

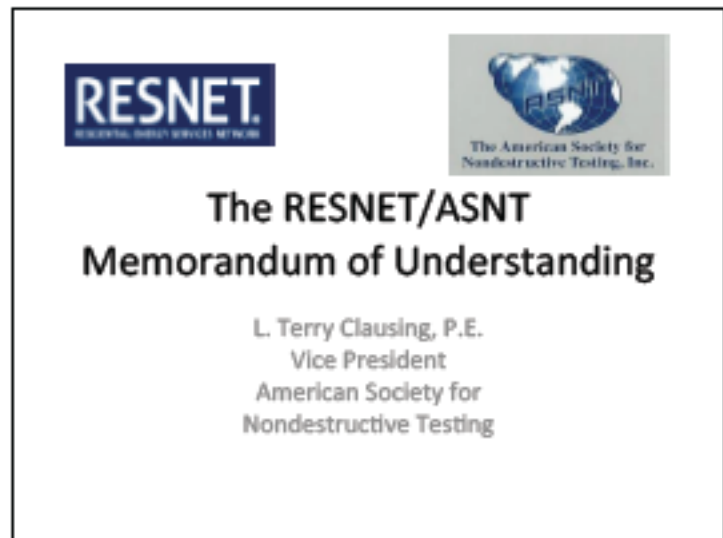


The RESNET/ASNT Memorandum of Understanding

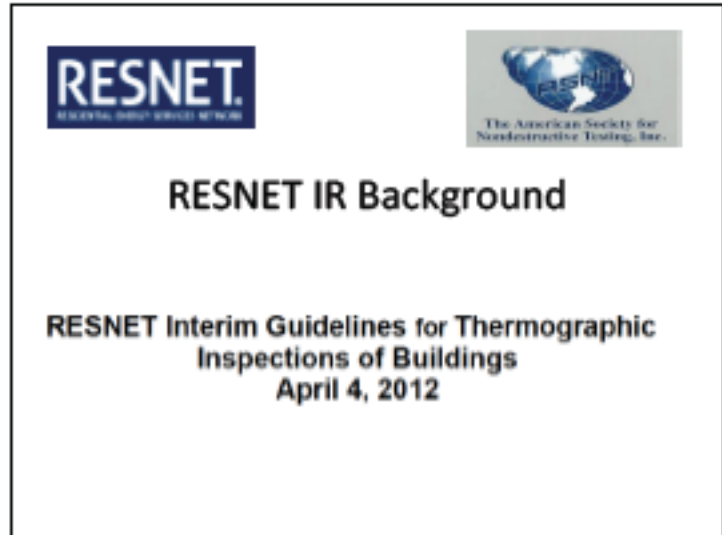
#1 Thank you all for choosing to be here this morning.

The formal part of this presentation is fairly short

It concludes with plenty of time for questions and includes a great opportunity for you that I will be telling you about



#2 Several years ago, RESNET established a committee to develop an infrared standard and certification process for infrared thermography for building diagnostics.



The procedure is in the process of being integrated into chapter 8 of the RESNET Mortgage Industry Home Energy Rating Standard. A copy of the interim guideline is available online.

As the development process moved toward implementation, we realized that, while RESNET has an infrastructure of highly skilled HERS providers, we lacked the necessary infrastructure to support the addition of infrared thermography certifications within RESNET.



So in 2012, RESNET approached The American Society for Nondestructive Testing about working together.

ASNT was established in 1941. ASNT's purpose is to establish standards for personnel involved in nondestructive testing.

The initial NDT methods were radiographic testing, liquid penetrant testing, magnetic particle testing, electromagnetic testing and ultrasonic testing.

In 1985 ASNT added infrared thermography to the nondestructive test methods. This introduced Level I, II and III certifications in infrared thermography.

#3 Infrared thermography is widely used in the examination of electrical and mechanical equipment. ASNT's certification was initially based solely on this practice, BUT the applications for infrared thermography have greatly evolved.



General Infrared Thermography

The primary categories of infrared testing are

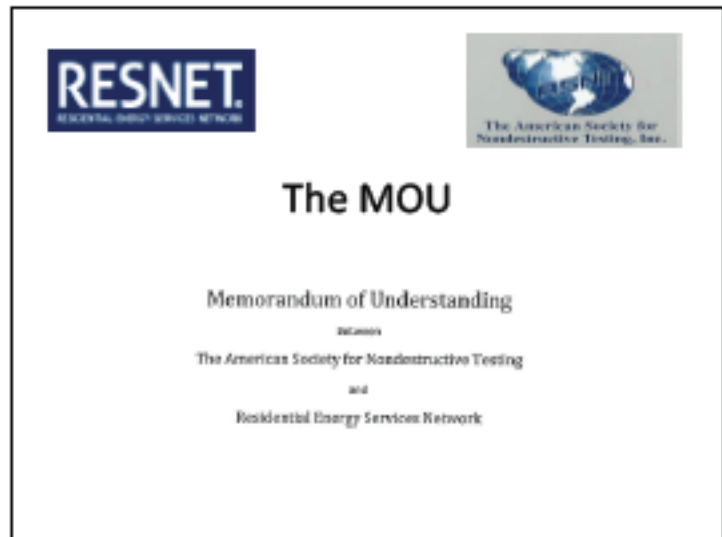
- Electrical/Mechanical Systems
- Buildings
- And NDT of Materials

Infrared thermography has been segmented by ISO, ASTM and many others, into sub-categories of
Electrical/Mechanical Systems
Buildings
And NDT of Materials

ASNT embraced RESNET's request for infrared thermography for building diagnostics certifications by

adopting a plan to align infrared thermography with these recognized subdivisions.

#4 May 3, 2013 - RESNET And The American Society for Nondestructive Testing signed a memorandum of understanding for the creation of a Level II certification for persons who wish to use infrared thermography in their analysis of buildings.



Let's examine how this will work

#5 – The 5 Year Cycle ASNT's core product is SNT-TC-1A. This document is recognized world-wide as THE standard for personnel qualifications and certifications for NDT. This document is updated and published on a 5 year cycle.



Introduction of the new certification will be formally introduced in the 2016 publication.

Publication of the 2016 standard is a prerequisite for formally conducting exams and issuing certifications. I know everyone has been anxiously awaiting this certification, and 2016 seems a long way away, however...

#6 – The Process
Certification will first require you to pass two ASNT examinations – a 50 question general exam on infrared thermography and a 40 question specific exam on the application of infrared thermography in the examination of buildings.



These exams will be offered at the 2016 RESNET Conference.

The cost has not been set yet but is expected to be similar to other Level II exams as currently offered.

You will need to complete an ASNT application in advance to take the exams.

Here comes the special opportunity for you...

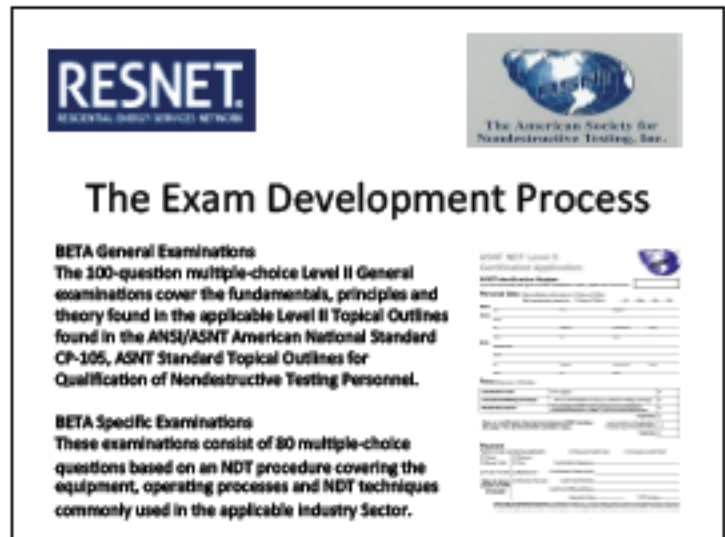
#7. Exam Development Process

ASNT plans to offer Level II General and Specific BETA exams NEXT YEAR at the 2015 RESNET conference.

We need YOUR HELP, and we have a special deal for all who want to be first in line. The purpose of the beta exams is to determine the psychometric validity of the exams. So we need qualified test takers to spend a day taking the beta exams.

The general exam will have 100 questions and the specific will have 80 questions. Each exam is closed book and requires 3 hours.

The cost to take the beta exams will be a fraction of the official exam cost in 2016. After you take the beta exam, each question is analyzed to make sure the exam meets psychometric requirements.



The flyer features the RESNET logo (RESEARCH, EDUCATION, SERVICE, NETWORK) and the ASNT logo (The American Society for Nondestructive Testing, Inc.). The title is "The Exam Development Process".

BETA General Examinations
The 300-question multiple-choice Level II General examinations cover the fundamentals, principles and theory found in the applicable Level II Topical Outlines found in the ANSI/ASNT American National Standard CP-105, ASNT Standard Topical Outlines for Qualification of Nondestructive Testing Personnel.

BETA Specific Examinations
These examinations consist of 80 multiple-choice questions based on an NDT procedure covering the equipment, operating processes and NDT techniques commonly used in the applicable Industry Sector.

On the right side of the flyer, there is a form titled "ASNT Level II Certification Application" with various fields for personal and professional information, including name, address, phone, email, and a section for "Education" and "Experience".

If the exam passes, AND if you pass the exam, you will receive your ASNT Certificate in 2016 at the same time that the standard is published.

#8. What should I be doing?

In the meantime, there is much work to be done and much YOU should do.

These are Level II exams. Level II represents a level of training and experience that is required to truly be qualified to interpret the results an infrared examination.



RESNET
RESEARCH ENGINEERING SERVICE NETWORK

ASNT
The American Society for Nondestructive Testing, Inc.

What should I be doing?

- You should get training from a qualified training organization
- You should prepare yourself with training and experience

Level I is essentially a learners permit. You need to have a basic understanding of science and physics and how infrared cameras work.

RESNET and ASNT will not offer Level I certifications. You should obtain level I training, get some serious hands-on experience and take level II training to prepare yourself for ASNT and RESNET Level II certification.

#9. When will I be certified?

ASNT is designed as an employer based certification scheme.

In the traditional form, certification requires 3 exams: the general, the specific and a practical examination.



When will I be Certified?

- General exam
- Specific exam
- Practical exam

RESNET certification
Through your Provider



CERTIFIED

RESNET certification is obtained by presenting your HERS provider with a copy of your ASNT Level II certification with a copy of an infrared examination report completed by you and approved by an ASNT certified Level III in infrared thermography.

Most infrared training organizations already provide general, specific and practical examinations. Their written exams provide excellent preparation for the ASNT written exams.

These organizations already offer all of these services.

This mechanism also establishes a means for RESNET Providers to add qualified infrared experts to their services for training and practical exam reviews.

With respect to larger users of infrared thermography, for example the Corp of Engineers, they might utilize their own ASNT infrared level III to certify their personnel in a similar manner, or they might utilize the services of a qualified training organization.

In all cases, the ASNT exams establish a common bar for all and the utilization of ASNT certified level III ensures a similarly common bar for demonstrated performance.

#10 – How do I sign up?

We are compiling a mailing list of those who are interested in certification in infrared thermography.

Please send an email to me at

terry@drysdaleenergy.com

and you will be added to the mailing

list. We will let you know as soon as we start accepting applications for the beta exams.



RESNET.
RESIDENTIAL ENERGY SERVICES NETWORK

The American Society for
Nondestructive Testing, Inc.

How do I sign up?

Leave your business card at the door
Sign up on our mailing list or
Send an email to
Terry@DrysdaleEnergy.com
to sign up for new information
as it becomes available

CERTIFIED

#11 – ASNT

I would also like to further introduce you to ASNT and encourage you to consider membership in ASNT. Knowledge is power. ASNT publishes one issue of the Materials Evaluation Journal each year specifically on infrared thermography. You will be amazed to learn of the advances in infrared thermography. ASNT membership is only \$65 per year.



#12 – Questions?

Thank you very much for being here today.

