

**Water Remediation Technology LLC (WRT)  
Sidebar Meeting with the U.S. Nuclear Regulatory Commission Staff  
June 8, 2016**

**Agenda with Talking Points**

**Meeting Purpose: To interact with NRC Staff regarding renewal of WRT's NRC Source Material License, No. SUC-1591.**

**Attendees:** NRC Staff  
Michael Dimitriou, President, WRT  
Duane W. Bollig, Director, WRT  
Theodore (Ted) Adams, Corporate RSO, WRT  
Anthony J. Thompson, Esq., Outside Counsel to WRT  
Christopher S. Pugsley, Esq. Outside Counsel to WRT

**1. Introduction**

o Representing WRT: Duane Bollig – Duane is responsible for WRT's federal and state licensing efforts and the WRT Radiation Protection Program. He was the Project Manager responsible for the obtaining the original NRC license. Ted Adams is WRT's Corporate RSO, identified as such on the existing NRC license and WRT's numerous Agreement State licenses. Ted will be assisting in the preparation of the license renewal application.

o Tony Thompson and Chris Pugsley were WRT's attorneys for the original license application, and have continued to assist WRT on both NRC and Agreement State environmental and licensing issues ever since.

o WRT's current license expires 25 Jan 2017. WRT has already submitted a letter of intent to renew, with a target date for submittal of the application of NLT 31 Aug 2016.

**2. Background Information**

o Currently, WRT has fielded 150 full-scale, radionuclide-removal treatment systems, radium or uranium in 19 states. Total treatment capacity = approx. 80,000 gpm, or almost 350 ac-ft/day.

o Of the 150 total systems, 33 are uranium treatment systems in 11 Agreement States. There are no systems operating under WRT's program in a non-Agreement State.

**a. Initial Licensing Action**

- o 2006 to Jan 2007 timeframe; license issued 25 Jan 2007.
- o Performance-based, multi-site license for uranium drinking water treatment, to comply with the Radionuclide Rule of the EPA SDWA.
- o The original license was an innovative approach → a Master License format, one of a kind for a non-government licensee.
  - WRT is the licensee for any of its community water supply (CWS) Clients where a WRT Uranium Removal System operates under WRT's radiation protection program.
  - WRT “stands in the shoes of” its Client CWSs, whose primary mission is to provide compliant water to their customers, but who do not have the radiologic expertise for handling licensed radioactive material.

**b. Lessons Learned from Initial License Term**

- o Compliance with the Radionuclide Rule varies across the states. In some states, the CWSs have not really been pushed to coming into compliance by the drinking water regulators as quickly as was expected.
- o Few, if any, equipment manufacturers or treatment companies want to offer a total, vertically-integrated solution – that includes treatment equipment + media + service + **licensing and disposal of radioactive spent media** – as does WRT.
- o WRT has realized this “total solution” for both radium and uranium treatment, and for uranium, WRT has put in place its Preferred Alternative for handling the spent uranium resin media.
  - Through working with the NRC, and with NRC issuing the equivalent-feed RIS for water-treatment resins, WRT has been able to send spent resin media to a uranium producer for recovery of the contained uranium – **18 shipments to date**.
  - WRT has received approval to then process and re-certify the used resin back to NSF Standard 61, for drinking water applications.

-- To date WRT has processed, recertified, and returned over 2,700 cu ft of used resin to drinking water treatment applications.

**c. Analysis of Water Treatment Systems Requiring Licensing**

- o Explain the original concept and approach of presenting the expected range of U treatment systems – Description, Design Parameters, and Radiologic and Other Impacts.
- o An efficient and reasonable approach for both NRC and WRT.
- o Explain then simply “registering” a new WRT Client CWS under the multi-site license, with site-specific system and treatment site information, and providing whatever financial assurance is required.
- o WRT proposes to continue with this same approach with the renewal application.

**3. License Renewal Application**

**a. Environmental Report**

- o Over the last 10 years, with Agreement State applications, WRT has refined the information that is similar to that presented in the original ER for the NRC license, but there has not been any real substantive changes.
- o Previous estimated or expected data presented in the original license application have either been verified and/or augmented with actual operational data from WRT systems installed in the field over the last 10 years.

**b. Safety Analysis**

- o The original application presented many of the impacts, especially the radiologic impacts in the applicable sections of the ER. WRT proposes to continue this approach with the renewal application.
- o Monitoring of actual operating systems and service personnel have demonstrated that the expected impacts, including radiologic impacts, are no greater than, and in many cases noticeably less than those developed for the original application.

**c. Existing License Conditions**

WRT will likely request the NRC to review and delete several of the existing license conditions that appear to be NEPA-driven and that are specifically related to the siting of a Client's treatment facility. The basis for this request is that WRT is simply supplying a piece of treatment equipment to either an already-existing facility, or to one that has already been approved and permitted by the Client. WRT has no control over the location of a treatment site, therefore, license conditions related to siting seem inappropriate.

**d. Financial Assurance**

o WRT will propose to continue with the same format for financial assurance (FA) that was approved for the original license: 1) WRT's Client CWSs may provide the financial assurance arrangement on behalf of WRT, the licensee, and 2) In the case of a government-entity CWS, the CWS can use a Statement of Intent as one of the allowed arrangements.

o This FA format was in line with the guidance presented in the 2003 version of NRC NUREG-1757, Vol. 3, the version in effect at the time of the original license application. This format is formalized in the current License Condition 38. It has also served WRT well with the Agreement States, as many of the states have followed NRC's lead and have allowed WRT the same or similar format in WRT's state licenses.

**4. Questions and Conclusions**