

Course Outlines

- Introduction to welding concepts
- ASME family of standards.
- ASME SEC IX requirements
- History and development of STANDARDS
- Establishing the WPS,PQR,WPO
- Welding Process in detail
- Introduction to Welding Symbols
- Quality system documentation
- Management of WPS,PQR
- Practical Welding Inspection
- Exercises
- Revision, examination and feedback



D1.1 Code Clinic

Helps prepare you for the CWI Exam (Part C) if you are testing to D1.1

The eight hours of instruction provide a “road map” through the D1.1 Code, emphasizing the ability to locate important paragraphs, charts, and tables quickly, which is crucial to understanding the code when working under stressful deadlines. In addition to practice questions, a practice exam will be administered, and the instructor will illustrate the use of the code under time constraints, creating deadline pressure similar to the test environment. If you’re taking the CWI exam, this clinic has proven to be valuable test preparation. As a leading construction code, D1.1 is the ideal tool to teach effective code use.

By attending, you can learn:

- What is included in the D1.1 Code—clause-by-clause.
- Proper terminology to quickly direct you to the right clause of the D1.1 Code
- How to tab your copy of the D1.1 Code for quick reference.
- Sure-fire methods to avoid common pitfalls with the D1.1 Code.

To prepare for the clinic:

- Arrive with a familiarity with working with codes.
- Review the D1.1 Code.

Complimentary resources provided with seminar packages (a \$468 value):

- AWS D1.1, Structural Welding Code—Steel
- AWS D1.1 CCRM Code Clinic Reference Manual

API 1104 Code Clinic

Helps prepare you for the CWI Exam (Part C) if you are testing to API 1104

This four-hour course covers general provisions of API 1104, including qualification of welding procedures for welds containing filler-metal additions, design and preparation of the joint for production welding, nondestructive testing and acceptance standards, and automatic welding with and without filler-metal additions.

As in the D1.1 Code Clinic, attendees will practice open codebook testing under time constraints.

By attending, you can learn:

- Terminology that is included in API 1104—section-by-section—and how to get to the right section—quickly.
- How to use the API 1104 Code by understanding the core of the problem or question.
- API 1104 testing requirements and acceptance criteria.

To prepare for the clinic:

- Arrive with a familiarity with working with codes.
- Review the API 1104 Code.



QATAR TECHNICAL PETROLEUM CENTER

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Welding Inspection Technology Workshop

Helps prepare you for the CWI/CWE Exam (Part A)

The Welding Inspection Technology Workshop is packed with information on nondestructive examination methods applicable to common welding processes. It will assist welding inspectors and welding educators with knowledge of welding and inspection fundamentals useful on the jobsite. In addition, this seminar will prepare examination candidates for Part A (Fundamentals) of the CWI examination.

By attending, you can learn:

- Safe practices, metric practices, and metal joining and cutting processes.
- Terminology and weld joint geometry and welding symbols.
- Application of documents governing welding inspection and qualification.
- Welding metallurgy, metal properties and destructive testing.
- Evaluation of weld and base metal discontinuities.
- VT and other NDE methods.

To prepare for the workshop:

- Arrive with a general knowledge and experience in welding and welding processes

Complimentary resources provided with the workshop (a \$676 value):

- Welding Inspection Technology
- Welding Inspection Technology Workbook
- AWS B5.1, Specification for the Qualification of Welding Inspector
- AWS A2.4, Standard Symbols for Welding, Brazing, and Nondestructive Examination
- AWS A3.0, Standard Welding Terms & Definitions
- AWS QCI:2007, Standard for AWS Certification of Welding Inspectors

CWI and CWE Examination

Certified Welding Inspector exams are held on the Saturday following the seminar at the same seminar location. All exam applicants must show a photo I.D. and a copy of your exam confirmation letter at sign-in. All exam questions are multiple choice, and each part of the exam is two hours long.

Part A: Fundamentals.

Closed-book test; 150 questions.

Part B: Practical Applications.

Hands-on test; 46 questions, using "Book of Specifications".
(Use of toolkit for your exam provided by AWS.)

Part C: Open-Book Code Application.

Open-book test; number of questions can vary (46-60) on the code you previously selected — AWS D1.1; AWS D1.2; AWS D1.5; AWS D15.1; API 1104; ASME

Boiler and Pressure Vessel Code Sections VIII and IX; or ASME Section IX, B31.1 and B31.3.

Note: Certified Welding Educator applicants will only take Parts A and B of the CWI exam.

About the Instructor



Mr. Joshi Diwakar Damodar

Educational Qualifications:

PRE.PROF.ENGG., B.E.MECHANICAL

ADDITIONAL / INDUSTRIAL TRAINING & EDUCATION TRAINING

- API 510 Pressure Vessel Inspector
- API 653 Above ground Storage Tank
- API 570 Authorized Piping Inspector
- NDT Examiners Workshop
- ASNT Level III
(Basic + RT+ UT + MT+ PT +ET+ LT+VT)
- RWTUV Level III (PT + MT + UT + RT)
- American Welding Society –
Senior Certified Welding Inspector
- ISO 9000 Lead Assessor Training and Exam
- Training in Membrane cell project
- QA / QC aspect in Titanium Fabrication
- Radiographic Interpretation
- Site – In – charge Radiation Safety course

INSTITUTE

- API
- API
- API
- ISNT – Pune (India)
- ASNT, USA, Bombay, Madras, Hyderabad
- RWTUV
- American Welding Society
- BATALA, , UK (Bombay , India)
- By UHDE west Germany (at Pune)
- Titanium Fabricators Ltd.Sheffield, UK
- WRI Abington, Cambridge U . K.
- B. A. R. C. Bombay (India)

Professional Experience:

- Self – Insight Quality Services, • Physia Consulting, Saudi Arabia, • PT. Blacke Durr, Indonesia
- PT. Puspetindo, Indonesia, • Alfa Laval (India) Ltd., India, • Western India Erectors India
- Walchandnagar Industries Ltd. India

Working area

a. At Insight Quality Services (1994 onwards)

Promoted a Consultancy firm ' Insight Quality Services' and started rendering, Quality Services in Training, Consultancy (@ 300 Nos.) and Inspection.

Activities Completed so far

- RT , UT, MT, PT, LT, ET, VT – Level I + Level II + Level III (Preparatory)
- Basic Level III (Preparatory) course
- Welding Inspector (AWS/ISNT Syllabus) courses – India and abroad
- Internal Auditing (ISO 9000) course
- NDT Awareness, NDT for Designers and ASME Awareness,
- Consultancy, Training and Inspection in Welding & NDT areas as per customer requirements
- Guided Tour of ASME Codes
- Trained and certified more than 1500 NDT technician who are working in different organizations in India and abroad
- Developed NDT Written Practices as per SNT-TC-1A for different organizations in India and abroad and NDT procedures as per ASME requirements (about 100 procedures completed)
- ISO 9000 certification preparatory work for different organizations in India and abroad.
- Worked at middle-east countries at off-shores for Petroleum industries



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About the Instructor

b. PT . Puspetindo, Indonesia (1992 – 1994)

Pressure Vessels & Heat Exchanger Company & PT. Balcke-Durr, Indonesia in 1997 & 1998.
(Manpower handled Technical Staff @ 50)

I was working as a ' QA Consultant' and NDT level III

I was responsible for

- Streamlining the Quality Systems in the organization
- Training of QA / QC inspectors, engineers , managers, NDT personnel
- Preparation of ASME Shop Certification (U + U2)
- Preparation of QA manual and Procedures / system in line with ISO 9000 (certification completed in November, 1993
- Technical guidance for QA / QC staff
- Training for internal Auditors for Quality System Audit
- Help for Inspection co-ordination of Pressure Vessels and Heat Exchangers with customer / third party inspectors
- NDT Level – III for Company

c. Alfa Laval India Ltd. (1983 – 1992)

Alfa Laval (India) Ltd. is a multinational company involved in manufacturing of Dairy, Brewery, Veg. Oil Turnkey Projects and Fabrication of special metals like Ti, Ni, Hastalloy, Incoloy and all types of stainless steels for chemical refineries. (Manpower handled 10 engineers, 30 inspectors).I was working as a Manager (Quality Assurance).

I was responsible for

- Comments of drawings. Quality plans for premarketing requirements
- Quality plan for incoming jobs and their approvals
- Material incoming inspection
- WPS / PQR / WPQ Qualification and approval
- Stage Inspection
- D. T. and NDT (including RT+UT +PT+ MT+ LT+ VT)
- Vendor inspection, and certification of the equipment, co-ordination with third party inspection agencies
- Developing Inspection and NDT procedures
- Customer complaints, feed back, corrective action
- Quality Audit
- ISO 9000 Co-ordination
- Quality improvement
- Documentation

d. Western India Erectors Ltd. Pune – India (1981 – 1983)

W.I.E. is an Erection company involved mainly in Thermal Power Projects Erection Work.

(Man power handled 5 sites & 2-3 NDT operators at each site)

I was working as a Senior Engineer (Welding and Inspection)

I was responsible for

- Inspection work of structural fabrication at site
- Material Identification, Welding Procedure, Performance Qualification work
- Stages and final inspection and records
- Training of welder and IBR qualification (Indian Boiler Regulation)
- NDT (PT+ UT+ RT) at site



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e. At Walchandnagar Industries Ltd. Walchandnagar, India (1976-1981)

WIL is a reputed concern, manufacturing sugar plants, cement plants, Boilers, Gear boxes, Pressure Vessels, Heat Exchanger and more sophisticated equipments required for Atomic Energy Projects and Space Science Projects. (Manpower handled 20 operators, 2 engineers) I was working as a Sr. Engineer Quality Control

I was responsible for

- Preparation of inspection check-lists & inspection procedures for Nuclear components
- To carry out & co-ordinate inspection activities from material identification to despatch stage
- To co-ordinate LRIS, BV, EIL, IBR, TCE, SLV, PPED, visits (third party inspectors)
- Preparation of Quality plans
- WPS / PQR / WPQ qualification and approval by third party inspectors
- Welding destructive testing, tensile, bend, hardness chemical etc.
- NDT RT, UT, PT& MT, making test procedures and certifying the tests
- Training of Inspectors and NDT personnel (SNT-TC-1 A Norms)

IMPORTANT ASSIGNMENTS COMPLETED

Promoted a Training, Consultancy and Inspection setup in 1994 (Insight Quality Services) which renders these services in India and abroad.

The major assignments completed are as given below :

- Completed UT Level I/II and VT Level I/II training and certification in line with SNT-TC-1A 1996 for I. C. Technology, Bahrain in March-April, 2000
- Completed an assignment for shutdown inspection of Urea / Amonia Plant in April, May – 1999 in Saudi Arabia
- Worked as a QA/QC co-ordinator for Balcke-Durr, Indonesia for their Mobil Oil (USA) project with Toyo Japan and Tripatra Indonesia. There were 20 pressure vessels manufactured in CS, SS and Clad steels under ASME U/U2 stamps. (1997 – 6 months , 1998 - 4 months)
- Completed inspection and expediting work for 4 Nos. Re-boilers for SPL India Ltd. Delhi (Applicable code ISO / R831)
- Planned and executed Pressure Vessels and Heat Exchangers inspections activities including critical NDT Testing with full satisfaction of customers like Petrokimia Gresik Indonesia, IKPT, Mobil Oil (USA) and consultants like M/s Kellogg (USA), Toyo (Japan) and Rekayasa (Jakarta), while working as a QA consultant in PT. Puspetindo, Indonesia (1992-1994)
- Initiated and scheduled ASME Certification program (U+U2 stamps) for PT. Puspetindo, with proper in housing training and drafting QC manual.
- Conducted Internal Quality Audits for PT. Puspetindo, Gresik Indonesia in line with ISO 9001 requirements. In April, June, Sept. November, 1993 and April 94. In process, trained and prepared a team of Quality System Auditors
- Initiating, planning, Executing and Satisfactorily completing the ISO 9001 Certification Project for PT. Puspetindo which includes drafting and aligning all the systems and procedures in line with ISO 9001, Drafting QA manual and training, implementation and internal auditing. Project completed with recordable short time of 10 months (completed in November, 1993).
- The following training courses were completed in PT. Puspetindo,
 - Level I /II in RT, PT,UT, MT, VT
 - Welding Inspection
 - ISO 9000 Awareness
 - ISO 9000 Auditing
- Worked as a Level III for L & T-Niro, Baroda -India , PT. Puspetindo, Indonesia, Millipore, Bangalore – India, GEI Hamon, Bhopal – India & Jord Engineers India Ltd., Baroda – India

MEMBERSHIP OF PROFESSIONAL INSTITUTES

- Membership of ASNT (USA)
- Member of British Society for NDT (UK)
- Life Member of Indian Society for NDT , India
- And Hon. Secretary of ISNT Pune Chapter & member of NCB (National Certification Board)
- Member of American Welding Society (USA)
- Member of Singapore Welding Society, Singapore