



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

July 19, 2006

Mr. Scott Kvasnicka, Radiation Safety Officer
MISTRAS Holding Group
d/b/a Conam Inspection and Engineering Services, Inc.
Quality Services Laboratories, Inc.
899 Carol Court
Carol Stream, IL 60188

SUBJECT: NRC INSPECTION REPORT 030-35114/06-002 (FORM 591M Part 1)

Dear Mr. Kvasnicka:

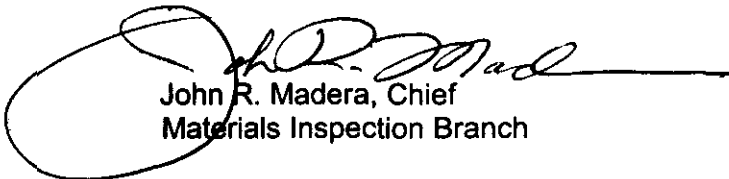
This letter refers to the routine inspection conducted on June 19 through 22, 2006, at your facilities located at Trainer, Pennsylvania, Woodbridge, New Jersey and a temporary job-site located in Westville, New Jersey. The inspection results were discussed with Messrs. G. Huber, Jeff Bennett and you at the conclusion of the inspection.

This inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, independent measurements, and observation of activities in progress. Within the scope of this inspection no violations of NRC requirements were identified; therefore, no response to this letter or the enclosed NRC Form 591M is required.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Should you have any questions concerning this inspection or the enclosed report, please contact Darrel Wiedeman of my staff at (630) 829-9808.

Sincerely,



John R. Madera, Chief
Materials Inspection Branch

Docket No.: 030-35114
License No.: 12-16559-02

Enclosure:
Form 591M-Part1

cc w/encl:
State of Pennsylvania
State of Illinois
State of New Jersey
George Huber, Regional Manager

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION



1. LICENSEE/LOCATION INSPECTED:

MISTRAS Holding Group, d/b/a Conam Inspection
and Engineering Services, Inc. / Quality Services
Laboratories, Inc.

2. NRC/REGIONAL OFFICE

U.S. Nuclear Regulatory Commission
Region I, 475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

REPORT Nos 2006-002

3. DOCKET NUMBER(S)

030-35114

4. LICENSE NUMBER(S)

12-16559-02

5. DATE(S) OF INSPECTION

June 19 - 22, 2006

LICENSEE:

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

- ☒ 1. Based on the inspection findings, no violations were identified.
- ☒ 2. Previous violation(s) closed.
- ☐ 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, NUREG-1600, to exercise discretion, were satisfied.

☐ Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):

- ☐ 4. During this inspection certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

Licensee's Statement of Corrective Actions for Item 4, above.

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

Title

Printed Name

Signature

Date

LICENSEE'S
REPRESENTATIVE

NRC INSPECTOR

Kathy Dolce Modes, Health Physicist

6/22/2006

Docket File Information
**SAFETY INSPECTION REPORT
AND COMPLIANCE INSPECTION**



1. LICENSEE MISTRAS Holding Group, d/b/a Conam Inspection and Engineering Services, Inc. / Quality Services Laboratories, Inc.		2. NRC/REGIONAL OFFICE U.S. Nuclear Regulatory Commission Region I, 475 Allendale Road King of Prussia, Pennsylvania 19406-1415	
REPORT NOS 2006-002			
3. DOCKET NUMBER(S) 03035114	4. LICENSE NUMBER(S) 12-16559-02	5. DATE(S) OF INSPECTION June 19-22, 2006	
6. INSPECTION PROCEDURES USED 87121	7. INSPECTION FOCUS AREAS all	8. INSPECTOR K Modes	

SUPPLEMENTAL INSPECTION INFORMATION

PAGE 3, CONTINUED FROM PART 3

Violations 6 and 7: 10 CFR 20.1801 and 20.1802 were cited for failure to control licensed material because a camera was left in an unlocked truck for several hours and 10 CFR 20.2201(a)(1)(i) was cited for failure to immediately report the loss of licensed material.

After this incident, the licensee instituted a daily documented inventory for all sources. The licensee subsequently moved from a daily to a weekly to a monthly documented inventory to assure no loss of licensed material. The licensee is currently documenting a quarterly inventory of all sources. However, the Radiation Safety Manager and/or Assistant can visually identify which sources are out at a temporary job site and which are in house based on the clipboards. There are 2 rows of clipboards. The upper row is the sign out utilization sheet. The bottom row is the Radiation Report Form and Shipping Paper. If the clipboard on the bottom row is missing, the upper clipboard will identify the location of the licensed material. The inspector performed an inventory of all sources at the Trainer and Woodbridge facilities. Interviews with personnel confirmed that all licensed material must be properly stored when returned to their facility and as soon as they identify lost or missing material, they will immediately report it to the NRC. Based on record reviews and interviews, these violations are closed.

Violation 8: Letter dated August 10, 2004 as identified in Condition 21.C of NRC License 12-16559-02 requires , in part, that the licensee survey the perimeter of the posted area as soon as the source was exposed to assure proper posting of the area.

The inspector observed the licensee conduct radiographic operations at their Trainer facility. The licensee is allowed to perform radiographic operations at Trainer as a temporary job site. The licensee does not have an approved permanent radiography cell at either facility. Two shots were conducted at the Trainer facility and perimeter surveys were conducted to confirm the radiation level at the boundaries. There were 2 radiographers present and an assistant. All personnel performed their required duties. Based on these observations and interviews with personnel, this violation may be closed.

In summary, the routine safety inspection for 2006 did not identify any items of non-compliance or safety concerns. This was a clear inspection.

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SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S) 03320	2. PRIORITY 1	3. LICENSEE CONTACT George Huber, Regional Manager	4. TELEPHONE NUMBER 610.497.0400
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☐ Main Office Inspection Next Inspection Date: June 2007

☒ Field Office 5 Nealy Blvd, Trainer, PA & 280 Woodbridge Ave, Woodbridge, NJ

☒ Temporary Job Site Sunoco Eagle Point, Rte. 130 & I-295 South, Westville, NJ 08093

PROGRAM SCOPE

This was an unannounced routine safety inspection that focused primarily on the licensee's corrective actions (ML061350199) that were developed as a result of the violations (ML060970264) documented in the previous inspection report (ML060060437).

The licensee has vacated the Sharon Hill, PA facility and currently operates from the Trainer, PA and Woodbridge, NJ offices. Licensed material is normally stored either at the Trainer or Woodbridge facilities, but has been stored in vehicles at residences when approved by the licensee's Radiation Safety Manager or Assistant. The Trainer and Woodbridge offices have new management due to the recent exodus of key personnel (e.g., office managers and radiation safety managers). Discussions with the new management confirm their commitment to provide oversight to their radiation safety operations.

The licensee conducts radiography on a weekly basis at the following locations: Joseph Oat Corp, Conoco/Phillips Refinery, JJ White Fabrication Shop, Pennsylvania Power & Light, East Coast Constructors, and the Sunoco Refineries in Philadelphia and Marcus Hook, PA and Westville, NJ. The majority of the licensee's business is in PA and NJ; with some work in DE, MD and NY. The Trainer office has approximately 15 radiographers and 22 assistants with 12 dark room trucks and 1 van. The Woodbridge office operates with approximately 6 radiographers and 5 assistants using 5 darkroom trucks and 2 vans. The Trainer office has 7 AEA Model 660B cameras (contains Ir-192), 8 AEA Model 880D cameras (contains Ir-192), and 2 Amersham 680 cameras (contains Co-60). In addition, they possess 2 Cs-137 calibrators and 3 portable fluoroscopes (contains either Fe-55, Cd-109, and/or Am-241). Two AEA 660B cameras (serial numbers B3740 & B3850) were dropped and are red-tagged as not to be placed back into service.

During the previous inspection, 8 violations were cited. The requirements, findings, and observations the inspector made during this inspection are as follows:

Violations 1-3: 10 CFR 20.1201(a)(2)(ii) was cited for failure to limit the dose to the extremity to below 50 rem. This was cited based on an event (NMED 050718) where the radiographer did not crank in the source completely, did not properly survey after the shot (10 CFR 34.49(b) and did not lock the source in its shielded position after the shot (10 CFR 34.23(a)).

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SUPPLEMENTAL INSPECTION INFORMATION

PAGE 2, CONTINUED FROM PART 3

The inspector learned that this was the second extremity overexposure event for MISTRAS for 2005 and this was the 3rd event in less than a year with a similar scenario and overexposure. See NMED No. 050153 for March 10, 2005 event in CA and NMED No. 060139 for the February 22, 2006 event at the same location in CA. After the October 2005 event, the licensee provided a list of corrective actions that included: notifying all facilities of this event through Radiation Safety Memorandums, suspending the radiographer and assistant until they were properly re-trained, posting the corrective action report at each facility and discussing this event and subsequent corrective actions with all radiographic personnel. The inspector confirmed that the above corrective actions were completed for the Trainer and Woodbridge facilities and radiographic personnel at these facilities were cognizant of radiation safety requirements while performing their licensed activities.

Observations of personnel performing radiography confirmed that calibrated and operable survey instruments were properly used and the source was locked in the shielded position in the camera after each shot. There have been no overexposures at the Trainer or Woodbridge facilities and dosimetry records from December 2005 to April 2006 were reviewed and confirmed that the licensee has been operating within the prescribed dose limits. The licensee considered purchasing other types of alarming radiation monitors, but decided to emphasize that a complete survey using a calibrated and operable survey meter is the best method to employ. Radiation safety memorandums regarding this event and subsequent corrective actions have been placed in the radiographer's and assistants training files. This violation may be closed for the Woodbridge and Trainer facilities, but should be shared with the State of California for additional oversight.

Violations 4 and 5: 10 CFR 34.41(a)(2) was cited because the radiographer left the immediate area during a radiographic exposure. This was a failure to comply with the 2 man rule which requires the assistant radiographer be present to prevent unauthorized into restricted areas associated with the radiography operations and be available to assist the radiographer operating the radiography device, if necessary. 10 CFR 34.46 was cited for failure of the radiographer to directly observe the assistant perform radiographic operations.

The licensee changed the duties of radiographers and assistants. The radiographer is authorized to set-up the shot and implement the exposure. The assistant may only set-up the 2mR/hr boundary and survey that boundary during each shot. After a year of performing these duties, management will make a determination if the assistant can implement the exposure while under the direct supervision of a radiographer. Radiation Safety Memorandums regarding this change to procedure can be found in each radiographer and assistant's training file. The licensee's Assistant Radiation Safety Manager at Trainer and the Radiation Safety Manager at Woodbridge are closely watching the doses accrued by radiographers to ensure that they stay below the limits and working with Corporate to authorize approved assistants. Observations of five shots taken at temporary job sites confirm that the 2 man rule was being properly implemented and that both radiographic personnel performed their respective duties. Based on the review of the new requirements and the inspector's observations, these violations may be closed.

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