

September 17, 2004  
File No. 42899



United States Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Re: Reply to a Notice of Violation  
Inspection Nos. 99990001/2003005  
Docket No. 99990001

27 Naek Road  
Vernon  
Connecticut 06066-3965  
860-875-7655  
FAX 860-872-2416  
<http://www.gza.net>

To Whom It May Concern:

GZA GeoEnvironmental, Inc. (GZA) is providing the United States Nuclear Regulatory Commission (US NRC) with this "Reply to a Notice of Violation" Docket Number 99990001 dated August 23, 2004 on behalf of our client, Truelove and Maclean. As stated in the Notice this "Reply to a Notice of Violation" will address the following:

- The reasons for the violations;
- Corrective actions that have been taken and the results of those actions;
- Corrective steps that will be taken to avoid future violations; and
- The date full compliance will be achieved.

#### BACKGROUND

On July 1 2003, Truelove and Maclean purchased two Lockheed Martin Model 5310 fixed gauges from Worthington Steel of Malvern, PA (Worthington-Malvern). Each gauge contained a 1,000 millicurie (mCi) sealed source of americium-241 (Am-241). The gauges were relocated by Terra Environmental Contractors, Inc. (Terra) to a Truelove and Maclean storage facility located at 600 Brandywine Avenue, Downingtown, PA. Because Truelove and Maclean was not knowledgeable of the regulation requirements at the time the gauges were transported, two violations were identified by the US NRC. The violations are as follows:

- Failure to describe the radioactive gauges transported on a shipping paper in a manner required by United States Department of Transportation, regulations as stated in 49 CFR 172; and
- Failure to label as appropriate, with two RADIOACTIVE WHITE-1 labels, with the contents, activity and transportation index entered on the blank spaces on the label, as required by 49 CFR 172.

#### REASON FOR VIOLATION AND CORRECTIVE ACTIONS

At the time the gauges were shipped from Worthington-Malvern to the Truelove and Maclean storage facility, Truelove and Maclean was not knowledgeable of the regulatory requirements for the shipping and labeling of licensed material.

JE07

Upon being informed of the violations, Truelove and Maclean employed Thermo Electron Corporation (Thermo) to perform wipe tests and properly label the gauges in the storage facility. GZA was retained to oversee this procedure and to assist in regulatory compliance. Thermo made an inspection of the storage facility and conducted wipe contamination leak testing of the gauges on April 9, 2004. No detections were noted as indicated on the attached certificate. Thermo also attached the proper labels listing the contents of the containers as americium-241 at that time. The results of that wipe survey and Thermo report are attached.



Truelove and Maclean has since become fully aware of the requirements as stated in 49 CFR 172 and will ensure that prior to shipping any equipment that an evaluation has been performed to determine if it contains licensed material. If the equipment to be shipped does contain licensed material, a contract company will be employed by Truelove and Maclean to ensure all required shipping documents and labels meet the requirements of 49 CFR 172. Truelove and Maclean will also put in place a policy to ensure that all individuals responsible for purchasing and shipping equipment are made aware of the transport and labeling requirements for licensed material. This policy will be implemented by Truelove and Maclean immediately.

On behalf of Truelove and Maclean, GZA trusts this "Reply to Notice of Violation" addresses all concerns listed in the Notice of Violation. If there are any questions, please contact Nick Zackeo at (860) 875-7655.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "David K. Barrow".

David K. Barrow  
Assistant Project Manager

A handwritten signature in black ink, appearing to read "Thomas F. Stark".

Thomas F. Stark  
Principal

A handwritten signature in black ink, appearing to read "Dominick Zackeo".

Dominick Zackeo, CHMM  
Senior Project Manager

Attachments: Leak Test Certificate/Report

cc: Jeff Knorr, Truelove & Maclean  
Regional Administrator, US NRC Region I

**LEAK TEST CERTIFICATE**

- 6-Month Inspection & Source Wipe  
  Installation  
  Source Replenishment  
 Source Removal  
  Shipment  
  Received  
  Decommission

Customer (or To / From): Truelove & Maclean, Inc.      Site: Terra Environmental

Customer contact: Mr. Dave Barrow / Mr. Bill Miller      PO: 123134

Source location (shipping container, device, well, etc.): Source Holder (Loral 5310) in C-frame

Device name (CB-GN, CBA, 1812, etc.): UNKNOWN

*A sealed radiation source is leaking if removable contamination is found to be equal to or greater than 0.005 microcuries (185 Becquerel)*

Source Data

Isotope	Serial No.	Manufacturer	Isotope Amount (micrograms or millicuries)	Contamination (enter none if less than 0.005 microcuries)
AM241	5250LV	Unknown	1000 mCi	none
AM241	1129LV	Unknown	1000 mCi	none

Instruments Used

Model: Inspector      Serial No. 09784      Calibration Due: 6/13/04  
 Model: \_\_\_\_\_      Serial No. \_\_\_\_\_      Calibration Due: \_\_\_\_\_  
 Model: \_\_\_\_\_      Serial No. \_\_\_\_\_      Calibration Due: \_\_\_\_\_

Certifications:

- Special Form:  
  Californium 252 (Cf-252) Cf Pd Cermet or Cf Pd alloy  
 Cesium 137 (Cs-137) Cesium Chloride  
 Other: \_\_\_\_\_

The sources listed above have passed the ANSI N5.10-1968, App. B, section B2.1, Wipe (Smear) Test with removable Alpha and Beta/Gamma surface contamination less than, or equal to, 0.005 microcuries.

Test Performed by: Miller, W.      Signature:       Test Date: 4/9/04  
*Print - Last name, Initial*

**Report**

**DATE    START    STOP    DESCRIPTION OF SYMPTOM AND ACTION**

4/9/04	08:45	10:15	Travel to Truelove and Maclean Storage.
	10:15	11:15	On site to conduct wipe tests on two Loral 5310 System isotope gauges. The C-frames are in crates placed in storage for an undermined length of time. The crates had improper radiation labels attached to them, these labels were removed and replaced with proper labels. The new labels list the contents as Americium 241 and 1000 mCi. The labels were placed on all four sides and the top of each crate.

Mr. Dave Barrow, GZA, representing Truelove and Maclean acknowledged the fact the sources will have to be removed from the C-frames and placed in 55 gallon drums prior to shipping to the end user.

11:15	12:45	Travel from site.
-------	-------	-------------------

**NOTES**

- <sup>i</sup> For scheduled visit, insert N/A.
- <sup>ii</sup> The original RFS call date is the RFS call date entered in the first FSAR of a series of not closed calls. If the RFS call date is not available, insert the date of requested on-site arrival of the first FSAR of a series of not closed calls. If the requested on-site arrival is not available, insert the date of on-site arrival of the first FSAR of a series of not closed calls.
- <sup>iii</sup> This field is only for scheduled visits. If no time request is made by the customer, insert the date and hour of on-site arrival when available.
- <sup>iv</sup> Insert the contractual agreement, if applicable. For non-contractual customers, insert 96 hrs. For scheduled visits, insert N/A.
- <sup>v</sup> Service Product Types: Product Support Agreement (PSA), General Service (GS), Start-Up & Commissioning (SU&C), Warranty (W), Training (TRN).
- <sup>vi</sup> Yes or No – if Yes an invoice must be issued, and invoice date and number entered in the appropriate entry field.
- <sup>vii</sup> Fair and Poor evaluation will require a review by the field engineer supervisor.
- <sup>viii</sup> A service call is closed when:
  - a) All commercial and technical information is received by Administration.
  - b) The customer confirms that the overall objective for the original call has been achieved – see check-box in CUSTOMER section.
  - c) If applicable, the invoice is issued.