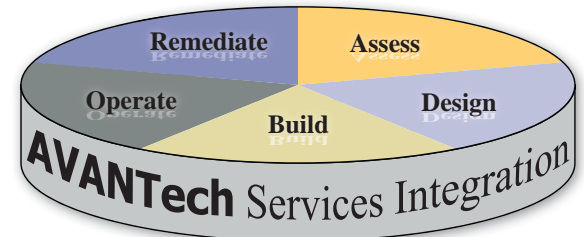


Liquid Modular Treatment Systems

- ✓ ATREX™ - Selective Treatment and Radionuclide Removal as well as Specialty Selective Media for Cesium, Strontium, Antimony, Metals, Arsenic, and others
- ✓ Ultrex™ - Advanced Reverse Osmosis Wastewater Recovery
- ✓ Radwaste Reverse Osmosis System (RWRO™)
- ✓ Tubular Cross Flow UltraFiltration (TUF™)
- ✓ PCM™ - Particle Control Management System/Chemical Addition
- ✓ Modular Treatment Systems (carbon filtration/adsorption, ion exchangers)
- ✓ Fluidized Bed and Small Volume Evaporator
- ✓ Concentrate Treatment System (CTS™)
- ✓ DrumDryer (DD™)
- ✓ Specialized Treatment - Boric Acid Recovery System (BARS™)
- ✓ Off-Site Liquid Treatment/Tankers/Transport
- ✓ Make-Up Water Systems and Services
- ✓ Contaminated Groundwater Treatment
- ✓ Solids Collection Filter (SCF™)
- ✓ Suspended Solids Collection Vessel (SSCV)



Radwaste Processing/ Containment Equipment & Systems

- ✓ RadSafe™ Steel/Poly Lined High Integrity Containers (HICs) with Dewatering Internals
- ✓ AVANTech Steel Containers (ASCs) and Custom-Built Pressure Vessels
- ✓ HIC/Container Handling and Systems (remote grappler, transfer carts, etc.)
- ✓ Media Dewatering (fillheads, pump skids, automation, etc.) including High Velocity Vacuum (HVV™) and Ultra-Rapid Vacuum (URV™) Dewatering
- ✓ ASME Code Vessels and Tanks Built to NQA-1 Standards
- ✓ Underwater Filters/Demineralizer Processing
- ✓ Advanced Polymer Stabilization (APS™) Systems and Media; In Situ Bead Resin Solidification with Minimal Increase in Waste
- ✓ Decontamination Systems for Highly Radioactive Contaminated Buildings



Experience

River Bend Station

AVANTech installed new equipment under a full services contract for the treatment and recycling of Liquid Radioactive Waste. The new equipment incorporates AVANTech's proprietary Ultrex™, Ozonation, and Reverse Osmosis processes. This facility became fully operational in June 2004.

River Bend has experienced the following benefits:

- ✓ Reduced solid radwaste generation associated with liquid waste processing by a factor of ~10 from 2200 to 175 ft³ (62.3 to 6.5 m³)
- ✓ Increased processing rate from 50 to 150 gpm (11.36 to 34.10 m³/hr)
- ✓ Improved quality of recycled water (salts <2 ppb; organics <20 ppb; radionuclide <1E-06 µCi/ml)



Modular Liquid Radwaste Systems

Engineered Solutions

High Activity Cesium and Strontium Removal

AVANTech designed, manufactured, and started-up a proprietary system for cesium removal to support the safe shutdown of the damaged Fukushima reactors in Japan. The project was completed in ten weeks to ensure cesium would not contaminate the Japanese coastline. The treatment system was developed to maximize radionuclide loading and decontamination factors while minimizing personnel exposure and secondary radwaste generation.

Over 170 large Shielded Ion Exchange Modules (SIXMs) have been delivered, processing over 290 million gallons of highly radioactive liquids and selectively removing millions of curies. The system has achieved decontamination factors of greater than 10⁶, thus exceeding site treatment requirements.



*Patent Pending Technology to Provide
Emergency Response for Core Melt Accidents*

The AVANTech Advantage

- ✓ Custom Equipment for All Your Needs
- ✓ Single Source for Testing, Design, and Manufacturing
- ✓ Experienced Chemical, Mechanical, Electrical, and Nuclear Staff
- ✓ Field and Demand Service
- ✓ Emergency Response
- ✓ NQA-1 Quality Assurance Program
- ✓ ASME Code Stamp and UL Certified Panels
- ✓ State-of-the-Art Process Automation with PLC System Integration
- ✓ All System Components Pre-Assembled and Tested at either our Columbia, SC, or Knoxville, TN, Manufacturing Facility to Confirm Operation Prior to Installation