

### CERTIFICATE OF DISPOSITION OF MATERIALS

Estimated burden per response to comply with this mandatory collection request: 30 minutes. This submittal is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [infocollects@nrc.gov](mailto:infocollects@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0028), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE NAME AND ADDRESS  
*PNO Engineers, Inc.  
811 First Ave, Suite 570  
Seattle, WA 98104*

LICENSE NUMBER: *46-27804-01*  
DOCKET NUMBER: *03036853*  
LICENSE EXPIRATION DATE:

This license has expired.  **A. LICENSE STATUS (Check the appropriate box)**  
This license has not yet expired; please terminate it.

#### B. DISPOSAL OF RADIOACTIVE MATERIAL

(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)

The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:

- 1. No radioactive materials have ever been procured or possessed by the licensee under this license.
- 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner.
  - a. Transfer of radioactive materials to the licensee listed below:  
*Materials Testing & Consulting (see attached Bill of Sale)*
  - b. Disposal of radioactive materials:
    - 1. Directly by the licensee:
    - 2. By licensed disposal site:
    - 3. By waste contractor:
  - c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.

#### C. SURVEYS PERFORMED AND REPORTED

- 1. A radiation survey was conducted by the licensee. The survey confirms:
  - a. the absence of licensed radioactive materials
  - b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.
- 2. A copy of the radiation survey results:
  - a. is attached; or  b. is not attached (Provide explanation); or  c. was forwarded to NRC on: \_\_\_\_\_ Date
- 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and
  - a. The results of the latest leak test are attached; and/or
  - b. No leaking sources have ever been identified.

The person to be contacted regarding the information provided on this form:

NAME: <i>Gary Watters</i>	TITLE: <i>RSO</i>	TELEPHONE (include Area Code): <i>206-624-1387</i>	E-MAIL ADDRESS: <i>gwatters@pndeengineers.com</i>
Mail all future correspondence regarding this license to: <i>G. Watters, 811 First Ave, Ste 570, Seattle WA 98104</i>			

**C. CERTIFYING OFFICIAL**  
I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE: <i>Gary Watters, RSO</i>	SIGNATURE: <i>[Signature]</i>	DATE: <i>5/16/2011</i>
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WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

## BILL OF SALE

PND Engineers, Inc. (*seller*) in consideration of **\$500.00**, does hereby sell, transfer and convey to Materials Testing and Consulting (*buyer*) the following equipment:

- Troxler Density Gauge Model No. 3440, Serial No. 35273, Year 2004
- Seaman Density Gauge Model No. C-300, Serial No. 21048, Year 2000

Dated this 23<sup>rd</sup> day of March, 2011 as attested to the signatures below:

### Authorized Signature of Seller



Gary Watters, P.E.  
Principal  
PND Engineers, Inc.  
811 First Ave, Suite 570  
Seattle, WA

### Authorized Signature of Buyer



Name CURTIS SHEAR  
Title ASSOCIATE  
Materials Testing and Consulting  
777 Chrysler Drive  
Burlington, WA 98233

STATE OF WASHINGTON  
**RADIOACTIVE MATERIALS LICENSE**



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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.**

<p><b>1. Licensee Name:</b></p> <p style="text-align: center;"><b>MATERIALS TESTING AND CONSULTING</b></p>	<p><b>3. License Number:</b></p> <p style="text-align: center;">WN-I0175-1 (RENEWAL)                  Amendment No. 15                  Fee Code: 31</p>
<p><b>2. Address:</b></p> <p style="text-align: center;">777 Chrysler Drive                  Burlington, Washington 98233</p>	<p><b>4. Expiration Date:</b></p> <p style="text-align: center;">30 April 2011</p> <hr style="border: 0.5px solid black;"/> <p><b>5. Reference Number(s):</b></p> <p style="text-align: center;">06-03-85</p>

- |  |   |   |
|--|---|---|
| <p><b>6. Radioactive Material (element and mass number).</b></p> <p>A. Cesium 137.</p> <p>B. Americium 241/<br/>Beryllium.</p> <p>C. Cesium 137.</p> <p>D. Americium 241/<br/>Beryllium.</p> | <p><b>7. Chemical and/or Physical Form.</b></p> <p>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).</p> <p>B. Same as 7.A.</p> <p>C. Same as 7.A.</p> <p>D. Same as 7.A.</p> | <p><b>8. Maximum quantity licensee may possess at any one time.</b></p> <p>A. No single source to exceed 370 megabecquerels (10 millicuries).<br/>* See footnote.</p> <p>B. No single source to exceed 1850 megabecquerels (50 millicuries).<br/>* See footnote.</p> <p>C. No single source to exceed 370 megabecquerels (10 millicuries).<br/>* See footnote.</p> <p>D. No single source to exceed 1850 megabecquerels (50 millicuries).<br/>* See footnote.</p> |
|--|---|---|

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

STATE OF WASHINGTON  
**RADIOACTIVE MATERIALS LICENSE**



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**License Number: WN-I0175-1**  
**Amendment No. 15**

**CONDITIONS**

9. Authorized use:
  - A. & B. To be used in Troxler Electronic Laboratories Inc., Model 3400 Series 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.
10. Radioactive material shall be stored and/or used at the licensee's facilities located at 777 Chrysler Drive, Burlington, Washington 98233, 1710 Midway Court, Centralia, Washington 98531 and 2126 East Bakerview Road, Suite 101, Bellingham, Washington 98226 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".
12. The Radiation Safety Officer for this program shall be Curtis Shear.
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.

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**Amendment No. 15**

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 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.
17. A. Each sealed source in each device listed in License Conditions 9. A and B shall be tested for leakage and/or contamination at intervals not to exceed six (6) months. Each sealed source in each device listed in License Conditions 9. C and D shall be tested for leakage and/or contamination at intervals not to exceed twelve (12) 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.

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17. 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. The licensee is authorized to perform leak test sampling in accordance with their Radioactive Materials License Application. 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. Alternatively, leak test samples may be collected and/or analyzed by other 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.
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.

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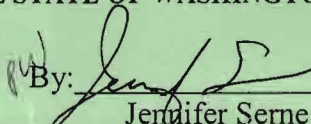
**License Number: WN-I0175-1**

**Amendment No. 15**

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 March 20, 2006.

**FOR THE STATE OF WASHINGTON DEPARTMENT OF HEALTH**

Date: April 20, 2006

By:   
Jennifer Serne  
Radioactive Materials Licensing

State of Washington  
**RADIOACTIVE MATERIALS LICENSE**



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License Number WN-I0175-1  
Amendment No. 19  
Fee Code 31

MATERIALS TESTING AND CONSULTING, INC.  
777 Chrysler Drive  
Burlington, Washington 98233

Attention: Curtis Shear  
Radiation Safety Officer

In accordance with amendment request information referenced in License Condition 24.C,  
Radioactive Materials License Number WN-I0175-1 is amended as follows:

**Subitem E of Items 6, 7 and 8 and License Condition 9.E are added:**

- |                                |                   |   |
|--------------------------------|-------------------|---|
| 6.E. Radium 226/<br>Beryllium. | 7.E. Same as 7.A. | 8.E. No single source to<br>exceed 204 megabecquerels<br>(5.5 millicuries). * |
|--------------------------------|-------------------|---|

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

- 9.E. To be used in Seaman Nuclear Corporation Model C-300 Series moisture/density gauges for the measurement of moisture and density of soil and construction materials.

**License Condition 17.A is amended to read:**

- 17.A. Each sealed source in each device listed in License Conditions 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.



State of Washington

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License Number WN-I0175-1  
Amendment No. 19

**License Condition 24.C is added:**

24.C. Letter dated March 21, 2011, RE: adding Seaman Nuclear gauge.

FOR THE STATE OF WASHINGTON DEPARTMENT OF HEALTH

Date March 23, 2011  
(11-03-61)

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



**Troxler Electronic Laboratories, Inc.**

3008 Cornwallis Rd., P.O. Box 12057  
Research Triangle Park, NC 27709  
Tel: (877) 876-9537 Fax: (866) 391-2759  
License: NC 032-0182-1

NICHOLAS ALEXANDER  
PND ENGINEERS, INC  
811 FIRST AVE.  
SUITE 570  
SEATTLE, WA 98104

Cust ID: 6569

**LEAK TEST CERTIFICATE**

**DEVICE:**

Model: 3440                      Serial No: 35273

**SEALED SOURCES:**

Serial No.	Measure Date	Nuclide	GBq	mCi
78-199	01/08/2004	AM-241:BE	1.48	40
77-2337	02/26/2004	CS-137	0.296	8

**LEAK TEST ANALYSIS:**

Sample collected on: 07/26/2010  
Sample analyzed on: 08/04/2010 12:20:48 P      Position: 36  
Analyzed by: C. Eftekhar

	ALPHA	BETA-GAMMA
Conversion factor (cpm/Bq)	1.22E+01	1.97E+01
Background measurement (cpm)	1	28
Sample measurement (cpm)	1	13
Activity (Bq)	< MDA	< MDA
Min. Detectable Activity (Bq)	6.2E-01	1.4E+00

**This certifies that the leak test results are:**

- Less than 185 Bq (0.005 uCi)                       Greater than 185 Bq (0.005 uCi)

# Seaman Nuclear Corporation

7315 South First Street Oak Creek, WI 53154 USA

Tel 414-762-5100 Fax 414-762-5106

## Leak Test Certificate

August 24, 2010

A leak test has been performed on meter, serial number **21048**, a model C-300 DT, 8", containing the radionuclide Ra 226.

Owned By: PND Engineers Inc.  
9360 Glacier Hwy, Suite 100  
Juneau, AK 99801

Date Sample Collected: 8/19/10  
Collected By: Per Rasmussen  
Date Sample Analyzed: 8/24/10  
Analyzed By: T. Lindemann

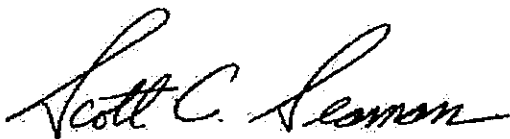
Most regulatory agencies consider a source to be leaking if a leak test reveals the presence of more than 0.005 microcurie of removable contamination.

Analysis found contamination of less than 0.005 microcurie.

Analysis authorized by Wisconsin license 079-1257-01.

Seaman Nuclear Corporation

**LEAK TEST DUE: 8/19/11**



Scott C. Seaman  
Radiation Safety Officer

S/N: 21048  
Leak Tested: 8/19/10  
Due: 8/19/11  
Seaman Nuclear Corporation  
Oak Creek, WI (414) 762-5100