

# Radiography Testing – Film Interpretation

Level II Limited – 40 hours

Training Course Outline

## SCOPE

This course will prepare a candidate for performing Radiography Film Interpretation

## COURSE OUTLINE

### Module 1: Certification of NDT Personnel

- SNT-TC-1A
- NAS410
- ISO 9712

### Module 2: Exposure Devices and Radiation Sources

- X-rays
- Gamma rays

### Module 3: Scattering and Attenuation

- Types of Scattering
- Attenuation
- Inverse square law
- Half value Layer

### Module 4: Types of Radiation

### Module 5: Exposure Techniques

- SWESWV
- DWESWV
- DWEDWV

### Module 6: Film Density and Contrast

- Understanding density
- contrast

### Module 7: Viewing a Radiograph

### Module 8: Film Interpretation

- Detection
- Interpretation
- Measurement

### Module 9A: Digital Radiography

- ISO 17636-2
- Spatial image resolution and use of duplex IQI

- Signal to noise ratio
- Flat panel detectors
- Real time radiography – RTR

#### Module 9B: Computed Radiography

- Phosphor Plates
- Film vs CR
- Limitations of CR

#### Module 10: ASTM E-94, E-747, E-1815 Standards

#### Module 11: ASME codes

- ASME VIII
- B31.1 and B31.3

#### Module 12: API 1104 for pipeline inspection

### PRACTICALS

Film Viewing

Penetrameter Requirements

Location Markers

Film Density Measurements

Identification of Defects

Interpretation

Accept/Reject

### TRAINING PROGRAM EXAMINATIONS

- General
- Specific
- Practical



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