



**Performance Engineers Inc.**  
Civil / Structural Engineering

**Performance Engineers, Inc. – NRC Application, Mail Control Number 588311**

September 1, 2015

Mr. Frank P.D. Tran  
Materials Licensing Branch  
NRC, Region III  
243 Warrenville Rd., Ste. 210  
Lisle, IL 60532

Subject: Application Review Comments

Dear Mr. Tran,

Performance Engineers, Inc. (PEI) has received your August 31, 2015 review comments pertaining to our application to the NRC for licensing of three portable nuclear density gauge devices. In the correspondence, the NRC identifies two additional submittals that are required for the NRC to continue to review the application submitted by PEI on July 16, 2015. These are a completed Appendix B of NUREG-1556, Volume 1, Revision 1, and a Delegation of Authority for the proposed Radiation Safety Officer.

Please find attached to this cover letter, both of the requested documents for continuation of the NRC's review of our application. We appreciate the reference material that you provided with the review comments and look forward to obtaining a license from the NRC for the portable gauges. In the meantime, please feel free to contact me with any further questions or review comments.

Sincerely,  
**Performance Engineers, Inc.**

Aaron Nordman, P.E.  
Principal

**ITEMS 5 AND 6: MATERIALS TO BE POSSESSED AND PROPOSED USES**

Yes	No	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
→		Cesium-137	Sealed source manufacturer or distributor and model number: <hr/> Device manufacturer or distributor and model number: <hr/> (1) Traxler Model 3400 Series (2) Instratek Model 3500 Explorer	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: Measurement of the physical properties of materials	<input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)
→		Americium-241	Sealed source manufacturer or distributor and model number: <hr/> Device manufacturer or distributor and model number: <hr/> (1) Traxler Model 3400 Series (2) Instratek Model 3500 Explorer	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes <input checked="" type="checkbox"/> Specific description of the gauge use: Measurement of the physical properties of materials.	<input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: (Submit safety analysis supporting safe use)

APPENDIX B

Yes	No	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
		Californium-252	Sealed source manufacturer or distributor and model number: _____ Device manufacturer or distributor and model number: _____	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes <input type="checkbox"/> Specific description of the gauge use: _____ _____ _____ _____	<input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: _____ (Submit safety analysis supporting safe use)
		Other Isotope (Specify):	Sealed source manufacturer or distributor and model number: _____ Device manufacturer or distributor and model number: _____	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes <input type="checkbox"/> Specific description of the gauge use: _____	<input type="checkbox"/> Not applicable <input type="checkbox"/> Uses are: _____ (Submit safety analysis supporting safe use)
→ <i>Financial Assurance Required and Evidence of Financial Assurance Provided</i>						

**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
<p>→ 7. <b>INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE – RADIATION SAFETY OFFICER</b></p> <p>Name: <i>Aaron Nordman</i></p>	Before obtaining licensed materials, the proposed RSO will have successfully completed one of the training courses described in Criteria in the section entitled "Individual(s) Responsible for Radiation Safety Program and Their Training and Experience – Radiation Safety Officer" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>→ 8. <b>TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS</b></p>	Before using licensed materials, authorized users will have successfully completed one of the training course described in Criteria in the section entitled "Training for Individuals Working In or Frequenting Restricted Areas" in NUREG-1556, Vol. 1, Rev 1, dated November 2001.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>9. <b>FACILITIES AND EQUIPMENT</b></p>	No information needs to be submitted in response to this item; key issues are addressed under "Radiation Safety Program – Public Dose" and "Radiation Safety Program – Operating and Emergency Procedures."	<b>Separate Item 9 Response Need Not Be Submitted With Application</b>	
<p>10. <b>RADIATION SAFETY PROGRAM – AUDIT PROGRAM</b></p>	The applicant is <i>not</i> required to, and should not, submit its audit program to NRC for review during the licensing phase.	<b>Need Not Be Submitted With Application</b>	
<p>10. <b>RADIATION SAFETY PROGRAM – TERMINATION OF ACTIVITIES</b></p>	The applicant is <i>not</i> required to submit a response to the termination of activities section during the initial application. However, when the license expires when the licensee ceases operation, NRC Form 314 must be submitted.	<b>Need Not Be Submitted With Application</b>	
<p>→ 10. <b>RADIATION SAFETY PROGRAM – SURVEY INSTRUMENTS</b></p>	We will either possess and use, or have access to and use, a radiation survey meter that meets the Criteria in the section entitled "Radiation Safety Program – Instruments" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Item No. And Title	Suggested Response	Yes	Alternative Procedures Attached
→ 10. RADIATION SAFETY PROGRAM – MATERIAL RECEIPT AND ACCOUNTABILITY	Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license.	✗	<input type="checkbox"/>
→ 10. RADIATION SAFETY PROGRAM – OCCUPATIONAL DOSIMETRY	Either we will maintain, for inspection by NRC, documentation demonstrating that unmonitored individuals are not likely to receive a radiation dose in excess of 10 percent of the allowable limits in 10 CFR Part 20, or we will provide dosimetry processed and evaluated by an NVLAP-approved processor that is exchanged at a frequency recommended by the processor.	✗	<input type="checkbox"/>
10. RADIATION SAFETY PROGRAM – PUBLIC DOSE	The applicant is <i>not</i> required to submit a response to the public dose section during the licensing phase. This matter will be examined during an inspection.	<b>Need Not Be Submitted With Application</b>	
→ 10. RADIATION SAFETY PROGRAM – OPERATING AND EMERGENCY PROCEDURES	<p>We will implement and maintain the operating and emergency procedures in Appendix H of NUREG-1556, Vol. 1, Rev. 1, dated November 2001, and provide copies of these procedures to all gauge users and at each job site.</p> <p style="text-align: center;"><b>OR</b></p> <p>Operating and emergency procedures will be developed, implemented, and maintained and will meet the criteria in the section entitled "Radiation Safety Program – Operating and Emergency Procedures" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001.</p>	<p>✗</p> <p><input type="checkbox"/></p>	<input type="checkbox"/>
→ 10. RADIATION SAFETY PROGRAM – LEAK TEST	Leak tests will be performed at intervals approved by NRC or an Agreement State and specified in the Sealed Source and Device Registration Sheet. Leak tests will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services for other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreement State to provide leak test kits to other licensees and according to the kit supplier's instructions.	✗	<input type="checkbox"/> <b>The information in Appendix J supporting a request to perform leak testing and sample analysis is attached.</b>

Item No. And Title	Suggested Response	Yes	Alternative Procedures Attached
<p>→ 10. RADIATION SAFETY PROGRAM – MAINTENANCE</p> <p>→</p>	<p><i>Routine Cleaning and Lubrication</i></p> <p>We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer's recommendations and instructions.</p> <p><i>Non-Routine Maintenance</i></p> <p>We will send the gauge to the manufacturer or other person authorized by NRC or an Agreement State to perform non-routine maintenance or repair operations that require the removal of the source or source rod from the gauge.</p>	<p>✗</p> <p>✗</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p>The information listed in Appendix G supporting a request to perform non-routine maintenance in-house is attached.</p>
<p>10. RADIATION SAFETY PROGRAM – TRANSPORTATION</p>	<p>The applicant is <i>not</i> required to submit its response to transportation during the licensing process. However, this issue will be reviewed during inspection.</p>		<p>Need Not Be Submitted With Application</p>
<p>11. WASTE MANAGEMENT – GAUGE DISPOSAL AND TRANSFER</p>	<p>The applicant is <i>not</i> required to submit a response to waste management during the licensing process. However, the licensee should develop, implement, and maintain gauge transfer and disposal procedures in its radiation protection program.</p>		<p>Need Not Be Submitted With Application</p>



# Performance Engineers Inc.

Civil / Structural Engineering

## Performance Engineers, Inc. – Delegation of Authority to RSO


To: Radiation Safety Officer  
From: Corporation President  
Subject: Delegation of Authority

You, Aaron Nordman, 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 2 hours per week conducting radiation protection activities.

  
Signature of Management Representative  
Name & Title: James Malewitz, President

9-1-15  
Date

I accept the above responsibilities,

  
Signature of Radiation Safety Officer

9-1-15  
Date

## Tran, Frank

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**From:** Aaron Nordman <ANordman@performanceeng.com>  
**Sent:** Tuesday, September 01, 2015 1:53 PM  
**To:** Tran, Frank  
**Subject:** [External\_Sender] RE: Request for additional information re Performance Engineers, Inc. application  
**Attachments:** NRC Application Review Response.pdf

Hello Mr. Tran,

We have prepared a response for your review comments. I did have a question regarding the financial assurance portion. The reference material seems to me to indicate that this is in reference to decommissioning and disposal and I am unclear what is required of us... I would plan to return the gauge to the manufacturer for disposal, but I don't know what financial assurance would support that plan.

Please let me know if this needs to be addressed, or if you have any other questions.

Thank you,  
Aaron

Aaron Nordman, PE  
Performance Engineers, Inc.  
406 Petoskey Avenue  
Charlevoix, Michigan 49720  
(231) 547-2121 ph. (231) 675-3473 cell  
www.performanceeng.com

-----Original Message-----

From: Tran, Frank [mailto:Frank.Tran@nrc.gov]  
Sent: Monday, August 31, 2015 4:10 PM  
To: Aaron Nordman <ANordman@performanceeng.com>  
Subject: Request for additional information re Performance Engineers, Inc. application

Dear Mr. Nordman:

We have reviewed your request for a new NRC license for the use of nuclear portable gauges. In order to continue our review, we will need additional information (see attached request). Please let me know if you have any questions.

Sincerely,

Frank Tran  
License Reviewer  
NRC Region 3/Division of Nuclear Materials Safety  
Phone: 630-829-9623  
Fax: 630-515-1078  
Email: Frank.Tran@nrc.gov



-----Original Message-----

From: Trainer@nrc.gov [mailto:Trainer@nrc.gov]

Sent: Monday, August 31, 2015 5:07 PM

To: Tran, Frank <Frank.Tran@nrc.gov>

Subject: Scan from R3-238-DNMS-B

Sent by: Guest [Trainer@nrc.gov]

Number of Images: 1

Attachment File Type: PDF

Device Name: R3-238-DNMS-B