Thermal Imaging Training from The Snell Group

Level I Infrared Thermography

Training Overview:

Level I course material covers infrared theory, basic heat transfer concepts, operation of your thermal imager and specific recommendations on how to take quality IR images that are clear, concise and easy to interpret.

An overview of the most common applications:

- *Electrical distribution systems*
- *Mechanical systems*
- *Steam systems*
- *Refractories*
- *Underground piping*
- *Active thermography*
- *Building envelopes*
- *Low-slope roofs*
- *Nondestructive testing of materials*

This course fully meets the educational requirements for certification according to the published recommendations of the American Society of Non-Destructive Testing.

It is strongly suggested that you bring your imaging equipment to optimize the value you will get from the course.

Students will have the opportunity to take a three-part certification examination at no additional charge.

Lodging:

Pembroke Instruments recommends some hotels in the San Bruno area: **Comfort Inn & Suite** 611 San Bruno Ave., Reservations: 650-737-0122, **Courtyard By Marriott** 1050 Bayhill Drive, Reservations: 650-952-3333, **Budget Motel** 850 El Camino Real, Reservations: 650-589-6969, **Villa Motes Hotel** 620 El Camino Real, Reservations: 650-745-0111 and the **Ramada Hotel** 500 El Camino Real, Reservations: 650-871-4000. Have a safe trip and pleasant stay!

The Snell Group™
Our Knowledge. Your Advantage.

Price reduction for last three (3) seats: $995 (regular price is $1695!)

Date: Sept 14-17, 2010

Course Hours: *8*

8:00 a.m. - 5:00 p.m.

Cost:

$1,695/person

Location:

Pembroke Instruments
Training Center
1001 Bayhill Drive
Second Floor—Suite 200
San Bruno, California 94066

How to Register:

Please use exclusively the attached Registration Form. For any additional information call 415-860-4217 or emai:sales@pembrokeinstruments.com

PEMBROKE INSTRUMENTS

Registration Form

Name:_____ Title: _____
Company:_____
Address:_____
City:_____ State:_____ Zip Code_____
Telephone: ( ) _____ Fax: ( ) _____ Email: _____

❑Registration Fee- ~~$1695~~

We also accept purchase orders and checks.
Payment is required to reserve your seat.

Price reduction for last three (3) seats: $995

❑ Visa ❑ Mastercard ❑American Express ❑ Discover

Cardholder Name: _____
Card Number: _____
CVV Number : _____
Expiration Date: _____
Billing Address: _____
State: _____
Zipcode: _____

Signature: _____

Please fax completed forms to 415-585-0652 . You will be emailed a receipt . You can also call in your information to 415-860-4217. Refunds and credit card chargebacks are only allowed with the written approval by Pembroke Instruments, LLC. The class course does not include transportation, meals, or incidental costs.

PEMBROKE INSTRUMENTS

1001 Bayhill Drive
Second Floor-Suite 200
San Bruno, California 94066
Tel. 650-616-4202
Email: sales@pembrokeinstruments.com
http://pembrokeinstruments.com

Level I Thermography Training for Inspectors and Engineers

For more questions and information please email sales@pembrokeinstruments.com

FORMAT:

The training will consist of classroom lectures, group discussions, demonstrations and fieldwork for an initial group of up to nineteen (19) people. Materials prepared especially for instruction in maintenance thermography will be used. Hands-on activities are emphasized so that participants use the equipment during a large portion of the training. Comprehensive training manuals, for use during and after the course, are included for each participant.

Day One:

- Introductions and overview of training schedule
- Learning to Think Thermally☐
    - Applied theory:
    - Heat transfer basics
    - Radiometry
    - Using the imaging equipment, hands-on instruction and practice

Day Two:

- Inspecting electrical systems:
- Conducting inspections safely
- Patterns and causes
- Conditions for successful inspections
- Examples of equipment to be inspected
- How to conduct a systematic electrical survey
- Fieldwork:
- Electrical survey of plant equipment
- Review of fieldwork
- Basic temperature measurement in electrical surveys
- Prioritizing findings

Day Three:

- Inspecting mechanical systems:
- Motors
- Rotating equipment
- Steam traps
- Refractory insulation
- Tanks and silos
- Fieldwork: Inspecting electrical and mechanical systems
- Review of fieldwork
- Implementing thermography
- Report forms
- Setting up inspection routes
- Procedures
- Using the imaging equipment, hands-on instruction and practice

Day Four:

- An overview of other applications
- Building diagnostics
- Roof moisture inspections
- Using the imaging equipment, hands-on instruction and practice
- Course wrap up and review
- Course test

POST-COURSE SUPPORT:

Included in the cost of this proposal are the following:

☐ Consultation by phone/fax or email

☐ Ongoing support of individual learning needs

☐ Review of program protocol and program results

☐ Critique of program documents

☐ Help with development of applications protocol

☐ Requests for information

☐ Image interpretation assistance

☐ Periodic mailings, including our newsletter

☐ Access to our reference library and body of graduate thermographers

CERTIFICATION:

Students are only required to take the general exam to successfully complete the course. Additionally, students will have the opportunity to take a three-part certification examination. It consists of two written portions and a practical where you must show proficiency with your infrared camera. The 40 question general exam will evaluate your general knowledge in infrared theory and all the mainstream

applications. The specific exam will be based on either your written procedures or on accepted ASTM, ISO, NFPA, NETA, IEEE, OSHA, EPRI, and BINDT methodologies. The practical exam will allow you to prove you have the skills necessary to perform testing in the field. In the absence of having written procedures, each student will be given a copy of the applicable standard that applies to your work. You will also leave with a copy of a Written Practice. A Written Practice is a suggested guideline on how to organize and manage a certification program for your company. It is a straight forward document and process to set up a program, but it has critical importance in describing the educational experience and testing requirements for certification for your organization. As part of the course fee we will help you after the course to put in place a meaningful and effective written practice. The curriculum and all instructors are overseen by ASNT Level III Certificate Holders.