



July 23, 2021

USTEK Lic. App. - RAI responses to letter dated June 25, 2021

- 1) Please see attached Appendix B from NUREG Vol. 18 Rev. 1
- 2) Please see updated procedures that exclude an RSC.
- 3) Under this waste broker verification service license, 20.2002 ADR requests would continue as currently requested via the NRC HQ, until a more mutually beneficial and efficient arrangement can be established for all stakeholders.

The intended business case with this waste broker service license is:

To become a LLRW & VLLW waste verification facility and temporary storage facility while obtaining ADR approvals for clients that need to get their waste off-site and eventually properly disposed, and for the disposition of certain sealed sources. In addition, this license will serve as a waste characterization facility for licensees that want to outsource that service and disposition their sealed sources.

- 4) USEI owns the MVF. USE provides the Sales and Marketing, Facilities and equipment and personnel outside the licensed operations (i.e., receiving from carriers while still in transit, shipping of exempt form licensing materials to USEI and non-radiological emergency response).
QTA provides the staffing for the licensed operations.
See attached updated procedure (OP-PRO-607 MVF)
- 5) The Standby Trust and financial insurance instrument will be furnished by Qal-Tek in the near future, a request for more time was submitted.
- 6) QTA will not open waste (radioactive or not) for the purpose of recycling. Sealed sources, typically H-3 Exit signs, will be recycled intact as received by the waste generator. If other sources are recycled, they will be forwarded to the QTA ID license.

- 7) We are waiting for NMSS to contact us regarding the EA.

President/CEO – Travis Snowden

July 23, 2021
Date

See Attachments



Appendix B from NUREG Vol. 18 Rev. 1 changes and statements:

Table B-2 Sealed Radioactive Materials to Be Possessed and Proposed Uses

We are requesting to amend the sealed material possession stated in Form 313 item 5 (3) "Sealed Sources containing (by-product and source material) atomic numbers 1-98 whose total activity cannot exceed 10 Ci" to a limit of 1000 Ci, accounting for larger quantities of H-3 Exit signs.

Table B-3 Source and Special Nuclear Materials To Be Possessed and Proposed Uses

Due to the unsealed forms of SNM waste, we are requesting to manage this waste by concentration [REDACTED] [REDACTED] [REDACTED] to address criticality issues and SM conformance with disposal facility Waste Acceptance Criteria (WAC), rather than mass or activity.

Table B-4, 5.3 Recordkeeping for Decommissioning

Pursuant to 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g), and 10 CFR 70.51(b)(3), as appropriate, we will maintain drawings and records important to decommissioning and will transfer these records to an NRC or Agreement State Licensee before licensed activities are transferred. Furthermore, pursuant to 10 CFR 30.51(f), 10 CFR 40.61(f), and 10 CFR 70.51(a), as appropriate, prior to license termination, we will forward the records required by 10 CFR 30.35(g), 10 CFR 40.36(f), and 10CFR70.25(g), as appropriate, to the appropriate NRC regional office or to assign the records to the appropriate NRC regional officer before the license it terminated.

Table B-4, 5.5 Emergency Plan

Qal-Tek has evaluated the requirement or the Emergency Plan IAW 10CFR30.32(i) and has determined that this license application does not require one (see attached CAP88 Eval. and Dose report) because the worst-case radionuclide (i.e., Th-232) and MEI receptor site did not come close to the 1 rem effective dose equivalent. The 5 rem to the thyroid was not modeled due to the very unlikely incidence of receiving any radioiodine's.

Our evaluation basis employs factors (ii), (v), and (vi) of 10CFR30.32(i)(2) even though only one factor is required.

(ii) All or part of the radioactive material is not subject to release during an accident because of the way it is stored or packaged;

(v) Facility design or engineered safety features in the facility would cause the release fraction to be lower than shown in § 30.72;



(vi) Operating restrictions or procedures would prevent a release fraction as large as that shown in § 30.72

- The potential of a release from the MVF is highly unlikely since waste activities to be performed will be limited to primarily waste characterization in their original DOT packaging, material physical movements for consolidation or future trans-loading of VLLW. The material is received, stored and verified in individual packages. The most credible events will be ordinary “spills” from package breaches or trans-loading material that are easily identified and immediately managed within the containment facility. The expected physical form of most waste will be soils, soil-like materials and debris that will be lightly contaminated. Furthermore, no processing will be performed that involves changes to physical or chemical form of the waste or use of compaction, heat or other treatment processes that could alter chemical or physical form of the waste.
- The MVF will not process wastes that are pressurized or contain gases that are capable of being released.
- The MVF will be closed during operations to the extent that any ‘spills’ can be contained and appropriately responded to without a release to the environment.
- A CAM or grab air samplers will be used to monitor airborne contamination to inform worker protection and extent of environmental release decisions to prevent approaching any regulatory limits (i.e., dose to workers and the public, NESHAPS emissions and dose constraint rule).
- The MVF is intended and designed to be a future VLLW facility with working inventories less than 10% of Class A waste limits in 10CFR61.55.
- The working inventory of radioactive material at the MVF will be highly influenced by the Waste Acceptance Criteria (WAC) of the USE Idaho facility, which is currently limited to 3,000pCi/g (sum of all nuclides).
- All radioactive material received at the MVF will be containerized in approved waste packages (i.e., IP-1, IP-2, Type A or Excepted Packaging).
- The MVF is not designed, nor will it be operated, as a deliberate waste storage facility. Any storage of waste will be in service of downstream processing and verification activities in a continuous “zero-sum” process, i.e., all received waste is appropriately dispositioned at an offsite location once the appropriate pathway is identified.



Item 7: Individual(s) Responsible for Radiation Safety Program and Their Training Experience

The President/CEO, Travis Snowden and the RSO listed below will also be responsible for the Radiation Safety Program and training of employees.

Item 7.1: Radiation Safety Officer

Michael Albanese, QTA Corporate RSO, will initially be the RSO for implementation and operation of the Radiation Safety Program, my background, experience and training are on file and in part in the license application. RSO reports directly to President/CEO of Qal-Tek Associates and has authority to sign on behalf of the company, order STOP WORK and direct staff in implementing the Radiation Safety Program. The RSO also will be available for operational start-up on a regular basis and be available for emergencies and on-site in 4 hrs.

Item 7.2: Authorized users

Before using licensed material, authorized users will receive the training described in Appendix D of NUREG-1556, Volume 18, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses".

Item 8: Training for Individuals Working in or Frequenting Controlled Areas

Before Working in the vicinity of licensed materials, personnel will have successfully completed training commensurate with assigned duties in accordance with RSP.

Annual refresher training will be implemented for current authorized users including best practices and lessons learned.

Item 9: Facilities and Equipment

- Facility diagram submitted with the license application
- Security will be addressed per the license application under Part 20 constant surveillance or secured from unauthorized removal.
- Area monitors will be performed to track public dose within Part 20 requirements.
- Air monitoring using a CAM or grab air samplers will be used to monitoring air-borne contamination within the facility.
- Personal Protective Equipment will be used in accordance with RSO recommendations and procedures OP-PRO-607MVF & SP-PRO-008MVF.
- Spill kits will be employed in the processing area to facilitate prompt and orderly clean-up efforts.

**Item 10.2: Material Receipt and Accountability**

We will develop, implement, and maintain procedures for ensuring accountability of licensed materials at all times.

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. Records of inventory will be maintained for a period of 5 years from the date of each inventory, and will include the radionuclides, quantities, manufacturer's name and model numbers, and date of the inventory.

Item 10.3: Radiation Monitoring Instruments

We will use instruments that meet the radiation monitoring instrument specifications published in Appendix F of NUREG-1556, Volume 18, Revision 1, "Consolidated Guidance About Materials Licenses: Program -Specific Guidance About Service Provider Licenses". We reserve the right to upgrade our survey instruments as necessary.

Item 10.4: Surveys

Defined in SP-PRO-008 MVF, section 521, submitted with license application.

Item 10.5: Leak Tests

We are requesting to amend our license application to include a leak test program where the applicant can collect and analyze leak tests. See attached alternative leak test procedure OP-PRO-033MVF.

Item 10.6: Occupational Dose

We will monitor individuals in accordance with the criteria in SP-PRO-008MVF, Chapter 2, Part 1 and Chapter 5, Part 1, submitted with license application.

Item 11: Waste Management

See SP-PRO-008MVF Waste management, submitted in license application.