## Hammond, Michelle

From: Sent: Curtis Thompson [curtis@djanda.com] Tuesday, August 09, 2011 12:49 PM

To:

Hammond, Michelle

Subject:

RE: REQUEST FOR ADDITIONAL INFORMATION

Attachments:

NRC Form 313 supplemental info.pdf

Ms. Hammond,

Thank you for your help with our license renewal application. Please find the attached file with the information | was missing with the first submittal. I think I have everything completed, but if you have any questions or need any more information, please let me know.

Curtis N. Thompson, P.E. DJ&Á, P.C.

Engineers Planners Surveyors 3203 Russell Street Missoula, MT 59801 PH: 406/721-4320

F: 406/549-6371 www.djanda.com

From: Hammond, Michelle [mailto:Michelle.Hammond@nrc.gov]

Sent: Tuesday, August 02, 2011 9:11 AM

To: Curtis Thompson

Subject: Re: REQUEST FOR ADDITIONAL INFORMATION

License No.: 25-23491-02 Docket No.: 030-35714 Control No.: 575055

Dear Mr. Thompson:

Based on our phone conversation, this is in reference to your application dated April 29, 2011 requesting a renewal for Nuclear Regulatory Commission License 25-23491-02. In order to continue our review, we need the following information:

- Review the link below Nu-Reg 1556 Vol. 1. Specifically Section 8 Content of Application. Pay special attention to "Response From Applicant" for each section. Use this as a guide for your renewal application.
- 2. Review Appendix B "Suggested Format for Providing Information Requested in Items 5 -11". This is a checklist. You can print and fill this checklist out to ensure that you are submitting all of the required information. Use the "Response from Applicant" as a guide for your description for each item.
- 3. Please provide a maximum possession limits for the Cesium-137 and Americium-241 sources you wish to possess. The maximum possession limit (MPL) will depend on how many gauges you possess or intend to possess in the future. For example, the Troxler model you possess has 8 mCi of Cesium-137 and 40 mCi of Americium-241, if you wanted to possess 2 gauges total your MPL for Cesium-137

would be 16 mCi (8mCi X 2) and 80 mCi for Americium-241 (40mCi X 2). Based on your existing maximum possession limits, it appears as if you only have two gauge. (Item # 5 NRC Form 313). If so, confirm your possession limits for Item 5 of the application.

4. Please confirm that you will implement and maintain operating, emergency, and <u>security</u> procedures from Errata: Appendix H of the NUREG-1556, Vol. 1 Rev. 1, Dated November 2001, and provide copies of these procedures to all gauge users and at each job site. (Item # 10- O & E Procedures NRC Form 313; also see attached Errata: Appendix H)

For request # 1 and #2 (above):

http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v1/r1/sr1556v1r1.pdf

For request # 4 (above):

http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v1/r1/apph-errata.pdf

Please use these links for future reference regarding your Nuclear Materials License.

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. 575055. Please respond to this e-mail by August 15, 2011. You may reply via e-mail as long as the response is attached in a PDF format or by fax to 817-860-8188.

Thanks.

Best Regards,

Michelle M. Hammond, MSc
Health Physicist
U.S. Nuclear Regulatory Commission, R-IV
Division of Nuclear Materials Safety, Branch A
office) 817-860-8127
fax) 817-860-8188
Michelle.Hammond@nrc.gov

Supplemental Information for NRC Form 313, Application for Materials License.

1. Application for Renewal of License Number 25-23491-02.

2. Company Name and Address:

DJ & A, P.C.

3203 Russell St.

Missoula, MT 59801

3. Address where material will be used or possessed:

3203 Russell St.

Missoula, MT 59801

And temporary job sites where the USNRC maintains jurisdiction for regulating the use of licensed material, including areas of exclusive Federal jurisdiction with Agreement States.

4. Contact:

Curtis N. Thompson, RSO

406-721-4320

5. Materials:

Two (2) Troxler Model 3440 Nuclear moisture/density gauges containing the following:

8 mCi each of Cesium-137

Sealed source:

AEA Technology/QSA, Inc. Model No. CDCW556

Isotope Product Laboratories Model No. HEG-137

Troxler Dwg. A-102112

Maximum Possession Amount = 16 mCi

Two (2) Troxler Model 3440 Nuclear moisture/density gauges containing the following:

40 mCi each of Americium-241

Sealed neutron source:

AEA Technology/QSA, Inc. Model No. AMNV.997

Isotope Product Laboratories Model No. AM1.NO2 and

Model Nos. 3021 or 3027.

Troxler Dwg. A-102451

Maximum Possession Amount = 80 mCi

- 6. Licensed material used in Troxler model 3440 gauges for measuring the physical properties of materials.
- 7. Individual responsible for Radian Safety Program: Curtis N. Thompson.
  - a. Received Radiation Safety Officer Training from Qal-Tek Associates, LLC., June 2005.
  - b. Received Nuclear Density Gauge Users Training from NTL Engineering, May 2003.
  - c. Has acted as RSO for DJ & A, P.C. since June 2005.
  - d. Bachelor of Science, Civil Engineering, Colorado State University, December 1993.
  - e. Registered Professional Engineer in six states.

- 8. All authorized users complete a Portable Gauge Safety Training course prior to working with the gauges.
- 9. Information not required.
- 10. The Missoula County Rural Fire Department has agreed to allow the use of their radiation survey meter in case of an emergency.

DJ & A, P.C. has developed a radiation safety program based largely on Appendix H of NUREG-1556 which is provided to all users and is contained in the shipping papers which are with the gauges at all times.

Physical inventories of the gauges are conducted at intervals which do not exceed 6 months.

All gauge users are required to wear personal dosimeters when using the gauges to monitor radiation exposure and ensure allowable dose limits are not exceeded.

Calculations have been completed showing non-users and the public are not likely to receive a radiation dose in excess of 10% of the allowable limits.

Radiation leak tests are conducted on the gauges every three (3) months.

Routine cleaning and maintenance of the gauges is performed in accordance with Troxler recommendations and instructions.

DJ & A does not perform non-routine maintenance. Non-routine maintenance will be performed by Troxler or another 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. DJ & A has recently been using Qal-Tek Associates, LLC. of Idaho Falls, Idaho to perform calibration and maintenance. No repairs that required the removal of the source or source rod have been made. DJ & A will implement and maintain operating, emergency, and security procedures from Errata: Appendix H of the NUREG-1556, Vol. 1 Rev. 1, November 2001.

Curtis N. Thompson, RSO

## 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
Х		Cesium-137	Sealed source manufacturer or distributor and model number:  TROXLER DWG, NO. A-102112  Device manufacturer or distributor and model number:  TROXLER 3440	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes M Specific description of the gauge use: PORTABLE MOISTABLE MOISTABLE DENSITY GANGES FOR MEASUREMEN OF PHYSICAL PROPERTY ES OF MATERIALS	Not applicable  Uses are:  (Submit safety analysis supporting safe use)
X		Americium- 241	Sealed source manufacturer or distributor and model number:  TRALER PAG. NO. A-102451  Device manufacturer or distributor and model number:  TRAXLER 3440	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes \$\text{\$\text{Y}}\$  Specific description of the gauge use:  PORTABLE  MOISTURE/  DENSITY  GAUGES  FAR MEASULEMENT  OF PHYSICAL  MATE PROPERTIES	✓ Not applicable  ☐ Uses are:  (Submit safety analysis supporting safe use)

## 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
7.	INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE – RADIATION SAFETY OFFICER	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.	531	
Nar	me: CURTIS N. THOMPSON			
8.	TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS	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.	<b>S</b>	
9.	FACILITIES AND EQUIPMENT	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."	Separate Item 9 Response Need Not Be Submitted With Application	
10.	RADIATION SAFETY PROGRAM – AUDIT PROGRAM	The applicant is <i>not</i> required to, and should not, submit its audit program to NRC for review during the licensing phase.	Need Not Be Submitted With Application	
10.	RADIATION SAFETY PROGRAM – TERMINATION OF ACTIVITIES	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.	Need Not Be Submitted With Application	
10.	RADIATION SAFETY PROGRAM – SURVEY INSTRUMENTS	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.	HAVE ACCESS TO METER	. 0

## APPENDIX B

	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.	, <b>X</b>	
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.	ST.	0
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.	Need Not Be Submitted With Application	
10.	RADIATION SAFETY PROGRAM - OPERATING AND EMERGENCY PROCEDURES	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.	a	, <b>0</b>
		OR  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.	<sub>;</sub> ў <b>X</b>	
10.	RADIATION SAFETY PROGRAM – LEAK TEST	Leak tests will be performed at intervals approved by NRC or an Agreement Sate 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.	<b>X</b>	The information in Appendix J supporting a request to perform leak testing and sample analysis is attached.

Item No. And Title	Suggested Response	Yes	Alternative Procedures Attached
10. RADIATION SAFETY	Routine Cleaning and Lubrication	-	
PROGRAM – MAINTENANCE	We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer's recommendations and instructions.  Non-Routine Maintenance  We will send the cauge to the manufacturer or	Ø	ο σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ
	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.	ע	The information listed in Appendix G supporting a request to perform non-routine maintenance in-house is attached.
10.RADIATION SAFETY PROGRAM – TRANSPORTATION	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.	Need Not Be Submitted With Application	
11. WASTE MANAGEMENT – GAUGE DISPOSAL AND TRANSFER	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.	Need Not Be Submitted With Application	