

Water Remediation Technology, LLC

NRC Sidebar Meeting - June 30, 2009



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From Source to Solution

WRT License Presentation

- Current Status
- Discussion of Issues
 - Standby Trust
 - Transfer of License
 - Fees
- Trends
 - Enforcement
 - Discharges



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From Source to Solution

WRT Current Status

- 65 treatment systems under contract in 11 states (50 Ra and 15 U)
- Expect to add 1 system every two weeks in 2009
- Radioactive materials licenses in 23 states
- Currently, 40.3 MGD treatment capacity under contract
 - ❑ Over 10 billion gallons treated
 - ❑ System sizes from 10 – 2,000 GPM
- Uranium systems – Non-Agreement States
 - ❑ 5 systems in 2 states (CT and NJ)
 - 4 General Licenses, 1 future Specific Licenses
- Uranium systems – Agreement States
 - ❑ 10 systems in 5 states (CA,GA,NC,SC,VA)
 - 7 General Licenses, 3 Specific Licenses



WRT Discussion of Issues

- Standby Trust
- Transfer of License to New Agreement States
- Fees



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From Source to Solution

Information Sharing- Trends

- Enforcement is coming
 - ❑ EPA in August 2008 showed 774 violations in 158 systems
 - ❑ WRT currently working on 275 Uranium sites
 - ❑ Approximately 43 are expected to be Specific Licenses
- Potential disposal sites
 - ❑ Sewer - Sludge can easily exceed 500 ppm
 - ❑ River - Inexpensive, may use to avoid Specific License
 - ❑ Low Level Radioactive Landfill - Expensive, near monopoly with Energy Solutions
 - ❑ Uranium Recovery - No one is currently licensed to accept drinking water residuals for recovery. NRC is making this difficult by not streamlining an alternate feed approach or by limiting areas from which a processor can accept receive feed



An Interesting Observation

- Cumulative impact may need review
- Use of rivers to avoid Specific Licensing
- Should General Licensing limits be revised
- CWSs are using General License as a loophole
- Examples



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From Source to Solution

Sterling, Colorado

- Gallons Per Year - 215,320,000 gal/yr
- Uranium Content - 270 ug/l
- Pounds Uranium / year - 484 pounds U/yr
- Removal Method - being decided
- Type License – Maybe no license, U concentration may be $< 0.05\%$ (Waste of 40,000,000 gal/yr)
- Disposal Site - South Platte River



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From Source to Solution

Bridgeport, Nebraska

- Gallons Per Year - 262,800,000 gal/y
- Uranium Content - 75 to 140 ug/l
- Pounds U/yr - 145 to 300 pounds U/yr
- Removal Method - Ion Exchange
- U Conc. in discharge to river ~100,000 pCi/l
- Type License - General
- Disposal Site - North Platte River
- Status - Under construction



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From Source to Solution

Grand Island, Nebraska

- Gallons Per Year - 791,450,000 gal/y
- Uranium Content - 34 ug/l
- Pounds Uranium / yr - 224 pounds U/yr
- Removal Method - Under consideration
- Type License - Unknown
- Disposal Site - Platte River (?)



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From Source to Solution

Platte River CO, Nebraska

Potential Site Specific Licenses



Cumulative Discharge to Platte River= 1,016 Pounds Uranium /Yr



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From Source to Solution

In Comparison at Moab, Utah

- Uranium mine tailings leaching U into Colorado River
- ~2,100 lbs Uranium per year (comparable to Platte River drainage of 1,016 pounds per year)
- **Result - U.S. Govt. is spending +\$1 Billion to move the tailings and stop leaching into the Colorado River (Per DOE Estimate July, 2008)**

