.10; applicable sections of 10 CFR Parts 19 and 20; applicable DOT regulations as referenced in 10 CFR Part 71, in the NRC license under which the radiographer's assistant will perform industrial radiography, and the licensee's operating and emergency procedures. Title 10 CFR 34.43(c)(3) requires, in part, that the licensee may not permit any individual to act as a radiographer's assistant until the individual demonstrates understanding of the instructions provided under 10 CFR 34.43(c)(1) by successfully completing a written test on the subjects covered.

The inspector determined that the root cause of the apparent violation was lack of management oversight by not providing a newly hired employee with the required training prior to permitting the individual to conduct radiographic operations. As corrective action, the licensee trained the employee on June 21, 2016, to achieve compliance with 10 CFR 34.43(c)(1) and 34.43(c)(3).

In addition, the inspector identified a third apparent violation concerning security requirements. It is described in the Security Addendum enclosed with the letter transmitting this report.

REPORT DETAILS

1 Program Overview and Inspection History

Hartford Quality Assurance was a non-destructive testing company authorized to use radioactive material for industrial radiography on the premises of Globe Mechanical, a pipe manufacturing company in New Albany, Indiana. At the time of the inspection, the licensee employed four radiographers, including the Radiation Safety Officer (RSO), and three radiographer's assistants to perform radiographic operations Monday through Friday, mostly in the evenings.

The NRC last conducted a routine inspection of this licensee on April 1, 2015. A Severity Level IV problem was identified concerning security requirements.

The NRC conducted a followup enforcement inspection of this licensee on February 5, 2015. No violations of NRC requirements were identified as a result of this inspection.

2 Radiation Safety Program

2.1 Inspection Scope

The inspector toured the New Albany, Indiana facility to evaluate the licensee's measures for materials safety, hazard communication and exposure control. The inspector observed the conduct of radiography while on site, and interviewed several radiographers including the RSO.

2.2 Observations and Findings

On June 17, 2016, during a routine license inspection, the inspector observed two licensee employees performing radiographic operations at a temporary job site. The temporary job site was a large rectangular room with concrete walls and lead shielded doors. The radiographic equipment was at the end of the room. When the inspector walked in to observe the radiographer and radiographer's assistant, the source was shielded. Near the entrance of the room was a radiographer who had all of his personnel equipment. He was wearing an operating alarm ratemeter, direct reading dosimeter, and personal dosimeter, and carrying a survey meter. The radiographer's assistant was at the end of the room working with film inside the restricted area boundaries and wearing only a personal dosimeter and carrying a survey meter. When the inspector asked the radiographer's assistant why he was not wearing the alarm ratemeter and direct reading dosimeter, he said he forgot to put them on prior to the inspector arriving at the temporary job site. The alarm ratemeter and direct reading dosimeter for the radiographer's assistant were near the room entrance. The inspector asked the radiographer's assistant to demonstrate that the alarm ratemeter was calibrated and operable, and that the direct reading dosimeter was not off scale. The inspector did not see a noticeable difference between the two individuals' direct reading dosimeters. The radiographer's assistant then proceeded to wear the required equipment before continuing to perform radiography.

The inspector identified an apparent violation of 10 CFR 34.47(a), which requires, 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 direct reading dosimeter, an operating alarm ratemeter, and a personnel dosimeter. The root cause of this apparent violation was that the employee forgot to put on his equipment.

As immediate corrective action, the inspector observed the radiographer's assistant put on his alarm ratemeter and direct reading dosimeter before continuing with the radiography work. As long-term corrective action, the licensee trained the employee on June 21, 2016, on the importance of wearing the personnel monitoring devices and the safety aspects of wearing it.

2.3 Conclusions

The inspector identified an apparent violation of 10 CFR 34.47(a), concerning the failure for a radiographer's assistant to wear a direct reading dosimeter and an operating alarm ratemeter. The licensee took corrective action to restore compliance and prevent recurrence of this violation.

3 Training Program

3.1 Inspection Scope

The inspector reviewed the licensee's training program by reading selected records and interviewing selected staff about the program.

3.2 Observations and Findings

The inspector identified that the licensee had not performed required training or provided a written test for an individual before permitting the individual to act as a radiographer's assistant. The inspector observed the individual acting as a radiographer's assistant during the inspection. The individual stated he had worked previously as a radiographer's assistant. The training was not provided because the RSO was absent from the office due to personal reasons for the previous 3 months, the same amount of time the radiographer's assistant had been working for the licensee.

Title 10 CFR 34.43(c)(1), which requires, in part, that the licensee may not permit any individual to act as a radiographer's assistant until the individual is instructed in the requirements described in 10 CFR Part 34; 10 CFR 30.7, 30.9, 30.10; applicable sections of 10 CFR Parts 19 and 20; applicable DOT regulations as referenced in 10 CFR Part 71, in the NRC license under which the radiographer's assistant will perform industrial radiography, and the licensee's operating and emergency procedures.

Title 10 CFR 34.43(c)(3) requires, in part, that the licensee may not permit any individual to act as a radiographer's assistant until the individual demonstrates understanding of the instructions provided under 10 CFR 34.43(c)(1) by successfully completing a written test on the subjects covered.

The licensee's apparent failure to provide training and a written test to an individual prior to that individual participating in radiographic operations is an apparent violation of 10 CFR 34.43(c)(1) and 10 CFR 34.41(c)(3). The root cause of the apparent violation was lack of management oversight by not providing a newly hired employee with the training required by 34.43(c)(1) or the written test required by 34.43(c)(3).

As immediate corrective action, the licensee trained and tested the employee on June 21, 2016, to restore compliance with 10 CFR 34.43(c). As long-term corrective action the licensee committed to not permit any individual to work with the radioactive material until all NRC required training is completed. The licensee will amend its procedures to state that any person hired as a radiographer or a radiographer's assistant will not be allowed to conduct radiographic operations until they have completed the required training. In addition, the licensee's RSO will send a memo to licensee management instructing them not to hire individuals to work as a radiographer or radiographer's assistant until he is present to train them.

3.3 Conclusions

The inspector identified an apparent violation of 10 CFR 34.43(c)(1) and 34.43(c)(3) concerning the failure to provide training and a written test before allowing an individual to act as a radiographer's assistant. The licensee took corrective action to restore compliance and prevent recurrence of this violation.

4 Exit Meeting Summary

The NRC inspector presented preliminary inspection findings following the onsite inspection on June 17, 2016, and performed a telephonic exit meeting on August 18, 2016. The licensee did not identify any documents or processes reviewed by the inspectors as proprietary. The licensee acknowledged the findings presented.

PARTIAL LIST OF PERSONNEL CONTACTED

Charles Bradshaw, RSO

Attended exit meeting on August 18, 2016.

INSPECTION PROCEDURES USED

87121: Industrial Radiography Program