

September 8, 2011

Mr. John Shively, P.E.  
Vice President, Geotechnical Services  
Shively Geotechnical  
A Division of Environmental Operations, Inc.  
11 French Village Industrial Park  
Fairview Heights, IL 62208

SUBJECT: NRC INSPECTION REPORT NO. 030-33719/11-01(DNMS) AND NOTICE OF VIOLATION – SHIVELY GEOTECHNICAL

Dear Mr. Shively:

On August 25, 2011, a U.S. Nuclear Regulatory Commission (NRC) inspector conducted an inspection at your Fairview Heights, Illinois and St. Louis, Missouri facilities. An exit meeting between your Radiation Safety Officer (RSO) Mark Conder, Donn Haines of your staff, and Andrew Bramnik of my staff was conducted on August 25, 2011, to discuss the inspection findings.

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 conditions of your license as well as the Commission's rules and regulations. 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, the NRC has determined that one Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The violation involved the failure to comply with the total possession limit for cobalt-57 listed on your NRC license. The violation is cited in the enclosed Notice of Violation (Notice) because it was identified by the NRC. The inspector discussed your corrective actions to address the above violation with your staff during the on-site inspection and on August 26, 2011, via e-mail.

The root cause of the violation was a mistake in your August 27, 2010 letter to the NRC, requesting to add cobalt-57 to NRC license no. 24-26620-01 for use in an x-ray fluorescence (XRF) lead paint detector. In your letter, you requested that the NRC add the following detail to your license regarding the maximum amount of cobalt-57 that may be possessed at any one time: "No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State, total possession limit of 500 microcuries." Contrary to the request, your XRF contained a nominal 12 millicuries of cobalt-57. As corrective actions, your RSO faxed a license amendment request to the NRC Region III office on August 26, 2011.

J. Shively

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The request asked the NRC to increase your maximum possession limit of cobalt-57 to 15 millicuries. Your staff is now aware of their responsibility to review amendments to your NRC license and contact the NRC if there are any errors or questions.

The NRC has concluded that information regarding the reason for the violation, the corrective action taken to correct the violation and prevent recurrence is already adequately addressed on the docket in this letter. Therefore, you are not required to respond to this letter unless the description herein 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 Title 10 of the Code of Federal Regulations 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, 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's Agencywide Documents 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.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

*/RA/*

Tamara E. Bloomer, Chief  
Materials Inspection Branch  
Division of Nuclear Materials Safety

Docket No. 030-33719  
License No. 24-26620-01

Enclosure:  
Notice of Violation

cc w/ encl: Mark Conder, RSO  
State of Illinois  
State of Missouri

J. Shively

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The request asked the NRC to increase your maximum possession limit of cobalt-57 to 15 millicuries. Your staff is now aware of their responsibility to review amendments to your NRC license and contact the NRC if there are any errors or questions.

The NRC has concluded that information regarding the reason for the violation, the corrective action taken to correct the violation and prevent recurrence is already adequately addressed on the docket in this letter. Therefore, you are not required to respond to this letter unless the description herein 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 Title 10 of the Code of Federal Regulations 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, 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's Agencywide Documents 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.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

Tamara E. Bloomer, Chief  
Materials Inspection Branch  
Division of Nuclear Materials Safety

Docket No. 030-33719  
License No. 24-26620-01

Enclosure:  
Notice of Violation

cc w/ encl: Mark Conder, RSO  
State of Illinois  
State of Missouri

DISTRIBUTION:  
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## NOTICE OF VIOLATION

Shively Geotechnical  
St. Louis, MO

Docket No. 030-33719  
License No. 24-26620-01

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted on August 25, 2011, one violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Condition 8.C. of NRC License No. 24-26620-01 states the maximum amount of cobalt-57 that the licensee may possess at any one time under this license is "No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State, total possession limit of 500 microcuries."

Contrary to the above, between August 27, 2010 and August 25, 2011, the licensee failed to restrict the possession of cobalt-57 to the maximum amount specified in Condition 8.C. of their license. Specifically, the licensee possessed an x-ray fluorescence lead paint detector that contained a nominal 12 millicuries of cobalt-57.

This is a Severity Level IV violation (Section 6.3).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to be taken to correct the violation and prevent recurrence, and the date when full compliance will be achieved, is already adequately addressed on the docket in the letter transmitting this Notice of Violation (Notice). However, you are required to submit a written statement or explanation pursuant to Title 10 of the Code of Federal Regulations (CFR) Section 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, DC 20555-0001 with a copy to the Regional Administrator, Region III, within 30 days of the date of the letter transmitting this Notice.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access & 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.

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.

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

Dated this 8<sup>th</sup> day of September 2011.