

Mechanical Design Engineer

AVANTech Incorporated, a rapidly growing technology company with extensive experience in the design, fabrication, and operation of water and solid waste treatment systems for commercial nuclear, government, and industrial clients, is seeking a creative, results-oriented **Mechanical Design Engineer** to be a part of our design team in **Knoxville, TN**. The successful candidate will be part of a team that designs and fabricates a diverse product portfolio that includes water and solid waste treatment systems. Experience with modular design for mobility is a plus.

AVANTech provides an excellent opportunity to learn about designing water and solid waste treatment systems utilizing the latest technologies in the field (such as ultrafiltration and reverse osmosis). The **Mechanical Design Engineer** will be responsible for working on all stages of equipment and process development from research and design, to manufacture, installation, and final commissioning.

Key responsibilities include:

- Design of fixed and/or mobile skid-based water and solid waste treatment systems from P&IDs and Engineering Specifications
- Layout and design of structural skids/frames to support system components including preparing seismic and structural calculations as a part of design verification
- Layout and design of fluid systems including: pumps, valves, filters, vessels, etc., including preparing pressure and flow calculations as a part of design verification
- Design of specialized process equipment, tanks, vessels, etc.
- Preparation of technical specifications and other engineering design documents
- Preparation of material, time, and cost estimations for proposals
- Technical support and troubleshooting assistance to customers

Qualifications:

- Bachelor of Science Degree in Mechanical Engineering or Associates with 0 to 2 years of experience in the mechanical design field
- Exhibit a working knowledge of ASME/ANSI codes and standards
- Experienced in the layout, design, procurement, and fabrication of mobile and fixed systems
- Prior experience with reverse osmosis, ultrafiltration, conventional filtration, and/or demineralization systems a plus
- Must possess technical writing skills for developing engineering specifications and other engineering design documents

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- Must possess a working knowledge of process instrumentation and control including: flow, pressure, level, temperature, chemical analysis, etc.
- Working knowledge of the nuclear industry and nuclear plant standards a plus
- Willing to travel one to two times a year for walkdowns, visits, design reviews, project start-ups, or equipment modification
- Proficient in MS Office applications
- Innovative with strong analytical problem-solving and concept design skills
- Experience with AutoCAD and 3D design software (preferably CREO)
- Adaptability to changing project requirements and schedules
- Critical thinking with exceptional problem-solving skills
- Able to work independently or in a team environment
- Excellent verbal and written communication skills
- Excellent interpersonal skills necessary to effectively communicate and work with clients

At AVANTech, we are energetic and passionate about what we do. We seek qualified candidates who share our vision, values, and commitment to superior customer service to both our internal customers as well as our external customers.

Candidate must be able to pass drug test. A high level of safe working practices and procedural awareness is necessary.

To apply, send resume, cover letter, and salary history to: swilson@avantechinc.com

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