

V. Curnutt

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
1600 E LAMAR BLVD  
ARLINGTON, TX 76011-4511

## EMAIL



**Name:** Vincent Troy Curnutt  
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**E-mail Address:** nukemdude@gmail.com  
**From:** Jacqueline D. Cook  
**Date:** May 28, 2015  
**Subject:** Application dated February 23, 2015 for New License  
**Pages:** 5

Docket: 030-38823  
Control: 586320

Mr. Curnutt:

Per your application dated February 23, 2015, the items on the next pages are deficiencies which require your response. **Please respond to this e-mail by Monday, June 15, 2015.** If you are unable to respond by this due date, please don't hesitate to contact me so we can discuss an extension to the date. Our fax number is (817) 200-1263. You may respond by e-mail in pdf format if you'd like. My email address is [Jackie.Cook@nrc.gov](mailto:Jackie.Cook@nrc.gov). When responding to this e-mail, please include the docket and control numbers located at the top of this page.

Please note that I used NUREG-1556, Volume 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses", dated November 2000. Please use this guidance when responding to the deficiencies on the next page. (<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v18/>).

Thanking you in advance for your cooperation, assistance, and prompt response in this matter.

/RA/

Jacqueline D. Cook  
Senior Health Physicist

**PUBLIC**

- ☐ Immediate Release  
☒ Normal Release

**NON-PUBLIC**

- ☐ A.3 Sensitive-Security Related  
☐ A.7 Sensitive Internal  
☐ Other: \_\_\_\_\_

Reviewer: JDC Date: 5/28/15

1. A. Please note that the manufacturers you listed for your cesium-137 (Cs-137) dose calibrator constancy and accuracy source, scaler/ratemeter SCA efficiency, and purchase and redistribute/resale to customer; cobalt-57 (Co-57) dose calibrator constancy and accuracy and purchase and redistribute/resale to customer; barium-133 (Ba-133) scaler/ratemeter SCA efficiency and constancy and purchase and redistribute/resale to customer as RadQual; however, we were unable to find this manufacturer in the sealed source and device registry (SSDR). We were able to find International Isotopes Idaho, Inc. Model BM06E Series and BM06S Series in the SSDR.

Please clarify this discrepancy.

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- B. Please note that the following Cs-137 sealed sources were not found in the SSDR: International Isotopes Idaho, Inc. (RadQual) Models BM08-37, BM08-3705, or BM08-371 nor Eckert & Ziegler 0975-139R, 0975-139S, or 0975-137T.

Please submit documentation that these sources have been evaluated, as appropriate.

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- C. Please note that the following Co-57 sealed sources were not found in the SSDR: International Isotopes Idaho, Inc. (RadQual) Models BM08-57, BM08-571, BM05-99, BM05-99D, BM05-99D3, or BM07-15 nor Eckert & Ziegler 0975-0017, 0975-0018, 0975-019, 0975-8400, 0975-0020, 0975-8450, 0975-0296, 0975-0297, 0975-0393, 0975-0391, 0975-0392, 0975-0014, 0975-8009, 0975-8012, 0975-0015, 0975-0390, or 0975-0392.

Please submit documentation that these sources have been evaluated, as appropriate.

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- D. Please note that the following Ba-133 sealed sources were not found in the SSDR: International Isotopes Idaho, Inc. (RadQual) Models BM08-33 or BM08-331 nor Eckert & Ziegler Models 0975-138S, 0975-138T, or 0975-0003.

If these are valid sources and have been evaluated in the sealed source and device registry, please submit documentation of such.

2. Under Item 6 of your new license application dated February 23, 2015, you state, "Purchase and redistribute/resale to customer." In order to be authorized for this activity, you will need to request a distribution license following the guidance in NUREG-1556, Vol. 12, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Possession Licenses for Manufacturing and Distribution". (<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v12/>)

Please confirm if you want your license to be authorized for this proposed use and submit a response to the applicable sections of NUREG-1556, Vol. 12, as appropriate.



3. Please note that the Radiation Safety Officer's (RSO) training and experience must include the uses of licensed material identified on the license so that the RSO is able to oversee the radiation safety program during normal and emergency conditions.

In addition to being identified as an RSO on a nuclear pharmacy license, please submit specific training and experience of the proposed RSO including the specific dates of training in radiation safety and uses of licensed material requested.

4. Although in your application you describe the review of your clients radiation protection program at least annually, please note that your program for reviewing the content and implementation of your radiation protection program will be examined during inspections. Please note that Appendix I of NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses" contains a suggested audit checklist that is specific to service provider licensees.

Please confirm.

5.
  - A. Please confirm that you will perform an evaluation of the dose the individual is likely to receive prior to allowing the individual to receive the dose (prospective evaluation).
  - B. Please note that a common method for dose evaluation is to monitor workers' dose with whole body and extremity dosimetry (thermoluminescent dosimeters (TLD), optically stimulated luminescence dosimeters (OSLs), film badges, ring badge, etc.) provided by an NVLAP-approved dosimetry service.

Therefore, submit a copy of the manufacturer's package insert of the Rados RAD 60R personal dosimeter that you plan to use for individual monitoring purposes and please confirm if it is NVLAP approved.

6. Although you provided a response to the public dose section of the application and no response was required in the license application, please note that compliance will be examined during inspection.

Please note that during NRC inspections, licensees must be able to provide documentation demonstrating, either by measurement, calculation, or a combination of both, that the total effective dose equivalent to any individual member of the public that is likely to receive the highest dose from licensed operations is less than 1 mSv (100 mrem) in one year, and any unrestricted area does not exceed 0.02 mSv (2 mrem) in any one hour. Please see Appendix M of NUREG-1556, Vol. 18 for examples of methods to demonstrate compliance.

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7. A. Please expand the safe use of radionuclides and emergency procedures to include and/or better describe the following:
- Steps to take to keep radiation exposures ALARA
- B. Please note that under section VIII of your application, page 11, 1<sup>st</sup> and 2<sup>nd</sup> bullets, you state that no radioactive waste will be stored on-site and no unsealed radioactive material is permitted. However, under section VIII of your application, page 11, 4<sup>th</sup> bullet, 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> sub-bullets includes procedures for segregation of radioactive material in waste storage areas, segregation of tracer materials to prevent cross-contamination, and separation of radioactive material from explosives.

Please clarify this discrepancy.

8. A. Please note that under section IX of your application, page 11, you state that you will use instruments that meet the radiation monitoring instrument specifications published in Appendix K to NUREG-1556, Vol. 12. Please note that Vol. 12 of the NUREG-1556 series is the "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Possession Licenses for Manufacturing and Distribution".

You requested to provide commercial dose calibrator constancy and accuracy services in addition to providing commercial scaler/ratemeter SCA efficiency and constancy services.

Therefore, you should confirm that you will use instruments that meet the radiation monitoring instrument specifications and model survey instrument calibration program in Appendix J to NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses."

- B. Please choose one of the following:

- State: "We will survey our facility and maintain contamination levels in accordance with the survey frequencies and contamination levels published in NUREG-1556, Vol. 18, "Program Specific Guidance About Service Provider Licenses," dated November 2000."

**OR**

- Submit a description of alternative method for demonstrating how to evaluate a radiological hazard.
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9. Please do one of the following:

- State: "Leak tests, when required by the license, 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 to 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."

**OR**

- State: "Leak testing will follow the model procedures in Appendix O."

**OR**

- State: Leak testing procedures and analysis will be done by the applicant." Provide the information in supporting a request to perform leak testing. Appendix O may serve as guidance.

10. In addition to what you have already submitted regarding minimization of contamination, please consider the following:

- Implementation of and adherence to good health physics practices in operations
  - Minimization of areas, to the extent practicable, where licensed materials are used and stored
  - Maximization of the frequency of surveys, within reason, to minimize spread of contamination
  - Use of non-porous materials for laboratory bench tops, flooring, etc.
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