

BOP HX & SW/GL 89-13 PROGRAMS

BOP heat exchanger programs focus on reliability of critical heat exchangers through the performance of PM tasks. The principal inspection task is Eddy Current Testing (or similar NDE) of the tubes to minimize tube leaks.

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

True North BOP HX & GL 89-13 program service offerings address a wide range of heat exchanger and program-related issues from program scope, procedures, calculations, basis, failure analysis (thermal or tube leak), to margin recovery. Heat exchanger training courses help close experience or knowledge gaps to address qualification needs and/or improve HX reliability.

Our True North team is led by Mr. Iver Jacobson. Iver has over 22 years of heat exchanger and SW system experience as a utility system engineer, engineering program owner, design engineer, and consulting engineer. He has developed technical reports for the EPRI Heat Exchanger Performance Users Group (HXPUG), performed BOP HX and GL 89-13 Program assessments, and developed/conducted HX training courses for industry engineers.

Iver J. Jacobson
Senior Consultant
iji@tnorthconsulting.com
(479) 280-9072

BOP HX & SW/GL 89-13 PROGRAMS

The True North Consulting BOP Heat Exchanger & SW/GL 89-13 team has significant experience with program development, implementation, and management.

Primary service areas include the following:

- **Training Courses** (on-site option)
 - Eddy Current Testing for the HX Engineer
 - HX Visual Inspections
 - HX Preventive Maintenance
- **Program Assessments**
- **Program Document Updates**
- **AFI/Violation Response Actions**
- **Root Cause Support**
- **HX PM Basis Updates**
- **Long-Range Planning & Options**
- **GL 89-13 Commitment Change Basis**
- **SW System Flow Test Upgrades**
- **Margin Recovery (flow, thermal, or tube plugging)**
- **HX Replacement Support**

www.tnorthconsulting.com



True North Consulting is headquartered in Montrose, Colorado. Contact information for our corporate office and Engineering Programs is listed below:

Corporate Office

Primary Contact--Donald R. Horn
150 Merchant Drive
Montrose, Colorado 81401
970-252-1832 (telephone)
970-252-1837 (fax)
drh@tnorthconsulting.com (email)

Engineering Programs

Primary Contact--Ronald C. Lippy
402-493-9562 (telephone)
402-490-5848 (cell)
rcl@tnorthconsulting.com (email)

Senior Consultant

Primary Contact—Iver J. Jacobson
479-280-9072 (telephone)
iji@tnorthconsulting.com (email)

COMPANY PROFILE

True North Consulting is an Engineering Services company providing support for the electric power industry, with specialization in nuclear power. Founded in 1999, True North has provided engineering consulting services to the majority of US utilities and to several abroad. Our engineering services to the power generation sector range from Engineering Programs in the nuclear power industry to plant Thermal Performance issues in both nuclear and fossil generation facilities. Additional areas of expertise include technical services associated with secondary plant equipment and a highly experienced Information Technology staff supporting our line of customized software products.

It is our goal and commitment to optimize these services with respect to cost, technical quality, and overall value to our clients. Towards this goal we continue to refine and update our services through incorporation of technology, experience-based advancements, and involvement with industry codes, standards, and users group organizations.

Presented in this brochure is an overview of BOP Heat Exchanger Program services as well as Service Water/GL 89-13 Program services offered by True North Consulting along with general information concerning our office locations and contact information.

We hope this provides a clear representation of how True North Consulting might benefit performance at your facility.

www.tnorthconsulting.com



BOP HEAT EXCHANGER & SW / GL 89-13 PROGRAMS



Information in this brochure is the property of
True North Consulting, LLC

True North Consulting

The Next Level for Engineering Programs