



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

February 13, 2019

EA-18-113

Mr. Chris Smith  
VP, Corporate Compliance  
Mistras Group, Inc.  
4000 Underwood Road  
LaPorte, TX 77571

**SUBJECT: MISTRAS GROUP, INC - NOTICE OF VIOLATION; NRC INSPECTION  
REPORT 03035114/2018002(DNMS) AND INVESTIGATION REPORT  
NO. 3-2018-001**

Dear Mr. Smith:

On October 2, 2017, the U.S. Nuclear Regulatory Commission (NRC) received written notification from your Director of Radiation Safety, Mr. Matthew Kim, that an industrial radiographer working at a temporary job site in Wyoming may have exceeded the annual occupational dose limit for an occupational worker as a result of an incident that occurred on September 8, 2017. Based on an NRC staff review of the written notification, the NRC Office of Investigations began an investigation on October 13, 2017, and completed the investigation on August 3, 2018. The purpose of the investigation was to determine whether: (1) a radiographer willfully failed to use iridium-192 for industrial radiography as authorized by the NRC license issued to Mistras Group, Inc.; (2) a radiographer willfully conducted radiographic operations without being accompanied by another qualified individual; (3) Mistras willfully permitted an individual to act as a radiographer during radiographic operations without wearing a personal dosimeter; (4) a radiographer willfully failed to conduct a survey of the radiographic device after each radiographic exposure to determine that the sealed source had been returned to its shielded position; and (5) Mistras willfully failed to control the annual occupational dose of an individual adult to 5 rem.

The NRC also conducted a special inspection on October 24, 2017, at the Wyoming temporary job site. The purpose of the inspection was to review the circumstances surrounding the incident and to assess its potential radiological significance. Details of the inspection and an investigation summary were provided in NRC Inspection Report No. 03035114/2018002(DNMS), dated December 11, 2018. The inspection report can be found in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession Number ML18346A057. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Based on the results of the inspection and investigation, the NRC identified two apparent willful violations of NRC requirements. The circumstances surrounding the apparent violations, the significance of the issues, and the need for lasting and effective corrective action were discussed with you and Mr. Kim during an exit meeting by telephone on November 2, 2018.

In the December 11, 2018 letter transmitting the inspection report and investigation summary, we provided you with the opportunity to address the apparent violations identified in the report by either attending a predecisional enforcement conference, by providing a written response, or by attending an ADR session before we made our final enforcement decision. In a letter dated January 9, 2019, Mr. Kim provided a written response to the apparent violations.

Based on the information developed during the inspection and investigation, and the information provided in Mr. Kim's response to the inspection report, dated January 9, 2019, the NRC has determined that a willful (deliberate) violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice), and the circumstances surrounding it are described in detail in the subject inspection report. The violation involved an employee deliberately using radioactive material for a purpose not authorized on your NRC license and contrary to Title 10 of the *Code of Federal Regulations* (CFR) 30.34(c).

In accordance with the NRC Enforcement Policy (ADAMS Accession No. ML18138A138), willful violations are of particular concern because the NRC's regulatory program is based on licensees and their contractors and employees acting with integrity and communicating with candor. The Commission cannot tolerate willful violations. Also, the failure to use radioactive material as authorized on an NRC license is a significant safety concern. The failure to use material for the purpose authorized on the license resulted in an unnecessary exposure to the radiographer. Therefore, this violation is categorized, in accordance with the NRC Enforcement Policy, at Severity Level III. In accordance with the NRC Enforcement Policy, a base civil penalty in the amount of \$14,500 is considered for a Severity Level III violation.

Because the violation was deliberate, the NRC considered whether credit was warranted for both *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section 2.3.4 of the Enforcement Policy. Credit was warranted for *Identification* because your staff identified the violation and informed the NRC through a written notification. Credit was also warranted for *Corrective Action* that included: (1) terminating the employment of the individual who deliberately violated NRC requirements; (2) discussing this incident and corrective actions with the radiography staff during annual refresher training; (3) incorporating this incident into the annual refresher training to illustrate expectations regarding compliance; (4) implementing a "Stop Work" program and instructing all personnel to stop work any time they feel a situation or individual is unsafe and then investigating the issue by a member of management; and (5) establishing a toll-free number for any worker to call and anonymously report an individual or unsafe situation to management.

Therefore, to encourage prompt identification and comprehensive correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty. In addition, issuance of this Severity Level III violation constitutes escalated enforcement action that may subject you to increased inspection effort. The NRC also includes significant enforcement actions on its Web site at <http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>.

The NRC has concluded that information regarding: (1) the reason for the violation; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved is already adequately addressed on the docket in Inspection Report No. 03035114/2018002(DNMS), and Mr. Kim's letter dated January 9, 2019. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect

your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if any, will be made available electronically for public inspection in the NRC Public Document Room and in the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. If you provide a response, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such information, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

Sincerely,

*/RA/*

Darrell J. Roberts  
Regional Administrator

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

Enclosure:  
Notice of Violation

cc w/encls:  
Matthew Kim, Director of  
Radiation Safety (RSO)  
State of Illinois  
State of Texas  
State of Wyoming

Letter to C. Smith from D. Roberts, dated February 13, 2019

SUBJECT: MISTRAS GROUP, INC - NOTICE OF VIOLATION; NRC INSPECTION REPORT 03035114/2018002(DNMS) AND INVESTIGATION REPORT NO. 3-2018-001

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OFC	RIII	N	RIII	N	RIII	N	NMSS	
NAME	Lambert		McCraw		Shuaibi		RSun	
DATE	1/17/19		1/18/19		1/18/19		1/25/19	

OFC	OE	N	OGC NLO	N	RIII	N	RIII	
NAME	JPeralta		KGamin (NLO)		Cameron		Roberts	
DATE	1/24/19		1/24/19		2/5/19		2/13/19	

**OFFICIAL RECORD COPY**

## NOTICE OF VIOLATION

Mistras Group, Inc.  
Burr Ridge, Illinois

Docket No. 030-35114  
License No. 12-16559-02  
EA-18-113

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted on October 24, 2017, and an NRC investigation completed on August 13, 2018, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 of the *Code of Federal Regulations* (10 CFR) 30.34(c) states, in part, that each person licensed by the Commission pursuant to the regulations in this part and parts 31 through 36 and 39 shall confine his use of the byproduct material to the purposes authorized in the license.

Condition 9.A of NRC License No. 12-16559-02, in part, authorizes Mistras Group, Inc., (Mistras) to use iridium-192 (Ir-192) in QSA Global, Inc., Model 880 Delta radiographic exposure devices for industrial radiography.

Contrary to the above, on September 9, 2017, the licensee failed to confine the use of byproduct material to the purposes authorized in the license. Specifically, a Mistras employee used a QSA Model 880 Delta radiographic exposure device containing Ir-192 at a temporary job site in Sinclair, Wyoming, to radiograph his own hand, a use not authorized by Condition 9.A of Mistras' NRC license.

This is a Severity Level III violation (Section 6.3)

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved, is already adequately addressed on the docket in Inspection Report No. 03035114/2018002(DNMS) and the licensee's letter dated January 9, 2019. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, EA-18-113," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352 within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or in the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Enclosure

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 13th day of February 2019