

Metallurgy for Industries

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A Monthly News Letter

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Myths of NDT level II certification

Requirements of SNT-TC-1A

NDT level II certification has many queries pertaining to personnel training and certification. ASNT (American Society for Non-destructive Testing) has given the guidelines for training and certification of personnel like SNT TC – 1A and CP189.

Many institutions claim to provide ASNT level II certificates, which are un-judicious on the part of institutions. They can provide the training but cannot provide ASNT certification.

To realize these differences, we need to look at the historical developments. In 1968, Society for Non-destructive Testing (SNT) which is ASNT now, published first edition of the recommended practice no. SNT-TC-1A. These documents were developed and published to provide guidelines for the employers to train their employees and set up their own NDT certification programs. SNT-TC-1A lists three levels of qualification Level I, II and level III. ASNT was then SNT and the number of technical committees (TC) that developed the document was 1A – hence the name is SNT – TC – 1A.

In the initial document, three requirements were specified for personnel to qualify as level I and level II certification.

- Number of training hours,
- Amount of experience
- Successful passing written and practical examination

For Level III – personnel, required experience as a level II is for certain amount of time for specific method, and also he should pass certain written examinations. These level III personnel are commonly called as NDT level IIIs, and have been certified in accordance with recommended practice no. SNT-TC-1A.

However, an alternate method of qualification for level III has been permitted, which allows an employer to appoint a person as a Level III based on documentation of the person’s demonstrated ability, achievement, experience and education.

In 1977, ASNT developed their own certification program wherein ASNT developed and administered its own written examination

Microstructure of the Month



Magnification: 400X

MOC: Inconel 738LC

Component: Reformer tube

Etchant: 10%CrO3

Observation: Microstructure shows primary carbide precipitation at austenite grain boundaries. Secondary precipitates are noticed within the grains. Sigma phase precipitation is also seen at the grain boundaries highlighted by the arrows indicating temperature excursion.

Useful hint: The microstructural condition of the reformer tubes can reveal the governing damage mechanism such as creep rupture, chocking of catalyst or burner misalignment resulting in localized overheating, overall temperature excursion due to operational upsets / higher rate of production, thermal fatigue during startups and shut downs with minor variations in the operational parameters. The remaining life assessment of the reformer tubes can be therefore judged based on microstructural characterization, if it is performed at regular intervals.

for Level III and started issuing and ASNT certificate upon successful completion of examinations. Personnel holding these certifications are called "ASNT NDT level III" to differentiate them from those personnel who took and passed employer examination.

The core issue of certification is that the personnel certified as level II cannot be ASNT certified. Many employers and institutes confuse the certification system. Since the examination is not taken by ASNT for level II certification, personnel certified is not an ASNT certified but he may be certified by particular employ or institution as NDT level II.

Such individually certified personnel need to certify again when he/she leaves the job and joins another employer.

Only personnel who have appeared and cleared the examinations developed and administered by ASNT and have received certificates from ASNT may call them as ASNT certified.

ASNT does not appoint level III to qualify and certify ASNT level II personnel.

An employer may hire an ASNT level III personnel, document a procedure /written practice wherein he defines a training and certification procedure for level I, Level II and Level III personnel. Such personnel are the NDT level I, II and III for the employer.

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