

# Advanced Thermal Performance Training

## May 16-19, 2023

Montrose, Colorado (virtual options available)

Presented by: GSE Programs & Performance (Formerly known as True North Consulting)

### OVERVIEW

The Advanced Thermal Performance training course is designed for those who have had a basic thermal performance course or one year or more experience in thermal performance. This training was developed by utility engineers who have solved many plant thermal performance problems and are uniquely qualified to help you understand how to deal with efficiency issues at your plant. Please forward this invitation to persons at your site responsible for Thermal Performance. In addition, this training has been presented to system engineers who have benefited from the overall troubleshooting skills developed.

### COURSE CONTENT

- **Setting Baseline Values:** Thermal performance monitoring program starts with establishing and verifying baseline values for important performance parameters. Baseline values need revision after plant uprates or other modifications. This course will describe and provide hands on examples of how to determine baseline values.
- **Development of Correction Curves:** in addition to baseline values, correction curves are required to determine the effect of the plant parameters deviating from the baseline values. This course will describe how to develop correction curves using thermodynamic modeling as well as empirical data.
- **How to Troubleshoot Thermal Performance Problems:** This course will provide examples of actual plant problems and the students will use the trouble shooting process to identify the problem.

### SCHEDULE AT A GLANCE – May 16-19, 2023

Tuesday	8:00am 4:00pm	Troubleshooting introduction, Baseline Values and Correction
Wednesday	8:00am 4:00pm	Troubleshooting Examples – Session #1
Thursday	8:00am 4:00pm	Troubleshooting Examples – Session #2
Friday	8:00am - 12:00pm	Troubleshooting Examples – Session #3

\*All times are MST

### FEE: \$2,695

\*Lunches and beverage service will be provided (for those attending in person)

\*\* Laptop with Excel installed, Calculator, Heat Balance Diagram and/or Thermal Kit of your Plant

### CONTINUING EDUCATION UNITS (CEU)

Each attendee will receive a Certificate of Completion for 2.8 Continuing Education Units (CEU) credits to qualify for 28 Professional Development Hours (PDH) needed to fulfill Professional Engineers' continuing education requirements. The credits will be awarded without authorization. It is the attendee's responsibility to keep and present the certificate to any organization that requires the certificate.

### TRAINING LOCATION

The Bridges Golf & Country Club  
2500 Bridges Dr  
Montrose, CO 81401

### ACCOMMODATION SUGGESTIONS

Holiday Inn Express  
1391 S. Townsend Ave.  
Montrose CO 81401  
(970) 240-1800

Hampton Inn  
1980 North Townsend  
Montrose CO 81401  
970-252-3300

The Bridges Golf & Country Club  
2500 Bridges Drive  
Montrose, CO 81401  
970-252-1119 (rooms are limited)

### ABOUT THE INSTRUCTORS

Frank Todd | [frank.todd@gses.com](mailto:frank.todd@gses.com) | 970.964.2753

Frank is Chief Technical Consultant at GSE Programs & Performance (Formerly True North Consulting). Frank is highly skilled in using analytical tools to evaluate thermal performance and improve plant efficiency and reliability. These tools include a variety of approaches using computer-based plant modeling with a strong emphasis on problem analysis and resolution. Additionally, Frank has developed a wide spectrum of test specifications, procedures, and testing configurations in support of thermal performance improvements.

Joe Wooten | [joewooten@gses.com](mailto:joewooten@gses.com) | 970.964.2757

Joe serves as Senior Consultant at GSE Programs & Performance. Joe has over 40 years of experience in the nuclear industry, including Startup Engineering and Testing, System Engineering, Plant Design, Component Engineering, Thermal Performance Testing, Analysis, Troubleshooting, and Modeling.

**QUESTIONS** - Contact Pam Gilroy @ [pamela.gilroy@gses.com](mailto:pamela.gilroy@gses.com).

## REGISTRATION FORM

Advanced Thermal Performance Training

May 16-19, 2023

**DEADLINE – May 1, 2023**

E-mail: [pamela.gilroy@gses.com](mailto:pamela.gilroy@gses.com)

Mail to: Pam Gilroy, GSE Programs & Performance

150 Merchant Drive | Montrose, Colorado 81401

Or Register Online at: [www.gses.com/training-registration/](http://www.gses.com/training-registration/)

<b>Name</b>				
<b>Title</b>				
<b>Company</b>				
<b>Plant</b>				
<b>Telephone</b>				
<b>Email</b>				
<b>Attendance</b>	<input type="checkbox"/> In-person		<input type="checkbox"/> Virtual	
<b>Payment Information</b>				
<b>Form of Payment</b>	<input type="checkbox"/> Credit Card		<input type="checkbox"/> Check	<input type="checkbox"/> Other
	<input type="checkbox"/> Visa	<input type="checkbox"/> MC	<input type="checkbox"/> Amer	# _____ Specify _____
<b>Card Number</b>				
<b>Expiration Date</b>				
<b>Cardholder Name</b>				
<b>Card Billing Address</b>				
<b>Signature</b>				
<b>Cardholders Email</b>				
<b>Cardholders Phone</b>				
<ul style="list-style-type: none"> <li>• Remittance of payment is due one week prior to the first day of training.</li> <li>• Receipt for payment will be emailed to you as your confirmation.</li> <li>• If your company or another party will be compensating GSE TrueNorth for your registration fee via check or credit card, please include a contact name, number and email address of the person responsible.</li> <li>• All information shall remain confidential.</li> </ul> <p><b>If you have any questions about registering, please email <a href="mailto:pamela.gilroy@gses.com">pamela.gilroy@gses.com</a>.</b></p>				

## Instructions for Virtual Thermal Performance Training:

1. Please minimize multitasking and be engaged as if all were together in a common training facility. We will engage everyone as we teach the class (and we may ask a question or two) so stay on your toes.
2. You must have a video connection so we can see you.
3. Attire is your choice, but remember you are on camera.
4. Background noises such as pets and family are understandable. Minimize if you can, but no worries when the dogs bark at the doorbell. We might draw the line at Elephants, snakes, or giant spiders.
5. Zoom will be the platform used to facilitate the virtual training week. Zoom has web-based versions as well as free desktop apps. If you haven't used Zoom on the computer you will use for the training, it would be good to either load Zoom or to explore/test the web version before the training.
6. If you have a question, you can ask any time. We greatly encourage questions.
7. We will send hard copies of the exercises.
8. We will be doing the exercises together and you will be expected to do them with a pencil and a calculator.
9. We will be taking hourly breaks (feel free to remind us if we get too carried away, we love thermo)
10. The class will start at 8:00 am. MST, so y'all in the east can sleep in.
11. The class will end at 4:00 pm. MST so y'all in the east get to work a little late.
12. We will take a 45-minute lunch break at 12:00 pm. MST.