HEAT EXCHANGERS
for critical applications

BWXT
BWX Technologies, Inc.
100 heat exchangers for plants around the world

300 OEM & replacement nuclear steam generators
WE KNOW 
HEAT EXCHANGERS 
full solutions for design, manufacturing, installation and service

For many years, BWXT has provided a fully integrated, one-stop shop for steam and power generation equipment. Our in-depth knowledge and experience comes from our involvement in every aspect of design, manufacturing, installation, commissioning and service of heat exchangers.

For new units, rest assured that we will provide the optimum custom-designed solution.

For replacement units, we can build-to-print or re-engineer to meet changing requirements to address concerns such as increased capacity requirements, material degradation or enhanced seismic loading.

We provide value without compromise. Other companies may provide expertise in one area or another, but BWXT Nuclear Energy, Inc. (BWXT NE) prides itself on covering every aspect of the life of your heat exchanger, which subsequently provides you the peace-of-mind that your component will meet the strict demands of your operation.

Value without Compromise

- Exceptional safety culture
- Human Performance Improvement program
- Commitment to Operational Excellence
Our engineers have the tools and experience necessary to design heat exchangers to meet the operating and reliability requirements that today’s nuclear operators demand. All BWXT NE-supplied steam generators and heat exchangers have met or exceeded the specified thermal performance requirements.

**Engineering Services**

- ASME Sec. III/VIII HX component design
- Life Cycle Management and fitness for service
- ASME Section XI In-service flaw evaluation
- Specialized structural analysis
- Seismic analysis, piping analysis
- LOCA component failure analysis
- Leak Before Break evaluations
- Tube bundle FIV analysis
- Component modification qualification and analysis
- 3D computational fluid dynamics analysis
For nearly 60 years we have continued to supply quality components locally for nuclear utilities around the world. Our stringent quality standards meet or exceed those of the industry, and by coupling our engineering expertise with our hands-on manufacturing experience, BWXT NE adds value to any upgrade or new-build project.

Our nearly one million square feet of North American manufacturing capacity provide us with the flexibility to manage a full range of projects, from small units to multi-unit, high-consequence components.

Our manufacturing capability ranges from large scale, horizontal boring mills and gantry mills, to robotic welding and advanced inspection.

BWXT NE is also home to the world’s largest nuclear clean room for component assembly.
By having BWXT NE remove your existing heat exchanger and install a new unit, you gain single-point responsibility for design, manufacturing and installation.

In addition to full turnkey replacements, we conduct field modifications including:

- Nozzle replacement
- Adding auxiliary internal supports
- Field-Installed hand holes and inspection ports
- Manway modifications

In hazardous, contaminated and high radiation environments we utilize remotely operated robotic manipulators to address the inspection and repair of heat exchangers.

BWXT NE’s Life Cycle Management program and repair technologies are designed to assess the health, and maximize the life and efficiency of your heat exchanger. BWXT NE has developed or acquired the very best technologies to provide economic cradle-to-grave care of your heat exchanger.

Field Services
- Tube inspection
- Tube removal, plugging and stabilization
- Tube sleeving and lining
- Retubing
- Hydrotesting of individual tubes and tubesheet joints
TRUST IN OUR KNOW-HOW

testing capability and expertise

BWXT NE has extensive experience with material selection for a wide variety of applications, to handle the most difficult and critical situations. If you have a challenging scenario, we can help.

Laboratory Testing Capabilities

- Material properties
- Corrosion behavior
- Flow-assisted corrosion
- Welding research
- Hot-lab facility for nuclear contaminated components
- Strain/load/acceleration/displacement experimental mechanics
- Residual stress measurement
COUNT ON US TO DELIVER

With more than 60 years of experience, BWXT NE is a premier choice for heat exchanger engineering, manufacturing, installation and service.

Unparalleled Experience

- More than 300 nuclear steam generators and 100 heat exchangers designed and manufactured
- Extensive installation experience
- Innovative inspection and service exceeding industry standards

At BWX Technologies, Inc. (NYSE: BWXT), we are People Strong, Innovation Driven. Headquartered in Lynchburg, Virginia, BWXT is a Fortune 1000 and Defense News Top 100 manufacturing and engineering innovator that provides safe and effective nuclear solutions for global security, clean energy, environmental restoration, nuclear medicine and space exploration. With approximately 6,700 employees, BWXT has 14 major operating sites in the U.S., Canada and the U.K. In addition, BWXT joint ventures provide management and operations at more than a dozen U.S. Department of Energy and NASA facilities. Follow us on Twitter at @BWXT and learn more at www.bwxt.com.

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