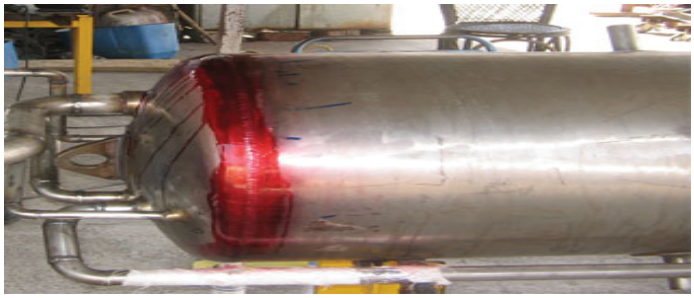
QTPC - AN ISO 9001:2008 Regd.

QATAR TECHNICAL PETROLEUM CENTER

LIQUID PENETRANT TESTING LEVEL 1 AND 2I

Course Duration	: 4 Days Training
Daily Schedule	: 7:30am - 3:30pm
Training Date	: Upon Request
Training Venue	: Doha
Traning Fees	: TBI



LIQUID PENETRANT TESTING LEVEL 1 AND 2I .course outline

DAY 1

Session 1
- Bench Mark Quiz
- General NDT
- Basic Requirements of a good Testing
- SNT-TC-1A Requirements
- Qualification Levels
- Examination Details

Session 2
- Basic Principles
- Requirement of PT
- Limitation and Advantages of Technique.

Session 3
- Penetrant Testing Materials requirements
- Equipment

Session 4
- Interpretation & Evaluation of Indication as per ASME Code requirements
- Practical Demonstration (Visible and Fluorescent)

DAY 2

Session 1
- Last Day Quiz Discussion
- Process of various methods
- Sequence of Testing and requirements

Session 2
- Method Selections
- Advantages & Disadvantages of various methods

Session 3
- ASME Code Requirements
- Factors affecting indications

Session 4
- Interpretation & Evaluation of Indication as per Procedure requirements
- Hands on Practical (Visible and Fluorescent)

DAY 3

Session 1
- Last Day Quiz Discussion
- Types of Discontinuities and Defects found in Welding, Casting, Forging

Session 2
- Procedure Reading

Session 3
- Revision of Syllabus

Session 4
- Mock up paper and Discussion

DAY 4

Session 1, 2
- Theory Examination (General + Specific)

Session 3, 4
- Practical Examination (Visible & fluorescent)

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LIQUID PENETRANT TESTING LEVEL 1 AND 2I

LIQUID PENETRANT TESTING LEVEL 1 AND 2I SYLLABUS

1.0 REVIEW
- 1.1 Basic principles
- 1.2 Process of various methods
- 1.3 Equipment

2.0 SELECTION OF THE APPROPRIATE PENETRANT TESTING METHOD
- 2.1 Advantages of various methods
- 2.2 Disadvantages of various methods

3.0 INSPECTION AND EVALUATION OF INDICATIONS
- 3.1 General
- 3.1.1 Discontinuities inherent in various materials
- 3.1.2 Reason for indications
- 3.1.3 Appearance of indications
- 3.1.4 Time for indications to appear
- 3.1.5 Persistence of indication
- 3.1.6 Effects of temperature and lighting (white to UV)
- 3.1.7 Effects of metal smearing operations (shot peening, Machining, etc.)
- 3.1.8 Preferred sequence for penetrant inspection
- 3.1.9 Part preparation (pre-cleaning, stripping, etc.)

3.2 Factors affecting indications
- 3.2.1 Pre-cleaning
- 3.2.2 Penetrant used
- 3.2.3 prior processing
- 3.2.4 Technique used

3.3 Indications from cracks
- 3.3.1 Cracks occurring during solidification
- 3.3.2 Cracks occurring during processing
- 3.3.3 Cracks occurring during service

3.4 Indications from porosity

3.5 Indications from specific material forms
- 3.5.1 Forgings
- 3.5.2 Castings
- 3.5.3 Plate
- 3.5.4 Welds
- 3.5.5 Extrusion

3.6. Evaluation of indications
- 3.6.1 True indications
- 3.6.2 False indications
- 3.6.3 Relevant indications
- 3.6.4 Non-relevant indications
- 3.6.5 Process control
  - 3.6.5.1 Controlling process variables
  - 3.6.5.2 Testing and maintenance materials

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About the Instructor

Sangita S. Kapote

Educational Qualifications

B.Sc. (Physics) - Pune University & M.E.S. Abasaheb Garware College.

Professional and Other Qualification

a. ASNT Level III in MT, PT, RT and UT – File No. 159734
b. 'Certified Welding Inspector' by American Welding Society- Cert. No.05061481 (1st lady in India)
c. RT and PT Level II as per EN473
d. API 510 Certified Pressure Vessel Inspector,
e. Certified Welding Inspector' by Indian Society for Non-Destructive Testing
f. ISO 9001 Internal Auditor
g. Advance Diploma in Computer Software Systems Analysis and its Application (ADCSSAA – year 1998)

PROFESSIONAL EXPERIENCE (Total Experience more than 14 years.)

- INSIGHT QALITY SERVICES, Pune.
- Period 1995 – 2001 worked as a Admin and Training Coordinator
- Period 2001 – 2006 worked as a Training and Inspection Coordinator Worked as a Training and Inspection Coordinator and NDT Technician.
- Coordinated the inspection activity for Kirloskar Brothers - Pune, Tetra Pak - Pune, Dresser Rand-Ahmedabad etc
- Carried out inspection work PT for SPL Re-boilers, Ador Powertron equipments and Chitale dairy tanks.
- Hands on experience of more than 6 months of Magnetic Particle Inspection of NPCIL studs and bolts checking for Alfa Laval Heat Exchangers.
- Witnessed welding qualification and visual inspection of welding.
- Expediting and Status report work activity for M/s. Alfa Laval India Limited and M/s. Dresser Rand for one project.

- Period 2006 onwards Worked as a Trainer and Jr. Consultant

a. Worked as a Management Representative (ISO 9001:2000). Actively involved in works related to ISO 9001:2000 i.e. preparation of documents and co-ordination of procedures, Implementation, conducting awareness programs, conducting internal audits. Successfully completed the certification of ISO 9001:2000.

b. Worked as NDT Trainer for PT, MT and RT till date in India as well as in Abroad.
Regularly conducted programs in IQS class room as well as for in-house programs for many companies, some of them are:
M/s. Alfa Laval India Limited – PT Level I/ II,
M/s. Bharat Forge – MT Level I, Level II and Level III (some part),
M/s. KSB Pumps – PT Level I / II,
M/s. Shrenik Industries – PT and RT Level II
M/s. Kirloskar Brothers – PT Level II,
Kooheji contractors - Baharin - . PT, MT and RT Level II
Forbes Marshall, Ador Welding, etc.

About the Instructor

c. Assisted in ASME U stamp Consultancy work for the following companies, Responsibilities handled -
Total NDE activity – Training, draft procedure making, NDE Setup (RT Darkroom setup facility etc.), Calibration of the NDE equipments, NDE Demonstration upto the satisfaction of AI as a Trainee NDE Level III for the following companies.

- M/s. Alfa Laval (India) Limited, Pune
- M/s. Alfa Laval (India) Limited, Satara
- M/s. Ashoka Iron works – Plant III , Belgaum
- M/s. Mech Engineers, Valsad
- Sparklet Engineers Mumbai
- Ador Welding Limited, Pune
- KBK Engineers, Pune
- Wellsite International, Pune
- Kooheji Contractors, Bahrain. (in progress)
- HLE Engineers Pvt. Ltd., Navsari (Training)
- Raj Engineering Co. , Mumbai
- Transparent Energy Systems Private Limited
- Radiant Heat Exchangers, Pune
- Petrofab, Vadodara
- GEI Hamon (Training)
- Tranter India Limited (Training)
- Ziemann Industries

d. Worked with the third party Agencies like - Lloyd's Registrar, NPCIL, HSBC, Bureau Veritas, TUV.

e. Worked for Alfa Laval India Limited for their Health and Safety (HSE) Audits.

f. Started 5S activity in the IQS.

g. Member of American Society for Non-destructive Testing, American Welding Society and Indian Society for Non-destructive Testing