



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713**

October 3, 2016

Docket No. 03031412 (Retired)

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EA-16-138

Ranya Seoud, CEO
EMSI Engineering, Inc.
9720 Capital Ct, Suite 202
Manassas, Virginia 20110

SUBJECT: NRC OFFICE OF INVESTIGATIONS REPORT NO. 1-2015-022

Dear Ms. Seoud:

This letter refers to an investigation completed on June 22, 2016, by the U.S. Nuclear Regulatory Commission (NRC) Office of Investigations (OI) of activities conducted by EMSI Engineering, Inc. (EMSI) at temporary jobsites in areas under NRC jurisdiction. The investigation was conducted to determine whether any EMSI employees willfully caused EMSI (a licensee of the Commonwealth of Virginia) to violate NRC requirements pertaining to filing for reciprocity prior to conducting work in areas under NRC jurisdiction.

Based on the evidence developed during the NRC OI investigation, the NRC found that between April 9, 2009, and November 18, 2015, EMSI used byproduct material within areas under NRC jurisdiction on numerous occasions without filing for reciprocity with the NRC. The NRC also concluded that a previous EMSI employee, the former Radiation Safety Officer/Operations Manager, contributed to the violation when he acted in careless disregard of NRC requirements. Enclosure 1 provides a Factual Summary of NRC's Investigation Report No. 1-2015-022.

The failure to file for reciprocity involves an apparent violation of Title 10 of the Code of Federal Regulations (10 CFR), Section 150.20, and is being considered for escalated enforcement action, including a civil penalty, in accordance with the NRC Enforcement Policy. The apparent violation is described in Enclosure 2. The current Enforcement Policy is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. Since the NRC has not made a final determination in this matter, a Notice of Violation is not being issued at this time. Please be advised that the number and characterization of the apparent violations described herein may change as a result of further NRC review.

Before the NRC makes its enforcement decision regarding the apparent violation, we request that you provide information regarding EMSI's corrective actions for the issue. The written response should include: (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; and (4) the date when full compliance will be achieved. 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 the enclosed excerpt from NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be helpful.

The written response should be sent to the NRC within 30 days of the date of this letter. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. You should clearly mark the response as a "Response to Apparent Violations in NRC Investigation No. 1-2015-022; EA-16-138," 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, NRC Region I, 2100 Renaissance Boulevard, Suite 100, King of Prussia, PA 19406. 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 pre-decisional enforcement conference (PEC).

In lieu of providing this written response, you may choose to provide your perspective on this matter, including the significance, cause, and corrective actions, as well as any other information that you believe the NRC should take into consideration by: (1) requesting a PEC to meet with the NRC and provide your views in person; or (2) requesting Alternative Dispute Resolution (ADR).

If you choose to request a PEC, the meeting should be held in our office in King of Prussia, PA, within 30 days of the date of this letter. The conference will include an opportunity for you to provide your perspective on these matters and any other information that you believe the NRC should take into consideration before making an enforcement decision. The topics discussed during the PEC may include 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.

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 neutral third party. The technique that the NRC has decided to employ is mediation; a voluntary, informal process in which a trained neutral 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 NRC ADR 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 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. The ADR mediation session should be held in our office in King of Prussia within 45 days of the date of this letter.

Either the PEC or the ADR would be closed to public observation because the NRC's preliminary findings are based on an NRC OI report that has not been publicly disclosed. However, the time and date of the PEC or ADR will be publicly announced. Please contact Blake Welling, Chief, Commercial, Industrial, R&D, and Academic Branch, at 610-337-5205 within **10** days of the date of this letter to notify the NRC which of the above options you choose.

Current NRC regulations and guidance are included on the NRC's Web site at www.nrc.gov; select Nuclear Materials; Med, Ind, & Academic Uses; then Regulations, Guidance and Communications. The current Enforcement Policy is included on the NRC's Web site at www.nrc.gov; select **About NRC, Organizations & Functions; Office of Enforcement; Enforcement documents**; then **Enforcement Policy (Under 'Related Information')**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

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

If you have any questions related to this matter, please contact Mr. Welling of my staff at 610-337-5205.

Sincerely,

/RA/

James M. Trapp, Director
Division of Nuclear Materials Safety

Enclosures:

1. Factual Summary of OI Investigation Report No. 1-2015-022
2. Apparent Violation being considered for escalated enforcement action
3. Excerpt from NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action"

cc w/enclosures:
Commonwealth of Virginia

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Commonwealth of Virginia

Distribution: see next page

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DATE	9/07/16	9/07/16	9/12/16	9/12/16	9/13/16	9/29/16
OFFICE	NMSS	OGC (NLO)				RI/DNMS
NAME	M Burgess via email	E Monteith via email				J Trapp/jmt
DATE	9/12/16	9/29/16				10/03/16

*See previous concurrence page

Letter to R. Seoud from J. Trapp dated 10/03/2016

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ENCLOSURE 1
FACTUAL SUMMARY OF NRC INVESTIGATION REPORT NO.: 1-2015-022

EMSI is an engineering consultant company located in Manassas, Virginia (VA). EMSI Engineering, Inc. (EMSI) previously held a license issued by the U.S. Nuclear Regulatory Commission (NRC) in 1990 that authorized the use of portable nuclear gauges to measure physical properties of materials within areas under NRC jurisdiction. On March 31, 2009, VA entered into an Agreement with the NRC to regulate the use of certain radioactive materials within the Commonwealth. From that point forward, EMSI was only authorized by a VA license that limited gauge work activities to areas within the Commonwealth. NRC staff contacted the EMSI President prior to the Agreement becoming effective to ask whether he wanted to retain the NRC license in addition to the new VA license, and he indicated that only the VA license was needed. Based upon this communication with the EMSI President to not retain the NRC license, EMSI was required to file for reciprocity with the NRC to use gauges in non-Agreement States and in areas of exclusive Federal jurisdiction after March 31, 2009.

On June 23, 2015, the NRC Office of Investigations (OI) initiated an investigation to determine whether any EMSI employees willfully caused EMSI to use its nuclear gauges in areas under NRC jurisdiction without filing for reciprocity. OI completed its investigation and issued its report on June 22, 2016.

The evidence indicates that EMSI workers utilized nuclear gauges at temporary jobsites in Washington, D.C. and in an area of exclusive Federal jurisdiction within an Agreement State, without filing for reciprocity, on over 200 dates between April 9, 2009, and July 26, 2012, with an additional occurrence on November 18, 2015. Most of this work involved a multi-day job at the National Zoo in Washington, D.C., although work was also performed at other D.C. locations and at the Norfolk Naval Shipyard.

A former EMSI employee, who was the RSO and Operations Manager at the time when most of the work in NRC jurisdiction occurred, testified to OI that he had been aware that EMSI required an NRC license to work in places like Washington, D.C. He stated that he had told the EMSI accountant that the company needed to pay for an NRC license. He also acknowledged that he did not verify that this had happened or that an NRC license had been obtained. The evidence indicates that, in spite of this, EMSI continued to assign gauge users to work in Washington, D.C. and other areas under NRC jurisdiction.

ENCLOSURE 2
APPARENT VIOLATION

10 CFR 30.3(a) states, in part, that except for persons exempt as provided in this part and part 150 of this chapter, no person shall own, possess, or use byproduct material except as authorized in a specific or general license issued pursuant to the regulations in 10 CFR Part 30.

10 CFR 150.20(a)(1) states, in part, that any person who holds a specific license from an Agreement State is granted an NRC general license to conduct the same activity in Non-Agreement States and areas of exclusive Federal jurisdiction within Agreement States, subject to the provisions of 10 CFR 150.20(b).

10 CFR 150.20(b) requires, in part, that any person engaging in activities in Non-Agreement States or in an area of exclusive Federal jurisdiction within an Agreement State shall, at least 3 days before engaging in each such activity for the first time in a calendar year, file a submittal containing an NRC Form 241, "Report of Proposed Activities in Non-Agreement States," a copy of its Agreement State specific license, and the appropriate fee, with the Regional Administrator of the appropriate NRC regional office.

Contrary to the above, between April 9, 2009, and November 18, 2015, EMSI Engineering, Inc., a licensee of the Commonwealth of Virginia, used byproduct material in areas under NRC jurisdiction on numerous occasions without filing NRC Form 241, "Report of Proposed Activities in Non-Agreement States," a copy of its Agreement State specific license, and the appropriate fee for calendar years 2009, 2010, 2011, 2012, and 2015, with the Regional Administrator of the appropriate NRC regional office.

NOTE: The following information is an updated excerpt from NRC Information Notice 96-28 issued in 1996.

NRC INFORMATION NOTICE 96-28

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
WASHINGTON, D.C. 20555

May 1, 1996

NRC INFORMATION NOTICE 96-28: SUGGESTED GUIDANCE RELATING TO
 DEVELOPMENT AND IMPLEMENTATION OF
 CORRECTIVE ACTION

Addressees

All material and fuel cycle licensees.

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to provide addressees with guidance relating to development and implementation of corrective actions that should be considered after identification of violation(s) of NRC requirements. It is expected that recipients will review this information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not new NRC requirements; therefore, no specific action nor written response is required.

Background

On June 30, 1995, NRC revised its Enforcement Policy, to clarify the enforcement program's focus by, in part, emphasizing the importance of identifying problems before events occur, and of taking prompt, comprehensive corrective action when problems are identified. Consistent with the revised Enforcement Policy, NRC encourages and expects identification and prompt, comprehensive correction of violations.

In many cases, licensees who identify and promptly correct non-recurring Severity Level IV violations, without NRC involvement, will not be subject to formal enforcement action. Such violations will be characterized as "non-cited" violations as provided in Section VI.A of the Enforcement Policy. Minor violations are not subject to formal enforcement action. Nevertheless, the root cause(s) of minor violations must be identified and appropriate corrective action must be taken to prevent recurrence.

If violations of more than a minor concern are identified by the NRC during an inspection, licensees will be subject to a Notice of Violation and may need to provide a written response, as

required by 10 CFR 2.201, addressing the causes of the violations and corrective actions taken to prevent recurrence.

In some cases, such violations are documented on Form 591 (for materials licensees) which constitutes a notice of violation that requires corrective action but does not require a written response. If a significant violation is involved, a predecisional enforcement conference may be held to discuss those actions.

The quality of a licensee's root cause analysis and plans for corrective actions may affect the NRC's decision regarding both the need to hold a predecisional enforcement conference with the licensee and the level of sanction proposed or imposed.

Discussion

Comprehensive corrective action is required for all violations. In most cases, NRC does not propose imposition of a civil penalty where the licensee promptly identifies and comprehensively corrects violations. However, a Severity Level III violation will almost always result in a civil penalty if a licensee does not take prompt and comprehensive corrective actions to address the violation.

It is important for licensees, upon identification of a violation, to take the necessary corrective action to address the noncompliant condition and to prevent recurrence of the violation and the occurrence of similar violations. Prompt comprehensive action to improve safety is not only in the public interest, but is also in the interest of licensees and their employees. In addition, it will lessen the likelihood of receiving a civil penalty. Comprehensive corrective action cannot be developed without a full understanding of the root causes of the violation.

Therefore, to assist licensees, the NRC staff has prepared the following guidance, that may be used for developing and implementing corrective action. Corrective action should be appropriately comprehensive to not only prevent recurrence of the violation at issue, but also to prevent occurrence of similar violations. The guidance should help in focusing corrective actions broadly to the general area of concern rather than narrowly to the specific violations. The actions that need to be taken are dependent on the facts and circumstances of the particular case.

The corrective action process should involve the following three steps:

1. Conduct a complete and thorough review of the circumstances that led to the violation.
Typically, such reviews include:
 - Interviews with individuals who are either directly or indirectly involved in the violation, including management personnel and those responsible for training or procedure development/guidance. Particular attention should be paid to lines of communication between supervisors and workers.
 - Tours and observations of the area where the violation occurred, particularly when those reviewing the incident do not have day-to-day contact with the operation under review. During the tour, individuals should look for items that

may have contributed to the violation as well as those items that may result in future violations. Reenactments (without use of radiation sources, if they were involved in the original incident) may be warranted to better understand what actually occurred.

- Review of programs, procedures, audits, and records that relate directly or indirectly to the violation. The program should be reviewed to ensure that its overall objectives and requirements are clearly stated and implemented. Procedures should be reviewed to determine whether they are complete, logical, understandable, and meet their objectives (i.e., they should ensure compliance with the **current** requirements). Records should be reviewed to determine whether there is sufficient documentation of necessary tasks to provide an record that can be audited and to determine whether similar violations have occurred previously. Particular attention should be paid to training and qualification records of individuals involved with the violation.

2. Identify the root cause of the violation.

Corrective action is not comprehensive unless it addresses the root cause(s) of the violation. It is essential, therefore, that the root cause(s) of a violation be identified so that appropriate action can be taken to prevent further noncompliance in this area, as well as other potentially affected areas. Violations typically have direct and indirect cause(s). As each cause is identified, ask what other factors could have contributed to the cause. When it is no longer possible to identify other contributing factors, the root causes probably have been identified. For example, the direct cause of a violation may be a failure to follow procedures; the indirect causes may be inadequate training, lack of attention to detail, and inadequate time to carry out an activity. These factors may have been caused by a lack of staff resources that, in turn, are indicative of lack of management support. Each of these factors must be addressed before corrective action is considered to be comprehensive.

3. Take prompt and comprehensive corrective action that will address the immediate concerns **and** prevent recurrence of the violation.

It is important to take immediate corrective action to address the specific findings of the violation. For example, if the violation was issued because radioactive material was found in an unrestricted area, **immediate** corrective action must be taken to place the material under licensee control in authorized locations. After the immediate safety concerns have been addressed, timely action must be taken to prevent future recurrence of the violation. Corrective action is sufficiently comprehensive when corrective action is broad enough to reasonably prevent recurrence of the specific violation as well as prevent similar violations.

In evaluating the root causes of a violation and developing effective corrective action, consider the following:

1. Has management been informed of the violation(s)?

2. Have the programmatic implications of the cited violation(s) and the potential presence of similar weaknesses in other program areas been considered in formulating corrective actions so that both areas are adequately addressed?
3. Have precursor events been considered and factored into the corrective actions?
4. In the event of loss of radioactive material, should security of radioactive material be enhanced?
5. Has your staff been adequately trained on the applicable requirements?
6. Should personnel be re-tested to determine whether re-training should be emphasized for a given area? Is testing adequate to ensure understanding of requirements and procedures?
7. Has your staff been notified of the violation and of the applicable corrective action?
8. Are audits sufficiently detailed and frequently performed? Should the frequency of periodic audits be increased?
9. Is there a need for retaining an independent technical consultant to audit the area of concern or revise your procedures?
10. Are the procedures consistent with current NRC requirements, should they be clarified, or should new procedures be developed?
11. Is a system in place for keeping abreast of new or modified NRC requirements?
12. Does your staff appreciate the need to consider safety in approaching daily assignments?
13. Are resources adequate to perform, and maintain control over, the licensed activities? Has the radiation safety officer been provided sufficient time and resources to perform his or her oversight duties?
14. Have work hours affected the employees' ability to safely perform the job?
15. Should organizational changes be made (e.g., changing the reporting relationship of the radiation safety officer to provide increased independence)?
16. Are management and the radiation safety officer adequately involved in oversight and implementation of the licensed activities? Do supervisors adequately observe new employees and difficult, unique, or new operations?
17. Has management established a work environment that encourages employees to raise safety and compliance concerns?
18. Has management placed a premium on production over compliance and safety? Does

management demonstrate a commitment to compliance and safety?

19. Has management communicated its expectations for safety and compliance?
20. Is there a published discipline policy for safety violations, and are employees aware of it? Is it being followed?

This information notice requires no specific action nor written response. If you have any questions about the information in this notice, please contact one of the technical contacts listed below.

Robert C. Pierson, Director
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety
and Safeguards

Donald A. Cool, Director
Division of Industrial and Medical Nuclear
Office of Nuclear Material Safety and
and Safeguards

Technical contacts: (Updated as of November 22, 2005)

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