

## Roldan, Lizette

---

**From:** Roldan, Lizette  
**Sent:** Wednesday, June 22, 2011 1:06 PM  
**To:** 'kharmon@gnnorthern.com'  
**Cc:** Murnahan, Colleen  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION REGARDING CONTROL 575379

License No.: 11-29235-01  
Docket No.: 030-37300  
Control No.: 575379

Dear Mr. Harmon:

This is in reference to your application dated June 10, 2011 requesting a termination for Nuclear Regulatory Commission License 11-29235-01. In order to continue our review, we need the following information:

1. Please submit supporting documents regarding the disposal/transfer of radioactive material from your facility. Please provide a copy of the shipping papers from your facility to the transfer location **AND** a letter of acknowledgment from the receiving facility stating the date they received the material, what material they received, and a copy of the license of the receiving facility to verify they can possess the material.

We will continue our review upon receipt of this information. Please reply to my attention at the Region IV Office and refer to Mail Control No. 575379. Please respond to this e-mail by July 22, 2011. You may reply via e-mail as long as the response is attached in a PDF format or by fax to 817-860-8263.

Thanks,

***Lizette Roldán-Otero, Ph.D.***

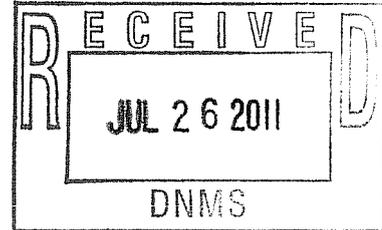
Health Physicist  
Nuclear Regulatory Commission  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011  
Office: 817-276-6596  
Fax: 817-860-8263



Consulting Engineers Environmental Scientists Construction Materials Testing

July 25, 2011

Nuclear Regulatory Commission
612 E. Lamar Blvd., Suite 400
Arlington, TX



ATTN.: Lizette Roldan-Otero, Ph.D., Health Physicist

SUBJECT: Letter of Acknowledgment for Receipt of Nuclear Materials
CPN Model MC1DR / Serial Number 60808433

Ms. Roldan-Otero,

This letter has been prepared to acknowledge receipt of the above reference portable gauge and associated sealed source radioactive materials by GN Northern, Inc. (GNN). GNN maintains a Radioactive Materials License issued by the Washington State Department of Health: License No. WN-I0457-1 (see attached). The referenced gauge was purchased from Earth Services Northwest, PLLC (NRC License No.: 11-29235-01 / Docket No. 030-37300). The portable gauge was transported to our approved storage facility in Yakima, Washington by an authorized operator in accordance with applicable regulation on June 6, 2011.

Please feel free to contact our office with any question.

Respectfully Submitted,

GN Northern, Inc.

Imran Magsi, P.E.
President

Attachment: GNN - WA Radioactive Materials License No.: WN-I0457-1

Table with 6 columns of contact information for various office locations including Yakima, Kennewick, Spokane Valley, Hayden, Westcliff Drive, and Hermiston.

Visit our website at www.gnnorthern.com
Email: gnnorthern@gnnorthern.com

**State of Washington**  
**RADIOACTIVE MATERIALS LICENSE**



Page 1 of 5

**License Number: WN-I0457-1**  
**Amendment No. 11**

Pursuant to the Nuclear Energy and Radiation Control Act, RCW 70.98, and the Radiation Control Regulations, chapters 246-220 through 246-254 WAC, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material(s) designated below; and to use such radioactive materials for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules and regulations promulgated by the State of Washington Department of Health.

<b>1. Licensee Name:</b>  <p style="text-align: center;"><b>GN NORTHERN, INC.</b></p>	<b>3. License Number:</b>  <p style="text-align: center;">WN-I0457-1 RENEWAL Amendment No. 11 Fee Code: 31</p>
<b>2. Address:</b>  <p style="text-align: center;">722 North 16<sup>th</sup> Avenue, Suite 31 Yakima, Washington 98902</p>	<b>4. Expiration Date:</b>  <p style="text-align: center;">November 30, 2014</p> <hr/> <b>5. Reference Number(s):</b> <p style="text-align: center;">10-01-09; 10-01-10</p>

**6. Radioactive Material**  
(element and mass number).

**7. Chemical and/or Physical Form.**

**8. Maximum quantity licensee may possess at any one time.**

A. Cesium 137.

A. Sealed source (manufactured and distributed pursuant to the requirements of a specific license and approved for use in the gauge identified by License Condition 9).

A. No single source to exceed 370 megabecquerels (10 millicuries).  
\* See footnote.

B. Americium 241/  
Beryllium.

B. Same as 7.A.

B. No single source to exceed 1850 megabecquerels (50 millicuries).  
\* See footnote.

C. Cesium 137.

C. Same as 7.A.

C. No single source to exceed 370 megabecquerels (10 millicuries).  
\* See footnote.

D. Americium 241/  
Beryllium.

D. Same as 7.A.

D. No single source to exceed 1850 megabecquerels (50 millicuries).  
\* See footnote.

State of Washington  
**RADIOACTIVE MATERIALS LICENSE**

Page 2 of 5



License Number: WN-I0457-1  
Amendment No. 11

- |                              |                 |  |
|------------------------------|-----------------|--|
| E. Radium 226/<br>Beryllium. | E. Same as 7.A. | E. No single source to exceed<br>167 megabecquerels<br>(4.5 millicuries).<br>* See footnote. |
|------------------------------|-----------------|--|

\* Total possession limit not to exceed 50 gauges in any combination.

**CONDITIONS**

9. Authorized use:
- A. & B. To be used in Troxler Electronic Laboratories Inc., Model 3400 Series portable moisture/density gauges for the measurement of moisture and density of soil and construction materials.
  - C. & D. To be used in CPN International, Inc., Model MC Series portable moisture/density gauges for the measurement of moisture and density of soil and construction materials.
  - E. To be used in Seaman Nuclear Corporation, Model C-200 Series portable moisture/density gauges for the measurement of moisture and density of soil and construction materials.
10. Radioactive material shall be stored and/or used at the licensee's facilities located at 722 North 16<sup>th</sup> Avenue, Suite 31, Yakima, Washington 98902; 6713 West Clearwater Avenue, Suite F, Kennewick, Washington 99336 and may be used at temporary job sites, in areas NOT under exclusive federal jurisdiction, throughout the state of Washington. Before radioactive materials can be used at a temporary job site at any federal facility, the jurisdictional status of the job site must be determined. Authorization for use of radioactive materials at job sites under exclusive federal jurisdiction must be obtained from the appropriate regional office of the U.S. Nuclear Regulatory Commission. Before radioactive materials can be used at a temporary job site in another state, authorization must be obtained from that state if it is an Agreement State, or from the NRC if it is a non-Agreement State.
11. The licensee shall comply with the provisions of chapter 246-220 WAC, "Radiation Protection – General Provisions"; chapter 246-221 WAC, "Radiation Protection Standards"; chapter 246-222 WAC, "Radiation Protection – Worker Rights"; chapter 246-231 WAC, "Packaging and Transportation of Radioactive Material"; and chapter 246-235 WAC, "Radioactive Materials – Specific Licenses".

State of Washington  
**RADIOACTIVE MATERIALS LICENSE**

Page 3 of 5



License Number: WN-I0457-1  
Amendment No. 11

12. The Radiation Safety Officer for this program shall be Ryan Bloomfield.
13. Radioactive material shall be used by, or under the supervision and in the physical presence of, individuals who have successfully completed a training course approved by the department on radiation safety and nuclear moisture/density gauge operation. The Radiation Safety Officer shall maintain training certificates for all qualified individuals.
14. The licensee shall maintain a use/transfer log for each gauge at the storage location(s) stated in License Condition 10 or subsequent amendments. The use/transfer log shall include, but not be limited to, dates of use, location of use, and the name of the authorized individual checking out the gauge.
15. The licensee's emergency procedures shall conform to procedures outlined in the Washington State Radiation Emergency Handbook revised November 1991 or subsequent revisions, or other procedures specifically approved by License Condition.
16.
  - A. The licensee is authorized to transport licensed material in accordance with the provisions of chapter 246-231 WAC, "Packaging and Transportation of Radioactive Material." Transportation requirements include, but are not limited to, using an approved transport package appropriately labeled and marked, and having a shipping paper and emergency procedure within arm's reach of the driver.
  - B. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source(s) from a shielded position. The gauge and its container must be locked when in transport, storage, or when not under the direct control of an authorized user.
  - C. The licensee shall use a "three level" method of security at all times when the gauge is not under the physical control of the operator. This method is very important while a gauge is away from a licensed storage location. The outer two levels of security will be established so that each independently prevents the transport box, with gauge, from being removed from the transport vehicle by an unauthorized individual. The methods of security will assure that two levels also keep the lid of the transport box from opening. The transport box will be kept out of sight. A device will be returned to a licensed storage location each day if the temporary job is less than 50 miles from that location. A performance audit will be made and documented on gauge user transportation security to assure all security measures are in use and are correctly applied. This document must be retained for department review.

State of Washington  
**RADIOACTIVE MATERIALS LICENSE**



Page 4 of 5

License Number: WN-I0457-1  
Amendment No. 11

17. A. Each sealed source in each device listed in License Condition 9. A through D shall be tested for leakage and/or contamination at intervals not to exceed twelve (12) months. Each sealed source in each device listed in License Condition 9.E shall be tested for leakage and/or contamination at intervals not to exceed six (6) months. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
- B. The test shall be capable of detecting the presence of 185 becquerels (0.005 microcuries) of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of becquerels (or microcuries) and maintained for inspection by the department.
- C. If the test reveals the presence of 185 becquerels (0.005 microcuries) or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with department regulations. A report shall be filed with the department within five (5) days of the test describing the equipment involved, the test results, and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by persons specifically authorized by the department, the U.S. Nuclear Regulatory Commission, an Agreement State, or a Licensing State to perform such services. The licensee is authorized to perform leak test sampling using approved kits and appropriately trained personnel. The analysis shall be performed by persons specifically authorized by the department, the U.S. Nuclear Regulatory Commission, an Agreement State, or a Licensing State to perform such services. Licensing State authorization applies to naturally occurring and accelerator produced radioactive material (NARM) only.
18. Sealed sources or source rods containing radioactive material shall not be opened or removed or detached from nuclear gauges by the licensee unless specifically authorized.
19. The licensee shall instruct all users that any maintenance or repair on the gauges involving removal of the source holders shall be performed only by the device manufacturer or by other persons specifically authorized by the department, the U.S. Nuclear Regulatory Commission, an Agreement State, or a Licensing State (for NARM only) to perform such services.

**State of Washington**  
**RADIOACTIVE MATERIALS LICENSE**



Page 5 of 5

License Number: WN-I0457-1  
Amendment No. 11

20. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for inspection by the department, and shall include the quantities and kinds of radioactive material, location of sealed sources, and the date of the inventory.
21. The licensee shall possess and use personnel monitoring devices, such as but not limited to, film badge, TLD, OSL, or other approved technology, from an approved supplier. The device shall be capable of detecting at least gamma and neutron radiation. These personnel monitoring devices shall be exchanged at least quarterly.
22.
  - A. If the licensee uses unshielded sealed sources extended more than 3 feet below the surface, the licensee shall use surface casing that extends from the lowest depth to 12 inches above the surface and other appropriate procedures to reduce the probability of the source or probe becoming lodged below the surface. If it is not feasible to extend the casing 12 inches above the surface, the licensee shall implement procedures to ensure that the cased hole is free of obstruction before making measurements.
  - B. If a sealed source or a probe containing sealed sources becomes lodged below the surface and it becomes apparent that efforts to recover the sealed source or probe may not be successful, the licensee shall notify the department and submit the report as required by WAC 246-244-240(4)(b) and (c). The licensee shall not abandon the sealed source or probe without obtaining the department's prior written consent.
23. Except as specifically provided by this license, the licensee shall possess and use radioactive material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in the documents listed below. The department's "Rules and Regulations for Radiation Protection" shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.
  - A. Application and attachments dated October 29, 2009.
  - B. Shipping paper and emergency procedures received January, 12, 2010.

FOR THE STATE OF WASHINGTON DEPARTMENT OF HEALTH

Date: January 12, 2010

By: *Pamela J. Walsh*  
Pamela J. Walsh  
Radioactive Materials Licensing