



Heat Exchanger & Service Water Programs

GSE TrueNorth's Balance of Plant Program (BOPP) heat exchanger programs focus the reliability of critical heat exchangers through preventative maintenance (PM) tasks. Our principal inspection task is Eddy Current Testing (or similar NDE) of the tubes to minimize tube leaks.

Service Water (SW) system problems are the focus of NRC Generic Letter (GL) 89-13, which resulted in site commitments for various actions to ensure the SW system and associated heat exchangers can perform their credited heat removal function. The GL 89-13 Program actions commonly involve heat exchanger thermal performance testing, inspections (visual and others), and may include system flow tests and/or other system monitoring or inspections.

GSE TrueNorth's BOPP HX and GL 89-13 services address a wide range of heat exchanger and engineering program-related issues, from program scope, procedures, and calculations, to documentation, failure analysis (thermal or tube leak), and margin recovery. Our Heat Exchanger training courses help close gaps in experience or knowledge to meet qualification needs and improve HX reliability and performance.

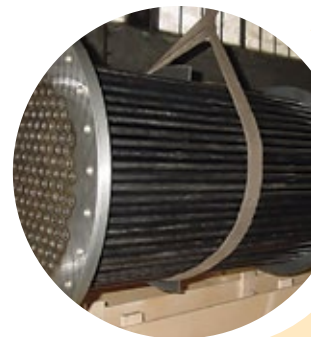
Our team is led by veteran industry professionals with more than 25 years of heat exchanger and SW system experience, having served as utility system engineers, engineering program owners, design engineers, and consulting engineers. They are skilled at developing technical reports for the EPRI Heat Exchanger Performance Users Group (HXPUG), performed BOPP HX and GL 89-13 Program assessments, and conducting quality HX training courses for industry engineers.

TRAINING COURSES

GSE TrueNorth offers comprehensive training courses that encompass Eddy Current Testing, Preventative Maintenance, and Visual Inspections for the Heat Exchanger Engineer. These training courses are developed for and from the perspective of the Heat Exchanger Engineer and can be offered at the True North offices or a site or corporate location.

PROGRAM ASSESSMENTS

Utilities have structured intervals for programmatic self-assessments and/or independent reviews. GSE TrueNorth's Heat Exchanger experience and expertise can support self-assessments and enhance the overall process by adding an element of independence.



PROGRAM DOCUMENT UPDATES

Maintaining heat exchanger documents is an important element of a healthy program but is time consuming and sometimes needs external support. GSE TrueNorth can provide a high level of expertise to update and enhancement program documentation.

AFI/VIOLATION RESPONSE ACTIONS

GSE TrueNorth has the heat exchanger experience and expertise to support utilities in responding to AFIs or violations.

ROOT CAUSE SUPPORT

GSE TrueNorth can provide technical expertise for heat exchanger root cause evaluations. Our heat exchanger team has extensive utility experience and a comprehensive understanding of the root cause process.

HX REPLACEMENT SUPPORT

The GSE TrueNorth team has a significant level of experience in heat exchanger replacement and can provide on-site support and oversight for all activities associated with a major repair or replacement.

LONG-RANGE PLANNING & OPTIONS

Strategic long-range planning is one of the key heat exchanger program elements. Services in this area involve an independent review of an existing plan or the development of a new plan.

GL 89-13 COMMITMENT CHANGE BASIS

GSE TrueNorth has experience in providing engineering services for the evaluation and commitment change basis for the Generic Letter (GL) 89-13 Program scope. These services include a detailed technical review and evaluation of the program scope and providing technical justification for any possible scope reductions.

OTHER SERVICE OFFERINGS:

- SW System Flow Test Upgrades
- Margin Recovery (flow, thermal, or tube plugging)
- HX PM Basis Updates

TO LEARN MORE OR SCHEDULE A CONSULTATION WITH OUR SMES CONTACT:

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ABOUT GSE TRUENORTH

Engineering. Thermal performance. Leading-edge software. These are the heart of GSE TrueNorth's offerings for the nuclear industry. As part of GSE Solutions group, GSE TrueNorth supports operational excellence in the power industry. We leverage decades of specialized expertise in plant thermal performance and regulatory engineering programs that refine and update systems, ensure compliance and optimize performance for our clients.

