MARSHALL MILLER & ASSOCIATES
GEOLOGY
ENGINEERING
GEOPHYSICS

July 9, 1998

Mr. Doug Collins, *Region Administrator*
Division of Nuclear Materials Safety
United States Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, GA 30303

RE: Reply to a "Notice of Violation" *(NRC Inspection Report No. 45-17195-01/98-01)*

Dear Mr. Collins:

Pursuant to the **Nuclear Regulatory Commission (NRC)** Inspection Report No. 45-17195-01/98-01 and Notice of Violation dated June 12, 1998, **Marshall Miller & Associates (MM&A)** provides the following response to the four violations identified therein.

Violation A

Contrary to [the regulations set forth in 10 CFR 20.1801, 1802, and 1003], on May 20, 1998, licensed material consisting of two sealed sources containing approximately 250 millicuries of americium-241 which were mounted inside a logging tool located at a temporary job site in Wise County, Virginia, an unrestricted area, was not secured against unauthorized removal or access and was not under the control and constant surveillance of the licensee. Specifically, after logging the gas well, the licensee retrieved the logging tool and placed it on the tailgate of the licensee's pick-up truck parked approximately 50 feet from the gas well. The licensee did not control or maintain constant surveillance of the licensed material when the licensee returned to the drill rig platform to retrieve other equipment.

Due to the safety significance involved in this instance, MM&A officially contests this violation. No person was within 50 feet of the geophysical logging truck with the exception of the NRC inspector and approximately six persons working around the drilling operation. Furthermore, we feel that our logging supervisors can and do maintain constant surveillance of the licensed material as they return briefly to the

Bluefield Virginia Industrial Park / P.O. Box 848 / Bluefield, VA 24605 / Tel 540.322.5467 / Fax 540.322.5460

IE07

drilling platform to retrieve their remaining tools. It is for this reason that we wish to contest this violation. While this matter is under consideration by your personnel, our logging supervisors have been instructed to lock the licensed material in the logging truck prior to returning to the drilling platform, which makes us in full compliance effective immediately. However, it should be noted by your staff that we feel (based on our 20 years of experience around such operations) by taking an additional 5 to 10 minutes to configure the logging tool for final transport prior to returning to the drilling platform, we have put our logging supervisors in a situation of higher safety risk. After the gas well is logged, the logging tool is removed from the well and the shield is replaced. Prior to replacing the logging tool in its locked storage tube, an extension sub typically must be removed from the end of the logging tool in order for the logging tool to fit in the storage tube. This extension sub is used whenever the well diameter is typically greater than 11 to 13 inches requiring an extra-long caliper arm (18 inches), which presses the logging tool firmly against the side-wall of the well. The purpose of the extension sub is to prevent the extra-long caliper arm from being bent at the well bottom. In addition, the logging tool should be wiped clean and surveyed for contamination prior to being secured in the storage tube. To secure the logging tool in the storage tube prior to returning to the drill platform 50 feet away (with all persons on site working around the drill platform) will in essence force our logging supervisors to re-handle the logging tools (and licensed material) for final surveys and cleaning prior to departure from the temporary job site. It will also require that our logging supervisors return to the drill platform while the drilling crew re-commences their drilling operations, which is a very real safety concern. It must be understood that we are not typically employed by the gas well drilling company, but rather a third party who must pay downtime on the gas-drilling rig in order for us to perform our well logging operations. However, we fully understand that the security of our licensed material is of the utmost concern for our own safety and well being and that of the public, in addition to being in compliance with 10 CFR 20.1801, 1802, and 1003. We do, however, feel that control and constant surveillance are maintained over the licensed material by our logging supervisors without jeopardizing safety and security or being out of compliance with 10 CFR 20.1801, 1802, and 1003.

Violation B

Condition 21 to License No. 45-17195-01, requires, in part, that each portable gauge or its container must be locked when in transport, storage, or when not under the direct surveillance of an authorized user. [Contrarily], on May 19, 1998, a Troxler Model 3440 portable gauge was in storage at the licensee's Bluefield, Virginia, facility and neither the gauge nor its container was locked.

The aforementioned portable gauge had been out of storage temporarily on May 19, 1998, while an authorized user was performing minor electrical repairs. The operator failed to replace the lock on the gauge prior to returning it to storage the same day. On May 19, 1998, after the apparent violation was identified by the NRC inspector, a padlock was placed on the said portable gauge in storage, making us in full compliance with condition 21 of our license. Nevertheless, it should be carefully noted that this

portable gauge, which had been worked on that day, was physically located within our locked and restricted storage area.

Violation C

[A]s of May 20, 1998, the licensee did not make surveys to assure compliance with 10 CFR 20.1301, which limits the total effective dose equivalent to individual members of the public from licensed operations to 100 millirem (1 millisievert) in a year. Specifically, the licensee had performed dose rate surveys of its use and storage operations involving licensed materials but had not evaluated the results of these surveys to demonstrate compliance with 10 CFR 20.1301.

Since the MM&A licensed material authorized users typically do not exceed the 100 millirem per year total effective dose equivalent limit (as per dosimetry reports), no documentation was performed to state that members of the public would not exceed the exposure limits set forth. However, effective immediately, such documentation has been performed to assure full compliance with the regulations set forth in 10 CFR 20.1301 and for the benefit of the general public.

Violation D

10 CFR 20.1101c requires that each licensee periodically (at least annually) review the radiation protection program content and implementation. [Contrarily] the licensee did not review its radiation protection program content and implementation in 1996 and 1997.

In 1996, MM&A simply failed to perform and document a "formal" radiation safety protection program audit. However, in August 1997, a significant incident occurred involving no ALARA level I exposures and one ALARA level II exposure to an authorized user. The incident was investigated by the NRC and by MM&A. Multiple corrective actions have been taken as a result of the findings of both investigations (as documented in a letter dated October 2, 1997, and witnessed by the NRC inspector on May 19 and 20, 1998). We acknowledge that the NRC has not concluded its investigation, and we also feel that we have addressed the possible violations that have been identified. Portions of our 1997 Radiation Safety Program audit have been assembled; however, our final report has not been completed as we are awaiting a final report from the NRC regarding the August, 1997, incident. Furthermore, Radiation Safety Program reviews will be performed on an annual basis in order to ensure compliance with 10 CFR 20.1101c.

Pursuant to the provisions set forth in 10 CFR 2.201, we submit this document as our response to the four violations identified in NRC Inspection Report No. 45-17195-

01/98-01. If you have any questions regarding this matter, please call us at (540) 322-5467.

Thank you for your time and consideration in reviewing our response.

Sincerely,
Marshall Miller & Associates

Justin S. Douthat
Radiation Safety Officer

/ack

CC: Office of Enforcement
Dr. Lee Anthony, Consultant

MARSHALL MILLER &ASSOCIATES