



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713

April 22, 2022

Brett D. Clarke,
Corporate Radiation Safety Officer
Froehling & Robertson, Inc.
3015 Dumbarton Road,
Richmond, VA 23228

SUBJECT: FROEHLING & ROBERTSON, INC., REQUEST FOR ADDITIONAL
INFORMATION, MAIL CONTROL NO. 630241

Dear Mr. Clarke:

This is in reference to your application dated February 16, 2022, requesting to renew NRC License No. 45-08890-02. The items below include references to NUREG-1556, Volume 1, Revision 2 "*Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Portable Gauge Licenses*," and NUREG-1556, Volume 7, Revision 1 "*Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope, Including Electron Capture Devices and X-Ray Fluorescence Analyzers*." In particular, please note that within Volume 7, X-Ray Fluorescence Analyzers (XRFs) are addressed in Appendix C. You can find these documents online at: <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v1/index.html> and at: <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v7/index.html> (Volumes 1 and 7, respectively). In order to continue our review, we need the following additional information:

1. Regarding your radioactive materials authorizations, in accordance with NUREG-1556, Volumes 1 (Revision 2) and 7 (Revision 1), and based on a phone call with you on April 22, 2022:
 - a. Your application dated February 16, 2022, did not include the RMD Instruments Corp. Model LPA-1 XRF. You stated during the above-quoted phone call that this instrument was pending disposal and possessed outside of NRC jurisdiction. As a result, and consistent with your application, the corresponding authorization will be removed from your renewed NRC license. No response is necessary for this item.
 - b. Your application dated February 16, 2022, included a request for the Niton XRF Spectrum Analyzer. During the above-quoted phone call, we discussed the multiple series presently authorized on your NRC license and the contrast with your application. Please clarify if you wish to either: (1) retain the present authorizations for the Thermo NITON Analyzers LLC Model XL and XL-II Series as well as the Thermo Scientific Portable Analytical Instruments, Inc. Model XLi and XLp Series XRFs; or (2) revise the respective authorizations.

Consistent with NUREG-1556, Volume 7, Revision 1, Appendix C: If you wish to revise your material authorizations, please provide manufacturer, model (or model series), associated isotope(s), activity of the source(s), quantity of device(s), and proposed authorized use(s).

- c. Your application dated February 16, 2022, requested authorization for the Viken Detection Corporation (formerly Heuresis Corporation) Model Pb200i XRF, with no single source exceeding 5 mCi of Co-57, and a maximum possession limit of 30 mCi. Your NRC license presently authorizes 10 mCi of Co-57, with a maximum possession limit of 30 mCi. Please confirm you wish to reduce your per-source authorization for this device from 10 mCi of Co-57 to 5 mCi of Co-57, or otherwise state that you wish for the NRC license to retain the present 10 mCi of Co-57 per-source authorization for this device.
2. Your application included a commitment for training that was vendor-specific. As your application will be a legally-binding document incorporated into your license, it is recommend that you commit to more generalized language. Consistent with this, and in accordance with NUREG-1556, Volume 1, Revision 2, Section 8.8 "Training For Individuals Working In or Frequenting Restricted Areas," please commit to:

Before using licensed materials, authorized users will have successfully completed one of the training courses described under "Criteria" in the section titled "Training for Individuals Working In or Frequenting Restricted Areas" in NUREG-1556, Volume 1, Revision 2.

3. Your application included a commitment for non-routine maintenance to be performed by the manufacturer. Similar to Item No. 2 above, your commitment can be generalized beyond the manufacturer. Consistent with this, and in accordance with NUREG-1556, Volume 1, Revision 2, Section 8.10.8 "Maintenance," please commit to:

Nonroutine maintenance or repair operations that require detaching the source or source rod from the gauge: *The gauge manufacturer, or other person licensed by the NRC or an Agreement State will perform nonroutine maintenance or repair operations that require detaching the source or source rod from the gauge.*

4. Regarding your possession and use of the XRF devices, two items are needed to complete our review of your application:
 - a. Consistent with our phone call on April 22, 2022, you stated that Froehling & Robertson, Inc., has not and will not perform any maintenance or repair of the XRF devices which may involve the source. In accordance with NUREG-1556, Volume 7, Revision 1, Appendix C, Section 10.7 "Maintenance," and the related Section 8 "Training for Individuals Working In or Frequenting Restricted Areas," please commit in writing that:

Operations with the XRF device(s) which involve either the removal of the source containing radioactive material or maintenance/repair of the source, will be performed by the manufacturer or other organization specifically licensed by the NRC or Agreement State to perform such services.

Consistent with the above commitment, no further information regarding the radiation safety training (Section 8), radiation monitoring instruments (Section 10.2), or occupational dose monitoring (Section 10.4) is required.

- b. Consistent with our phone call on April 22, 2022, and in accordance with NUREG-1556, Volume 7, Revision 1, Appendix C, Section 11 "Waste Management," please commit to the following:

Disposal or transfer of XRFs will be by transfer of the radioactive material to a licensee specifically authorized to possess it.

We will continue our review upon receipt of this information. Please reply to my attention at:

Jason vonEhr
Mail Control No. 630241
USNRC, Region I
Division of Radiological Safety and Security
2100 Renaissance Boulevard
King of Prussia, PA 19406

Or

R1DRSSMail.Resource@nrc.gov
Reference – Jason vonEhr
Mail Control No. 630241

In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of this letter.

An electronic version of the NRC's regulations is available on the NRC Web Site at: www.nrc.gov. Additional information regarding use of radioactive materials may be obtained on the NRC Web Site at: <http://www.nrc.gov/materials/miau/mat-toolkits.html>. This site also provides the link to the toolbox for updated information on the revised regulations for naturally-occurring and accelerator-produced radioactive materials (NARM).

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at: <http://www.nrc.gov/reading-rm/adams.html>. Please be aware that you may request that certain portions of your submittal to NRC be withheld from public disclosure as proprietary information. To do this, you must execute an affidavit as specified in 10 CFR 2.390. You must list all portions that you wish to be held proprietary, along with your reasoning as to why that is appropriate. While it is allowable, please refrain from submitting proprietary information in support of a license unless necessary. Keep in mind that all NRC licenses are considered to be in the public domain, and therefore may be viewed by any member of the public who requests to see them.

B. Clarke

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If you have any questions regarding this request for additional information, please contact me at (610) 337-5256 or via electronic mail at Jason.vonEhr@nrc.gov.

Thank you for your cooperation.

Sincerely,

Jason vonEhr, Health Physicist
Commercial, Industrial, R&D
and Academic Branch
Division of Radiological Safety and Security
Region I

License No.: 45-08890-02

Docket No.: 030-06580

Mail Control No.: 630241

FROEHLING & ROBERTSON, INC., REQUEST FOR ADDITIONAL INFORMATION, MAIL CONTROL NO. 630241 DATED APRIL 22, 2022

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SUNSI Review Complete: JEV

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NAME	Jason vonEhr						
DATE	04/22/2022						

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