



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION III  
2443 WARRENVILLE RD. SUITE 210  
LISLE, IL 60532-4352

July 7, 2015

EA-15-117

Mr. Larry Kondrat  
President  
Cal Testing Services, Inc.  
1945 North Griffith Boulevard  
Griffith, Indiana 46319

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 03010856/2015001(DNMS) AND  
NOTICE OF VIOLATION – CAL TESTING SERVICES, INC.

Dear Mr. Kondrat:

On March 30, 2015, and April 23, 2015, inspectors from the U.S. Nuclear Regulatory Commission (NRC) conducted a routine inspection at your Griffith, Indiana office, with continued in-office review through June 11, 2015. 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 in-office review included a review and discussions of your security program. Ms. Deborah A. Piskura of my staff conducted a final exit meeting by telephone with Mr. John Korienek of your staff on June 11, 2015, to discuss the inspection findings. The enclosed inspection report (Enclosure 2) and non-public security addendum (Enclosure 3) present 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, one apparent violation of NRC requirements 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 concerned the licensee's failure to ensure that an individual was wearing an operable alarm ratemeter during radiographic operations, as required by Title 10 of the *Code of Federal Regulations* (CFR) Part 34.47(a).

Enclosures 1 and 3 contain Sensitive  
Unclassified Non-Safeguards Information.  
When separated from the Enclosures, this  
transmittal letter is decontrolled.

L. Kondrat

-2-

Because the NRC has not made a final determination in this matter, the NRC is not issuing a Notice of Violation for this inspection finding at this time. The circumstances surrounding this apparent violation, the significance of the issue, and the need for lasting and effective corrective action were discussed with Mr. Korienek during the telephonic exit meeting on June 11, 2015.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either: (1) respond in writing to the apparent violation addressed in this inspection report within 30 days of the date of this letter; (2) request a Predecisional Enforcement Conference (PEC); or (3) request Alternative Dispute Resolution (ADR). **Please contact Aaron T. McCraw at 630-829-9650 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. 03010856/2015001(DNMS); EA-15-117," 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 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 violation. 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.

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 PEC will be open for public observation. The NRC will issue a press release to announce the time and date of the conference. 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.

In lieu of a PEC, you may also request ADR with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a third party neutral. The technique that the NRC has decided to employ is mediation. Mediation is a voluntary, informal process in which a trained neutral (the "mediator") works with parties to help them reach resolution. If the parties agree to use ADR, they select a mutually agreeable neutral mediator who has no stake in the outcome and no power to make decisions. Mediation gives parties an opportunity to discuss issues, clear up misunderstandings, be creative, find areas of agreement, and reach a final resolution of the issues. Additional information concerning the

L. Kondrat

-3-

NRC's program can be obtained at <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr.html>. The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as a neutral third party. Please contact ICR at 877-733-9415 within 10 days of the date of this letter if you are interested in pursuing resolution of this issue through ADR.

As 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.

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.

During this inspection, the inspector also determined that Severity Level IV violations of NRC requirements occurred. These violations were also evaluated in accordance with the NRC Enforcement Policy. The violations are also of a security-related nature. The violations are cited in the enclosed, non-public Notice of Violation (Notice)(Enclosure 1) and the circumstances surrounding it are described in detail in Enclosure 3. The violations are being cited in the Notice because the inspector identified the violations.

You are required to respond to the Severity Level IV violations and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements. Because the violations are of a security-related nature, please mark the top of each page of your response "Security-Related Information — Withhold Under 10 CFR 2.390."

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, Enclosure 2, and your response to the apparent violation, will be made 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>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made publicly available without redaction.

Enclosures 1 and 3 contain security-related information and their disclosure to unauthorized individuals could present a security vulnerability; therefore, Enclosures 1, 3, and your response to the non-public Notice will not be made available electronically for public inspection.

L. Kondrat

-4-

Please feel free to contact Ms. Piskura of my staff if you have any questions regarding this inspection. Ms. Piskura can be reached at 630-829-9867.

Sincerely,

*/RA/*

Patrick L. Loudon, Director  
Division of Nuclear Materials Safety

Docket No. 030-10856  
License No. 13-16347-01

Enclosures:

1. Notice of Violation (Non-public)
2. Inspection Report No. 03010856/2015001(DNMS)
3. Security Addendum to Inspection Report (Non-public)

cc w/encl: Mr. Korienek, Radiation Safety Officer  
cc w/o encl: State of Indiana

**U.S. Nuclear Regulatory Commission  
Region III**

Docket No.	030-10856
License No.	13-16347-01
Report No.	03010856/2015001(DNMS)
Licensee:	Cal Testing Services, Inc. d/b/a Calumet Testing Services
Facilities:	1945 North Griffith Boulevard Griffith, Indiana  ArcelorMittal Indiana Harbor East Chicago, Indiana (temporary job site inspection on March 30, 2015)
Inspection Dates:	March 30, 2015 and April 23, 2015, with continued in-office review through June 11, 2015
Exit Meeting Date:	June 11, 2015
Inspectors:	Deborah A. Piskura, Senior Health Physicist  Luis A. Nieves Folch, Health Physicist
Approved By:	Aaron T. McCraw, Chief Materials Inspection Branch Division of Nuclear Materials Safety

Enclosure 2

EXECUTIVE SUMMARY

Cal Testing Services, Inc.  
NRC Inspection Report 03010856/2015001(DNMS)

This was a routine, unannounced inspection conducted to review licensed activities under License No. 13-16347-01. The purpose of the inspection was to ensure that all licensed activities performed by the licensee were conducted safely and in accordance with NRC requirements.

The inspectors identified an apparent violation of Title 10 of the *Code of Federal Regulations* (CFR) Part 34.47(a). On March 30, 2015, during an inspection of a radiography crew at a temporary job site in East Chicago, Indiana, the inspectors identified that a radiographer's assistant was wearing an inoperable alarm ratemeter. At the time the inspectors identified this apparent violation, the radiography crew completed work at a temporary job site and was transporting the radiographic equipment to the business office. The licensee immediately removed this inoperable alarm ratemeter from service and provided the individual with an operable unit.

## REPORT DETAILS

### **1 Program Overview and Inspection History**

License No. 13-16347-01 authorized Cal Testing Services, Inc. (the licensee) to possess sealed sources in exposure devices and source changers for the conduct of industrial radiography. The licensee is authorized to perform radiographic operations at temporary job sites and on the business property within a partially shielded "pit." Radiographic operations were conducted daily by seven radiographers and two radiographer's assistants who utilized exposure devices containing iridium-192 and cobalt-60 sources. The majority of the radiographic operations were conducted at temporary job sites. In-house radiography was conducted occasionally in the "pit" which was performed in accordance with the requirements for a temporary job site.

A routine safety inspection on February 10, 2014, resulted in a Severity Level IV violation of security requirements. The previous inspection conducted on January 22, 2013, identified a Severity Level IV violation of transportation requirements.

### **2 Management Oversight**

#### **2.1 Inspection Scope**

The inspectors reviewed the licensee's management of its radiation safety program and its internal audit program. The inspectors interviewed the company president, the RSO and the radiography manager.

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

Mr. John Korienek was the Radiation Safety Officer (RSO) at the time of this inspection. Mr. Korienek also serves as the vice president and reported directly to the company president. The RSO or the department supervisor conducted unannounced audits of all radiography personnel at least every six months. The audit forms were reviewed and noted to include: radiation safety, surveys, dosimetry, radiographic operations, transportation, training, leak tests, and equipment maintenance. The auditor indicated that no violations of NRC regulations or the license requirements were identified during his reviews.

The licensee reviewed the radiation safety program annually. The inspectors reviewed the audit report for 2014 and noted that the review contained aspects similar to an NRC inspection.

#### **2.3 Conclusions**

No violations of NRC requirements were identified in this program area.

### 3 Conduct of Radiographic Operations

#### 3.1 Inspection Scope

On March 30, 2015 the inspectors observed radiographic operations by a two-person crew at a temporary job site in East Chicago, Indiana. On April 23, 2015, the inspectors observed radiographic operations within the licensee's "pit."

#### 3.2 Observations and Findings

On March 30, 2015, the crew performed 12 shots with an iridium-192 source. The crew completed the exposures and was transporting the device to the main office at the time of the inspectors' field inspection. The inspectors verified documents pertaining to shipping papers, utilization logs, radiographer's certifications, operating emergency procedures and NRC Regulations. The inspectors performed a radiation survey around the outside of the transport vehicle and in the passenger compartment, utilizing a Ludlum 2403 survey meter. The maximum radiation readings were found on the surface of the transportation case. The radiation readings in the passenger compartment were approximately 0.05 mR/hour. The inspectors observed that the exposure device was properly blocked and braced in the vehicle, within a Type B container which was properly labeled to meet transportation requirements. The licensee's shipping papers were reviewed and contained all the required information. The radiography crew confirmed that the shipping papers were visible readily accessible in the front of the cab.

The inspectors also observed the radiographers' use of safety equipment (survey instruments, assigned personnel monitoring badges, pocket dosimeters, and alarm ratemeters). During the field inspection, the inspectors requested a demonstration of the operability of the assistant's alarm ratemeter. The alarm ratemeter failed to alarm and the light indicator also failed to function, indicating that the alarm ratemeter was not operable. The individual stated that the alarm ratemeter was operable when he tested it that morning.

Title 10 of the *Code of Federal Regulations* (CFR) Part 34.47(a) requires, in part, that the licensee 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, an operating alarm ratemeter. The licensee's failure to ensure that a radiographer's assistant wore an operating alarm ratemeter during radiographic operations on March 30, 2015, is an apparent violation of 10 CFR 34.47(a).

The licensee immediately removed the nonfunctional alarm ratemeter from service and provided the radiographer's assistant with a functional unit; the licensee determined that the ratemeter was past its useful life and will discard this unit. The licensee also examined its entire inventory of alarm ratemeters and identified another unit that it will discard. All other units were determined to be functional and were within annual calibration.

On April 23, 2015, the inspectors also observed radiographic operations within the "pit." The radiography crew examined a casting utilizing an iridium-192 source. The inspectors determined that the licensee's facilities observed during the inspection were the same as those described in the licensee's NRC license renewal application and



supporting material. The inspectors confirmed that the radiography personnel wore their assigned dosimetry; possessed and used calibrated, operable survey meters; established boundaries and postings for the exposure area; performed required surveys at the completion of each exposure; and maintained control and surveillance of the exposure device. The inspectors also observed the radiographers' use of safety equipment including survey instruments, assigned personnel monitoring badges, pocket dosimeters, and alarming rate meters. The inspectors verified documents pertaining to utilization logs and radiographers' certifications.

### 3.3 Conclusions

The inspectors identified one apparent violation of 10 CFR 34.47(a), involving the licensee's failure to permit individual to act as a radiographer's assistant during radiographic operations without an operable alarm ratemeter.

## 4 **Training and Qualifications of Radiography Personnel**

### 4.1 Inspection Scope

The inspection included a review of the licensee's training program. The inspectors interviewed the RSO and select radiography personnel and reviewed select records.

### 4.2 Observations and Findings

All radiographers were certified in isotope radiography through a recognized radiographer's certification program. A review of each radiographer's wallet cards verified that these individuals were currently certified to perform work in isotope radiography. The inspectors interviewed several radiographers and these individuals demonstrated their knowledge in the operating and emergency procedures. The licensee provided in-house training to radiographer's assistants. An assistant must pass written and practical examinations demonstrating competence in the licensee's operating and emergency procedures and in the use of radiography equipment. After completing a minimum of 2 months on-the-job training under a radiographer's supervision, an assistant was eligible take the radiographer's certification examination.

The licensee provided annual refresher training to its radiography personnel with the most recent training session conducting in January 2015.

### 4.3 Conclusions

The inspectors determined that the licensee's training program sufficiently addressed radiation safety. No violations of NRC requirements were identified.

## 5 **Personnel Radiation Protection**

### 5.1 Inspection Scope

The inspectors interviewed the RSO and select radiography personnel and reviewed select records and the reports from the dosimetry vendor.

## 5.2 Observations and Findings

The inspectors reviewed radiation exposure dosimetry records from March 2014 to present and discussed those records with licensee representatives to determine if the licensee's personnel dosimetry program met regulatory and license requirements. The inspectors also observed the use of personnel dosimetry by licensee personnel handling licensed materials. Radiography personnel were issued whole body dosimetry, exchanged on a monthly basis, pocket dosimeters (range, 0-200 milliRoentgens) charged daily, and alarm ratemeters (set point at 500 milliRoentgens/hour). Interviews with the RSO and a review of the utilization logs and the dosimeter logs confirmed that no off-scale or high pocket dosimeter readings had occurred during the 2014 to year to date 2015 period.

The following table summarizes the maximum total effective dose equivalent (TEDE) to personnel in millirem:

Year	TEDE
2014	1961
YTD 3/31/2015	346

Average monthly exposure 100 millirem

## 5.3 Conclusions

Based on the above referenced reviews, discussions, and observations, the inspector determined that the licensee was maintaining personnel radiation exposures ALARA and that no individual exceeded NRC regulatory radiation exposure limits.

## 6 **Other Areas Inspected**

### 6.1 Inspection Scope

The inspectors reviewed other aspects of the licensee's radiation protection program, which included security of licensed material, maintenance, labeling of containers, and postings. The inspectors interviewed selected individuals, toured the licensee's facilities, examined the licensee's containers and reviewed selected records.

### 6.2 Observations and Findings

At the time of this inspection, the licensee possessed several survey meters (range 0-1 Roentgens per hour), calibrated every 6 months by an authorized service company. The licensee maintained copies of the calibration certificates on file. The inspectors found a sampling of these survey meters to be calibrated within the required frequency and operable. The inspection included review of other radiation safety program areas including, survey instrument calibration; radiation surveys; maintenance of exposure devices, containers and source changers; depleted uranium contamination tests and sealed source leak tests; transportation and source exchanges.

### 6.3 Conclusions

The inspectors identified no violations of NRC requirements.

## **7 Exit Meeting Summary**

The inspectors discussed the preliminary inspection findings, as described in this report, with licensee management during the exit meetings conducted at the licensee's facility on March 30, and April 22, 2015. The inspectors also discussed the apparent violation with the RSO during a final telephone exit conference on June 11, 2015. The inspectors discussed the activities reviewed, the inspection findings, and the apparent violation. The licensee did not identify any information reviewed during the inspection and proposed for inclusion in the inspection report as proprietary in nature.

### **LIST OF PERSONNEL CONTACTED**

Michael Boeshell, Radiographer  
Richard (Chris) Kobel, Radiographer  
\*Thomas Keilman  
\*Larry Kondrat, President  
\*Matt Kondrat, NDT Manager  
#\*John A. Korienek, Vice President, Radiation Safety Officer  
Tony Perez, Radiographer

Greg Mentz, Chief, Griffith Police Department

\* Attended the on-site exit meetings on March 30, 2015 and April 23, 2015

# Participated in the telephonic meeting on June 11, 2015

### **INSPECTION PROCEDURES (IP) USED**

IP 87121, "Industrial Radiography Programs"

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L. Kondrat

- 4 -

Please feel free to contact Ms. Piskura of my staff if you have any questions regarding this inspection. Ms. Piskura can be reached at 630-829-9867.

Sincerely,

/RA/

Patrick L. Loudon, Director  
Division of Nuclear Materials Safety

Docket No. 030-10856  
License No. 13-16347-01

Enclosures:

1. Notice of Violation (Non-public)
2. Inspection Report No. 03010856/2015001(DNMS)
3. Security Addendum to Inspection Report (Non-public)

cc w/encl: Mr. Korienek, Radiation Safety Officer  
cc w/o encl: State of Indiana

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Letter to L. Kondrat from Patrick L. Loudon dated July 7, 2015

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 03010856/2015001(DNMS) AND  
NOTICE OF VIOLATION - CAL TESTING SERVICES, INC.

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