

**GEO-ENGINEERING & TESTING, INC.**  
*Geotechnical and Material Testing Engineers*  
Post Office Box 8170 Tamuning, Guam 96931

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12 June 2017

United States Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Document Control Desk

Reference: NRC Inspection Report No. 030-36590/2017-001

Subject: Response to Apparent Violations in NRC Inspection Report 030-36590/2017-001; EA-17-025 (License No. 56-18173-02)

Dear Sir/Madam:

This submittal is in response to the referenced NRC Inspection Report dated May 4, 2017, pertaining to an inspection performed by the NRC from January 11 and 12 at our Barrigada, Guam office of Geo-Engineering & Testing, Inc. (GETI) and at Chalan Laulau, Saipan.

Pursuant to the requirements specified in the NRC Notice of Violations (NOV), GETI herewith provides the enclosed response, Attachment A, for the violations to the provisions of 10 Code of Federal Regulations (CFR) 30.41(a), 10 CFR 20.1101(c), and 10 CFR 71.5(a).

Our response to each of the violations cited includes: 1) the reason for the apparent violation, or the basis for disputing the apparent violation; 2) the corrective steps that have been taken and the results achieved; 3) the corrective steps that will be taken; and 4) the date when full compliance will be achieved.

If there are any questions or require additional information, please contact us at telephone 671-646-7710 (office) or 671-686-7710 (my cell phone), or my email: [ukrit@geogtiam.com](mailto:ukrit@geogtiam.com)

Thank you, and we apologize being late in our response.

Sincerely,

**GEO-ENGINEERING & TESTING, INC.**



Ukrit Siriprusanan, P.E.  
President and RSO

Enclosure: Attachment A

**U.S. Nuclear Regulatory Commission**

**Copy: Mr. Mark R. Shaffer, Director  
Division of Nuclear Materials Safety  
U.S. Nuclear Commission, Region IV  
1600 East Lamar Blvd.  
Arlington, TX 76011-4511**

ATTACHMENT A

GEO-ENGINEERING & TESTING, INC. RESPONSE TO  
NOTICE OF VIOLATIONS  
INSPECTION REPORT 030-365900/2017-001

**NRC Restatement of Apparent Violation of 10 CFR 30.41(a):**

Title 10 Code of Federal Regulations (CFR) 30.41(a) requires that no licensee shall transfer byproduct material except as authorized pursuant to 10 CFR 30.41, "Transfer of byproduct material."

10 CFR 30.41(b) states that except as otherwise provided in the license, and subject to the provisions of 10 CFR 30.41(c) and 10 CFR 30.41(d), any licensee may transfer byproduct material: (1) to the U.S. Department of Energy; (2) to the agency in any Agreement State which regulates radioactive material pursuant to an agreement under section 274 of the Atomic Energy Act of 1954 (the Act), as amended; (3) to any person exempt from the licensing requirements of the Act and the regulations in 10 CFR Part 30, to the extent permitted under such exemption; (4) to any person in an Agreement State, subject to the jurisdiction of that State, who has been exempted from the licensing requirements and regulations of that State to the extent permitted under such exemption; (5) to any person authorized to receive such byproduct material under terms of a specific license or general license or their equivalents issued by the Atomic Energy Commission, the NRC, or an Agreement State; (6) to a person abroad pursuant to an export license issued under 10 CFR Part 110; or (7) as otherwise authorized by the NRC in writing.

On or about July 22, 1998, the licensee failed to transfer byproduct material in accordance with the provisions of 10 CFR 30.41. Specifically, on or about July 22, 1998, the licensee transferred a portable nuclear gauge (Troxler Model 3411-B, serial number 8117) containing approximately 7 millicuries of cesium-137 and 40 millicuries of americium-241/beryllium to a member of the public that did not meet any of the categories of authorized transferees as provided in 10 CFR 30.41(b).

The licensee's failure to transfer byproduct material except as authorized pursuant to 10 CFR 30.41 was identified as an apparent violation of 10 CFR 30.41(a). (030-36590/2017-001-01)

**Geo-Engineering & Testing's Response to Apparent Violation of 10 CFR 30.41(a):**

1) Reason for the Apparent Violation

Right after our portable nuclear soil moisture-density test gauge Troxler Model 3411-B serial number 8117 outer casing was damaged by a construction equipment (a loader) sometime between 1997-1998, and could not be repaired locally on Saipan, it was encased with concrete for safety precaution, and GETI was scrambling trying to ship it to Troxler Electronics in North Carolina but to no avail; there was simply no shipping company nor air cargo company including air line that was willing to accept our damaged gauge to be shipped

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or air freighted back to the manufacturer Troxler Electronics in North Carolina. This is really the root of our problem, as we were essentially helpless could not properly dispose the damaged gauge by sending it back to the manufacturer in the States. Note that even up to now we still could not find a shipping or air line or air carrier such as FedEx to accept our inactive nuclear moisture-density test gauges to the U.S. Mainland. However, in 2008 we were able to ship three inactive portable nuclear gauges to the gauge manufacturer in the Mainland via a Guam environmental company that was shipping hazardous materials to the Mainland at that time and that was the only one time. The same company (Unitek Environmental) could not assist us after that one time in 2008. We are not aware of any other users of licensed radioactive materials that have routinely shipped radioactive materials from Guam to Hawaii in the 2015-2017 time frame, though we will definitely try to find out. However, it is possible that those were medical or similar radioactive materials that could have been handled differently.

In 1997-1998, GETI had only a few employees on Saipan: A soil and (limited) material testing engineer, an accountant / secretary, and two laboratory and field testing technicians (I could be slightly off). I was busy managing our larger Guam business including a drilling company; so eventually we believe the damaged gauge was either sold or given to an engineer from Philippines; but we have no confirmation as our engineer at that time [REDACTED] resigned and relocated to California, his last known address was in Long Beach, CA but we believe he died of brain cancer subsequently from a last phone call with his wife more than 10 years ago.

### 2) Corrective Steps That Have Been Taken and Results Achieved

GETI recently has been active trying to find a sea or air carrier that could accept our inactive portable nuclear gauges to U.S. Mainland, but so far there is no luck. Recently GETI has received response from American President Line (APL) that it is working with its headquarters, and we are still in close contact with APL. GETI is also trying to check with United Air Cargo but to date there is no response yet.

### 3) Corrective Steps That Will Be Taken

GETI will continue to explore any possibility of shipping or air freighting inactive portable nuclear gauges to the U.S. Mainland, and hopefully will be able to find a source to transport the inactive nuclear gauges to the U.S. Mainland or the manufactures (both Troxler and CPN)

### 4) Date When Full Compliance Will Be Achieved

The damaged gauge could no longer be found and after nearly 20 years. GETI effort is now trying to find an air or sea carrier that will be able to take its inactive nuclear gauges back to the U.S. Mainland.

### **NRC Restatement of Apparent Violation 10 CFR 20.1101(e):**

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

From February 16, 2011, to January 11, 2017, the licensee failed to periodically (at least annually) review the radiation protection program content and implementation.

The licensee's failure to periodically review the radiation protection program content and implementation was identified as an apparent violation of 10 CFR 20.1101(c). (030-36590/2017-001-02)

Licensees who transport licensed material, such as portable nuclear gauges, are required to comply with the applicable requirements of the U.S. Department of Transportation (DOT) regulations. Licensee employees that transport licensed material are considered hazmat employees and are required to receive the training required by 49 CFR Part 172, Subpart H, at least once every three years. The NRC's 2011 inspection identified that all of the licensee's hazmat employees had last 6 received the required training in 2007 and had not received recurrent training in greater than three years from that date. During the January 11-12, 2017, inspection, the inspector reviewed the licensee's training program for hazmat employees that transport portable nuclear gauges containing licensed materials. The licensee's Guam facility had 12 trained gauge users, but only four were active gauge users. All four active gauge users had current training that met the requirements of 49 CFR Part 172, Subpart H. The licensee's Saipan facility had three trained gauge users, but only one active gauge user that was transporting licensed materials. This one hazmat employee had actively transported gauges on Saipan but last received the required training on July 12, 2011. Accordingly, the inspector was unable to close Violation 030-36590/2011-001-02 because the licensee's corrective actions were not adequate to prevent recurrence of the violation.

### **GETI Reply to Violation 10 CFR 20.1101(c):**

#### **1) Reason for the Apparent Violation**

GETI did not implement a formal periodically reviewing the radiation protection program content and implementation, though informally discussed such issues when appropriate.

#### **2) Corrective Steps That Have Been Taken and Results Achieved**

GETI has started a monthly meeting program for both its Guam and Saipan offices, in regards to the NRC radiation protection program content and implementation. The Guam committee consists of its president and RSO, assistant RSO, a quality assurance engineer, and the secretary/administrative assistant, starting last May 25, 2017. The Saipan monthly meeting committee consists of the president/RSO, a senior materials testing engineer, and the office secretary. A comprehensive check list is being developed that will be discussed every meeting, even just to check out. Minutes of each meeting will be maintained at both Guam and Saipan offices. If there is a need, special meeting can be called at either Guam and Saipan office.

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3) Corrective Steps That Will Be Taken

Same as Item 2 above.

4) Date When Full Compliance Will Be Achieved

By the end of our second or third meeting, which will be June or July 2017.

**NRC Restatement of Apparent Violation 10 71.5 (a):**

Title 10 CFR 71.5(a) requires, in part, that each licensee who transports licensed material outside of the site of usage, as specified in the NRC license, or where transport is on public highways, shall comply with the applicable requirements of the U.S. DOT regulations in 49 CFR Parts 171 through 180, appropriate to the mode of transport.

Title 49 CFR 172.704(c)(2) requires, in part, that a hazmat employee must receive the training required by 49 CFR Part 172, Subpart H, at least once every three years.

From July 13, 2014 to January 11, 2017, the licensee failed to provide a hazmat employee the training required by 49 CFR Part 172, Subpart H at least once every three years. Specifically, from July 13, 2014 to January 11, 2017, a licensee employee transported Class 7 (radioactive) material on multiple occasions outside the site of usage, as specified in the NRC license, and the employee last received the required training on July 12, 2011, a period greater than three years.

The licensee's failure to provide recurrent hazmat training as required by 49 CFR 172.704(c)(2) was identified as an apparent violation of 10 CFR 71.5(a). (030-36590/2017-001-03)

The U.S. DOT regulations also specify that when transporting licensed material, such as portable nuclear gauges, the package containing the material must be properly labeled to indicate the hazard. The inspector observed the functional and operable gauges at the licensee's Guam facility and all were properly labeled in accordance with the U.S. DOT regulations. The licensee's Saipan facility only had one functional and operable gauge that was being actively transported and used on projects on Saipan, and it was not properly labeled.

**GETI Reply to Violation 10 CFR 71.5 (a):**

1) Reason for the Apparent Violation

Actually, the only gauge user that did not have hazmat renewed certificate Mr. Paquito Vicente's renewed certificate was dated 01/11/2017 and arrived on 01/12/2017 the date the NRC inspector was on Saipan, but it was not printed out in time to show the NRC inspector.

2) Corrective Steps That Have Been Taken and Results Achieved

There are no corrective steps to be taken. GETI has complied with the gauge users already have their active hazmat certificates.

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3) Corrective Steps That Will Be Taken

GEO/GT will continue to have gauge user employees to renew their hazmat certificates as required. No employees will be allowed to actively transport and use byproduct material unless their hazmat certificate is valid.

4) Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

**NRC Restatement of Apparent Violation 10 71.5 (a):**

Title 10 CFR 71.5(a) requires, in part, that each licensee who transports licensed material outside of the site of usage, as specified in the NRC license, or where transport is on public highways, shall comply with the applicable requirements of the U.S. DOT regulations in 49 CFR Parts 171 through 180, appropriate to the mode of transport.

Title 49 CFR 172.403(f) requires that each package that is required by 49 CFR 172.403 to be labeled with a RADIOACTIVE label must have two of these labels, affixed to opposite sides of the package.

On January 10, 2017, the licensee transported Class 7 (radioactive) material, where transport was on public highways, and failed to have two legible RADIOACTIVE labels affixed to opposite sides of the package. Specifically, on January 10, 2017, the licensee transported a portable nuclear gauge containing Class 7 (radioactive) material on public roads on Saipan, Commonwealth of the Northern Mariana Islands, and only had one of the required RADIOACTIVE labels on the package.

The licensee's failure to label packages as required by 49 CFR 172.403(f) was identified as an apparent violation of 10 CFR 71.5(a). (030-36590/2017-001-04)

The February 15, 2011, inspection identified a failure to ensure that shipping papers were readily available as required by 49 CFR 177.817(e). During the January 11-12, 2017, inspection, the inspector interviewed gauge users on Guam and Saipan. When questioned, each gauge user was able to explain that the required shipping papers for the transportation of licensed material in portable nuclear gauges must be readily available to, and recognizable by authorities in the event of an accident or inspection. Additionally, shipping papers were observed by the inspector to be readily available and recognizable. Accordingly, Violation 030-36590/2011-001-03 is considered closed.

**GETI Reply to Violation 10 CFR 71.5 (a):**

1) Reason for the Apparent Violation

It was an oversight that GETI Saipan gauge users should have reported that to the office for corrective action.

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2) Corrective Steps That Have Been Taken and Results Achieved

The proper labeling of the portable gauges is now an item in the monthly meeting to be checked, and corrected if needed, including having two labels affixed to opposite sides of the portable gauges.

3) Corrective Steps That Will Be Taken

GETI has achieved the corrective action and will continue to monitor if the labels for each gauge are legible and properly placed on the opposite sides of the package as part of its monthly meeting check items.

4) Date When Full Compliance Will Be Achieved

Full compliance had been achieved.

Attachments -- see next few sheets



GPMI INTERNATIONAL, INC.





6867909

# Certificate of Completion

*This is to certify that*  
**Paquito Vicente**

*has completed a course of study in*  
**102 - Hazardous Materials D.O.T. Training - Portable Nuclear Gauge**

*dated*  
**01/11/2017**  
*offered by:*



Training satisfies US DOT training requirements of 49 CFR 172 and 174 including:

- Emergency Procedures
  - Methods and procedures for avoiding accidents
  - Hazardous materials identification and recognition
  - Self-protection measures
  - Regulations applicable to job function
  - Security
- Certificate expiration DOY - 3 years from date listed above

  
\_\_\_\_\_  
Company RSO Signature

American Technical Institute  
10161 Park Run Drive Suite 150  
Las Vegas Nevada 89145  
www.usaati.com

08032



CPN International, Inc.  
4057 Port Chicago Highway,  
Suite 100  
Concord, CA 94520  
Telephone: 925-363-9770  
Fax: 925-363-9385

CAUTION  
RADIOACTIVE  
MATERIAL

370 MBq (10 mCi) Cs-137  
1.85 GBq (50 mCi) Am-241/Be

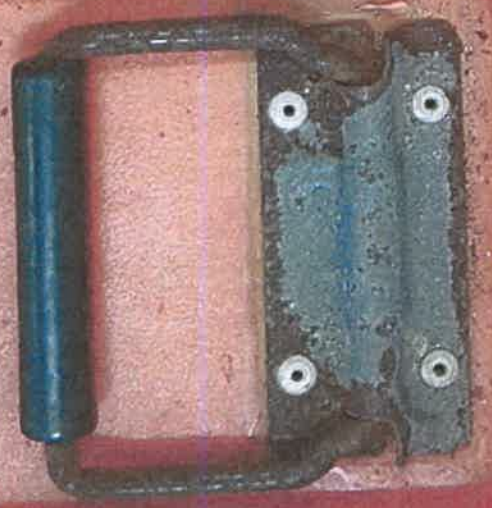
S.N. H350808032  
8-2-04  
10-6-04

EMERGENCY PHONE NO.

08032




CPN, INTERNATIONAL, INC.



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8557

**CPN**



**CAUTION  
RADIOACTIVE  
MATERIAL**

CPN International, Inc.  
4057 Port Chicago Highway  
Suite 100  
Cerritos, CA 94520  
Telephone: 925-363-9770  
Fax: 925-363-9285

370 MBq (10 mCi) Cs-137

5-22-06

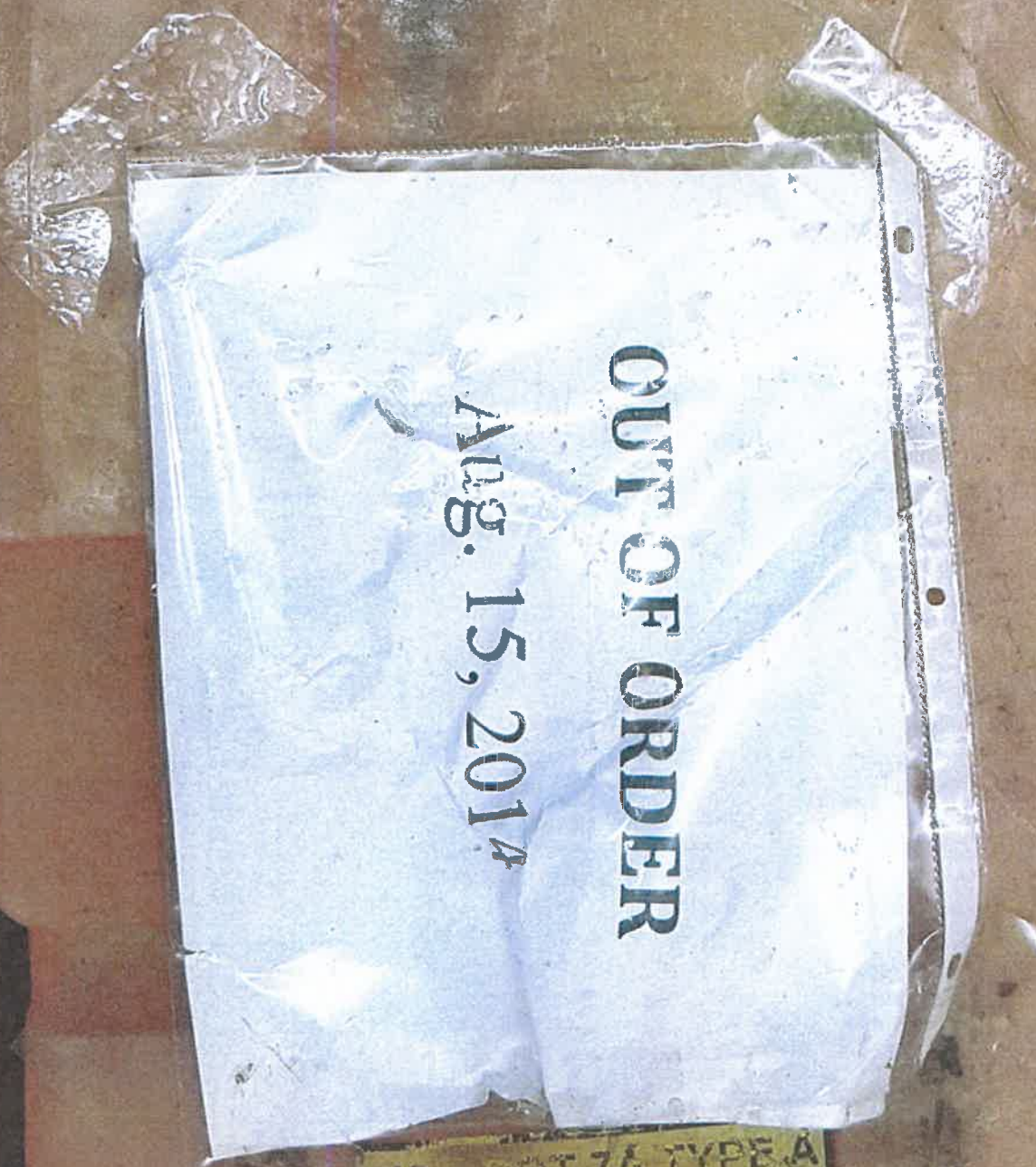
12-05-06

S.N.  H061208557

785 GBq (50 mCi) Am-241 (5a)

CPN/INT/INT/INT/INT

8557



**OUT OF ORDER**

**AUG. 15, 2014**

NOT TYPE A  
RADIOACTIVE MATERIAL  
SPECIAL FORM

57

8556

**CPN**



**CAUTION  
RADIOACTIVE  
MATERIAL**

CPN International, Inc.  
3057 Fern Chicago Highway  
Suite 100  
Corcoran CA 91629  
Telephone: 925-363-9770  
Fax: 925-363-9385

370 MBq (10 mCi) Cs-137

5-22-06

1.65 GBq (50 mCi) Am-241/Be

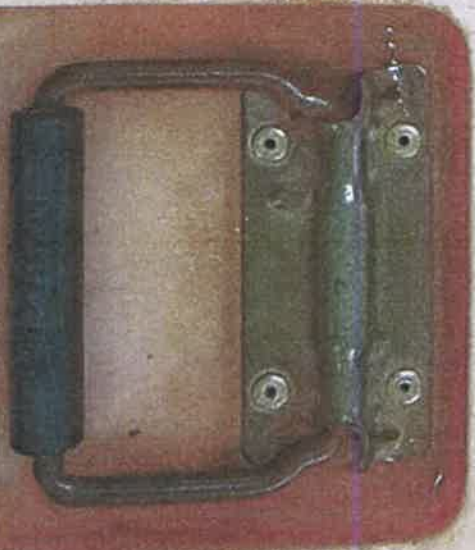
12-05-06

S.N.  HD61208556

UNSCD/ANSI 10

**CPNI** INTERNATIONAL, INC.

8556



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