UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

May 26, 2006

Docket No. 030-12568 License No. 37-17332-01
EA No. 06-064

Javaid Alvi, Ph.D.
President
GeoMechanics, Inc.
600 Munir Drive
P. O. Box 386
Elizabeth, PA 15037-0386

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - $3,250 (NRC Inspection Report No. 030-12568/2006-001)

Dear Dr. Alvi:

This refers to the NRC inspection conducted on January 12, 2006, at your facility located in Elizabeth, Pennsylvania, to review the circumstances surrounding the theft, on September 18, 2005, of one of your portable gauges containing NRC licensed radioactive material. You reported this gauge missing to the NRC Operations Center on September 19, 2005 (Event No. 41999). The gauge was subsequently found abandoned on a public highway in Danville, West Virginia on September 23, 2005. There was no apparent damage to the gauge, the sources were in their shielded position, and the source rod was locked at the time of discovery. The results of the inspection were discussed with you during a telephone exit meeting on February 1, 2006.

As described in the NRC inspection report sent to you on April 6, 2006, two apparent violations of NRC requirements were identified during the inspection. The violations involved: (1) the failure to use a minimum of two independent physical barriers to secure the portable gauge from unauthorized removal, and (2) the failure to provide a written report to the NRC within 30 days of the theft of the licensed material. Our letter transmitting the inspection report noted that these violations were being considered for escalated enforcement in accordance with the NRC Enforcement Policy, and that a predecisional enforcement conference (PEC) had been scheduled to discuss these apparent violations, their significance, their root cause, and your corrective actions.

On April 26, 2006, Ms. Pamela Henderson and other members of my staff conducted a PEC in the NRC Region I office with Mr. Walter Lorence, your Vice President and Radiation Safety Officer. At the conference, Mr. Lorence (1) acknowledged the violations occurred as described in the inspection report, (2) discussed your immediate and planned corrective actions to prevent recurrence, and (3) stated that GeoMechanics regretted that this event occurred. A PEC report was sent to you on May 8, 2006.

Based on the information developed during the inspection and the information provided during the PEC, the NRC has determined that two violations of NRC requirements occurred. The most significant violation involved the failure to use a minimum of two independent physical barriers

to secure the portable nuclear gauge and prevent unauthorized removal, contrary to the requirements of 10 CFR 30.34(i). Specifically, on September 18, 2005, you used a single chain and lock to secure the gauge to a vehicle that was parked unattended overnight in South Charleston, West Virginia. This violation is cited in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) and the circumstances surrounding it are described in detail in the subject inspection report.

Although you concluded that the source remained in its shielded position during the time the gauge was in the public domain, and, therefore, no member of the public received an inadvertent exposure to radiation, this violation is of concern to the NRC because (1) the failure to control radioactive material resulted in the gauge being stolen and left on a public highway for approximately five days; and (2) sources not in the licensee's control can result in unintended radiation doses to individuals if the source is removed from the shielded position. Therefore, the violation associated with your failure to adequately secure and control the gauge is categorized at Severity Level III in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy).

In accordance with the Enforcement Policy, a base civil penalty in the amount of $3,250 is considered for a Severity Level III violation involving the loss of control of radioactive material with this level of radioactivity. Because your facility has not been the subject of escalated enforcement actions within the last two inspections, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section VI.C.2 of the Enforcement Policy. Credit for *Corrective Action* is warranted because your actions were comprehensive. These corrective actions, which you described during the PEC, included: (1) immediately notifying the NRC by phone of the theft of the radioactive material and issuing a press release, as well as offering a reward, to aid in recovery of the gauge; (2) suspending the qualifications of all authorized users until retraining on the proper procedure for securing portable nuclear gauges had been completed; (3) redesigning the box, within which the gauge is secured to a vehicle, in order to ensure proper controls are maintained; and (4) modifying the permanent office storage space where the portable gauges are maintained when not in use so that proper security of licensed material is maintained for gauges in storage. Therefore, since credit is warranted for corrective action, application of the civil penalty assessment process set forth in Section VI.C of the Enforcement Policy would not have resulted in a civil penalty in this case.

However, Section VII.A.1.g. of the Enforcement Policy, entitled "Exercise of Discretion", specifies that notwithstanding the outcome of the civil penalty assessment process set forth in Section VI.C, a civil penalty of at least the base amount should be issued for cases involving the loss of a sealed source. Therefore, consistent with Section VII.A.1.g of the Enforcement Policy, the NRC is exercising discretion to propose imposition of a civil penalty of $3,250, the base amount for this violation.

Therefore, to emphasize the importance of maintaining security and control of sealed sources and devices, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the base amount of $3,250 for this Severity Level III violation. In addition, this Notice constitutes escalated enforcement action that may subject you to increased inspection effort.

With regard to the apparent violation for failure to provide a written report to the NRC within 30 days of the theft of licensed material, the NRC has determined that because (1) you immediately notified the NRC of the theft of the gauge by phone on September 19, 2005, and (2) you provided press releases to the NRC, which you believed met the intent of the required written notification, this violation is considered to be a minor violation. The NRC plans no further action regarding this issue.

The NRC has concluded that information regarding the reasons for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved, has been adequately addressed in this letter, in the inspection report issued on April 6, 2006, and during the PEC held on April 26, 2006. Therefore, although you are required to provide a response to the enclosed Notice, you are not required to address the provisions of 10 CFR 2.201 regarding your corrective actions 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 enclosures, and your response, if any, will be made 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. The NRC also includes significant enforcement actions on its Web site at www.nrc.gov; select **What We Do**, **Enforcement**, then **Significant Enforcement Actions**.

Sincerely,

/RA/ Original Signed by Marc L. Dapas for

Samuel J. Collins
Regional Administrator

Enclosures:
1. Notice of Violation and Proposed Imposition of Civil Penalty
2. NUREG/BR-0254 Payment Methods (Licensee only)

cc:
Walter Lorence, Radiation Safety Officer
Commonwealth of Pennsylvania

Distribution w/encls:
ADAMS (PARS)
SECY
CA
OEMAIL
OEWEB
LReyes, EDO
MVirgilio, DEDMRS
MJohnson, OE
SFigueroa, OE
LChandler, OGC
BJones, OGC
MElwood, OGC
JStrosnider, NMSS
CMiller, NMSS
CMiller, OEDO
GMorell, NMSS
Enforcement Coordinators RII, RIII, RIV
SGagner, OPA
HBell, OIG
JSchlueter, STP
GCaputo, OI
LTremper, OC
DScrenci, NSheehan, RI
GPangburn, RI
FCostello, RI
SMinnick, DWhite RI SAO
JKinneman, RI
KFarrar, RI
DHolody, RI
JWray, RI
RSummers, RI
CO'Daniell, RI
SVillar, RI
Region I OE Files (with concurrences)

DOCUMENT NAME: E:\Filenet\ML061460422.wpd

After declaring this document "An Official Agency Record" it **will** be released to the Public.

To receive a copy of this document, indicate in the box: "**C**" = Copy without attachment/enclosure "**E**" = Copy with attachment/enclosure "**N**" = No copy

OFFICE	RI/ORA		RI/DNMS		RI/DNMS		RI/RC		RI/ORA	
NAME	JWray		JKinneman		GPangburn		KFarrar		DHolody	
DATE	05/04/06		05/05/06		05/08/06		05/09/06		05/09/06	

OFFICE	NMSS		OGC		OE		RI/RA			
NAME	GMorell for C Miller		BJones		MJohnson/DSolorio for		SCollins/MLD for			
	5/11/06		5/17/06		05/22/06		05/26/06			

OFFICIAL RECORD COPY

Enclosure 1

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

GeoMechanics, Inc.
Elizabeth, Pennsylvania

Docket No. 030-12568
License No. 37-17332-01
EA 06-064

During an NRC inspection conducted on January 12, 2006, a violation of NRC requirements was identified. The violation was discussed with the licensee following the inspection during a telephone exit meeting on February 1, 2006. In accordance with the Enforcement Policy, the NRC proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282 and 10 CFR 2.205. The violation and associated civil penalty are set forth below:

> 10 CFR 30.34(i) requires that each portable gauge licensee shall use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever portable gauges are not under the control and constant surveillance of the licensee.
>
> Contrary to the above, on September 18, 2005, at a location in South Charleston, West Virginia, the licensee did not maintain a minimum of two independent physical controls that formed a tangible barrier to secure a portable gauge from unauthorized removal during a period when the gauge was not under direct control or surveillance. Specifically, on that date, the licensee used only one physical control (namely a single chain and lock) to secure the gauge to a vehicle while parked unattended overnight at the South Charleston, West Virginia location. The nuclear gauge was subsequently stolen and abandoned on a public highway.
>
> This is a Severity Level III violation (Supplement IV)
> Civil Penalty - $3,250

The NRC has concluded that information regarding the reasons for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved, has been adequately addressed in the letter transmitting this letter, Inspection Report No. 030-35886/2006-001, issued on April 6, 2006, and during the PEC held on April 26, 2006. 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.

The Licensee may pay the civil penalty proposed above, in accordance with NUREG/BR-0254 and by submitting to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, a statement indicating when and by what method payment was made, or may protest imposition of the civil penalty in whole or in part, by a written answer addressed to the Director, Office of

Enforcement U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalty, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an “Answer to a Notice of Violation" and may: (1) deny the violation listed in the Notice, in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such an answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section VI.C.2 of the Enforcement Policy should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The response noted above (Reply to Notice of Violation, statement as to payment of Civil Penalty, and Answer to a Notice of Violation) should be addressed to: M. Johnson, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC’s document system (ADAMS), to the extent possible, it should not include any personal privacy or proprietary information so that it can be made available to the public without redaction. ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Reading Room). If personal privacy or proprietary information is necessary to provide an acceptable response, then 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 material, 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).

In accordance with 10 CFR 19.11, you may be required to post this Notice within 2 working days.

Dated this 26th day of May 2006