



Confederation of Indian Industry
CII Naoroji Godrej Centre of Manufacturing Excellence

CII Digital Workshop on
Destructive Testing and Non-Destructive Testing

Tuesday, 22 December 2020, 10.30 a.m. – 1.00 p.m.

CONTEXT

Welding plays a very significant role in all mechanical projects. While performing welding operations, it becomes extremely essential to understand the properties of weldments as it affects the performance of components and structures in service. Destructive and Non-Destructive Testing provides necessary properties to conform in achieving sound welds, desired mechanical properties, and service life of any component.

Destructive weld testing involves the physical destruction of the completed weld in order to evaluate its characteristics. This method of testing is used frequently for a number of applications like welding procedure qualification and welder performance qualification testing, sampling inspection of production welds, research inspection, and failure analysis work.

Non-destructive testing (NDT) is the process of inspecting, testing, or evaluating materials, components or assemblies for discontinuities, or differences in characteristics without destroying the serviceability of the part or system. In other words, when the inspection or test is completed the part can still be used.

CII CME is organising a 2.5 hrs Online Workshop on the topic to discuss about the importance of both destructive and non-destructive testing and conducting test welds prior to the main process. The Workshop will be held on **Tuesday, 22 December 2020 from 10.30 a.m. – 1.00 p.m.** virtually, on the Microsoft Teams Platform.

OBJECTIVES

- To understand different Specifications welding consumables
- To understand ASME code / AWS classification / ASTM Standards in detail for consumables used for various processes
- To understand criteria for selection of right consumables to get desired properties in the welded component

BENEFITS of Destructive and Non-Destructive Testing

- Destructive testing allows us to look at the items on a molecular level to determine the exact makeup of an object.
- Non-destructive testing (NDT) offers a safe and reliable way of inspecting components, that is cost effective and requires little to no disruption to workers or machinery. It means that

plant and factory operations can continue working without any damage to equipment, or any loss of income to the company.

COVERAGE & CONTENTS

- Various Destructive Testing used for Carbon Steels, Low Alloy steels, Stainless Steels, Non-Ferrous consumables for various welding processes to understand properties
- Various Non-Destructive Testing related to weldments for identifying various Defects in Weld Metals and Weld Joints
- Interpretation of Non-Destructive and Destructive Test Results
- Virtual Demonstration and Explanation of Destructive Testing being carried out in Metallurgical Lab using Videos of Actual Testing

KEY TAKEAWAYS

- Understanding of ASME Sec II C code requirements for welding consumables with respect to properties
- Understanding of right Non-Destructive Test Method for identifying various defects in weldments
- Understanding Classification of Consumables as per ASME Sec II C based on different properties

METHODOLOGY

The workshop will consist of detailed technical presentation on the topic covering Non-Destructive Testing and Destructive Testing as per ASME Section II part C requirements for various processes and metals. It would also cover Virtual Demonstration and Explanation of Destructive Testing being carried out in Metallurgical Lab using Videos of Actual Testing.

WHO SHOULD ATTEND / TARGET AUDIENCE

- Professionals involved in welding, R & D Professionals, Design Engineers, Welding Engineers, Welding Inspectors
- Students and academics interested in welding.
- Companies from varied industrial sectors like Oil & Gas, Refinery and Petrochemical, Automobile, Infrastructure, Fertilizers, General fabrication, Defence, Railways, Shipbuilding, Heavy engineering, EPC projects, Process Equipment, Manufacturers, Foundries etc.

FACULTY: MR R. HARIGANESH

21 years of experience in Metallurgical Lab attached to Foundry and Welding Industry. Started Career as a Chemist in Metallurgical Lab after graduating as a Chemistry Graduate from Madras University. Completed Post Graduate Diploma in Industrial Pollution and Control from Annamalai University. Pursuing Associate Membership Course (Equivalent to BE Metallurgy) from Indian Institute of Metals (IIM) Kolkata.

Presently in charge of NABL (ISO: 17025:2017) Accredited Metallurgical Lab having Chemical, Mechanical and Metallography Destructive and Non-Destructive Tests in Technology Development

Centre of Ador Welding Limited. Looks after Welding Products Development, Products Approval, Lab Accreditation, Technical Support to Customers, Training.

Participation Fee :

Type of Organisation	Fees per Participant
<i>CII Large and Medium Scale Members</i>	Rs 3,000/- + 18% GST
<i>CII Small Scale Members</i>	Rs 2,500/- + 18% GST
<i>Non-Member Companies</i>	Rs 4,000/- + 18% GST

SPECIAL DISCOUNT

5% on 2 nominations from an organization

10% on 3 or more nominations from an organization.

Payment of fees is to be drawn in favour of “Confederation of Indian Industry”. Alternatively, it can also be made by NEFT / RTGS.

- ✓ Prior registration for participation by the companies is necessary
- ✓ Nominations will be purely enrolled on first come first serve basis.
- ✓ Certificate of Participation will be given to all participants who attend the Workshop fully.

For Nominations & Enquiries kindly contact:

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