

From: [Jason Kelly](#)
To: [Travis Behnke](#)
Cc: [Matt DiMonte](#); [Frank Tran](#)
Subject: Materials License #13-35681-01 - Request for Additional Information
Date: Tuesday, October 31, 2023 11:44:00 AM

Mr. Behnke:

During the course of the review of your amendment request dated October 12, 2023, and your current license authorizations, my colleague, Frank Tran, Senior Health Physicist, and I, identified additional items requiring additional or clarifying information. This included the following items:

1. Item 6, 7, 8, and 9, Subpart A, of your license identifies that your company is authorized to possess and use the QSA Global, Inc., Model 880 *Series* Delta radiographic exposure device, which matches the request identified in your license application dated July 13, 2022, signed by Mitchyll Fuller, Chief Executive Officer. The QSA Global, Inc., Model 880 Series includes the following models: QSA Global, Inc., Model 880 Delta, 880 Sigma, 880 Elite, 880 Omega and 880 Atlas. The reference to the QSA Global, Inc., Model 880 *Series* is not necessary if your company only requires license authorization for the 880 *Delta* radiographic exposure device.

Please confirm that your company only requires continuing authorization for the QSA Global, Inc., Model 880 Delta radiographic exposure devices, or otherwise specify models within the QSA Global, Inc., Model 880 Series that you require license authorization to possess and use. For additional information and guidance, please refer to Section 8.5.1, "Sealed Sources and Devices," from NUREG-1556, Volume 2, Rev. 1, "Consolidated Guidance About Materials Licenses Program-Specific Guidance About Industrial Radiography Licenses," which may be accessed at: <https://www.nrc.gov/docs/ML1606/ML16062A091.pdf>

2. Item 6, 7, 8 and 9, of your license does not authorize your company to possess and use depleted uranium as shielding in your radiographic exposure devices. According to the Massachusetts Sealed Source & Device (SS&D) Registry Sheet No. MA-1059-D-334-S for the QSA Global, Inc., Model 880 Delta, each camera requires 15.6 kilograms (34.4 pounds) of depleted uranium as shielding. An amendment is needed to your license to identify the total number of kilograms of depleted uranium required for use as shielding in your radiographic exposure devices. For additional information, see Section 8.5.1, "Sealed Sources and Devices," from NUREG-1556, Volume 2, Rev. 1, "Consolidated Guidance About Materials Licenses Program-Specific Guidance About Industrial Radiography Licenses."

Please respond by requesting the addition of depleted uranium for use as shielding in radiographic exposure devices and identify the total number of kilograms required.

3. Item 6, 7, 8 and 9, of your license does not authorize your company to possess and use radiography source changers. The license application dated July 13, 2022, signed by Mitchyll Fuller, Chief Executive Officer, identified that you were seeking authorization to possess and use the QSA Global, Inc., Model 650L and 880SC radiography source changers. As your license authorizes the performance of source retrieval, the possession and use of a source changer may be necessary to

facilitate recovery of a radiography source assembly.

Therefore, please clarify if you'd like to add authorization for possession and use of radiography source changers. If applicable, please identify the manufacturer and model numbers of the source changers that you would like to possess and use. Further, if you'd like authorization to perform source change in-house, include your source change procedures with your response. For additional guidance for developing source change procedures, please refer to Appendix K, "Information for Applicants to Consider when Developing Procedures for Operating Radiography Equipment," of NUREG-1556, Volume 2, Rev. 1.

4. Item 7, Subpart A, restricts your license authorization to possession and use of a single compatible radiography source assembly. Though, the license application dated July 13, 2022, signed by Mitchyll Fuller, Chief Executive Officer, identified that you were seeking authorization to also possess and use additional compatible radiography source assemblies.

It appears that these additional compatible radiography source assemblies were inadvertently withheld upon issuance of the new license. Please clarify if you'd like to add authorization for additional radiography source assemblies in addition to the radiography source assembly currently identified in your license. If applicable, please identify the manufacturer/distributor and model number for each additional radiography source assembly to be authorized.

5. Condition 10 of your license restricts your license authorization to use and store licensed material at temporary job sites. Storage, but not use, is permitted at your licensed facility in Merrillville, Indiana. Upon review of the submitted facility diagram included with the license application dated July 13, 2022, it was noted that your cameras are stored in a vault with additional shielding that may have been intended to serve as a permanent radiographic installation. Therefore, please clarify if you are seeking to perform industrial radiography within a permanent radiographic installation at your facility in Merrillville, Indiana.

If radiography will be performed in a permanent radiographic installation at your licensed facility, provide all the following information for each installation:

- An annotated sketch or drawing of the facility and its surroundings.
- The scale to which the sketch or drawing is made. The same scale should be used for all sketches and drawings. The recommended scale is 1/4 in = 1 ft. Drawings to this scale that do not fit on 8-1/2 × 11-inch paper may be provided as sectional drawings.
Sketches or drawings should also include a compass directional arrow to indicate "North."
- The type, thickness, and density of shielding materials on all sides, including the floor and the roof.
- The locations of entrance ways and other points of access to the facility.
- A description of the areas adjacent to the facility and the distance to these areas. Include information on areas adjacent to, above, and below the facility.
- A description of the general location of each proposed permanent radiographic installation (e.g., located in an industrial park, an office complex) and its current use.
- A description of the visible-audible signal system or entrance control system and its location.

The results of radiation-level calculations or actual radiation measurements adjacent to, above, and below the installation. Provide the radiation level in all directions around the installation, including the roof. The radiation level should not exceed 0.02 mSv [2 mrem] in any one hour. Clearly identify the type of sealed source (radionuclide), the amount of radioactive material in the sealed source (activity), and the position or location of the sealed source within the installation for the calculations or measurements.

Further, indicate whether or not radiography will be performed at your licensed facility outside of a permanent radiographic installation. If radiography will be performed at a site outside of a permanent radiographic installation, provide a diagram of the location where radiography may be performed and its surroundings, including a description of adjacent property. Note: Radiographic operations may be conducted outside a permanent radiographic installation, as if the work was performed "in the field" at a temporary jobsite, provided that you comply will all NRC regulatory requirements (e.g., two-person crew).

Please respond to this request in writing within 15 calendar days. In your signed response letter, please include a reference to your U.S. NRC Materials License Number 13-35681-01 along with Control Number 637474.

You may also contact me at (630) 829-9737 or Jason.Kelly@nrc.gov if you have any questions or if you need additional time to respond to this request.

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