



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

August 20, 2021

Kevin Dunsmore
Senior HSSE Advisor / RSO
Golder Associates, Inc.
200 Century Pkwy., Ste. C
Mount Laurel, NJ 08054

Dear Mr. Dunsmore:

I am reviewing your application dated July 27, 2021 (ML21209A110), requesting the renewal of U.S. NRC Materials License No. 29-28576-01.

The NRC's guidance document for your proposed type of license, which I refer to below as "the guidance", is NUREG-1556, Volume 1, Rev. 2, dated June 2016, "Consolidated Guidance About Materials Licenses - Program Specific Guidance About Portable Gauge Licenses." This guidance is available on the NRC Web site at:

<https://www.nrc.gov/docs/ML1617/ML16175A375.pdf>

Upon review of your application, I identified the following areas requiring additional or clarifying information:

1. [NRC Form 313, "Application for Materials License,"](#) indicates that the license application should be prepared following the instructions provided in the current volume of [NUREG-1556, "Consolidated Guidance About Materials Licenses."](#)

Your application was not prepared in accordance with the guidance and did not adequately address all required items. Therefore, you may revise and resubmit your application using Appendix B, "Suggested Format for Providing Information Requested in Items 5 through 11, of the U.S. NRC Nuclear Regulatory Commission Form 313," from the guidance.

Additional items in this letter address the specific areas in which additional or clarifying information is requested. Further information regarding completion of the license application may be found in Section 8, "Contents of an Application," of the guidance.

2. Section 8.13, "Item 13: Certification," specifies that a representative of the legal entity filing the application must sign and date the [NRC Form 313, "Application for Materials License."](#) The representative signing the application must be authorized to make binding commitments and to sign official documents on behalf of the applicant (i.e., a certifying official).

You signed the submitted application for license renewal. Though, your title is not recognized as that of a certifying official (i.e., President, Director or Branch Manager).

Therefore, please revise and submit the application bearing the signature of a certifying official. For additional information, you may refer to Chapter 3, "Management Responsibility," of the guidance.

3. [Title 10 Code of Federal Regulation \(10 CFR\) §30.34\(b\)\(1\)](#) and Section 9.1, “Timely Notification of Transfer of Control,” of the guidance requires that licensees must provide all supporting information and obtain the NRC’s prior, written consent before transferring control of the license, also referred to as a “change of ownership” and/or “transferring the license.”

A check with [Michigan's Department of Licensing and Regulatory Affairs' Corporations, Securities and Commercial Licensing Bureau](#) revealed that the registration of [Golder Associates, Inc., Identification No. 801019369](#), was withdrawn on May 29, 2008.

Clarify the status of the legal entity identified as Golder Associates, Inc. For additional information and guidance, please refer to [Regulatory Issue Summary 2014-08, Rev. 1, “Regulatory Requirements for Transfer of Control {Change of Ownership} of Specific Materials Licenses,”](#) and [NUREG-1556, Vol. 15, Rev. 1, dated June 2016, “Consolidated Guidance About Materials Licenses: Guidance About Changes of Control and About Bankruptcy Involving Byproduct, Source or Special Nuclear Materials Licenses.”](#)

4. Section 8.3, “Item 3: Address(es) Where Licensed Material Will Be Used or Possessed,” identifies that to conduct operations at temporary jobsites (i.e., locations where work is conducted for limited periods of time), the address may be stated as “temporary jobsites anywhere in the U.S. where the NRC maintains jurisdiction.”

Your application identifies your intent to use licensed material at temporary job sites, but restricts use to only temporary sites in states subject to NRC’s regulation and authority.

Your statement may be overly restrictive as it does not permit use in areas under exclusive federal jurisdiction within Agreement States or Territories of the United States. You may consider resubmitting your license application with an allowance to use licensed material at, “temporary jobsites anywhere in the U.S. where the NRC maintains jurisdiction.”

5. Your application requests authorization to possess and use the Troxler Electronic Laboratories, Inc., Model 3400 Series portable gauging device. The requested maximum activity per source for the requested cesium-137 and americium-241:beryllium sealed sources intended for use with the requested portable gauging devices varies from that authorized in your current license and North Carolina Sealed Source & Device (SS&D) Registry Sheet #NC-646-D-130-S (4-4-2007).

Further, you requested authorization for an americium-241:beryllium sealed source designated as a AEA Technology/QSA, Inc., Model AMNV.997 sealed source. Upon review of the Massachusetts SS&D Registry Sheet #MA-1059-S-358-S (4-1-2010), it appears that the correct designation for the requested sealed source is the QSA Global, Inc. (formerly AEA Technology/QSA, Inc.) Model AMN.V997 sealed source.

Please submit a revised application identifying the correct model designation for the requested sealed sources. In addition, please revise the total activity to be authorized so as to account for the maximum activity per source as indicated in SS&D Registry Sheet #NC-646-D-130-S (4-4-2007).

6. Section 8.7.1, "Radiation Safety Officer," of the guidance identifies that the Radiation Safety Officer (RSO) is responsible for the oversight of licensed operations. The RSO must have sufficient organizational authority and management prerogative to enforce appropriate radiation protection rules, standards, and practices.

Your application did not include a current delegation of authority in support of your continuing appointment as the RSO.

To formally document the organizational authority of your office, submit a current delegation of authority signed by a management representative. You may use the example Delegation of Authority to Radiation Safety Officer from Appendix D, "Typical Duties and Responsibilities of the Radiation Safety Officer," from the guidance.

7. Section 8.9, "Facilities and Equipment," of the guidance identifies that applicants must provide a facility diagram for each permanent portable gauge storage location.

The submitted facility diagrams depicting your facilities do not provide all 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," of the guidance.

Please resubmit the facility diagrams identifying all entrances and points of access, rooms, uses of the rooms, the location of the gauge storage area and its distance from occupied work areas. Also, describe and label all adjacent areas to your facility (parking lot, neighboring buildings, streets, etc.). If the gauges are stored in a cabinet or similar container, submit a diagram and description of the container and describe how it is secured to prevent its removal.

As depicted in Figure 8-4, "Storing Gauges," of Section 8.10.5 of the guidance, gauges should be stored away from occupied areas. Further, [10 CFR §30.34\(i\)](#) requires that portable gauges must be secured against unauthorized removal using a minimum of two independent physical controls that form tangible barriers.

8. Section 8.8.1, "Authorized Users," of the guidance, states that individual gauge users must have adequate training and experience in the use of portable gauging devices. Acceptable training and experience may include either:

- the completion of a portable gauge manufacturer's course for users and hands-on training in the use of portable gauges; or
- an equivalent course that meets the criteria in Appendix C of the guidance.

The "Response from Applicant," section of the guidance, specifies that either of the following responses may be provided:

- the statement, "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, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Portable Gauge Licenses.'; or
- provide a description of the training for proposed authorized users.

Your application states: "All persons employed to use nuclear equipment must be trained by an authorized trainer (Troxler Electronics) prior to gauge usage or transportation." Your response is vague and lacks a clear commitment to have users complete a portable gauge manufacturer's course and hands-on training in the use of portable gauging devices or an equivalent course meeting the criteria in Appendix C of the guidance.

Please submit an acceptable response. For additional information, please refer to Section 8.8, "Item 8: Training for Individuals Working In or Frequenting Restricted Areas," and Appendix C, "Criteria for Acceptable Training Courses for Portable Gauge Users," of the guidance.

9. Section 8.10.2, "Radiation Monitoring Instruments," of the guidance specifies that licensees should possess, or have access to, radiation monitoring instruments, for the protection of public health and to minimize danger to life or property.

Your application neither identifies if you possess or have access to radiation monitoring instruments, nor does your application include alternate procedures for assessing source integrity after an incident involving the gauge.

The "Response from Applicant," section of the guidance, specifies that either of the following responses may be provided:

- The statement, "We will either possess and use, or have access to and use, a radiation survey meter that meets the criteria in the section titled "Radiation Safety Program-Radiation Monitoring Instruments" in NUREG-1556, Volume 1, Revision 2, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Portable Gauge Licenses," in the event of an incident"; or
- A description of an alternative procedure for determining source integrity after an incident involving the gauge.

Please respond either by indicating if you possess and use, or have access to and use, a radiation survey meter meeting the criteria in Section 8.10.2 of the guidance or submit alternative procedures for determining source integrity after an incident involving the gauge.

10. Section 8.10.3, "Material Receipt and Accountability," of the guidance, identifies that licensed material must be tracked "from cradle to grave" in order to ensure gauge accountability; identify when sealed sources/gauges could be lost, stolen, or misplaced; and ensure that possession limits listed on the license are not exceeded. Licenses must do the following:

- Maintain records of receipt, transfer and disposal of gauges;
- Conduct physical inventories every 6 months (or at other intervals justified by the applicant and approved by the NRC) to account for all sealed sources.

The "Response from Applicant," section of the guidance, specifies that the following responses may be provided:

- The statement, "Physical inventories will be conducted every 6 months or at other intervals approved by the NRC to account for all sealed sources and devices received and possessed under the license"; or

- A description and justification of an alternate frequency and/or procedure to account for all sealed sources and devices received and possessed under the license; and
- The statement, "We will develop, implement and maintain procedures for ensuring accountability of licensed materials at all times."

Please state how you ensure that physical inventories are conducted every six months and maintain accountability of licensed materials at all times. If applicable, include a description and justification for an alternate frequency and/or procedure to account for all sealed sources and devices received and possessed under the license.

11. Section 8.10.4, "Occupational Dose," of the guidance, states that applicants must evaluate the potential occupational exposure of all workers and monitor occupational exposure when appropriate.

Your application includes references to the use of personnel monitoring devices by your gauge users, but does not include a clear commitment to furnishing and requiring the use of personnel monitoring devices to your gauge users.

Please provide an acceptable response. As indicated in the guidance, an acceptable response should include a statement identifying that personnel monitoring is not required or include a commitment to provide and require the use of dosimetry. Please refer to Section 8.10.4 and Appendix H, "Dosimetry-Related Guidance," of the guidance for additional information.

12. Section 8.10.6, "Operating, Emergency and Security Procedures," of the guidance states that applicants must develop, implement, and maintain Operating, Emergency, and Security Procedures.

Your application failed to include complete Operating, Emergency and Security Procedures, which should include all of the following components:

- Instructions for using the portable gauge and performing routine maintenance according to the manufacturer's recommendations and instructions;
- Instructions for maintaining security during storage and transportation;
- Instructions to keep the gauge under control and constant surveillance during field operations;
- Steps to take to keep radiation exposures ALARA;
- Steps to maintain accountability during use;
- Steps to control access to a damaged gauge; and
- Steps to take and whom to contact when a gauge has been damaged

Acceptable procedures are included in Appendix G, "Operating, Emergency and Security Procedures," of the guidance. In your response, you may state that you will implement and maintain the aforementioned procedures, or you may state that you will develop, implement and maintain equivalent procedures satisfying the criteria identified in Section 8.10.6 of the guidance, or provide alternative procedures.

In addition, please confirm that copies of your procedures will be provided to all gauge users and will be available at each jobsite.

13. Section 8.10.7, "Leak Tests," of the guidance and 10 CFR §30.53, "Tests," require applicants to address the performance of leak testing, which is necessary to assess radioactive leakage from the source in the portable gauge.

Your application states: "The leak test will be performed using the Troxler Model 3880 Leak Test Kit. Perform the leak test according to manufacturer's instructions. When performing a leak test wear your personnel monitoring equipment. Leak test nuclear gauges at intervals not to exceed six months."

Your application does not commit to maintaining records of leak test results. Further, you have committed to performing leak testing at intervals not to exceed six months. The associated North Carolina SS&D Registry Sheet NC-646-D-130-S (4-4-2007) for the Troxler Electronic Laboratories, Inc., Model 3400 Series portable gauging devices does allow for a less restrictive interval of 12 months. You may opt to commit to the more restrictive leak test interval as previously stated, or you may choose to commit to the allowable leak test interval of 12 months.

Please submit a description of how you will ensure the performance of leak testing. Additional guidance for preparing an acceptable response is provided in Section 8.10.7 of the guidance.

14. Section 8.10.8, "Maintenance," of the guidance, describes maintenance options for portable gauging devices, including routine maintenance and non-routine maintenance.

Your application made no commitments regarding non-routine maintenance and did not adequately address the performance of routine maintenance by including a commitment to abide by the manufacturer's written recommendations and instructions.

Please review Section 8.10.8 of the guidance and provide complete commitments for maintenance of the gauges. Note that if you request authorization for non-routine maintenance, we will require, at a minimum, that the information in Appendix F, "Information needed to support applicant's request to perform Nonroutine Maintenance," of the guidance, is also provided.

In accordance with 10 CFR §2.390 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <https://www.nrc.gov/reading-rm/adams.html>.

To continue review of your application, I request that you submit your response to this letter within 30 calendar days from the date of this letter. In your response, please refer to the license, docket, and control number specified below. I will assume that you do not wish to further pursue this licensing action if I do not receive a reply within the specified timeframe noted above.

If you have questions, require additional time to respond, or require clarification on any of the information stated above, I encourage you to contact me at Jason.Kelly@nrc.gov or at (630) 829-9737.

Sincerely,

Jason M. Kelly, MPH
Health Physicist
Materials Licensing Branch

Docket No.: 030-31907
License No.: 29-28576-01
Control No.: 627397