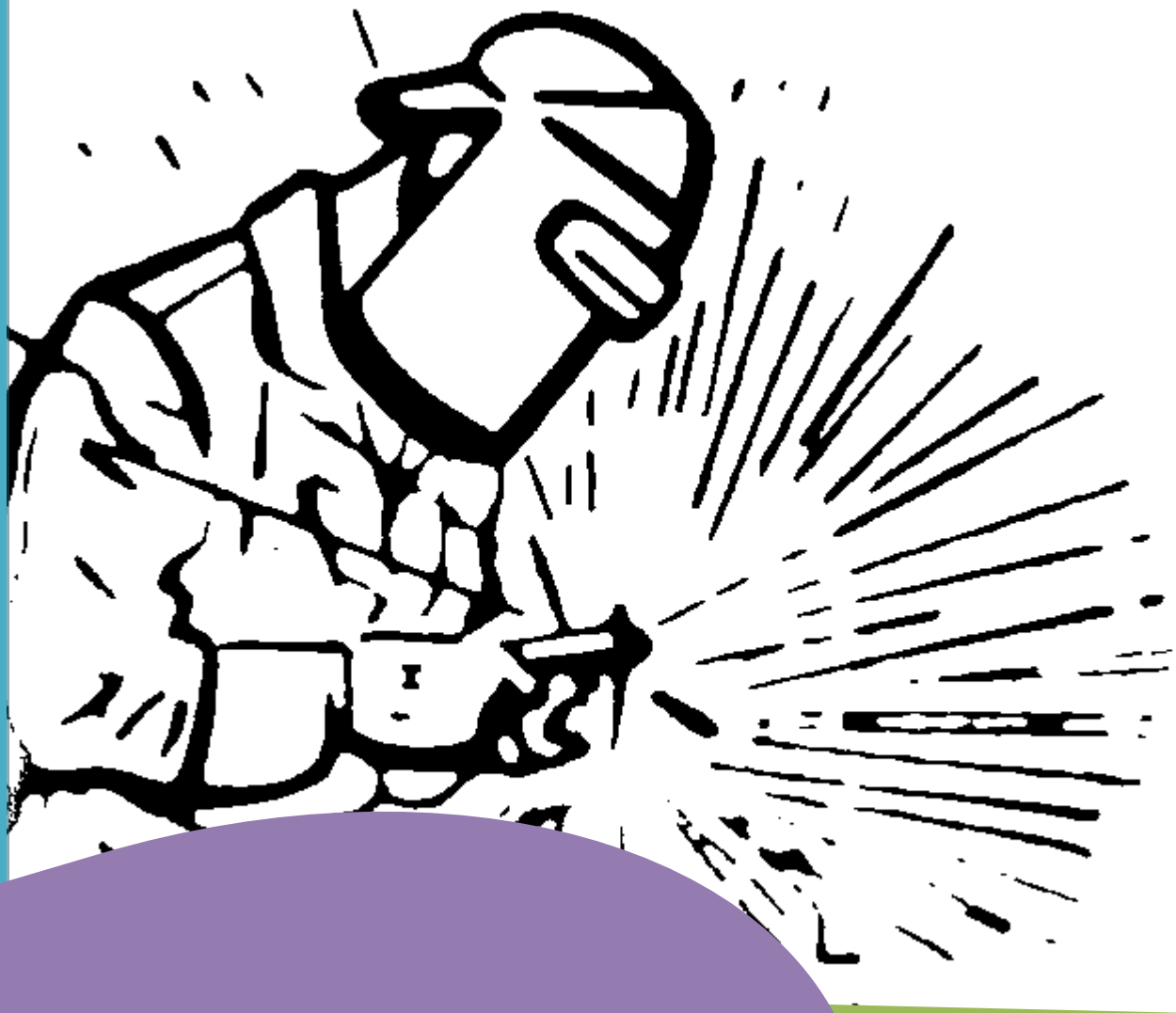
School of welding

COURSE CALENDAR

2018-2019



WELDING RESEARCH INSTITUTE
BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPPALLI – 620014 INDIA

Contents

WELDING RESEARCH INSTITUTE

BHARAT HEAVY ELECTRICALS LIMITED

TIRUCHIRAPPALLI – 620014

TRAINING CALENDAR FOR THE YEAR 2018– 2019

Sl. No.	Course Title	Course Code	Course Duration	#Course Fee **(Rs)	#Course Fee + GST (Rs.)
1	Welding & Inspection	STC - 438	**04.06.2018 – 09.06.2018**	21,000	
2	Certified Welding Inspectors *	CWI - 113	**19.06.2018 – 30.06.2018**	40,500	
3	Welding & Inspection	STC - 439	**09.07.2018 – 14.07.2018**	21,000	
4	Certified Welding Inspectors *	CWI - 114	**17.07.2018 – 28.07.2018**	40,500	
5	Ultrasonic Testing – Level II *	NDT - 137	**31.07.2018 – 11.08.2018**	40,500	
6	Welding & Inspection	STC - 440	**27.08.2018 – 01.09.2018**	21,000	
7	Certified Welding Inspectors *	CWI - 115	**04.09.2018 – 15.09.2018**	40,500	
8	Welding & Inspection	STC - 441	**24.09.2018 – 29.09.2018**	21,000	
9	RT Film Interpretation Level-II*	NDT - 138	**08.10.2018 – 13.10.2018**	23,000	
10	Welding & Inspection	STC - 442	**22.10.2018 – 27.10.2018**	21,000	
11	Certified Welding Inspectors *	CWI - 116	**13.11.2018 – 24.11.2018**	40,500	
12	NDT Techniques	NDT - 139	**26.11.2018 – 30.11.2018**	17,500	
13	Welding & Inspection	STC - 443	**03.12.2018 – 08.12.2018**	21,000	
14	Certified Welding Inspectors *	CWI - 117	**11.12.2018 – 22.12.2018**	40,500	
15	Welding & Inspection	STC - 444	**07.01.2019 – 12.01.2019**	21,000	
16	Certified Welding Inspectors *	CWI - 118	**05.02.2019 – 16.02.2019**	40,500	
17	Welding & Inspection ***	STC - 445	**11.03.2019 – 16.03.2019**	21,000	

***** The courses shall be organised if there is adequate number of registered Participants.**

**** GST extra applicable as per G.O.I Rules.** *** Programme includes examination**

 # Course fee applicable to Indian citizens only. For foreign nationals, contact Programme Officer.

NB: All Courses are **"NON RESIDENTIAL"** However bachelor accommodation (Shared) at Guest House is available for course participants on payment, subjected to availability.

WRI has conducted **1013** Welding & NDT Courses, so far, benefiting more than **20460** Engineers / Supervisors from private / public sector organisations apart from individuals, throughout the country and abroad.

- Under the technical skill development training programme, more than **6250** welders have been trained so far.
- In addition, tailor-made programmes on topics related to welding & allied areas can be organised at WRI, on mutually agreed terms for any industrial sector.

About WRI

Welding Research Institute (WRI), Tiruchirappalli was established by the Government of India with assistance from UNDP under the aegis of Bharat Heavy Electricals Limited, Tiruchirappalli. This institute is an "Industry Oriented Research Centre" to promote the application of welding Technology in Indian industries.

Objectives:

The activities of WRI are focused on developing cutting edge technologies in welding & allied areas through systematic R&D, providing welding technology solutions to all industries and knowledge dissemination. Recognizing the importance of well-trained manpower in effective implementation of appropriate welding technology, WRI has rightly emphasized on human resource development as one of its major objectives.

School of Welding:

The school of welding at WRI was established in 1975 to provide education and training in welding and allied field. The school of welding is conducting three tier training programmes for engineers, technicians and artisans. Apart from comprehensive basic training courses, short term courses on specialized topics are conducted regularly. Further, 'tailor made' courses designed to meet the specific requirements of sponsoring organizations are conducted either at WRI or at customer's premises. Close contact with industry assures that the training is not only relevant to the current needs of the industries but also to prepare them for future developments.

Faculty:

The faculty is drawn from well qualified and experienced research staff in each specialized area of welding. In addition to the Institute's research staff, experts from other organizations are also engaged. The courses are designed such that the trainees could benefit from their rich experience by group discussion and interaction between faculty and participants.

Facilities:

WRI has complete range of conventional and modern welding facilities like laser welding, friction welding, flash butt welding, projection welding, resistance seam welding, plasma welding system, synergic Time and twin MIG welding, AC/DC programmable TIG welding, Hotwire GTAW, Interpulse GTAW, Keyhole plasma welding, multipurpose column & boom type SAW, tandem submerged arc welding, AC/DC variable Square wave SAW, portable spot welding, MIAB welding etc. It has a metallurgical and mechanical testing laboratory, well equipped with thermal cycle simulator, implant test equipment, SEM, TEM, SRD, Stress Measurement, low temperature impact (CVN) testing equipment, fatigue testing equipment, Creep Testing equipment etc. The NDT laboratory is equipped with facilities such as X-ray with computer Radiography, gamma ray, fluoroscopy, UT and PAUT facilities. The school of welding has 3 class rooms fitted with up-to-date audio visual aids and a full-fledged training workshop.

The institute's library with more than 13,533 volumes and 28 periodicals on welding and related subjects is accessible to the trainees. A hostel with moderate facility is available to accommodate welder trainees.

Recognition:

Since inception WRI has so far conducted 80 basic courses, 437 short term courses. 112 Certified Welding Inspector Courses, 256 Special short term courses,136 NDT courses and Seven International Training Programmes on Welding Technology for customers from India and abroad. A total of about 20460 engineers and supervisors have been trained by WRI till date. Almost every major industry in both public and private sectors has made use of WRI to train their welding personnel. WRI has been recognized as competent authority by Indian Boiler Board to train and certify welders as per IBR.

ONE STOP SOLUTIONS FOR MATERIALS JOINING

WRI OFFERS...

Consultancy Services in the areas of:

- Equipment developments
- Consumable & power source testing
- Process & technology development
- Metallurgical investigation
- Repair and reclamation
- Distortion control
- Structural integrity analysis
- Weld audit for quality and productivity improvement
- Remnant life estimation
- Condition assessment, etc.

So far....

About 3600 consultancy services have been completed for 350 organisations covering Heavy Engineering, Power, Petro-chemical, Transport, Metal Processing, Defence, Space, Oil, Ship Building, Consumables & Welding Equipments, Electronics industries, etc.

For details contact:

THE DEPUTY MANAGER
CONSULTANCY DIVISION
WELDING RESEARCH INSTITUTE
BHEL, TIRUCHY - 620 014

Phone : +91 - 431 - 2577207 / 2577227
Fax : +91 - 431 – 2520773
E-mail : wriconsult@bhel.in / prveswaran@bhel.in

INFORMATION TO PARTICIPANTS

Location of WRI

Welding Research Institute is located in the industrial complex of BHEL, Tiruchirappalli, which is 18 kms. from Tiruchirappalli town on the Trichy – Thanjavur Highway.

How to reach Tiruchirappalli

Tiruchirappalli (also known as Tiruchy) is about 320 Km. south of Chennai. Number of trains and luxury buses from Chennai Egmore railway station operate throughout the day and night. The travel takes 6 to 7 hours. Tiruchirappalli is also connected by overnight train from Chennai, Bangalore and Kochi. Tiruchy is also connected by air from Chennai and other Asian countries like Singapore, Malaysia and Saudi Arabia.

Conveyance

Taxi and auto rickshaws normally charge Rs.450/- and Rs.350/-respectively to reach WRI hostel from Tiruchirappalli junction / bus stand / airport. Regular buses also ply from the C*entral Bus Stand* near the railway junction and *Chattram Bus Stand* near Rock Fort.

Accommodation

All Courses are "NON RESIDENTIAL" However limited A/C bachelor accommodation (shared) at our Guest House is available for course participants on payment, subjected to availability. Internal transport between guest house and WRI will be provided free of cost.

Hotels

Participants may make their own arrangements for stay in Tiruchirappalli. A number of good hotels are available around the central bus stand / Railway Junction at reasonable tariff. Participants will have to arrange for their own conveyance, between the place of stay and WRI, if they stay in Hotels.

Course Timings

WRI functions 6 days a week from 08.00 hours to 16.30 hours, Sunday being the weekly holiday. The session timing will be from 8.30 hours to 16.00 hours. Participants are requested to be present at WRI by 8.30 hours to complete the registration formalities on the first day.

Climate

Tiruchirappalli has moderate to hot climate throughout the year. The minimum and maximum temperature range from 25°C to 40°C. Light winter clothing is sufficient during November to January.

Note: *1. Course participants are advised not to bring laptop, camera, memory devices etc. which are not allowed inside WRI campus.*

2. All participants are required to carry any govt. issued photo ID like Aadhaar card, Voter ID, PAN card etc.

SPECIMEN COURSE ENROLMENT FORM

Course Title	:	
Course Code	:	
Course Duration	:	
Name of Candidate	:	
Designation	:	
Organisation	:	
Qualification	:	
Relevant Experience	:	
Payment Details	:	
Amount (Rs):_____	:	DD.No:_____Dt:
		Bank: _____
Accommodation required*	:	Yes / No
Address for Communication	:	
Phone No / Mobile No.	:	
E-mail	:	
Fax No	:	
Place	:	
Date	:	

Signature of Sponsoring
Authority with Seal

* Shared bachelor A/C accommodation will be provided at Guest House on payment subjected to availability.

Note: 1. For all our courses, participants are to submit soft copy of the latest passport size colour photograph (with blue background) in JPEG format while applying, to prepare entry pass and certificate.

3 Enrolment form duly filled in shall be sent along with demand draft, copies of qualification and experience certificates to:

THE PROGRAMME OFFICER
WELDING RESEARCH INSTITUTE
BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPPALLI - 620 014
Phone No. : +91- 431- 2577283 / 2577433 / 2577344
E-mail : wrisow@bhel.in / kkganesh@bhel.in / mkayar@bhel.in

TERMS AND CONDITIONS

Registration / How to apply?

a) The nomination will be registered on first-come-first-served basis. Last date for registration is one week prior to start of each course subjected to availability. To avoid disappointment, send your nomination well in advance.

b) Candidates sponsored by their company should forward the nominations through competent authority by official letter/ e-mail/Fax.

c) Self-sponsored candidates are to send the enrolment form duly filled along with copies of qualification certificate and experience certificate issued by their employer. Course fee to be paid through Demand Draft in favour of "BHEL, Tiruchirappalli-620014" payable at Tiruchirappalli, Tamilnadu or in the form of EFT. Nominations received without course fee will not be entertained. Candidates are requested to confirm the availability of seats before applying.

d) All participants are to submit soft copy of latest passport size colour photograph (with blue background) in JPEG format while applying, to prepare entry pass and certificate as applicable.

Cancellation / Postponement

The course fee will be refunded for cancellations on or before fifteen days from the date of commencement of respective courses. No refund will be entertained in all other cases.

General

WRI reserves the right to cancel / postpone any of the declared programmes, due to unforeseen circumstances. All communications regarding the nominations shall be addressed to:

THE PROGRAMME OFFICER
WELDING RESEARCH INSTITUTE,
BHEL, TIRUCHIRAPPALLI - 620 014

For further information, please contact:

Telephone	:	+91-431- 2577283 / 2577433 / 257344
E-mail	:	wrisow@bhel.in / kkganesh@bhel.in/mkayar@bhel.in
Fax	:	+91-431-2520773
Website	:	www.wriindia.com

WELDING & INSPECTION

STC-438	04.06.2018 – 09.06.2018		STC – 442	22.10.2018 – 27.10.2018
STC-439	09.07.2018 – 14.07.2018		STC - 443	03.12.2018 – 08.12.2018
STC-440	27.08.2018 – 01.09.2018		STC - 444	07.01.2019 – 12.01.2019
STC-441	24.09.2018 – 29.09.2018		STC - 445	11.03.2019 – 16.03.2019

About the course: This course aims at providing basic information about various welding processes, welding metallurgy and inspection techniques. The theoretical lecture covered will be supplemented with adequate practical demonstration at WRI. This course will be useful for the personnel from all fabrication industries including automobile, power plant and ship building.

Eligibility: Candidates should possess a degree in any branch of engineering or equivalent (or) diploma in engineering with minimum 2 years of industrial experience related to fabrication / quality control.

Last date for Registration: One week prior to start of the course, subject to availability

Course contents:

- Power sources and safety in welding
- SMAW process - equipment, techniques & electrodes classification
- SAW process-principle, equipment, techniques, consumable and applications
- GMAW and FCAW processes-principle, equipment, techniques, consumables and applications
- GTAW process - principle, equipment, techniques, consumables and applications
- Welding metallurgy - Weldablity of steels
- Heat treatment of weldments
- Welding symbols &distortion and residual stresses in weldments
- Welding procedure specification as per ASME Sec IX
- Welder qualification as per ASME & IBR requirements
- Mechanical testing of welds
- Weld discontinuities, types, causes and remedies
- Visual inspection
- Penetrant test & magnetic particle test
- Radiographic testing principles & techniques
- Ultrasonic testing principles & techniques
- Demonstration of welding processes, Destructive & Non Destructive Testing methods.

CERTIFIED WELDING INSPECTORS

CWI – 113	19.06.2018 – 30.06.2018		CWI – 116	13.11.2018 – 24.11.2018
CWI – 114	17.07.2018 – 28.07.2018		CWI – 117	11.12.2018 – 22.12.2018
CWI - 115	04.09.2018 - 15.09.2018		CWI - 118	05.02.2019 – 16.02.2019

About the course: This course is intended for those welding personnel who are seeking a career as welding inspectors and those involved in quality control and quality assurance functions. The course covers nearly all aspects in welding and inspection with specific focus on International Codes of construction. The course will enable the participants to carry out inspection of weld in the fabrication of pressure vessels, structural and piping and is well recognised by the industries all over the world. More than 4000 inspectors have already benefited by this course and are occupying key positions in different industries all over the world.

Eligibility: Candidates should possess a degree in any branch of engineering or equivalent (or) a diploma in engineering. Candidates should possess a minimum two years industrial experience related to fabrication / construction / quality control.

Last date for Registration: **O**ne week prior to start of the course subject to availability.

Course Contents

- Introduction to welding
- Welding power sources
- Basic metallurgy
- Welding metallurgy &Weldablity of steels (C.S, L.A.S & S.S)
- Shielded metal arc welding process and electrodes classification
- Submerged arc welding process principle, techniques and applications
- GTAW process principle, techniques and applications
- GMAW and FCAW processes principle, techniques and applications
- Weld joint design, type of joints and welding symbols

- Residual stresses and distortion control
- Heat treatment of weldments
- Visual inspection
- Penetrant testing and magnetic particle testing
- Radiographic testing principle & techniques
- Ultrasonic testing principle & techniques
- Welding procedure specification, procedure qualification record as per ASME.
- Fabrication aspects of structural steels as per AWS D1.1
- Fabrication aspects of pressure vessels as per ASME code
- Line pipe welding and testing as per API 1104
- Welders qualification as per ASME and IBR requirements
- Weld discontinuities types, causes and remedies.
- Occupational Health & Safety in welding
- Demonstration of welding processes and Destructive & Non Destructive Testing methods.

Examination: At the end of the training programme, the participants are required to take up an examination consisting of theory as well as practical parts. The theory exam consists of Part A – Objective type and part B – descriptive type questions. In the Part C (practical), the candidate will be assessed visual inspection of Weldments. Candidates should score a minimum of 50% marks in aggregate for a pass in the examination.

Validity: The CWI certificate is valid for a period of 5 years from the date of issue. Candidates can re-validate the certificate prior to the expiry of 5 year period. For re-validation, candidate has to appear for the renewal examination which will be held every year (during September and December)
along with scheduled CWI examination of that year.
Note: Candidate not sponsored but appearing as private candidate shall produce the copy of certificate in proof of work experience.

ULTRASONIC TESTING LEVEL – II

(IN ACCORDANCE WITH SNT-TC-1A)

NDT - 137	31.07.2018 – 11.08.2018

About the course: The course is designed to provide the participants, a better understanding of theory and applications of ultrasonic testing and to qualify them as ultrasonic testing Level II. Successful candidate will be able to calibrate the equipment, perform the test, interpret and evaluate the result as per the applicable codes and standards. Training, examination and certification will be based on WRI's written practice which is aligned with the requirements of SNT-TC-1A of American Society for Non Destructive Testing (ASNT).

Qualification: Degree / Diploma in Engineering (or) Degree in Science

Experience: Minimum of one year in Ultrasonic Testing (Mandatory) - to be certified by the employer.

Vision Requirement: Normal or corrected Near Vision of Jaeger (J2) and no colour blindness (Checked using Ishihara Chart).

Last date for Registration: One week prior to start of the course (subject to availability)

Course contents

- Properties of sound and wave propagation
- UT – Equipment and probe
- Calibration and reference blocks
- DAC and its significance
- Ultrasonic testing techniques
- Testing of raw materials
- Ultrasonic testing of welds
- Ultrasonic testing of castings
- Interpretation of UT signals and variables affecting the test results
- Ultrasonic testing Practical and quiz

Examination and validity: At the end of training programme, the participants are required to take up examination in General (Theory), specific and practical as recommended by SNT-TC-1A of ASNT. Candidate has to obtain a minimum of 70% in each examination and an aggregate of 80% to get certified as UT level II. The successful candidates will be awarded a certificate based on which the employer can certify the individual as UT level II. This certicate is valid for 5 years from the date of certification. The certificate has to be renewed before expiry with one-month prior notice. The candidates who wish to renew their certificate in the year 2018 can appear for this examination with one-month prior notice.

Note:

1. A letter should be addressed to the programme officer requesting WRI to train the candidate as per ASNT-SNT-TC-1A. A copy of the proof of educational qualification, employer certificate in respect of UT experience and a vision certificate as per vision requirement given above by a registered medical practitioner should be submitted at the time of registration.
2. Participants are requested to bring scientific calculator for the programme.

RADIOGRAPHIC TESTING FILM INTERPRETATION (RTFI) Level II

(IN ACCORDANCE WITH SNT-TC-1A)

NDT - 138	08.10.2018 – 13.10.2018

About the course: The course is designed to provide the participant an understanding of the basic theory of radiographic testing and the concepts of radiographic film interpretation. The participant will be able to obtain an insight into the important aspects to be considered during interpretation. Personnel involved in the quality functions and manufacturing operations will find the course useful.

Qualification: Degree in Science or Degree / Diploma in engineering.

Experience: Minimum of 2 months in Radiographic Testing (mandatory) - to be certified by employer.

Vision Requirement: Corrected or uncorrected near vision of Jaeger J2 required and no colour blindness (Checked using Ishihara Chart).

Last date for Registration: One week prior to start of the course subject to availability.

Course Contents

- ❖ Radiographic principles
- ❖ Radiographic sources
- ❖ Radiographic techniques
- ❖ Film processing & Radiographic image quality
- ❖ Interpretation of radiographs
- ❖ Radiographic film interpretation - practical.

Examination and Validity: At the end of training programme, the participants are required to take up examination in General (Theory), specific and practical as recommended by SNT-TC-1A of ASNT. Candidate has to obtain a minimum of 70% in each examination and an aggregate of 80% to get certified as

RTFI level II. The successful candidates will be awarded a certificate based on which the employer can certify the individual as RTFI level II.

Note: 1. A letter should be addressed to the programme officer requesting WRI to train the candidate as per ASNT-SNT-TC-1A. A copy of the proof of educational qualification, employer certificate in respect of RT experience and a vision certificate as per vision requirement given above by a registered medical practitioner should be submitted at the time of registration.

NDT TECHNIQUES

NDT - 139	26.11.2018 – 30.11.2018

About the Course: The course is designed to provide an overall view of NDE and to acquaint the participants about the various aspects and techniques used in commonly applied NDE. The principle, advantages, limitations and applications of each technique will be highlighted. It is highly useful for quality professionals, designers and manufacturing personnel.

Eligibility: Degree in science or engineering or diploma in engineering will be preferable.

Last Date for Registration: One week prior to start of the courses subject to availability.

Course Contents

- Visual inspection
- Penetrant testing and magnetic particles testing principles, techniques and applications
- Radiographic testing principle and techniques
- Conventional Ultrasonic testing principle and techniques
- Introduction to advanced Ultrasonic testing PAUT & TOFD
- Advanced NDT Techniques like Acoustic emission testing, Eddy current testing (ECT) , Thermography, Neutron radiography, Guided wave testing and Leak testing
- Visual defect identification lab
- PT, MT, RT & UT – Demonstration

WELDERS TRAINING AND QUALIFICATION

ASME, BS, DIN, IBR, EN287, IS & ISO

I. Welders training and qualification

WRI offers practical training to welders for a variety of job requirements. The practical training is tailored to the specific needs of the individual welder under the close supervision of experienced instructors. Besides practical training, necessary theoretical inputs are also given.

The training workshop is equipped with facilities for SMAW, GMAW, GTAW and SAW processes. It also has the facility of **Simulator Based Welding Training** to assess welder skill sets. Welding techniques and skills are taught for plates, pipes and tubes in various positions. Welders are trained in variety of materials like carbon steels, low alloy steels, stainless steels and non-ferrous materials. Materials and consumables for training in common grades are provided by WRI. More specialised materials have to be provided by the sponsoring company.

The welder training is organized right through the year at WRI. The duration of the training depends on the initial level of the welder, his ability to acquire higher skills, the actual job requirements like material, process, position etc. After the training the welder can be qualified as per the requirements of various codes like ASME, IBR, and ISO 9606 etc. Such qualification in the presence of any testing authority specified by the customer is also possible.

To help the Indian industries to equip themselves with highly skilled welding personnel, WRI has been continuously conducting skill development program for ITI Welder passed candidate as well as School drop outs under funding from Department of Science and Technology (DST) GOI, Tamilnadu Adithiravidar Housing and Development Corporation Limited (TAHDCO), Regional Directorate of Municipal Administration (RDMA) and Tamil Nadu Skill Development Corporation (TNSDC) Government of Tamilnadu. Around 1500 welders have been trained under the above schemes and they are well placed in industries in India and abroad.

To finalise the course content, considerable interaction with customer is necessary on materials, process, code, qualification requirements etc. The duration, course fee and testing charges will vary depending on these factors.

For further information, please contact:

THE PROGRAMME OFFICER
WELDING RESEARCH INSTITUTE
BHEL, TIRUCHIRAPPALLI - 620 014.
Telephone : (0431), 2577144 / 2577433 / 2577344
E-mail : wrisow@bhel.in / kkganesh@bhel.in / mkayar@bhel.in
Fax : +91-431-2520773

II. Standard training and qualification programme

The school of welding offers standard training programmes for welders as indicated in Table – 1.

The welders joining these courses should essentially have an ITI certificate and also should also have an experience of minimum 3 to 5 years. Moreover, experienced welders having no specific qualification can also attend the programme given in the Table - 1.

III. Organisation based training programme:

Orientation course in particular processes, materials, job and positions are also arranged at the School of Welding for specified durations. These courses are fully tailor - made to the needs of sponsoring organisations or individuals.

IV. Training Charges

The charges for training can be obtained from The Programme officer. Qualification tests to agencies like IBR, LRIS and others will involve additional charges, as applicable.

V. Lodging and boarding

Boarding and Lodging arrangements at guest house can be provided on request, subject to availability at extra charge.

VI. Transport to WRI

The Welding Research institute is situated in BHEL, Tiruchirappalli complex. Transport will be provided for commuting to WRI for all the participants residing in guest house.

TABLE -1

Course	Job and Material	Process	Code	Position	Minimum period	
					Training (in weeks)	Training & Qualification (In Weeks)
01.	Carbon, low alloy steel Plates	SMAW	IBR ASME	Vertical, Horizontal & Down hand(D.H)	04	05
02.	Carbon Steel & Pipe & tube (Inclusive of CS Plates)	GTAW & SMAW	IBR ASME	All Position	05	08
03.	Alloy steel Pipe & tube (Inclusive of AS Plates)	GTAW & SMAW	IBR	All Position	08	10
04.	Stainless Steel Sheets, Pipes& Tubes	GTAW & SMAW	-	D.H., Horizontal& Vertical	04	-
05.	Carbon, low alloy steel Sheets & plates	GMAW	ASME	D.H., Horizontal& Vertical	04	05
06.	Aluminium Sheets & Plates	GMAW	-	D.H., Horizontal& Vertical	04	-
07.	Carbon, low alloy Steel Sheets & Plates	SAW	IBR ASME	D.H.	02	03

TABLE – 2

Process	Material	Training chares * / Week / Welder
SMAW	Carbon Steel	Contact Programme officer for fee details
	Alloy Steel	
GTAW	Carbon Steel	
	Alloy Steel	
	Stainless Steel **	
	Aluminium **	
Solid wire CO_2 and FCAW	Carbon Steel	
	Alloy Steel	
	Aluminium **	
GMAW	Aluminium & other non – ferrous material **	

* Goods & Service tax is to be paid extra as per GOI rule

** Customer to supply materials & electrodes as free issue

SUBSCRIBE NOW FOR WRI JOURNAL

WRI is publishing WRI Journal for the past thirty-eight years and is now having subscribers list covering industries pertaining to different sectors, R&D institutes and academic institutes in India and abroad. The journal is a quarterly publication released at the end of every quarter of the calendar year. The journal contains:

- Articles covering the outcome of the latest research projects carried out at WRI
- New facility additions at WRI
- Workshops organised at WRI with renowned international experts
- Forthcoming welding related events related to fabrication industries around the world
- New products in welding and testing field.
- Brief on customer services by the Institute

We invite you to join our welding family and be immensely benefited by subscribing to WRI Journal. The annual subscription for the journal is Rs.2000/- (Rupees two thousand only) in India and US $ 100 for overseas by air-mail. The DD/Cheque may be drawn in favour of "BHARAT HEAVY ELECTRICALS LTD., TIRUCHIRAPPALLI-620 014" and payable at SBI HEK, Kailasapuram, Code No: 1363

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WELDING RESEARCH INSTITUTE

BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPPALLI – 620014

SUBSCRIPTION FORMAT

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