

November 7, 2017

Ms. Laura Cender  
U.S. Nuclear Regulatory Commission  
Materials Licensing Branch  
Laura.Cender@nrc.gov

**Subject: Amendment to NRC License No. 48-18672-01, Additional Information**

**Dear Ms. Cender,**

In response to your request for additional information related to NRC License No. 48-18672-01, which is maintained by the AECOM Technical Services, Inc., office at 1230 Wilson Street, Marquette, Michigan 49855, please find the following attachments:

1. Delegation of Authority to Mark Kluz as the Radiation Safety Officer (signed by me as the Corporate RSO)
2. Training and experience (page B-3 from NUREG-1556 Volume 1, Revision 2)
3. Current and previous inventories of nuclear density gauges (dated July 1, 2017, and January 15, 2015)
4. Disposal records that corroborate the disposal of the gauges that appeared on the 2015 inventory but which we no longer own or possess, dated March 1, 2016

In accordance with your call and email dated October 31, 2017, AECOM understands that the NRC must set a possession limit based on the type of device authorized. The following information is in response to that email:

- Under License No. 48-18672-01, the AECOM office at 1230 Wilson Street, Marquette, Michigan owns the following gauges:
  - One Troxler 3440
  - Two Troxler 3430s
- In the past, this office owned the following gauge, and this gauge was disposed of as described in Item #4, above:
  - Campbell Pacific Nuclear MC1 DRP
- This office has never owned or possessed any of the following gauges:
  - Troxler 4640 Series, Troxler 4545, Troxler 3565, Troxler 1300 Series, Troxler 3241, Troxler 2226, Troxler 3216, Troxler 3218, Troxler 4300 Series
  - Campbell Pacific Nuclear 500 Series, Campbell Pacific Nuclear MSM2

Please let me know if you require additional information or if you have any questions.

Yours sincerely,

A handwritten signature in cursive script that reads "Sally K. Miller".

Sally K. Miller  
AECOM Corporate Radiation Safety Officer  
Associate Vice President, SH&E  
[sally.miller@aecom.com](mailto:sally.miller@aecom.com)

cc: Jim Ingle  
Mark Kluz

AECOM Technical Services of Michigan, Inc.  
1230 Wilson Street  
Marquette, MI 49855

**Delegation of Authority to Radiation Safety Officer**

Memo To: Radiation Safety Officer

From: Management Representative

Subject: Delegation of Authority

You, Mark S. Kluz, have been appointed radiation safety officer and are responsible for ensuring the safe use of radiation. You are responsible for managing the Radiation Protection Program; identifying radiation protection problems; initiating, recommending, or providing corrective actions; verifying implementation of corrective actions; stopping unsafe activities; and ensuring compliance with regulations. You are hereby delegated the authority necessary to meet those responsibilities, including prohibiting the use of byproduct material by employees who do not meet the necessary requirements and shutting down operations, when justified, to maintain radiation safety. You are required to notify management if staff does not cooperate and does not address radiation safety issues. In addition, you are free to raise issues with the U.S. Nuclear Regulatory Commission at any time. It is estimated that you will spend 5 hours per week conducting radiation protection activities.

Sally K. Miller (Sally K. Miller)

Signature of Management Representative (Name)

Manager Title AECOM DCS-Americas RSO

Oct. 14, 2017

Date

I accept the above responsibilities,

Chuck L. Dy

Signature of Radiation Safety Officer

10/16/17

Date

cc: Affected department heads

AECOM Technical Services of Michigan, Inc.  
 1230 Wilson Street  
 Marquette, MI 49855

**Items 7 through 11: Training and Experience,  
 Facilities and Equipment, Radiation Safety Program,  
 and Waste Disposal**

Item No. and Title	Suggested Response	Yes	Alternative Procedures Attached
<b>7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE—RADIATION SAFETY OFFICER</b>  Name: _____	Documentation demonstrating the proposed radiation safety officer's training and experience (e.g., certificate of completion of the RSO's course and/or the authorized user's course).	Submit applicable documentation.	
<b>8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS</b>	Before using licensed materials, authorized users will have successfully completed one of the training courses described in the "Criteria" part of the section titled, "Training for Individuals Working in or Frequenting Restricted Areas" in NUREG-1556, Vol. 1, Rev. 2, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Portable Gauge Licenses."	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>9. FACILITIES AND EQUIPMENT</b>	Provide a facility diagram for each permanent portable gauge storage location. Include on the diagram the use of adjacent areas (including above and below), and information relevant to public dose and security as discussed in Sections 8.10.5, "Public Dose," and 8.10.6, "Operating, Emergency, and Security Procedures," respectively, in NUREG-1556, Vol. 1, Rev. 2, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Portable Gauge Licenses"	Submit applicable documentation.	

**AECOM**  
**Marquette Office**

Sealed Source Information Form

Physical Inventory and Radiation Survey

Date: July 1, 2017    Results: **ALL ACCOUNTED FOR**

By: James H. Ingle

Sample Number	Company Name, RSO, Address, & Phone No.	Model Number	Serial Number	Nuclide	Nuclide Serial No.	Activity mCi	Sample Date	Today's Location	Today's Condition
7	AECOM / James H. Ingle 1050 Wilson Street Marquette, Michigan 49855 906-226-4839	3440	28941	Cs-137	750-3230	8	Leak Test: 1/4/17	Marquette Nuc. Room	OK
				Am-241:Be	47-25133	40	Calibration: 3/3/16		
9	AECOM / James H. Ingle 1050 Wilson Street Marquette, Michigan 49855 906-226-4839	3430	36337	Cs-137	77-3502	8	Leak Test: 1/4/17	Marquette Nuc. Room	OK
				Am-241:Be	78-1143	40	Calibration: 2/11/15		
11	AECOM / James H. Ingle 1050 Wilson Street Marquette, Michigan 49855 906-226-4839	3430	25594	Cs-137	75-8457	8	Leak Test: 1/4/17	Marquette Nuc. Room	OK
				Am-241:Be	47-21960	40	Calibration: 3/3/16		

Required leak test frequency: **Annually**

Physical Inventory Performed: July 1, 2017



# AECOM Marquette Office

## Sealed Source Information Form

Physical Inventory and Leak Testing

Date: January 01, 2015    Results: **ALL ACCOUNTED FOR**

By: James H. Ingle

Sample Number	Company Name, RSO, Address, & Phone No.	Model Number	Serial Number	Nuclide	Nuclide Serial No.	Activity mCi	Sample Date	Today's Location
3	AECOM / James H. Ingle 1050 Wilson Street Marquette, Michigan 49855 906-226-4839	MC1DRP	MD5030 7783	Cs-137	C-7783	8.0	Leak Test: 12/31/14	Marquette Nuc. Room
				Am-241:Be	A-7783	40.0	Calibration: 2/15/11	
7	AECOM / James H. Ingle 1050 Wilson Street Marquette, Michigan 49855 906-226-4839	3440	28941	Cs-137	750-3230	8	Leak Test: 12/31/14	Marquette Nuc. Room
				Am-241:Be	47-25133	40	Calibration: 2/20/13	
9	AECOM / James H. Ingle 1050 Wilson Street Marquette, Michigan 49855 906-226-4839	3430	36337	Cs-137	77-3502	8	Leak Test: 12/31/14	Marquette Nuc. Room
				Am-241:Be	78-1143	40	Calibration: 2/2/12	
11	AECOM / James H. Ingle 1050 Wilson Street Marquette, Michigan 49855 906-226-4839	3430	25594	Cs-137	75-8457	8	Leak Test: 12/31/14	Marquette Nuc. Room
				Am-241:Be	47-21960	40	Calibration: 2/20/13	
	AECOM / James H. Ingle 1050 Wilson Street Marquette, Michigan 49855 906-226-4839	3430	26003	Cs-137	75-8999	8	Leak Test: 12/31/14	Marquette Nuc. Room
				Am-241:Be	47-22382	40	Calibration: 3/12/12	

Required leak test frequency: **Annually**

Physical Inventory Performed: January 01, 2015



NUCLEAR GAUGE  
TRANSFER/DISPOSAL DOCUMENT

☐ Rental Transfer

☒ Transfer of Ownership

Transferee AECOM

Contact Jim Ingle/John Kirchner

Telephone 906-226-4839/920-468-1978

**Device Type**

- ☐ Moisture Gauge  
☐ Density Gauge  
☒ Density/Moisture Gauge  
Other (Describe) \_\_\_\_\_

**Manufacturer**

- ☐ Troxler  
☐ Humboldt  
☒ CPN  
Other \_\_\_\_\_

Model No. MC1DRP Device Serial No. MD50307783

Cs-137

Radionuclide

Am-241:Be

10 mCi

Activity

50 mCi

3/1/2016

Leak Test Date

3/1/2016

(Attach Copy)

To: Company Aguinaga Technical Services

License No. WI# 117-1005-01

Street Address 1924-C Calumet Drive

City, State Sheboygan, WI

Zip Code 53081 Telephone (920) 803-8789

Recipient Richard Aguinaga - RSO

(Printed Name)

Sign Upon Receipt  3-1-16

(Signature)

Date



NUCLEAR GAUGE  
TRANSFER/DISPOSAL DOCUMENT

☐ Rental Transfer ☒ Transfer of Ownership

Transferee AECOM

Contact Jim Ingle/John Kirchner

Telephone 906-226-4839/920-468-1978

Device Type

- ☐ Moisture Gauge  
☐ Density Gauge  
☒ Density/Moisture Gauge  
Other (Describe) \_\_\_\_\_

Manufacturer

- ☒ Troxler  
☐ Humboldt  
CPN  
Other \_\_\_\_\_

Model No. 3430 Device Serial No. 26003

Cs-137

Radionuclide

Am-241:Be

8 mCi

Activity

40 mCi

3/1/2016

Leak Test Date

3/1/2016

(Attach Copy)

To: Company Aguinaga Technical Services

License No. WI # 117-1005-01

Street Address 1924-C Calumet Drive

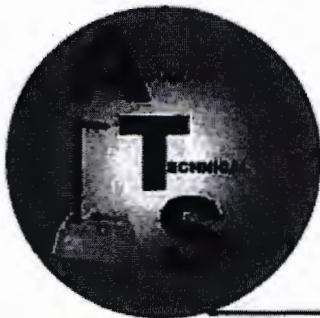
City, State Sheboygan, WI

Zip Code 53081 Telephone (920) 803-8789

Recipient Richard Aguinaga - RSO  
(Printed Name)

Sign Upon Receipt [Signature] 3-1-16  
(Signature) Date





*Where Customer Service Is a Priority!*

Richard Aguinaga  
Aguinaga Technical Services  
1924-C Calumet Drive  
Sheboygan, WI 53081  
rich@atsnuc.com  
Phone: (920) 803-8789  
Fax: (920) 803-6707

## LEAK TEST CERTIFICATE

Attn: Jim Ingle  
AECOM  
1230 Wilson Street  
Marquette MI 49855

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A leak test has been performed on the following gauge:

Manufacturer: Troxler  
Model: 3430  
Serial Number: 26003  
Cs137 Serial Number: 75-8999  
Am241/Be Serial Number: 47-22382

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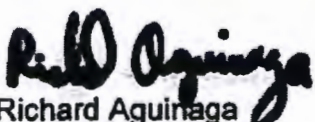
Date Sample Collected: 3/1/2016  
Date Sample Analyzed: 3/1/2016  
Collected by: Richard Aguinaga  
Analyzed By: Richard Aguinaga  
Sample Activity  $\alpha$ : < .000004  $\mu$ Ci  
Sample Activity  $\beta$ : < .00005  $\mu$ Ci

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A sample activity of 0.005  $\mu$ Ci or greater is considered by Federal and most Agreement state regulations to be a leaking source and must be removed from service and reported to the applicable regulatory agency within five days of the test.

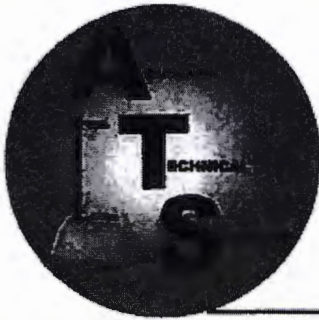
Analysis found contamination of less than 0.005 microcurie.

Analysis authorized by WI License 117-1005-01

  
Richard Aguinaga  
Radiation Safety Officer

REVIEWED BY RADIATION SAFETY OFFICER  
(If required by your license sign below)

---



*Where Customer Service Is a Priority!*

Richard Aguinaga  
Aguinaga Technical Services  
1924-C Calumet Drive  
Sheboygan, WI 53081  
rich@atsnuc.com  
Phone: (920) 803-8789  
Fax: (920) 803-6707

## LEAK TEST CERTIFICATE

Attn: Jim Ingle  
AECOM  
1230 Wilson Street  
Marquette MI 49855

---

A leak test has been performed on the following gauge:

Manufacturer: CPN/Instrotek  
Model: MC1DRP  
Serial Number: MD50307783  
Cs137 Serial Number: C-7783  
Am241/Be Serial Number: A-7783

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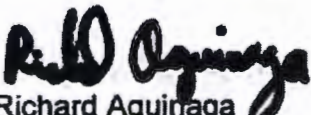
Date Sample Collected: 3/1/2016  
Date Sample Analyzed: 3/1/2016  
Collected by: Richard Aguinaga  
Analyzed By: Richard Aguinaga  
Sample Activity  $\alpha$ : < .000004  $\mu$ Ci  
Sample Activity  $\beta$ : < .00005  $\mu$ Ci

---

A sample activity of 0.005  $\mu$ Ci or greater is considered by Federal and most Agreement state regulations to be a leaking source and must be removed from service and reported to the applicable regulatory agency within five days of the test.

Analysis found contamination of less than 0.005 microcurie.

Analysis authorized by WI License 117-1005-01

  
Richard Aguinaga  
Radiation Safety Officer

REVIEWED BY RADIATION SAFETY OFFICER  
(if required by your license sign below)

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## Cender, Laura

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**From:** Miller, Sally <sally.miller@aecom.com>  
**Sent:** Tuesday, November 07, 2017 5:58 PM  
**To:** Cender, Laura  
**Cc:** Ingle, Jim; Kluz, Mark; Martysz, Ivan  
**Subject:** [External\_Sender] Amendment to NRC License No. 48-18672-01 - Additional Information Required - Revised Response  
**Attachments:** Additional Info for License 48 18672 01 AECOM 10-24-17.pdf; Response for Addl Info for License 48 18672 01 AECOM 11-7-17.docx

Dear Ms. Cender: Please see the attached revised letter and attachments in response to your e-mail and call of October 31, 2017. Thank you.

Sally K. Miller, MS, CIH, STS  
Radiation Safety Officer, DCS Americas  
Associate Vice President, SH&E  
DCS Americas Midwest Region  
D 1-303-740-2721 C 1-720-483-3976  
[sally.miller@aecom.com](mailto:sally.miller@aecom.com)

AECOM  
6200 South Quebec, Greenwood Village, Colorado 80111  
T 1-303-694-2770 F 1-303-694-3946  
[www.aecom.com](http://www.aecom.com)

**Cender, Laura**

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**From:** Cender, Laura  
**Sent:** Tuesday, October 31, 2017 1:37 PM  
**To:** 'Miller, Sally'  
**Cc:** Ingle, Jim; Kluz, Mark; Martysz, Ivan  
**Subject:** RE: Re: Amendment to NRC License No. 48-18672-01 - Additional Information Required

Hello Ms. Miller,

Thank you for your prompt response. I apologize for my delay in getting back to you as I was out of the office last week with limited access to email.

To further clarify the previous request, due to changes to our licensing process we can no longer authorize possession limits based solely on the type of byproduct material (ex. 100 mCi of Cs-137), but now must set a possession limit based on the type of device authorized. With this change I now need to know the exact number of each type of device that you request to have authorized on the license. This number does not need to be what you currently possess. For example, you could request additional Troxler 3400 series gauges beyond the three that you currently possess if you have plans to acquire additional devices of this type in the future.

The following devices are currently listed on your license:

Troxler 4640 Series  
Troxler 4545  
Troxler 3565  
Troxler 1300 Series  
Troxler 3241  
Troxler 2226  
Troxler 3216  
Troxler 3218  
Troxler 3400 Series  
Troxler 4300 Series  
Campbell Pacific Nuclear MC Series  
Campbell Pacific Nuclear 500 Series  
Campbell Pacific Nuclear MCM-2

As you do not currently possess the majority of these types of devices, please clarify which devices and how many of each model type should be authorized on the license. **Additional information is required to have any device models removed from the license.** Specifically, if a device model has never actually been possessed under the license a simple statement (1-2 sentences) confirming that AECOM never possessed or used the device is acceptable. If a device has been possessed, but since been disposed of or transferred to another licensed entity please provide a copy of the disposal/transfer record along with the most recent leak test for the device.

Please ensure your response is both signed and dated.

Thank you for your patience, and please feel free to contact me with any questions. I can be reached via email, or by phone at 630-829-9712.

Respectfully,  
Laura Cender



Laura Cender  
U.S. Nuclear Regulatory Commission  
Materials Licensing Branch  
E-mail: [Laura.Cender@nrc.gov](mailto:Laura.Cender@nrc.gov)  
Phone: (630) 829-9712

**From:** Miller, Sally [<mailto:sally.miller@aecom.com>]  
**Sent:** Tuesday, October 24, 2017 7:34 PM  
**To:** Cender, Laura <[Laura.Cender@nrc.gov](mailto:Laura.Cender@nrc.gov)>  
**Cc:** Ingle, Jim <[Jim.Ingle@aecom.com](mailto:Jim.Ingle@aecom.com)>; Kluz, Mark <[Mark.Kluz@aecom.com](mailto:Mark.Kluz@aecom.com)>; Martysz, Ivan <[Ivan.Martysz@aecom.com](mailto:Ivan.Martysz@aecom.com)>  
**Subject:** [External\_Sender] Re: Amendment to NRC License No. 48-18672-01 - Additional Information Required

Dear Ms. Cender: Please see the attached letter and attachments in response to your e-mail below. Thank you.

Sally K. Miller, MS, CIH, STS  
Radiation Safety Officer, DCS Americas  
Associate Vice President, SH&E  
DCS Americas Midwest Region  
D 1-303-740-2721 C 1-720-483-3976  
[sally.miller@aecom.com](mailto:sally.miller@aecom.com)

**AECOM**  
6200 South Quebec, Greenwood Village, Colorado 80111  
T 1-303-694-2770 F 1-303-694-3946  
[www.aecom.com](http://www.aecom.com)

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**From:** Cender, Laura [<mailto:Laura.Cender@nrc.gov>]  
**Sent:** Thursday, October 12, 2017 4:44 PM  
**To:** Ingle, Jim  
**Subject:** Amendment to NRC License No. 48-18672-01 - Additional Information Required

Hello Jim,

Thank you for taking time out of your day to speak with me regarding your requested amendment to NRC License No. 48-18672-01. Per our discussion, the following additional information is required to continue processing the amendment:

1. Please provide a Delegation of Authority letter formally appointing Mark Kluz to the position of radiation safety officer. I have attached a sample delegation of authority letter that may be used and adjusted as necessary. The letter must be signed by both Mr. Kluz and someone in his senior management chain.
2. Changes to the NRC licensing process now require us to list each type of device separately on the license. Items 6-9 of your license currently authorize you to use and possess Troxler Electronic Laboratories models 2226, 3216, 2318, 4545, 3565, 3241 series, 3400 series, 4300 series, and 1300 series devices, as well as CPN International, Inc. model MCM-2 portable gauging devices.
  - a. Please clarify how many of each type of device model should be authorized on the license.
  - b. If a certain device model had been owned in the past but should no longer be listed on the license, please provide a copy of the device transfer or disposal records.
  - c. If a certain type of device should no longer be listed on the license and has never previously been owned or used please provide a statement with a signature and date confirming that the device has never been possessed under the license.

3. Due to an error made by the NRC during your license renewal in 2011, License Condition 12 currently states that authorized users will receive training described in Item 8 of the application dated October 11, 2000. I have attached a copy of the before mentioned Item 8, where it describes the training as being performed by Fred J. TePaske or Scott J. Mottlow, neither of whom are still employed by the company. To update this section I have attached a document titled "Appendix B – Item 8 – Training, you may either check the box saying "Yes" to Item 8 or attach alternative procedures. No need to include responses for the other Items listed on the page.

Please ensure your response is dated and includes a signature from either the RSO or a senior management representative.

Please let me know if you have any questions, I can be reached directly at 630-829-9712 or via email.

Thank you,  
Laura

Laura Cender  
U.S. Nuclear Regulatory Commission  
Materials Licensing Branch  
E-mail: [Laura.Cender@nrc.gov](mailto:Laura.Cender@nrc.gov)  
Phone: (630) 829-9712