



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PA 19406-2713

June 9, 2016

Docket No. 03038307

License No. 06-31413-01

Piya Hawkes, P.E.
Director of Operations & Radiation Safety Officer
AI Engineers
919 Middle Street
Middletown, CT 06457

**SUBJECT: NRC INSPECTION REPORT NO. 03038307/2016001, AI ENGINEERS,
MIDDLETOWN, CONNECTICUT SITE AND TEMPORARY JOBSITE IN
THOMASTON, CONNECTICUT, AND NOTICE OF VIOLATION**

Dear Mr. Hawkes:

On May 18 and 19, 2016, Scott Wilson of this office conducted a safety inspection at the above address and the temporary jobsite at 1617 Waterbury Road, Thomaston, Connecticut, of activities authorized by your NRC license. The inspection was an examination of your licensed activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selective examination of representative records. Also, as part of this inspection, the corrective actions regarding violations identified during the previous inspection of your licensed activities, noted in the Notice of Violation provided to your office dated June 8, 2011, were reviewed and determined to be adequate. The findings of this inspection were discussed with you via telephone on June 3, 2016.

Based on the results of this inspection and in accordance with the NRC Enforcement Policy, the NRC has determined that three Severity Level IV violations of NRC requirements occurred. The violations involved: 1) the failure to request a license amendment prior to assigning a new individual the responsibility of radiation safety officer for the license; 2) the failure to review the radiation protection program content and implementation at least annually; and, 3) the failure to leak test sealed sources every six months.

The violations are cited in the enclosed Notice of Violation (Notice), because the violations were identified by the NRC. The NRC expects licensees to conduct their programs with meticulous attention to detail and high standards of safety and compliance. Because of the potential for radiation exposure to employees and the public which could result from failure to comply with NRC requirements, you must conduct your program according to NRC regulations, the conditions of your NRC license, and the representations made in your application.

During the telephonic inspection exit meeting on June 3, 2016, you stated that you have taken corrective and preventative actions to address each violation and that AI Engineers is committed to radiation safety and to compliance with NRC regulations and licensed conditions. Further, you stated verbally that you have taken, or will take, the following corrective and preventative actions:

- 1) AI Engineers has submitted a request for license amendment to reflect the name of the newly appointed radiation safety officer and will ensure that, prior to future changes to the program, the radiation safety officer will review the license conditions and, if necessary, submit a license amendment prior to implementing changes to the program,
- 2) within 30 days of the exit meeting, AI Engineers will ensure a program review is completed and documented and implement a reminder system which will prompt the radiation safety officer annually that the program review must be completed; and
- 3) within 30 days of the exit meeting, AI Engineers will leak test its sealed sources and implement a system of reminders to prompt the radiation safety officer when leak tests are due.

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed in our records and in this letter. Therefore, you are not required to respond to this letter unless the description of your corrective actions in this letter 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(s), and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC Agency wide Document Access and Management System (ADAMS), accessible from the NRC Web Site 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 available to the Public without redaction.

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).

The NRC's Safety Culture Policy Statement became effective in June 2011. While a policy statement and not a regulation, it sets forth the agency's *expectations* for individuals and organizations to establish and maintain a positive safety culture. You can access the policy statement and supporting material that may benefit your organization on NRC's safety culture Web Site at <http://www.nrc.gov/about-nrc/safety-culture.html>. We strongly encourage you to review this material and adapt it to your particular needs in order to develop and maintain a positive safety culture as you engage in NRC-regulated activities.

Please contact Scott Wilson at (610) 337-5136 if you have any questions regarding this matter.

Sincerely,

/RA/

Monica L. Ford, Acting Chief
Commercial, Industrial, R&D and
Academic Branch
Division of Nuclear Materials Safety

Enclosure:
Notice of Violation

cc: Abul Islam, P.E., President & CEO
State of Connecticut

The NRC's Safety Culture Policy Statement became effective in June 2011. While a policy statement and not a regulation, it sets forth the agency's *expectations* for individuals and organizations to establish and maintain a positive safety culture. You can access the policy statement and supporting material that may benefit your organization on NRC's safety culture Web Site at <http://www.nrc.gov/about-nrc/safety-culture.html>. We strongly encourage you to review this material and adapt it to your particular needs in order to develop and maintain a positive safety culture as you engage in NRC-regulated activities.

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Sincerely,

/RA/

Monica L. Ford, Acting Branch Chief
Commercial, Industrial, R&D and Academic Branch
Division of Nuclear Materials Safety

Enclosure:
Notice of Violation

cc: Abul Islam, P.E., President & CEO
State of Connecticut

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NOTICE OF VIOLATION

AI Engineers
Middletown, CT

Docket No. 03038307
License No. 06-31413-01

During an NRC inspection conducted on May 18 and 19, 2016, three violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. License Condition 12 of NRC license 06-31413-01, stated that the radiation safety officer for the license is Robert Bunce.

Contrary to the above, beginning on August 22, 2015, and continuing through May 31, 2016, the radiation safety officer for the license was not Robert Bunce in accordance with License Condition 12. Specifically, AI Engineers had appointed Mr. Piya Hawkes as the radiation safety officer for the license on August 22, 2015. Mr. Hawkes was qualified to act as radiation safety officer through training completed on August 21, 2015.

This is a severity level IV violation (Enforcement Policy Section 6.3).

- B. 10 CFR 20.1101(c) requires, that the licensee shall periodically (at least annually) review the radiation protection program content and implementation.

Contrary to the above, between March 27, 2013, and May 18, 2016, AI Engineers did not conduct a review of the licensee's radiation protection program content and implementation at least annually. Specifically, the licensee had conducted a program review in the years 2012 and 2013, but had not conducted reviews in the years 2014 and 2015.

This is a severity level IV violation (Enforcement Policy Section 6.3)

- C. License Condition 14 of NRC license 06-31413-01, requires, in part, that sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months.

Contrary to the above, between March 15, 2013, and January 26, 2015, AI Engineers did not test each sealed source for leakage and/or contamination at intervals not to exceed six months. Specifically, two gauges containing sealed sources of radium-226 were not tested for leakage between the above dates, intervals that exceed six months.

This is a severity level IV violation (Enforcement Policy Section 6.3).

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance will be achieved is already adequately addressed on the docket. 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," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region I, 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 to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response which contests an enforcement action shall be submitted under oath or affirmation.

Your response will be placed in the NRC Public Document Room (PDR) and on the NRC Web Site. To the extent possible, it should, therefore, not include any personal privacy, proprietary, or safeguards information so that it can be made publically available without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

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

Dated This 9th day of June 2016