Corrigendum – IV dated 24/04/2026 to CPC Tender No. BHEL/CPC/YNR/M_BLR_ESP_PCP/27/007

Work Description - Erection, Testing, Commissioning, Trial Operation & Handing Over of Power Cycle Piping, Boiler and its auxiliaries including ESP, Pressure Part, Non-Pressure Parts, Duct dampers and its support structure, Rotating Equipment's, Air Pre-Heaters, ID/FD/PA fans, Mills, Refractory , including Handling of materials at BHEL / Client's Stores / Storage Yard and transportation to site, preparation of foundation, fixing of hangers & supports, application of lining, Insulation, supply & painting, Stenciling & Labelling of 1X800 MW DCRTPP, HPGCL, YAMUNA NAGAR, HARYANA, INDIA.

Section-B: Modification in TECHNICAL CONDITIONS OF CONTRACT (TCC) Volume-IA: Following clauses are hereby modified in TCC:

Sl. No.	EXISTING CLAUSE		REVISED CLAUSE	
	Clause No.		Clause No.	
1	TCC – Volume IA Cl No: 22.8 (Pg. 174 of 178)	**NON-DESTRUCTIVE TESTING (NDT):** The contractor shall record results of NDTs carried out at site in the format acceptable to BHEL/OWNER'S/CUSTOMER'S. Sensitivity of all the test equipment shall be compatible to the job & acceptance norms agreed. **Computed RT shall be used as an advanced Engineering Practice. Contractor to ensure minimum 10% computed radiography of weld joint to be performed in construction phase for scope in FWS**.. Contractor to ensure the transfer & storage of these records on Server.	TCC – Volume IA Cl No: 22.8 (Pg. 174 of 178)	**NON-DESTRUCTIVE TESTING (NDT):** The contractor shall record results of NDTs carried out at site in the format acceptable to BHEL/OWNER'S/CUSTOMER'S. Sensitivity of all the test equipment shall be compatible to the job & acceptance norms agreed.

Section-C: Some of the Bidders had asked queries in the published tender specification. The clarifications issued by BHEL are furnished below:

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
1	TCC – Volume-IA Chapter-II: Scope of Work Clause no.-2.1	Erection, Testing, Commissioning Trial Operation & Handing Over of power Cycle Piping, Boiler and its auxiliaries including ESP, Pressure part, Non 'Pressure Parts, Duct dampers and its support structure, Rotating Equipment's, Air pre-Heaters, lD/FD/PA fans, Mills, Refractory including Handling of materials at BHEL / Client's Stores / Storage yard and, transportation to site, preparation oi	SCR Work is not mentioned in the reference Clause. However, PGMA Details provided for SCR work in TCC. Kindly clarify it.	SCR system (Selective Catalytic Reduction) is in the scope of Work of Bidder.

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
		foundation, fixing of hangers &l supports, application of lining, insulation, supply & painting, Stencilling Labelling of 1X800 MW DCRTPP, HPGCL, YAMUNA NAGAR.		Please refer added **Annexure-18: 'Specification of SCR system'** in Technical Annexure of Chapter-XXV attached with this corrigendum.
2	TCC – Volume-IA Chapter-II: Scope of Work Clause no.-2.10.5	Giving all notices, paying all fees, taxes, statutory clearances, license (like T&P load test, etc), etc., in accordance with the general conditions of contract, that is required for all works including temporary works is in the scope of contractor.	All statutory fees "for IBR and PESO FOR Ammonia Handling Plant" shall be in BHEL Scope and Borne by BHEL	Bidder to refer TCC clause no.- 10.11. Also, refer Clause 2.9 of SCC scope related to inspector of explosive/ PESO. All statutory fees for the same shall be within the scope of work Bidder.
3	TCC – Volume-IA Chapter-XIV: ERECTION, Clause no.-14.19, Sl. No.-1	Boiler structure (PG-34,35,36,38,39 as applicable) **(Structure will be bolted type).**	Whether the Boiler Structure/SCR Structure will be Welded Type or Bolted Type	Clause may be read as Boiler structure (PG - 34, 35, 36, 38, 39 as applicable) (Structure will be mainly welded type)

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
4	TCC – Volume-IA Chapter-XVIII: PAINTING Clause no.-18.1 (Para 3)	Contractor shall carry out surface preparation and touch-up/ re painting/finish painting work as per BHEL/Customer specification and instruction of BHEL engineer at site.	Please clarify that Only Touch up Painting shall be in Contractor Scope or Final Painting is also in Contractor Scope.	Refer clause 18.1 and relevant painting schedule. Bidder to note that Structural members having welded connections at site, relevant area shall be painted with primer and subsequent finish painting.
	TCC – Volume-IA Chapter-XVIII: PAINTING, Clause no.-18.4	**Finish Painting (wherever applicable)** a) After the primer coat has dried out, the surface shall be cleaned of dust without scratching or in any way damaging the primer coat. Over this, dry surface finish painting shall be carried out. b) Finish painting shall be carried out in two coats. Dry film thickness of each coat shall be as per the recommendation of the primer/paint manufacturer. Minimum thickness including primer and paint coating shall be as per specification. c) Paint shall be applied either by brushing or spraying. It shall be ensured that brush marks are a minimum and the requirements of workmanship are as specified in IS: 1477 (for site painting works on systems, structures and components). d) Paint used shall be stirred frequently to keep the pigment in suspension. Paint shall be of ready mixed type in original sealed containers as packed by the paint manufacturer. Addition of thinners shall not be permitted. e) No painting shall be done in frost/foggy weather or when the humidity is high enough to cause condensation on the surface to be painted. Paint shall not be applied when the temperature of the surface to be painted is 5o C or below.		
5	TCC – Volume-IA Chapter-XVIII: PAINTING Clause no.-18.3 (Sl. No.(a))	Clause no.-18.3: **Primer Painting:** (wherever applicable incidental to touch-up/ re painting/finish painting & preventive painting) a) After surface preparation, two coats of epoxy resin-based zinc primer shall be applied. Primer shall be applied by either spraying or bushing ensuring a continuous film without "holidays". Primer	Kindly clarify our scope of structure painting and approval required for structure painting.	Refer clause 18.1 and relevant painting schedule. Bidder to note that for Structural members having welded

<table>
<tr><th>SL. No.</th><th>Reference Clause of Tender</th><th>Existing Provision</th><th>Bidder's Query</th><th>BHEL's Reply</th></tr>
<tr><td></td><td></td><td>coat shall be immediately applied without any time lag after the surface preparation.</td><td></td><td>connections at site, relevant area shall be painted with primer and subsequent finish paint.</td></tr>
<tr><td>6</td><td>TCC – Volume-IA
Chapter-II: Scope of Work,
Clause no.-2.7.2</td><td>The area of work shall be cleared of all vegetation, rubbles and other objectionable matter and materials by contractor. No separate payment for these operations shall be made for such works.</td><td>Area grading to be done by BHEL before handing over of site. The backfilling, compaction and levelling of area of work shall be in BHEL Scope.</td><td>Tender condition prevails.</td></tr>
<tr><td>7</td><td>TCC – Volume-IA
Chapter-IV: T&Ps and MMEs to be deployed by Contractor, Clause no.-4.2, Sl. No.-83</td><td>Clause no.-4.2 : Other T&Ps: The following Other Tools & Plants (T&P) shall be arranged by the Contractor for execution of work as per Technical Conditions of Contract of this tender within the quoted rate. Below given Quantities are tentative for planning purposes by the bidder.
….
<table>
<tr><th>SN</th><th>DESCRIPTION OF OTHER T&Ps</th><th>CAPACITY (MINIMUM)</th><th>TENTATIVE QUANTITY</th><th>REMARKS</th></tr>
<tr><td>83.</td><td>Huck bolting machines (with all accessories, spares etc required for maintenance) including 12 mm & 16 mm Guns</td><td></td><td>03 Sets.</td><td>As per requirement and as Suitable for Huck Bolting in ESP</td></tr>
</table>
</td><td>As per our previous Practice, Huck bolting machines (with all accessories, spares etc required for maintenance) including 12 mm & 16 mm Guns are provided by BHEL free of Cost.
So, these machines shall be in BHEL Scope.</td><td>Tender condition prevails.</td></tr>
</table>

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
8	TCC – Volume-IA Chapter-II: Scope of Work, Clause no.-2.11.2 and	The contractor shall provide within finally accepted price / rates, all consumables like welding electrodes (including alloy steel and stainless steel), all gases (inert, **Nitrogen Gas for accumulators** and Gases required for welding, and cutting), soldering material, dye penetrants, radiography films, water soluble paper. Other erection consumables such as tapes, jointing compound, grease, mobile oil, M-seal, Sodium silicate, Araldite, petrol, CTC / other cleaning agents, grinding and cutting & buffing wheels are to be provided by the contractor. BHEL at its discretion and on subject to availability at site, may issue only limited quantity of structure steel, wooden planks, concrete sleeper, concrete blocks etc. for pre-assembly bed etc. on returnable basis subject to availability with BHEL site store. **However, in case of non-availability same has to be arranged by agency.** Nitrogen cylinders required for Acid cleaning, Oil Accumulator filling & other Commissioning activities of Boiler & Auxiliaries are in the scope the bidder.	Nitrogen Cylinders and Nitrogen Gases shall be in BHEL Scope. As per our previous practice, these items include in BHEL Scope.	Tender condition prevails.
	TCC – Volume-IA Chapter-X: General, Clause no.-10.33	It shall be the responsibility of the contractor to preserve the boiler as per BHEL's requirement. Contractor shall arrange necessary connector, nipple, regulator, header and piping for usage of **such gas from cylinders**. However, **Nitrogen gas required** for the initial charging of Fuel/Lube/Working oil accumulators (LDO/HPSU of MEFCV/HWL1&2 etc.) shall be in the scope of the contractor.		
9	TCC – Volume-IA Chapter-VI: Time Schedule, Clause no.-6.1.2 (COMMENCEMENT	The date of start of contract period shall be the mutually agreed date between the bidder and BHEL engineer to start the work. In case of discrepancy, the decision of BHEL shall be considered to be final and binding to contractor.	The date of Start of Contract Period shall be decided after handing over of material up to 3rd tier, completely	Tender condition prevails.

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
	OF CONTRACT PERIOD), Para-2		backfilled, compacted and levelled area in and around the Boiler before start of work, all the foundations and motorable road for smooth movement of Cranes, Hydra and trailor.	
10	TCC – Volume-IA Chapter-VII: TERMS OF PAYMENT, Clause no.-7.1	Existing Payment Terms upto NDT area wise are as follows: Structure-57% ESP-65% PP-49% NPP-45%	Running Payment upto NDT shall be 85% for all areas	Tender condition prevails.
11	TCC – Volume-IA Chapter-VII: TERMS OF PAYMENT, Clause no.-7.6	1. For Installation and Erection of **Site Infrastructure by contractor i.e. site office stores, etc. – 1.0%** of Contract value. 2. For Mobilization of **Safety Equipments /PPEs at site as finalised with BHEL Engineer In-Charge – 0.5 %** of Contract value. 3. For Mobilization of **Measuring and Monitoring Equipment (MMEs) ,Baking oven, Portable oven, Hardness testing machine etc. for QA/QC at site as finalised with BHEL Engineer In-Charge — 0.5 %** of **Contract value.** 4. For Mobilisation of **02 Nos. of 75/80 MT crane** and **01 no. of 40 MT Trailer capacity** – **1.0% of Contract Value** 5. For Mobilization of **01 no. of Crane of 150 MT capacity - 1.0% of Contract value** 6. For Mobilization of **required balance T&Ps** and resources at site to start the work of Boiler as finalised with BHEL Engineer In-Charge **– 1.0% of Contract value.**	Moblisation advance should be released in maximum three instalment instead of six, which will help the contractor for timely moblisation of resources at site.	Tender condition prevails.

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
12	TCC – Volume-IA, Chapter-X: General, Clause no.-10.41	Neutralisation pit for Chemical cleaning/Acid cleaning shall be made by BHEL. After completion of job pit has to be dismantled and area is to be levelled before handing over of area to owner. Dismantling of temporary piping & Cleaning of the area, erected by bidder, is in the scope of contractor. The pit size shall be approx. 30x30x1.5m, however it shall suitably decide jointly at site as per site requirement. Cost incurred in construction & post-use levelling of neutralization pit shall be borne by the BHEL.	All civil work shall be in BHEL Scope. Clause No. 12.9 is contradicting with clause NO. 10.41 of TCC. As per clause No. 10.41 of TCC, **Completion of neutralising pit shall be in the scope of BHEL. However,** as per clause No. 12.9 of TCC, **Completion of neutralising pit shall be in the scope of contractor.**	Civil work for Neutralisation pit for Chemical cleaning shall be in BHEL scope. **However, any other work to be executed for completion of neutralising pit shall be in the scope of contractor.**
	TCC – Volume-IA, Chapter-XII: FOUNDATIONS & GROUTING, Clause no.-12.9	Civil work for Neutralisation pit for Chemical cleaning shall be in BHEL scope. However, any other work to be executed for completion of neutralising pit shall be in the scope of **contractor** After completion of job, dismantling of pit shall be in scope of **contractor.** Pit Size shall be approx. 30x30x1.5m. (area levelling shall be in BHEL scope). No Extra payment shall be made to the contractor for the aforementioned work.		
13	TCC – Volume-IA, Chapter-X: General, Clause no.-10.42	Contractor shall remove all scrap materials periodically generated from his working area and collect the same at one place earmarked for the same. Load of scraps is to be shifted to a place earmarked by BHEL. Failure to collect the scrap is likely to lead to accidents and as such BHEL reserves the right to collect and remove the scrap at contractor's cost with applicable overheads if there is any failure on the part of contractor in this respect.	BHEL Shall take Scrap material at site on routine basis & issue the weight receipt to avoid double handling of Scrap Material. Scrap will be returned in a lot without segregation.	Tender condition prevails.
14	TCC – Volume-IA, Chapter-XIII: MATERIAL HANDLING,	Sometimes it may become necessary for the contractor to handle certain unrequited components in order to take out the required materials. The contractor has to take this contingency also into account. No extra payment is payable for such contingencies.	Contractor has to depute more manpower for handling of material	Tender condition prevails.

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
	TRANSPORTATION AND SITE STORAGE, Clause no.-13.7		resulting in increase in cost of the Project.	
15	TCC – Volume-IA, Chapter-XIII: MATERIAL HANDLING, TRANSPORTATION AND SITE STORAGE, Clause no.-13.14	Open land for storage purposes shall be provided by BHEL on free of cost/as available basis for storage of materials issued to contractor (if required). Temporary barbed wire fencing (if required), as required, of the open storage yard is to be done by the contractor and is included under the scope of his work. Contractor shall also remove grass, bushes, trees etc wherever required off the land provided to agency and shall make proper continuous up keeping of the open yard /land by removing grass, bushes trees etc and same is included under the scope of his work & No extra payment shall be made to the contractor in this regard. The bidder shall make complete arrangement of necessary security personnel to safeguard all such materials in his custody. The contractor shall take care of material issued by BHEL and shall protect the same from theft, damage and weathering. In case, loss of any materials for whatsoever reasons attributable to the contractor, then cost of such materials shall be recovered from the running bill payment with 5% overhead.	Open land for storage Purposes shall be backfilled, compacted and levelled completely by BHEL, before handing over to contractor .	Tender condition prevails.
16	TCC – Volume-IA, Chapter-XIV: ERECTION, Clause no.-14.6	Approach road in the vicinity of erection area are to be maintained by Contractor.	Approach road in the vicinity of erection area and yard are to be maintained by **BHEL, it is used by all agencies,**	Tender condition prevails.
17	TCC – Volume-IA, Chapter-XIV: ERECTION, Clause no.-14.13	Wherever hanger and support materials are not received from manufacturing unit in time to suit the erection schedule, contractor shall erect the system on temporary supports to ensure the progress of work. The required structural steel materials will be issued on free of charges by BHEL, either from scrap/spare materials. The same	It shall be considered as Extra Work and payable to Contractor as quantum of work will be doubled.	Tender condition prevails.

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
		shall be removed and returned to BHEL store after erection of permanent supports.		
18	TCC – Volume-IA, Chapter-XIV: ERECTION, Clause no.-14.19, Sl. No.-36	**BRIEF FEATURE OF STEAM GENERATOR & AUXILIARIES** Steam Generator is Main equipment including all related auxiliary equipment as specified below. The steam generator will be of once through, two passes, single reheat, radiant furnace, dry bottom, balanced draft, outdoor type, pulverized coal fired having super critical parameters with all necessary auxiliaries, integral piping, etc. Scope includes Erection, alignment and welding, bolting, fastening, grouting as applicable of: …. **36. SCR** Note: Permanent Lift Structure to be erected before Boiler Light up milestone.	Separate Rate shall be considered for SCR since this is very complex job as compared to Non-Pressure PART AND Structure.	Tender condition prevails.
19	TCC – Volume-IA, Chapter-XIV: ERECTION, Clause no.-14.19, Sl. No.-2	**Welder Training Centre** – Contractor shall setup a small welder trailing centre with 2 welding booths equipped with GTAW and SMAW setup in a porta cabin/suitable enclosed space to train and hone skill of high-pressure welders who are giving high rate of welding defects. All consumables shall be in contractor scope. No separate payment shall be made in this regard.	Whether this has to be setup for this scope of work or it will be used for all other contractors working at site	Tender condition prevails.
20	TCC – Volume-IA, Chapter-XIV: ERECTION, Clause no.-14.22.16	In case of any class of work for which there is no such specifications as laid down in the contract such as blue matching, welding of stainless-steel parts etc., the work shall be carried out in accordance with instructions and requirements of the BHEL engineer at the quoted rates only.	All the job related to Stainless Steel shall be charged extra. Separate rate should be included in the BOQ.	Tender condition prevails.
	TCC – Volume-IA, Chapter-XIV: ERECTION, Clause no.-14.34.35	In case any class of work for which there is no such specification as laid down in the contract such as welding of stainless-steel parts, etc. works shall be carried out in accordance with the instructions and requirements of the Engineer at the quoted rates only.		

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
21	TCC – Volume-IA, Chapter-XIV: ERECTION, Clause no.-14.22.30	The bidder may require to cut fins further to a maximum length of 1000 mm for alignment and welding of tube to tube in water wall/spiral wall panels and welding of fins on both sides after completion of panel to panel welding within the quoted rate. No extra payment will be made for the above works. Additional fins cutting as required for proper fit up of the joints shall be preferably to be done at ground during pre-assembly**. NO FINS CUTTING IS PERMITTED BY GAS CUTTING; ONLY GRINDING/ CUTTING WHEEL SHALL BE PERMITTED TO CUT THE FINS**.	This work shall be limited to three/four tubes if it is more than extra shall be considered. This work is enormous.	Tender condition prevails.
22	TCC – Volume-IA, Chapter-XIV: ERECTION, Clause no.-14.22.40, Sl. No.-xiv	Erection of LTRH/ Economizer coils as applicable can be done by preassembling the upper and lower coils. Pre-erection checks like width, length etc., and sponge test of coils for thoroughness to be done before erection. Required hanger tubes erection to be completed before LTRH / Economizer coils erection. **The preassembly of cassette baffles of LTRH and Eco coils can be carried out before their erection.**	If the material of cassette baffles shall not be supplied by BHEL Before the erection of LTRH and Eco coils, then erection of cassette baffles shall be considered as extra work.	Tender condition prevails.
23	TCC – Volume-IA, Chapter-XIV: ERECTION, Clause no.-14.23.5	Fixing of floor grills shall be done by self-tapping screws **and not by weldable studs.** Special purpose electrically operated hand tools are available in the market for this, which drills, taps and fixes the screws in a single operation. **Supply of necessary self-drilling-cum-tapping screws and fixing clips are in contractor scope**. Contractor shall deploy the **drilling cum fixing machine** required for this purpose as a regular scope of work.	Supply of necessary self-drilling-cum-tapping screws and fixing clips Shall be in BHEL scope	Tender condition prevails.
24	TCC – Volume-IA, Chapter-XV: Welding, Heat Treatment & Radiography and Non-destructive Testing, Clause no.-15.9	**Non-Destructive Testing (NDT) -** Phased Array Ultrasonic Testing (PAUT) for the materials/items erected by the bidder, if applicable, shall be carried out by contractor within quoted price.	Please Clarify whether PAUT is applicable or not. This job involves expenditure of Rs. 1 Cr.	**PAUT shall be applicable.** "**Annexure-10: Welding Schedule**" of 'Chapter-XXV: Technical Annexure of TCC' is revised and attached with this Corrigendum as "**Annexure-10: Rev**

SL. No.	Reference Clause of Tender	Existing Provision	Bidder's Query	BHEL's Reply
				01 Preliminary Welding Schedule EWS for Boiler".
25	TCC – Volume-IA, Chapter-XVII: Testing, Pre-Commissioning & Commissioning and Post Commissioning Clause no.-17.47	D.S.L / equivalent system for hoisting equipments are also to be erected and commissioned including load testing by the contractor within the quoted rates. Required manpower including electricians is to be arranged by the contractor for carrying out commissioning of electrical hoist and load testing of electrical hoist. Required loads will be provided by BHEL free of cost. Any minor rectification or for improvement of motor IR valve, arrangement to be made by contractor.	Only manpower assistance for commissioning shall be in Contractor's Scope. Commissiong engineer will be deputed by BHEL.	Tender condition prevails.
26	TCC – Volume-IA, Chapter-XXII: SPECIAL FEATURE, Clause no.-22.8	**NON-DESTRUCTIVE TESTING (NDT):** The contractor shall record results of NDTs carried out at site in the format acceptable to BHEL/OWNER'S/CUSTOMER'S. Sensitivity of all the test equipment shall be compatible to the job & acceptance norms agreed. **Computed RT shall be used as an advanced Engineering Practice. Contractor to ensure minimum 10% computed radiography of weld joint to be performed in construction phase for scope in FWS**. Contractor to ensure the transfer & storage of these records on Server.	As per our previous practice, Only RT shall be considered for scope of work instead of Computed RT.	Refer this corrigendum, **Sl. No.-1** of "Section-B: Modification in TECHNICAL CONDITIONS OF CONTRACT (TCC) Volume-IA: **Clause no.-22.8 is hereby modified in TCC**"

Note:

1) **All other terms and conditions against this NIT shall remain unchanged.**
2) **This corrigendum is to be submitted duly signed and stamped along with the Techno-commercial bid (Part- I).**
3) **Following Annexures are part of this Corrigendum:**
   a) **Annexure-18: 'Specification of SCR system' (No. of Pages:05)**
   b) **Revised Annexure-10: Rev 01 'Preliminary Welding Schedule EWS for Boiler' (No. of Pages:52)**

for BHARAT HEAVY ELECTRICALS LTD

SDGM/ Purchase- CPC

SCR system (Selective Catalytic Reduction)

1 Introduction

SCR is designed to reduce NOx level to meet Emission norms. The SCR process converts the NOx contained in the flue gas into nitrogen (N2) and water (H2O) with the use of ammonia (NH3) as the reduction agent. The basic reactions are the following:

$4NO + 4NH_3 + O_2 \rightarrow 4N_2 + 6H_2O$ -------- [1]

$2NO_2 + 4NH_3 + O_2 \rightarrow 3N_2 + 6H_2O$ -------- [2]

2 Description

In SCR system, catalysts are required to achieve sufficient reaction rate to achieve the desire NOx removal efficiency. The NOx reduction efficiency of the catalyst increases with maintaining optimum temperature at catalyst inlet. Flue gas duct tapped off between LTSH & Economizer banks from second pass of boiler (i.e. Economizer bypass duct) for connection to SCR reactor inlet duct. With this arrangement, optimum flue gas temperature at SCR inlet will be maintained. Before the flue gas enters the SCR catalyst, ammonia is added and mixed in such a way that a near homogeneous distribution of ammonia and NOX in the flue gas is achieved. Effective flue gas and ammonia mixing, is essential to high removal efficiency and low ammonia slip over the life of the catalyst. Reagent is injected into the flue gas through nozzles mounted on the Ammonia Injection system which is located at SCR inlet duct. Ammonia injection system consists of flow meter block and vent valve and modulating valve to control ammonia injection rate. The injection causes mixing of the reagent and flue gas. The heat of the boiler provides the energy for the reaction in the reactor. Within the appropriate temperature range and after a series of reactions, the reagent radicals come into contact with the NOx and form it to N2 and H2O. The Reacted flue gas then passes out of the reactor.

Anhydrous Ammonia storage & handling facilities is provided to store Anhydrous Ammonia which is transported to the site in Ammonia truck in liquid form. The Anhydrous Ammonia will be unloaded in the storage tank through unloading compressor/Pumps.

Anhydrous Ammonia storage tanks is provided to store the reagent. An-hydrous Ammonia Transfer pump along with Interconnecting supply piping is provided to transfer the reagent from the storage facility to the Ammonia Dilution Air Skid (ADAS).

3 Salient components

SCR shall consist of the following salient components

a. SCR reactor

The SCR reactor is a high dust, hot side arrangement located downstream of the economizer and upstream of the two air preheaters. Flue gas will flow vertically down through the catalyst layers. There will be two SCR reactor with two outlets located directly above the two air preheaters. Adequate clearance between catalyst layers will be provided to facilitate loading and unloading

of modules as well as internal reactor inspections. Multiple layers of catalyst is provided. All ductwork in SCR system contains adequate vanes, baffles, and mixing devices to ensure that gas velocity, temperature and ammonia distribution requirements are met. The vanes and mixing devices are designed to promote streamlined flow. A spare layer accommodating the future addition minimum one layer is provided. The SCR system has a reactor bypass to be used during start-up, shutdown and emergency conditions.

b. Catalyst

The catalyst supplied will be plate type with a vanadium/titanium composition. Catalyst pitch will be selected to provide an optimized design of geometric surface area versus volume and differential pressure. The module framework is constructed of carbon steel material

c) Anhydrous ammonia unloading

One (1) ammonia truck unloading system is proposed. The actual truck volume depends on the specific ammonia supplier. The truck will be connected to unloading station with hoses and couplings. Ammonia is transferred from the truck by way of one (1) of two (2) 100% ammonia unloading compressors. During unloading, the va-

pour from the storage tank is compressed and discharged into the truck. The increased vapor in the truck forces the liquid from the truck into the storage tank. The truck unloading skid provides a terminal point for connection of the truck to the plant's piping system to the tank. There is one line for liquid being transferred from the truck to the tank, and one line for vapor returned from the tank to the truck.

d) Anhydrous ammonia storage tank

Two (2) nos, horizontal, un-insulated storage tanks will be supplied to store ammonia. The tanks are supported on saddles at each end. The tanks are constructed as ASME Section VIII; Division I code vessels, in accordance with all state and local requirements. The tanks are provided with nozzles for connection of valves and instrumentation. The liquid fill and vapour return lines for loading of ammonia are equipped with actuated valves. Each storage tank is provided with safety valves that relieve pressure directly to the atmosphere through vent stacks, away from any platform or work area. If the storage tank must be emptied for inspection or emergency, multiple plugged drain connections are provided on the tank to facilitate draining of the tank.

e) Ammonia Vaporization and Dilution Air System

Suitable ammonia vaporization system is envisaged for vaporizing the liquid ammonia. The dilution air system includes two centrifugal dilution air fans. One fan is operational and the other is standby to provide a 100% redundant system. The different temperature, pressure and flow measurements are used to monitor and control the dilution air conditions to ensure sufficient flow to dilute the ammonia. Anhydrous ammonia is injected into the dilution air stream to mix with air. The dilution air flow transmitter monitors air flow to prevent high ammonia concentrations in the ammonia/air mixture. Sufficient residence time will allow for proper mixing of the ammonia with the dilution air before the mixture is injected into the flue gas duct. Once the ammonia is mixed with the air, the mixture is split into multiple injection streams for the reactor, which are introduced into the flue gas duct at each static Mixer. Each of the streams has flow indicators and balancing valves to adjust the injection flows to each mixer.

e) Ammonia Injection System

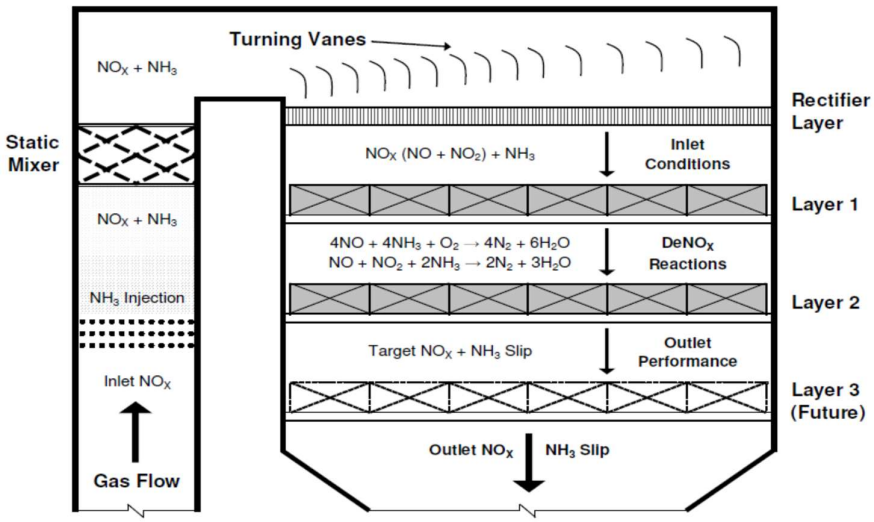
Ammonia Injection system will be supplied providing safe and effective operation to achieve the guaranteed ammonia supply rates over the full load range. Each injection system will be designed with multiple injection branches. The injection system will be properly supported to prevent thermal distortion and damage due to vibration induced by the flue gas flow.

f) DE dusting system

Sonic horn & Ash sweeper are used in keeping particulate matter entrained in the flue gas stream so as to avoid the possible formation of deposits on catalytic surfaces.

4. Typical SCR Arrangement

Typical SCR arrangement is shown below for illustration purposes



5. Safety System

SCR safety system will be comprised of Gaseous ammonia detectors to detect leaks and water sprinklers to absorb the leakage.

6. Statutory Requirements During Execution

Following approvals permits/ certificates to be obtained by EPC contractor for the entire plant including SCR & Anhydrous ammonia system

1. Safety certificate & approvals of the proposed plant as per factories act from Directorate of industrial safety &health (DISH)
2. Ammonia Storage& handling – as per explosives act from PESO, chief controller of explosives, Pollution control board ,DISH
3. Safety system for commissioning of the electrical system as per indian electricity rules from Chief electrical Inspectorate to Government

Revised Annexure-10: Rev 01 'Preliminary Welding Schedule EWS for Boiler'

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP. in °C	PWHT TEMP. in °C	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
								GTAW	SMAW										
				SIZE	THICK		Qty in Nos.	Qty in gms	Qty in Nos.					TIME in mins		SPEC. NO	ACC NORM REF.		
									Ø2.5	Ø3.15	Ø4.0								
1	0-00-027-35556	F-01 (FURN LOWER FRONT INLET HDR) + F-16 (FURN LOWER SIDE INLET HDRS)	SA106GRC + SA234WPC	406.4	70	GTAW + SMAW	61.25	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% (ISRT+UT) 100% MPI/LPI				
							2	253	59	96	673			175					
2	0-00-027-35556	F-07 (FURN LOWER REAR INLET HDR) + F-16 (FURN LOWER SIDE INLET HDRS)	SA106GRC + SA234WPC	406.4	70	GTAW + SMAW	61.25	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% (ISRT+UT) 100% MPI/LPI				
							2	253	59	96	673			175					
3	0-00-027-35556	F-01 (FURN LOWER FRONT INLET HDR) + F-02TI (FURN LOWER FRONT SPIRAL INLET TERMINAL TUBE)	SA213T12 + SA213T12	38.1	7.11	GTAW + SMAW	7.11	ER80S-B2	E8018-B2			1009/03	150	Nil	20% RT + 80% PAUT				
							271	1969	2341	-	-								
4	0-00-027-35556	F-07 (FURN LOWER REAR INLET HDR) + F-08TI (FURN REAR SPIRAL INLET TERM TUBE)	SA213T12 + SA213T12	38.1	7.11	GTAW + SMAW	7.11	ER80S-B2	E8018-B2			1009/03	150	Nil	20% RT + 80% PAUT				
							271	1969	2341	-	-								
5	0-00-027-35556 0-00-027-35591	F-02TI (FURN LOWER FRONT SPIRAL INLET TERMINAL TUBE) + F-02L (FURN LOWER FRONT SPIRAL WALL PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							258	2021	2863	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	1/18

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* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
6	0-00-027-35556 0-00-027-35591	F-08TI (FURN REAR SPIRAL INLET TERM TUBES) + F-08L (FURN LOWER REAR SPIRAL WALL PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8 258	ER80S-B2 2021	E8018-B2 2863	- -	- -	1009/03	150	Nil	100% RT				
7	0-00-027-35556 0-00-027-35591	F-02TI (FURN LOWER FRONT SPIRAL INLET TERM TUBES) + F-08L (FURN LOWER REAR SPIRAL WALL PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8 3	ER80S-B2 24	E8018-B2 34	- -	- -	1009/03	150	Nil	100% RT				
8	0-00-027-35556 0-00-027-35591	F-08TI (FURN REAR SPIRAL INLET TERM TUBES) + F-02L (FURN LOWER FRONT SPIRAL WALL PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8 3	ER80S-B2 24	E8018-B2 34	- -	- -	1009/03	150	Nil	100% RT				
9	0-00-027-35556 0-00-027-35599 0-00-027-35600	F-02TI (FURN LOWER FRONT SPIRAL INLET TERM TUBES) + F-17L (L&R) (FURN LOWER SIDE SPIRAL WALL PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8 10	ER80S-B2 79	E8018-B2 111	- -	- -	1009/03	150	Nil	100% RT				
10	0-00-027-35556 0-00-027-35599 0-00-027-35600	F-08TI (FURN LOWER REAR SPIRAL INLET TERM TUBES) + F-17L (L&R) (FURN LOWER SIDE SPIRAL WALL PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8 10	ER80S-B2 79	E8018-B2 111	- -	- -	1009/03	150	Nil	100% RT				

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Ø3.15	Ø4.0								
11	0-00-027-35591	F-02L (FURN LOWER FRONT SPIRAL WALL PANEL) + F-02L (FURN LOWER FRONT SPIRAL WALL PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							319	2498	3540	-	-								
12	0-00-027-35591	F-08L (FURN LOWER REAR SPIRAL WALL PANEL) + F-08L (FURN LOWER REAR SPIRAL WALL PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							319	2498	3540	-	-								
13	0-00-027-35591	F-02L (FURN LOWER FRONT SPIRAL WALL PANEL) + CORNER TUBES	SA213T12 + SA213T12	38.1	8	GTAW + SMAW	8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							128	860	1374	-	-								
14	0-00-027-35591	F-02L (FURN LOWER FRONT SPIRAL WALL PANEL) + CORNER TUBES	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							258	2021	2863	-	-								
15	0-00-027-35591	F-08L (FURN LOWER REAR SPIRAL WALL PANEL) + CORNER TUBES	SA213T12 + SA213T12	38.1	8	GTAW + SMAW	8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							128	860	1374	-	-								

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839 | **PG NO : 07**

PROJECT : Yamuna Nagar 1x800 | **PG NAME : Circulation System**

WELDING CODE : IBR / ASME | **PRESSURE PARTS/~~NON PRESSURE PARTS~~** | **SYSTEM DESCRIPTION : Circulation System**

- **CUST DOC REV : 00**

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
16	0-00-027-35591	F-08L (FURN LOWER REAR SPIRAL WALL PANEL) + CORNER TUBES	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							258	2021	2863	-	-								
17	0-00-027-35587	F-02U (FURN UPPER FRONT SPIRAL WALL PANEL) + CORNER TUBES	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							133	1042	1476	-	-								
18	0-00-027-35588	F-08U (FURN UPPER REAR SPIRAL WALL PANEL) + CORNER TUBES	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							133	1042	1476	-	-								
19	0-00-027-35599 0-00-027-35600	F-17L (L&R) (FURN LOWER SIDE SPIRAL WALL PANEL) + CORNER TUBES	SA213T12 + SA213T12	38.1	8	GTAW + SMAW	8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							516	3464	5536	-	-								
20	0-00-027-35599 0-00-027-35600	F-17L (L&R) (FURN LOWER SIDE SPIRAL WALL PANEL) + CORNER TUBES	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							256	2005	2841	-	-								

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Ø3.15	Ø4.0								
21	0-00-027-35589 0-00-027-35590	F-17U (L&R) (FURN UPPER SIDE SPIRAL WALL PANEL) + CORNER TUBES	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8 286	ER80S-B2 2240	E8018-B2 3174	-	-	1009/03	150	Nil	100% RT				
22	0-00-027-35578	F-02X (FURN FRONT SPIRAL WALL TO VERT TRANSITION PANEL) + CORNER TUBES	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8 68	ER80S-B2 533	E8018-B2 755	-	-	1009/03	150	Nil	100% RT				
23	0-00-027-35578	F-02X (FURN FRONT SPIRAL WALL TO VERT TRANSITION PANEL) + CORNER TUBES	SA213T12 + SA182F12CL2	41.3	7.8	GTAW + SMAW	7.8 2	ER80S-B2 16	E8018-B2 23	-	-	1009/03	150	Nil	100% RT				
24	0-00-027-35578	F-08X (FURN REAR SPIRAL WALL TO VERT TRANSITION PANEL) + CORNER TUBES	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8 68	ER80S-B2 533	E8018-B2 755	-	-	1009/03	150	Nil	100% RT				
25	0-00-027-35578	F-08X (FURN REAR SPIRAL WALL TO VERT TRANSITION PANEL) + CORNER TUBES	SA213T12 + SA182F12CL2	41.3	7.8	GTAW + SMAW	7.8 2	ER80S-B2 16	E8018-B2 23	-	-	1009/03	150	Nil	100% RT				

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	5/18

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Ø3.15	Ø4.0								
26	0-00-027-35577	F-17X (L&R) (FURN SIDE SPIRAL WALL TO VERT TRANSITION PANEL) + CORNER TUBES	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							120	940	1332	-	-								
27	0-00-027-35577	F-17X (L&R) (FURN SIDE SPIRAL WALL TO VERT TRANSITION PANEL) + CORNER TUBES	SA213T12 + SA182F12CL2	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							4	32	45	-	-								
28	0-00-027-35591 0-00-027-35581 0-00-027-35584	F-02L (FURN LOWER FRONT SPIRAL WALL PANEL) + F-WB (FURN BURNER PANELS)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							135	1058	1499	-	-								
29	0-00-027-35591 0-00-027-35581 0-00-027-35584	F-08L (FURN LOWER REAR SPIRAL WALL PANEL) + F-WB (FURN BURNER PANELS)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							135	1058	1499	-	-								
30	0-00-027-35589 0-00-027-35581 0-00-027-35584	F-17U (L&R) (FURN LOWER SIDE SPIRAL WALL PANEL) + F-WB (FURN BURNER PANELS)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							1216	9522	13494	-	-								

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
31	0-00-027-35587 0-00-027-35581 0-00-027-35584	F-02U (FURN UPPER FRONT SPIRAL WALL PANEL) + F-WB (FURN BURNER PANELS)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							598	4683	6636	-	-								
32	0-00-027-35588 0-00-027-35581 0-00-027-35584	F-08U (FURN UPPER REAR SPIRAL WALL PANEL) + F-WB (FURN BURNER PANELS)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							598	4683	6636	-	-								
33	0-00-027-35599 0-00-027-35581 0-00-027-35584	F-17L (L&R) (FURN LOWER SIDE SPIRAL WALL PANEL) + F-WB (FURN BURNER PANELS)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							250	1958	2775	-	-								
34	0-00-027-35578	F-02U (FURN UPPER FRONT SPIRAL WALL PANEL) + F-02X (FURN FRONT SPIRAL WALL TO VERT TRANSITION PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							124	971	1376	-	-								
35	0-00-027-35578	F-08U (FURN UPPER REAR SPIRAL WALL PANEL) + F-08X (FURN REAR SPIRAL TO VERT TRANSITION PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							124	971	1376	-	-								

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SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	7/18

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
36	0-00-027-35577	F-17U (L&R) (FURN UPPER SIDE SPIRAL WALL PANEL) + F-17X (L&R) (FURN SIDE SPIRAL TO VERT TRANSITION PANEL)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							218	1708	2420	-	-								
37	0-00-027-35587	F-02U (FURN UPPER FRONT SPIRAL WALL PANEL) + F-OFA (FURN SOFA PANELS)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							485	3798	5382	-	-								
38	0-00-027-35588	F-08U (FURN UPPER REAR SPIRAL WALL PANEL) + F-OFA (FURN SOFA PANELS)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							485	3798	5382	-	-								
39	0-00-027-35577	F-17U (L&R) (FURN UPPER SIDE SPIRAL WALL PANEL) + F-OFA (FURN SOFA PANELS)	SA213T12 + SA213T12	41.3	7.8	GTAW + SMAW	7.8	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							932	7299	10343	-	-								
40	0-00-027-35577	F-17X (L&R) (FURN SIDE SPIRAL TO VERT TRANSITION PANEL) + F-17TO (L&R) (FURN SIDE SPIRAL OUTLET TERM TUBES)	SA213T12 + SA213T12	38.1	7.11	GTAW + SMAW	7.11	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							262	1904	2264	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	8/18

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* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839 | **PG NO : 07**

PROJECT : Yamuna Nagar 1x800 | **PG NAME : Circulation System**

WELDING CODE : IBR / ASME | **PRESSURE PARTS/~~NON PRESSURE PARTS~~** | **SYSTEM DESCRIPTION : Circulation System**

- **CUST DOC REV : 00**

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
41	0-00-027-35578	F-02X (FURN FRONT SPIRAL TO VERT TRANSITION PANEL) + F-02TO (FURN FRONT SPIRAL OUTLET TERM TUBES)	SA213T12 + SA213T12	38.1	7.11	GTAW + SMAW	7.11	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							140	1018	1210	-	-								
42	0-00-027-35578	F-08X (FURN REAR SPIRAL TO VERT TRANSITION PANEL) + F-08TO (FURN REAR SPIRAL OUTLET TERM TUBES)	SA213T12 + SA213T12	38.1	7.11	GTAW + SMAW	7.11	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							140	1018	1210	-	-								
43	0-00-027-35577	F-17TO (L&R) (FURN SIDE SPIRAL OUTLET TERM TUBES) + F-18 (L&R) (FURN INTERM SIDE HDRS)	SA213T12 + SA213T12	38.1	7.11	GTAW + SMAW	7.11	ER80S-B2	E8018-B2			1009/03	150	Nil	20% RT + 80% PAUT				
							262	1904	2264	-	-								
44	0-00-027-35578	F-02TO (FURN FRONT SPIRAL OUTLET TERM TUBES) + F-03 (FURN INTERM FRONT HDR)	SA213T12 + SA213T12	38.1	7.11	GTAW + SMAW	7.11	ER80S-B2	E8018-B2			1009/03	150	Nil	20% RT + 80% PAUT				
							140	1018	1210	-	-								
45	0-00-027-35578	F-08TO (FURN REAR SPIRAL OUTLET TERM TUBES) + F-09 (FURN INTERM REAR HDR)	SA213T12 + SA213T12	38.1	7.11	GTAW + SMAW	7.11	ER80S-B2	E8018-B2			1009/03	150	Nil	20% RT + 80% PAUT				
							140	1018	1210	-	-								

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SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	9/18

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ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839 | **PG NO : 07**

PROJECT : Yamuna Nagar 1x800 | **PG NAME : Circulation System**

WELDING CODE : IBR / ASME | **PRESSURE PARTS/~~NON PRESSURE PARTS~~** | **SYSTEM DESCRIPTION : Circulation System**

- **CUST DOC REV : 00**

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Qty in Nos. Ø3.15	Qty in Nos. Ø4.0								
46	0-00-027-35577	F-18 (L&R) (FURN INTERM SIDE HDRS) + F-19TI (L&R) (FURN SIDE VERT INLET TERM TUBES)	SA213T12 + SA213T12	33.4	5.59	GTAW + SMAW	5.59	ER80S-B2	E8018-B2			1009/03	150	Nil	20% RT + 80% PAUT				
							786	5305	3873	-	-								
47	0-00-027-35578	F-03 (FURN INTERM FRONT HDR) + F-04TI (FURN FRONT VERTICAL INLET TERM TUBES)	SA213T12 + SA213T12	33.4	5.59	GTAW + SMAW	5.59	ER80S-B2	E8018-B2			1009/03	150	Nil	20% RT + 80% PAUT				
							420	2835	2070	-	-								
48	0-00-027-35578	F-09 (FURN INTERM REAR HDR) + F-10TI (FURN REAR VERT INET TERM TUBES)	SA213T12 + SA213T12	33.4	5.59	GTAW + SMAW	5.59	ER80S-B2	E8018-B2			1009/03	150	Nil	20% RT + 80% PAUT				
							420	2835	2070	-	-								
49	0-00-027-35578	F-03 (FURN FRONT INTERM HDR INSPECTION NOZZLE) + FLAT END COVER	SA182F12CL2 + SA182F12CL2	168.3	39.7	GTAW + SMAW	34.74	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							2	91	25	40	92			100					
50	0-00-027-35578	F-09 (FURN REAR INTERM HDR INSPECTION NOZZLE) + FLAT END COVER	SA182F12CL2 + SA182F12CL2	168.3	39.7	GTAW + SMAW	34.74	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							2	91	25	40	92			100					

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Ø3.15	Ø4.0								
51	0-00-027-35577	F-18 (FURN INTERM HDR INSPECTION NOZZLE) + FLAT END COVER	SA182F12CL2 + SA182F12CL2	168.3	39.7	GTAW + SMAW	34.74	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							4	182	49	80	184			100					
52	0-00-027-35577	F-19TI (L&R) (FURN SIDE VERT INLET TERM TUBES) + F-17X (L&R) (FURN SIDE SPIRAL TO VERT TRANSITION PANEL)	SA213T12 + SA213T12	33.4	5.59	GTAW + SMAW	5.59	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							786	5305	3873	-	-								
53	0-00-027-35578	F-04TI (FURN FRONT VERTICAL INLET TERM TUBES) + F-02X (FURN FRONT SPIRAL TO VERT TRANSITION PANEL)	SA213T12 + SA213T12	33.4	5.59	GTAW + SMAW	5.59	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							420	2835	2070	-	-								
54	0-00-027-35578	F-10TI (FURN REAR VERT INET TERM TUBES) + F-08X (FURN REAR SPIRAL TO VERT TRANSITION PANEL)	SA213T12 + SA213T12	33.4	5.59	GTAW + SMAW	5.59	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							420	2835	2070	-	-								
55	0-00-027-35586	F-02X (FURN FRONT SPIRAL TO VERT TRANSITION PANEL) + F-04L (FURN LOWER FRONT VERT WALL PANEL)	SA213T12 + SA213T12	38.1	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							420	2786	4642	-	-								

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SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	11/18

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
56	0-00-027-35586	F-04L (FURN INTER FRONT VERT WALL PANEL) + F-04U (FURN UPPER FRONT VERT WALL PANEL)	SA213T12 + SA213T12	38.1	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							420	2786	4642	-	-								
57	0-00-027-35586	F-04U (FURN UPPER FRONT VERT WALL PANEL) + F-05 (FURN UPPER FRONT OUTLET HDR)	SA213T23 + SA213T22	38.1	8.13	GTAW + SMAW	8.13	ER90S-B3	E9018-B3			1053/04	200	745 ± 15	20% RT + 80% PAUT				
							420	5250	4642	-	-			60				100% HC, 260HV (MAX)	
58	0-00-027-35586	F-08X (FURN REAR SPIRAL TO VERT TRANSITION PANEL) + F-11 (FURN REAR ARCH PANEL)	SA213T12 + SA213T12	38.1	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							420	2786	4642	-	-								
59	0-00-027-35586 0-00-027-35551	F-11 (FURN REAR ARCH PANEL) + F-12 (FURN SCREEN TUBES)	SA213T12 + SA213T12	38.1	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							280	1857	3095	-	-								
60	0-00-027-35586 0-00-027-35551	F-11 (FURN REAR ARCH PANEL) + F-13 (FURN HANGER TUBES)	SA213T12 + SA213T12	38.1	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							140	929	1548	-	-								

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SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	12/18

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ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
61	0-00-027-35586 0-00-027-35551	F-12 (FURN SCREEN TUBES) + F-14 (FURN UPPER REAR OUTLET HDR)	SA213T12 + SA213T12	38.1	8.13	GTAW + SMAW	8.13 280	ER80S-B2 1857	E8018-B2 3095	- -	- -	1009/03	150	Nil	20% RT + 80% PAUT				
62	0-00-027-35586 0-00-027-35551	F-13 (FURN HANGER TUBES) + F-14 (FURN UPPER REAR OUTLET HDR)	SA213T22 + SA213T22	63.5	12.7	GTAW + SMAW	12.7 140	ER90S-B3 1636	E9018-B3 1308	 1152	 -	1084/01	200	740 ± 10 60	20% RT + 80% PAUT			100% HC, 260HV (MAX)	
63	0-00-027-35586	F-17X (L&R) (FURN SIDE SPIRAL TO VERT TRANSITION PANEL) + F-19L (L&R) (FURN LOWER SIDE VERT WALL PANEL)	SA213T12 + SA213T12	38.1	9.1	GTAW + SMAW	9.1 786	ER80S-B2 4739	E8018-B2 10720	- -	- -	1009/03	150	Nil	100% RT				
64	0-00-027-35586	F-19L (L&R) (FURN LOWER SIDE VERT WALL PANEL) + F-19U (L&R) (FURN UPPER SIDE VERT WALL PANEL)	SA213T12 + SA213T12	38.1	9.1	GTAW + SMAW	9.1 786	ER80S-B2 4739	E8018-B2 10720	- -	- -	1009/03	150	Nil	100% RT				
65	0-00-027-35586	F-19U (L&R) (FURN UPPER SIDE VERT WALL PANEL) + F-19U LT (LOOSE TUBES)	SA213T12 + SA213T12	38.1	9.1	GTAW + SMAW	9.1 10	ER80S-B2 61	E8018-B2 137	- -	- -	1009/03	150	Nil	20% RT + 80% PAUT				

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SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	13/18

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
66	0-00-027-35586	F-19U (L&R) (FURN UPPER SIDE VERT WALL PANEL) + F-20 (L&R) (FURN UPPER SIDE OUTLET HDRS)	SA213T12 + SA213T12	38.1	9.1	GTAW + SMAW	9.1	ER80S-B2	E8018-B2			1009/03	150	Nil	20% RT + 80% PAUT				
							786	4739	10720	-	-								
67	1-07-318-01322 1-07-318-01323 0-00-027-35570	F-05 (FURN UPPER FRONT OUTLET HDR) + F-06 (FRONT RISER PIPES)	SA182F12CL2 + SA335P12	219.1	40	GTAW + SMAW	35.00	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							4	270	63	103	261			100					
68	1-07-318-01322 1-07-318-01323 0-00-027-35568	F-06 (FRONT RISER PIPES) + F-06 (FRONT RISER PIPES)	SA335P12 + SA335P12	219.1	40	GTAW + SMAW	35.00	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							16	1077	252	412	1042			100					
69	1-07-318-01322 1-07-318-01323 0-00-027-35568	F-06 (FRONT RISER PIPES) + F-31 (SEPARATOR)	SA335P12 + SA182F22CL3	219.1	40	GTAW + SMAW	35.00	ER80S-B2	E8018-B2			1012/04	150	680-720	100% RT 100% MPI/LPI				
							4	270	63	103	261			100					
70	0-07-316-02253 0-07-316-02254 0-00-027-35568	F-14 (FURN UPPER REAR OUTLET HDR) + F-15 (REAR RISER PIPES)	SA182F12CL2 + SA335P12	219.1	40	GTAW + SMAW	35.00	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							4	270	63	103	261			100					

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SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	14/18

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ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
71	0-07-316-02253 0-07-316-02254 0-00-027-35568	F-15 (REAR RISER PIPES) + F-15 (REAR RISER PIPES)	SA335P12 + SA335P12	219.1	40	GTAW + SMAW	35.00	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							20	1346	315	515	1302			100					
72	0-07-316-02253 0-07-316-02254 0-00-027-35568	F-15 (REAR RISER PIPES) + F-31 (SEPARATOR)	SA335P12 + SA182F22CL3	219.1	40	GTAW + SMAW	35.00	ER80S-B2	E8018-B2			1012/04	150	680-720	100% RT 100% MPI/LPI				
							4	270	63	103	261			100					
73	1-07-315-01314 TO 1-07-315-01321 0-00-027-35568	F-20 (FURN UPPER SIDE OUTLET HDRS) + F-21 (SIDE RISER PIPES)	SA182F12CL2 + SA335P12	219.1	40	GTAW + SMAW	35.00	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							8	539	126	206	521			100					
74	1-07-315-01314 TO 1-07-315-01321 0-00-027-35568	F-21 (SIDE RISER PIPES) + F-21 (SIDE RISER PIPES)	SA335P12 + SA335P12	219.1	40	GTAW + SMAW	35.00	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							36	2422	566	927	2343			100					
75	1-07-315-01314 TO 1-07-315-01321 0-00-027-35568	F-21 (SIDE RISER PIPES) + F-31 (SEPARATOR)	SA335P12 + SA182F22CL3	219.1	40	GTAW + SMAW	35.00	ER80S-B2	E8018-B2			1012/04	150	680-720	100% RT 100% MPI/LPI				
							8	539	126	206	521			100					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	15/18

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* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
76	0-07-102-02217 0-00-027-35568	F-31 (SEPARATOR) + F-32 (LINK TO SEPARATOR STORAGE TANK)	SA182F22CL3 + SA335P12	355.6	65	GTAW + SMAW	56.88 4	ER80S-B2 432	E8018-B2 102	168	1030	1012/04	150	680-720 165	100% RT 100% MPI/LPI				
77	0-07-102-02217 0-00-027-35568	F-32 (LINK TO SEPARATOR STORAGE TANK) + F-32 (LINK TO SEPARATOR STORAGE TANK)	SA335P12 + SA335P12	355.6	65	GTAW + SMAW	56.88 8	ER80S-B2 863	E8018-B2 204	335	2059	1010/06	150	650-670 165	100% RT 100% MPI/LPI				
78	0-07-102-02217 0-00-027-35568	F-32 (LINK TO SEPARATOR STORAGE TANK) + F-33 (STORAGE TANK)	SA335P12 + SA182F22CL3	355.6	65	GTAW + SMAW	56.88 4	ER80S-B2 432	E8018-B2 102	168	1030	1012/04	150	680-720 165	100% RT 100% MPI/LPI				
79	0-07-110-02218 0-00-027-35568	F-33 (STORAGE TANK) + F-49 (FURN DOWNCOMER TO CONNECTING SPHERE)	SA182F22CL3 + SA335P12	406.4	65	GTAW + SMAW	56.88 2	ER80S-B2 260	E8018-B2 59	96	603	1012/04	150	680-720 165	100% RT 100% MPI/LPI				
80	0-07-110-02218 0-00-027-35568	F-49 (FURN DOWNCOMER TO CONNECTING SPHERE) + F-50 (FURN CONNECTING SPHERE)	SA335P12 + SA182F12CL2	406.4	65	GTAW + SMAW	56.88 2	ER80S-B2 260	E8018-B2 59	96	603	1010/06	150	650-670 165	100% RT 100% MPI/LPI				

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	16/18

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839 | **PG NO : 07**

PROJECT : Yamuna Nagar 1x800 | **PG NAME : Circulation System**

WELDING CODE : IBR / ASME | **PRESSURE PARTS/~~NON PRESSURE PARTS~~** | **SYSTEM DESCRIPTION : Circulation System**

- **CUST DOC REV : 00**

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
81	1-07-217-01324 0-00-027-35568	F-33 (STORAGE TANK) + F-34 (SEPARATOR STORAGE TANK VENT LINK)	SA182F22CL3 + SA335P12	88.9	16	GTAW + SMAW	14.00	ER80S-B2	E8018-B2			1012/04	150	680-720	20% RT + 80% PAUT				
							2	58	13	21	4			60					
82	1-07-217-01324 0-00-027-35568	F-34 (SEPARATOR STORAGE TANK VENT LINK) + F-34 (SEPARATOR STORAGE TANK VENT LINK)	SA335P12 + SA234WP22CL1	88.9	16	GTAW + SMAW	14.00	ER80S-B2	E8018-B2			1012/04	150	680-720	20% RT + 80% PAUT				
							2	58	13	21	4			60					
83	1-07-217-01324 0-00-027-35568	F-34 (SEPARATOR STORAGE TANK VENT LINK) + S-01 (SH CONNECTING PIPE)	SA335P12 + SA182F12CL2	88.9	16	GTAW + SMAW	14.00	ER80S-B2	E8018-B2			1010/06	150	650-670	20% RT + 80% PAUT				
							2	58	13	21	4			60					
84		GAMMA PLUG IN F-01 AND F-07	SA106GRC + SA105			SMAW	7	-	E7018			1101/01	100	Nil	100% LPI or MPI				
							4	-	2	-	-							FOR T- (25-75) MM	
85		GAMMA PLUG IN RISER LINKS	SA335P12 + SA182F22CL3			SMAW	7	-	E8018-B2			1102/01	200	Nil	100% LPI or MPI				
							102	-	26	-	-							FOR T- (25-75) MM	

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SAJI P J	**MANIKANDAN C**	**NIRMAL RAJ N**	**09-02-2026**	**-**	**0**	**17/18**

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 07
PG NAME : Circulation System
SYSTEM DESCRIPTION : Circulation System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
86		GAMMA PLUG IN F-49 LINKS	SA335P12 + SA182F22CL3			SMAW	7	-	E8018-B2			1102/01	200	Nil	100% LPI or MPI				
							16	-	5	-	-							FOR T- (25-75) MM	

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
SAJI P J	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	18/18

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800 (2x800 MW)
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 19
PG NAME : Economiser System
SYSTEM DESCRIPTION : Economiser System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP. in °C	PWHT TEMP. in °C	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
								GTAW	SMAW										
				SIZE	THICK		Qty in Nos.	Qty in gms	Qty in Nos.					TIME in mins		SPEC. NO	ACC NORM REF.		
									Ø2.5	Ø3.15	Ø4.0								
1	0-19-850-02662 0-00-027-35571	ECO I/L LINK + ECO I/L LINK (E-04 + E-04/VALVE)	SA106GRC + SA106GRC	610	82	GTAW + SMAW	71.75 ▽▽	ER70S-A1	E7018-1			1004/04	150	610 ± 15	100% (ISRT+UT) 100% MPI/LPI				
							22	4528	962	1577	14974			205					
2	0-19-850-02662 0-00-027-35571	ECO I/L LINK +ECO I/L LINK(E-04A + E-04A)	SA106GRC + SA106GRC	457	60	GTAW + SMAW	52.50 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% RT 100% MPI/LPI				
							7	1091	230	376	2139			150					
3	0-19-850-02662 0-00-027-35571	ECO I/L LINK+ECO I/L HDR (E-04A + E-05)	SA106GRC + SA106GRC	457	60	GTAW + SMAW	52.50 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% RT 100% MPI/LPI				
							2	312	66	108	611			150					
4	2-19-850-05101 0-00-027-35571	ECO I/L LINK+WATER COOLED HGR I/L HDR LINK (E-04 NOZZLE + E.04.01)	SA105 + SA106GRC	219.1	36	GTAW + SMAW	31.50 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% RT 100% MPI/LPI				
							1	71	16	26	55			90					
5	2-19-850-05101 0-00-027-35571	WATER COOLED HGR I/L HDR LINK + WATER COOLED HGR I/L HDR LINK (E-04.01 + E.04.01)	SA106GRC + SA106GRC	219.1	36	GTAW + SMAW	31.50 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% RT 100% MPI/LPI				
							2	141	32	52	110			90					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	1/8

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800 (2x800 MW)
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 19
PG NAME : Economiser System
SYSTEM DESCRIPTION : Economiser System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
6	2-19-850-05101 0-00-027-35571	WATER COOLED HGR I/L HDR LINK + WATER COOLED HGR I/L HDR (E-04.01 + E.05A)	SA106GRC + SA106GRC	219.1	36	GTAW + SMAW	31.50 ▽▽ 1	ER70S-A1 71	E7018-1 16	26	55	1004/04	100	610 ± 15 90	100% RT 100% MPI/LPI				
7	0-00-027-35546	ECO I/L HDR NIPP+ECO I/L TERM TUBE (E-05 NIPPLE + E-06TI)	SA210GRC + SA210GRC	44.45	7.1	GTAW + SMAW	7.1 ▽ 940	ER70S-A1 8690	E7018-1 9449	-	-	1003/04	20	Nil	20%RT + 80% PAUT				
8	0-00-027-35546	ECO I/L TERM TUBE +ECO COIL LWR ASSY (E-06TI + E-06L)	SA210GRC + SA210GRC	44.45	7.1	GTAW + SMAW	7.1 ▽ 940	ER70S-A1 8690	E7018-1 9449	-	-	1003/04	20	Nil	20%RT + 80% PAUT				
9	0-00-027-35546	ECO COIL LWR ASSY +ECO COIL INTER ASSY (E-06L + E-06I)	SA210GRC + SA210GRC	44.45	7.1	GTAW + SMAW	7.1 ▽ 940	ER70S-A1 8690	E7018-1 9449	-	-	1003/04	20	Nil	20%RT + 80% PAUT				
10	0-00-027-35546	ECO COIL INTER ASSY +ECO COIL UPPER ASSY (E-06I + E-6U)	SA210GRC + SA210GRC	44.45	7.1	GTAW + SMAW	7.1 ▽ 940	ER70S-A1 8690	E7018-1 9449	-	-	1003/04	20	Nil	20%RT + 80% PAUT				

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	2/8

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800 (2x800 MW)
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 19
PG NAME : Economiser System
SYSTEM DESCRIPTION : Economiser System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Ø3.15	Ø4.0								
11	0-00-027-35546 0-00-027-35606	ECO COIL UPPER ASSY +ECO O/L TERM TUBES (E-06U + E-06TO)	SA210GRC + SA210GRC	44.45	7.1	GTAW + SMAW	7.1 ▽	ER70S-A1	E7018-1			1003/04	20	Nil	20%RT + 80% PAUT				
							940	8690	9449	-	-								
12	0-00-027-35546 0-00-027-35606	ECO O/L TERM TUBES +ECO JN. HDR NIPPLE (E-06TO + E-07 NIPPLE)	SA210GRC + SA210GRC	44.45	7.1	GTAW + SMAW	7.1 ▽	ER70S-A1	E7018-1			1003/04	20	Nil	20%RT + 80% PAUT				
							940	8690	9449	-	-								
13	0-00-027-35546 0-00-027-35606	WATER COOLED HGR I/L HDR NIPPLE + WATER COOLED HGR I/L TERM TUBES (E-05A NIPPLE + E-06ATI)	SA210GRC + SA210GRC	44.45	13.49	GTAW + SMAW	13.49 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							472	2489	2414	3277	-			35					
14	0-00-027-35546 0-00-027-35606	WATER COOLED HGR I/L TERM TUBES + WATER COOLED HGR TUBES (E-06ATI + E-06A)	SA210GRC + SA210GRC	44.45	13.49	GTAW + SMAW	13.49 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							472	2489	2414	3277	-			35					
15	0-00-027-35546 0-00-027-35605	WATER COOLED HGR TUBES + ECO COIL LWR ASSY HGR TUBES (E-06A + E-06L HGR)	SA210GRC + SA210GRC	44.45	13.49	GTAW + SMAW	13.49 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							472	2489	2414	3277	-			35					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	3/8

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800 (2x800 MW)
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 19
PG NAME : Economiser System
SYSTEM DESCRIPTION : Economiser System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
16	0-00-027-35546	ECO COIL LWR ASSY HGR TUBES + ECO COIL INTER ASSY HGR TUBES (E-06L HGR + E-06I-HGR)	SA210GRC + SA210GRC	44.45	13.49	GTAW + SMAW	13.49 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							472	2489	2414	3277	-			35					
17	0-00-027-35546	ECO COIL INTER ASSY HGR TUBES + ECO COIL UPR ASSY HGR TUBES (E-06I HGR + E-06U-HGR)	SA210GRC + SA210GRC	44.45	13.49	GTAW + SMAW	13.49 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							472	2489	2414	3277	-			35					
18	0-00-027-35546	ECO COIL UPR ASSY HGR TUBES + WATER COOLED HGR O/L TERM TUBES (E-06U HGR + E-06ATO)	SA210GRC + SA210GRC	44.45	13.49	GTAW + SMAW	13.49 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							472	2489	2414	3277	-			35					
19	0-00-027-35546	WATER COOLED HGR O/L TERM TUBES + ECO JN. HDR NIPPLES (E-06ATO + E-07 NIPPLE)	SA210GRC + SA210GRC	44.45	13.49	GTAW + SMAW	13.49 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							472	2489	2414	3277	-			35					
20	0-00-027-35544 0-00-027-35606	ECO JN. HDR NIPPLE +ECO LWR HGR TUBE (E-07 NIPPLE + E-08L)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							476	6087	4792	5498	-			40					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	4/8

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800 (2x800 MW)
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 19
PG NAME : Economiser System
SYSTEM DESCRIPTION : Economiser System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
21	0-00-027-35544	ECO LWR HGR TUBE +ECO HGR TUBE (LTRH LWR ASSY) (E-08L + R-04L HANGER)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							476	6087	4792	5498	-			40					
22	0-00-027-35544	ECO HGR TUBE (LTRH LWR ASSY)+ECO HGR TUBE (LTRH LWR INTER ASSY) (R-04L HGR + R-04LI HGR)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							476	6087	4792	5498	-			40					
23	0-00-027-35544	ECO HGR TUBE (LTRH LWR INTER ASSY)+ECO HGR TUBE (LTRH INTER ASSY) (R-04LI HGR + R-04I HGR)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							476	6087	4792	5498	-			40					
24	0-00-027-35544	ECO HGR TUBE (LTRH INTER ASSY)+ECO HGR TUBE (LTRH UPR INTER ASSY) (R-04I HANGER + R-04UI HANGER)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							476	6087	4792	5498	-			40					
25	0-00-027-35544	ECO HGR TUBE (LTRH UPR INTER ASSY)+ECO HGR TUBE (LTRH UPR ASSY) (R-04UI HANGER + R-04U HANGER)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							476	6087	4792	5498	-			40					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	5/8

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800 (2x800 MW)
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 19
PG NAME : Economiser System
SYSTEM DESCRIPTION : Economiser System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Qty in Nos. Ø3.15	Qty in Nos. Ø4.0								
26	0-00-027-35544	ECO HGR TUBE (LTRH UPR ASSY)+ECO UPR HGR TUBE (R-04U HGR + E-08U)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							476	6087	4792	5498	-			40					
27	0-00-027-35544 0-00-027-35574	ECO UPR HGR TUBE +ECO HGR O/L TERM TUBE (E-08U + E-08TO)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							476	6087	4792	5498	-			40					
28	0-00-027-35544 0-00-027-35574	ECO HGR O/L TERM TUBE +ECO O/L HDR NIPPLE (E-08TO + E-09 NIPP)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							476	6087	4792	5498	-			40					
29	0-00-027-35580	ECO JN. HDR NIPPLE + ECO HGR TUBE (LTRH HDR SUPPT) (E-07 NIPP + E-08X)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							40	512	403	462	-			40					
30	0-00-027-35580	ECO HGR TUBE (LTRH HDR SUPPT)+ECO HGR TUBE (LTRH HDR SUPPT) (E-08X + E-08X)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							160	2046	1611	1848	-			40					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	6/8

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800 (2x800 MW)
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 19
PG NAME : Economiser System
SYSTEM DESCRIPTION : Economiser System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
31	0-00-027-35580	ECO HGR TUBE(LTRH HDR SUPPT)+ECO O/L HDR NIPPLE (E-08X + E-09 NIPPLE)	SA210GRC + SA210GRC	69.85	14.1	GTAW + SMAW	14.1 ▽	ER70S-A1	E7018-1			1004/04	Nil	610 ± 15	20%RT + 80% PAUT				
							40	512	403	462	-			40					
32	0-19-851-02645 0-00-027-35571	ECO O/L HDR+ECO O/L LINK (E-09 + EF-01)	SA106GRC + SA106GRC	508	70	GTAW + SMAW	61.25 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% (ISRT+UT) 100% MPI/LPI				
							2	341	73	120	871			175					
33	0-19-851-02645 0-00-027-35571	ECO O/L LINK+ECO O/L LINK (EF-01 + EF-01)	SA106GRC + SA106GRC	508	70	GTAW + SMAW	61.25 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% (ISRT+UT) 100% MPI/LPI				
							18	3069	656	1075	7832			175					
34	0-19-851-02645 0-19-852-02665 0-00-027-35571	ECO O/L LINK+ECO MIXING LINE (EF-01 + EF-02)	SA106GRC + SA234WPC	508	70	GTAW + SMAW	61.25 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% (ISRT+UT) 100% MPI/LPI				
							2	341	73	120	871			175					
35	0-19-852-02665 0-19-853-02646 0-00-027-35571	ECO MIXING LINE+ECO WW I/L LINK (EF-02 + EF-03)	SA234WPC + SA106GRC	508	70	GTAW + SMAW	61.25 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% (ISRT+UT) 100% MPI/LPI				
							2	341	73	120	871			175					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	7/8

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800 (2x800 MW)
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 19
PG NAME : Economiser System
SYSTEM DESCRIPTION : Economiser System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
36	0-19-853-02646 0-00-027-35571	ECO WW I/L LINK+ECO WW I/L LINK (EF-03 + EF-03)	SA106GRC + SA106GRC	508	70	GTAW + SMAW	61.25 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% (ISRT+UT) 100% MPI/LPI				
							4	682	146	239	1741			175					
37	0-19-853-02646 0-00-027-35571	ECO WW I/L LINK+FURN SIDE I/L HDRS (EF-03 + F-16 L&R)	SA106GRC + SA234WPC	508	70	GTAW + SMAW	61.25 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% (ISRT+UT) 100% MPI/LPI				
							2	341	73	120	871			175					
38	0-19-753-02639 0-19-763-02643 0-19-783-02666 0-19-793-02668	ECO INTER HDRS:INSP. NOZZLE + FLAT END COVER	SA105 + SA105	168.3	45.4	GTAW + SMAW	39.72 ▽▽	ER70S-A1	E7018-1			1004/04	100	610 ± 15	100% RT 100% MPI/LPI				
							8	328	97	159	451			115					
39		GAMMA PLUG	SA105 + SA106GRC			SMAW	7 ◺	-	E7018			1101/01	150	Nil	100% LPI or MPI				
							23	-	6	-	-							FOR T >75 MM	
40		GAMMA PLUG	SA105 + SA106GRC			SMAW	7 ◺	-	E7018			1101/01	100	Nil	100% LPI or MPI				
							43	-	11	-	-							FOR T- (25-75) MM	

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	8/8

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 17
PG NAME : Reheater System
SYSTEM DESCRIPTION : Reheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP. in °C	PWHT TEMP. in °C	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
								GTAW	SMAW										
				SIZE	THICK		Qty in Nos.	Qty in gms	Qty in Nos.					TIME in mins		SPEC. NO	ACC NORM REF.		
									Ø2.5	Ø3.15	Ø4.0								
1	0-00-027-35822	LTRH I/L HDR + SPOOL PIPE (R-03 HDR + R-03 SPOOL)	SA335P12 + SA335P12	558.8	35	GTAW + SMAW	30.62 ▽▽	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							2	439	81	132	300			90					
2	0-00-027-35822 0-00-027-35557	LTRH I/L HDR NIPPLE + LTRH I/L TERM TUBE (R-03 NIPPLE + R-04TI)	SA213T11 + SA213T11	69.85	5.08	GTAW + SMAW	5.08 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							952	17510	8317	-	-								
3	0-00-027-35557 0-00-027-35544	LTRH I/L TERM TUBE +LTRH LWR ASSY (R-04TI + R-04L)	SA213T11 + SA213T11	69.85	5.08	GTAW + SMAW	5.08 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							952	17510	8317	-	-								
4	0-00-027-35557 0-00-027-35544	LTRH LWR ASSY +LTRH LWR INTER ASSY (R-04L + R-04LI)	SA213T11 + SA213T11	69.85	5.08	GTAW + SMAW	5.08 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	100% RT				
							952	17510	8317	-	-								
5	0-00-027-35557 0-00-027-35544	LTRH LWR INTER ASSY+LTRH INTER ASSY (R-04LI + R-04I)	SA213T11 + SA213T22	69.85	5.08	GTAW + SMAW	5.08 ▽	ER80S-B2	E8018-B2			1011/01	150	Nil	100% RT				
							952	17510	8317	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	1/6

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* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 17
PG NAME : Reheater System
SYSTEM DESCRIPTION : Reheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Ø3.15	Ø4.0								
6	0-00-027-35557 0-00-027-35544	LTRH INTER ASSY +LTRH UPR INTER ASSY (R-04I + R-04UI)	SA213T22 + SA213T22	69.85	5.08	GTAW + SMAW	5.08 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	100% RT				
							952	17510	8317	-	-								
7	0-00-027-35557 0-00-027-35544	LTRH UPR INTER ASSY+LTRH UPR ASSY (R-04UI + R-04U)	SA213T22 + SA213T22	69.85	5.08	GTAW + SMAW	5.08 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	100% RT				
							952	17510	8317	-	-								
8	0-00-027-35573 0-00-027-35544	LTRH UPR ASSY + LTRH PENDANT LOOSE TUBE (R-04U + R-07B-LT)	SA213 UNS S30432 + SA213 UNS S30432	63.5	4	GTAW	4 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							952	71350	-	-	-								
9	0-00-027-35573 0-00-027-35544	LTRH PENDANT LOOSE TUBE+ LTRH PENDANT ASSY (R-07B-LT + R-07)	SA213 UNS S30432 + SA213 UNS S30432	63.5	4	GTAW	4 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							952	71350	-	-	-								
10	0-00-027-35573 0-00-027-35544	LTRH PENDANT ASSY +LTRH O/L TERM TUBE (R-07 + R-07TO)	SA213 UNS S30432 + SA213 UNS S30432	63.5	4	GTAW	4 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							952	71350	-	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	2/6

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 17
PG NAME : Reheater System
SYSTEM DESCRIPTION : Reheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
11	0-00-027-35573 0-00-027-35544	LTRH O/L TERM TUBE +LTRH O/L HDR NIPPLE (R-07TO (1, 8) + R-08 NIPPLE)	SA213 UNS S30432 + SA213 UNS S30432	50.8	4	GTAW	4 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							238	14270	-	-	-								
12	0-00-027-35573 0-00-027-35544	LTRH O/L TERM TUBE +LTRH O/L HDR NIPPLE (R-07TO (2-7) + R-08 NIPPLE)	SA213 UNS S30432 + SA213 UNS S30432	44.45	4.2	GTAW	4.2 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							714	40491	-	-	-								
13	0-00-027-35548 1-17-174-00671	LTRH O/L HDR+ LINK TO RH DESH (R-08 + R-09)	SA335P91 + SA234WP91	813	40	GTAW + SMAW	35.00 ▽▽	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	654	195	260	791			100					
14	0-00-027-35548 1-17-174-00671	LINK TO RH DESH+ LINK TO RH DESH (R-09 + R-09)	SA335P91 + SA234WP91	813	40	GTAW + SMAW	35.00 ▽▽	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	654	195	260	791			100					
15	0-00-027-35548 0-17-900-00729	LINK TO RH DESH+ RH DESH (R-09 + R-10)	SA335P91 + SA335P91	813	40	GTAW + SMAW	35.00 ▽▽	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	654	195	260	791			100					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	3/6

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 17
PG NAME : Reheater System
SYSTEM DESCRIPTION : Reheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
16	0-00-027-35548 0-17-900-00729 0-17-174-00801	RH DESH+ LINK TO FINISH RH (R-10 + R-11)	SA335P91 + SA335P91	813	40	GTAW + SMAW	35.00 ▽▽	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	654	195	260	791			100					
17	0-00-027-35548 0-17-174-00801	LINK TO FINISH RH+ LINK TO FINISH RH (R-11 + R-11)	SA335P91 + SA234WP91	813	40	GTAW + SMAW	35.00 ▽▽	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							7	2286	680	908	2767			100					
18	0-00-027-35547 0-17-174-00801	LINK TO FINISH RH+ FINISH RH I/L HDR (R-11 + R-12)	SA234WP91 + SA335P91	609.6	40	GTAW + SMAW	35.00 ▽▽	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	476	146	195	583			100					
19	0-00-027-35559 0-00-027-35560	FINISH RH I/L HDR NIPP+ FINISH RH I/L TERM TUBES (R-12 NIPPLE + R-13TI (1))	SA213T22 + SA213T22	76.2	6.6	GTAW + SMAW	6.6 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	20%RT + 80% PAUT				
							51	991	770	-	-								
20	0-00-027-35559 0-00-027-35560	FINISH RH I/L HDR NIPP+ FINISH RH I/L TERM TUBES (R-12 NIPPLE + R-13TI (2-3))	SA213T22 + SA213T22	63.5	5.59	GTAW + SMAW	5.59 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	100% RT				
							102	1643	956	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	4/6

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuna Nagar 1x800
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 17
PG NAME : Reheater System
SYSTEM DESCRIPTION : Reheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Qty in Nos. Ø3.15	Qty in Nos. Ø4.0								
21	0-00-027-35559 0-00-027-35560	FIN. RH I/L HDR NIPP+ FINISH RH I/L TERM TUBES (R-12 NIPPLE + R-13TI (4-5))	SA213T22 + SA213T22	50.8	4.5	GTAW + SMAW	4.5 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	100% RT				
							102	1310	529	-	-								
22	0-00-027-35559 0-00-027-35560	FIN RH I/L HDR NIPP+ FINISH RH I/L TERM TUBES (R-12 NIPPLE + R-13TI (6-14))	SA213T22 + SA213T22	44.5	4.5	GTAW + SMAW	4.5 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	100% RT				
							459	4992	2085	-	-								
23	0-00-027-35559 0-00-027-35560	FINISH RH I/L TERM TUBES + FINISH RH ASSY (R-13TI (1) + R-13(1))	SA213 UNS S30432 + SA213 UNS S30432	76.2	5.08	GTAW	5.08 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							51	6800	-	-	-								
24	0-00-027-35559 0-00-027-35560	FINISH RH I/L TERM TUBES + FINISH RH ASSY (R-13TI (2-14) + R-13(2-14))	SA213 UNS S30432 + SA213 UNS S30432	63.5	4	GTAW	4 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							663	49691	-	-	-								
25	0-00-027-35559 0-00-027-35560	FINISH RH ASSY+FIN. RH O/L TERM TUBES (R-13 (1) + R-13TO (1))	SA213 UNS S30432 + SA213 UNS S30432	76.2	5.08	GTAW	5.08 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							51	6800	-	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	5/6

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839 | **PG NO : 17**

PROJECT : Yamuna Nagar 1x800 | **PG NAME : Reheater System**

WELDING CODE : IBR / ASME | **PRESSURE PARTS/~~NON PRESSURE PARTS~~** | **SYSTEM DESCRIPTION : Reheater System**

- **CUST DOC REV : 00**

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
26	0-00-027-35559 0-00-027-35560	FIN RH ASSY+FIN. RH O/L TERM TUBES (R-13 (2-14) + R-13TO (2-14))	SA213 UNS S30432 + SA213 UNS S30432	63.5	4	GTAW	4 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							663	49691	-	-	-								
27	0-00-027-35559 0-00-027-35560	FIN RH O/L TERM TUBE+FINISH RH O/L HDR NIPPLE (R-13TO (1-14) + R-14 NIP)	SA213 UNS S30432 + SA213 UNS S30432	57.15	4.2	GTAW	4.2 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							714	52060	-	-	-								
28		GAMMA PLUG	SA335P12 + SA182F22CL3			SMAW	7 ◺	-	E8018-B2			1102/01	200	Nil	100% LPI or MPI			FOR T- (25-75) MM	
							2	-	1	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	6/6

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839 | **PG NO : 12**

PROJECT : Yamuma nagar - 1x800MW | **PG NAME : Superheater System**

WELDING CODE : IBR / ASME | **PRESSURE PARTS/~~NON PRESSURE PARTS~~** | **SYSTEM DESCRIPTION : Superheater System**

- **CUST DOC REV : 00**

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP. in °C	PWHT TEMP. in °C	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
								GTAW	SMAW										
									Qty in Nos.										
				SIZE	THICK		Qty in Nos.	Qty in gms	Ø2.5	Ø3.15	Ø4.0			TIME in mins		SPEC. NO	ACC NORM REF.		
1	2-12-850-03559 TO 2-12-850-03566 0-00-027-35568	SEPARATOR+ SH CONNECTING PIPE (F-31 NOZZLE + S-01)	SA182F22CL3 + SA335P12	273	50	GTAW + SMAW	43.75 ▽▽	ER80S-B2	E8018-B2			1012/04	150	680-720	100% RT 100% MPI/LPI				
							8	666	157	257	1020			125					
2	2-12-850-03559 TO 2-12-850-03566	SH CONN. PIPE+ SH CONN. PIPE (S-01 + S-01)	SA335P12 + SA234WP12CL1	273	50	GTAW + SMAW	43.75 ▽▽	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							32	2661	627	1027	4079			125					
3	2-12-850-03559 TO 2-12-850-03566 0-00-027-35569	SH CONNECTING PIPE + SH FURNACE ROOF I/L HDR (S-01 + S-02 TEE)	SA335P12 + SA234WP12CL1	273	50	GTAW + SMAW	43.75 ▽▽	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							8	666	157	257	1020			125					
4	0-00-027-35549 0-00-027-35569	SH FURNACE ROOF I/L HEADER + SH FURN ROOF PANEL/LT (S-02 NIPPLE + S-03/S-03LT)	SA213T12 + SA213T12	54	8.13	GTAW + SMAW	8.13 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							208	2407	1928	300	-								
5	0-00-027-35549 0-00-027-35569	SH FURN ROOF I/L HDR /SH FURN ROOF PANEL + LOOSE TUBE (S-02 NIPP/S-03 + S-03LT)	SA213T12 + SA213T12	50.8	8.64	GTAW + SMAW	8.64 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							4	42	34	8	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	**MANIKANDAN C**	**NIRMAL RAJ N**	**09-02-2026**	**-**	**0**	**1/20**

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Ø3.15	Ø4.0								
6	0-00-027-35549 0-00-027-35569	SH FURN ROOF PNL LOOSE TUBE +SH FURN ROOF PANEL (S-03LT + S-03)	SA213T12 + SA213T12	54	8.13	GTAW + SMAW	8.13 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							32	371	297	47	-								
7	0-00-027-35549 0-00-027-35569	SH FURN ROOF PANEL +SH FURN ROOF TUBES (S-03 + S-04A)	SA213T12 + SA213T12	60.3	10.16	GTAW + SMAW	10.16 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							210	2577	2043	796	-								
8	0-00-027-35549 0-00-027-35569	SH FURN ROOF TUBE +SH FURN ROOF TUBES (S-04A + S-04B)	SA213T12 + SA213T12	60.3	10.16	GTAW + SMAW	10.16 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							210	2577	2043	796	-								
9	0-00-027-35549 0-00-027-35569	SH FURN ROOF TUBES+SH FURN ROOF O/L HDR (S-04B + S-05 NIPPLE)	SA213T12 + SA213T22	60.3	10.16	GTAW + SMAW	10.16 ▽	ER80S-B2	E8018-B2			1012/04	150	680-720	20%RT + 80% PAUT				
							210	2577	2043	796	-			30					
10	0-00-027-35569 0-00-027-35579	SH FURN ROOF O/L HDR ELBOW+BP EXT SIDE I/L HDR (S-05 ELBOW + S-06 TEE)	SA234WP22CL1 + SA234WP12CL1	406.4	80	GTAW + SMAW	70.00 ▽▽	ER80S-B2	E8018-B2			1012/04	150	680-720	100% (ISRT+UT) 100% MPI/LPI				
							2	237	59	96	818			200					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	2/20

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Ø3.15	Ø4.0								
11	0-00-027-35579	BP EXT SIDE I/L HDR+BP EXT SIDE WALL PANEL (S-06 NIPPLE + S-07 L&R)	SA213T12 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							172	1535	1968	-	-								
12	0-00-027-35579	BP EXT SIDE WALL PANEL LOOSE TUBES + BP EXT SIDE WALL PANEL (S-07 L&R LT+ S-07 L&R)	SA213T12 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							26	232	298	-	-								
13	0-00-027-35579	BP EXT SIDE WALL PANEL+BP EXT SIDE FLOOR PANEL (S-07 L&R + S-08 L&R)	SA213T12 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							172	1535	1968	-	-								
14	0-00-027-35579	BP EXT SIDE FLOOR PANEL + BP EXT SIDE FLOOR PANEL (S-08 L&R + S-08TOA/B)	SA213T12 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							172	1535	1968	-	-								
15	0-00-027-35579 0-00-027-36584	BP EXT SIDE FLOOR PANEL + BP EXT SIDE FLOOR PANEL LOOSE TUBES (S-08TOA/B + S-08 LT)	SA213T12 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							172	1535	1968	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	3/20

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839 | **PG NO : 12**

PROJECT : Yamuna nagar - 1x800MW | **PG NAME : Superheater System**

WELDING CODE : IBR / ASME | **PRESSURE PARTS/~~NON PRESSURE PARTS~~** | **SYSTEM DESCRIPTION : Superheater System**

- **CUST DOC REV : 00**

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
16	0-00-027-35579 0-00-027-36584	BP EXT SIDE FLOOR PANEL LOOSE TUBES + BP EXT SIDE FLOOR O/L HDR (S-08 LT + S-09 NIPP)	SA213T12 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽ 172	ER80S-B2 1535	E8018-B2 1968	- -	- -	1009/03	150	Nil	20%RT + 80% PAUT				
17	0-00-027-35575	BP EXT SIDE FLOOR O/L HDR+ SC FURN ARCH SUPPT I/L HDR (S-09 + S-09A TEE)	SA335P12 + SA234WP12CL1	406.4	85	GTAW + SMAW	74.38 ▽▽ 1	ER80S-B2 115	E8018-B2 30	48	447	1010/06	150	650-670 215	100% (ISRT+UT) 100% MPI/LPI				
18	0-00-027-35575	SC FURN ARCH SUPPORT I/L HDR+SC FURN ARCH SUPPT LINK (S-09A NOZZLE + S-09B)	SA182F12CL2 + SA335P12	168.3	47.6	GTAW + SMAW	41.65 ▽▽ 20	ER80S-B2 786	E8018-B2 242	396	1205	1010/06	150	650-670 120	100% RT 100% MPI/LPI				
19	0-00-027-35575	SC FURN ARCH SUPT LINK+SC FURN ARCH SUPPT O/L HDR (S-09B + S-09C NOZZLE)	SA335P12 + SA182F12CL2	168.3	47.6	GTAW + SMAW	41.65 ▽▽ 20	ER80S-B2 786	E8018-B2 242	396	1205	1010/06	150	650-670 120	100% RT 100% MPI/LPI				
20	0-00-027-35575	SC FURN ARCH SUPT O/L HDR + BP EXT SIDE CONNECTING LINK (S-09C TEE + S-10)	SA234WP12CL1 + SA335P12	323.9	60	GTAW + SMAW	52.50 ▽▽ 2	ER80S-B2 196	E8018-B2 47	77	410	1010/06	150	650-670 150	100% RT 100% MPI/LPI				

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	4/20

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
21	0-12-184-03706 0-00-027-35571	BP EXT SIDE CONN. LINK+ BP EXT SIDE CONN. LINK (S-10 + S-10)	SA234WP12CL1 + SA335P12	323.9	60	GTAW + SMAW	52.50 ▽▽	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							12	1173	279	457	2457			150					
22	0-12-184-03706 0-00-027-35571	BP EXT SIDE CONN. LINK+ BP LWR FRONT HDR (S-10 + S-14)	SA335P12 + SA335P22	323.9	60	GTAW + SMAW	52.50 ▽▽	ER80S-B2	E8018-B2			1012/04	150	680-720	100% RT 100% MPI/LPI				
							2	196	47	77	410			150					
23	1-12-184-02197 0-00-027-35575	BP EQUALIZING LINE+BP EXT SIDE FLOOR O/L HDR/ EXT SIDE LINK (S-09D + S-09/S-10)	SA213T12 + SA213T12	38.1	6.6	GTAW + SMAW	6.6 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							2	16	16	-	-								
24	1-12-184-02197 0-00-027-35575	BP EQUALIZING LINE+BP EQUALIZING LINE (S-09D + S-09D)	SA213T12 + SA213T12	38.1	6.6	GTAW + SMAW	6.6 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							6	46	46	-	-								
25	0-00-027-35579	BP EXT SIDE I/L HDR +BP UPR SIDE I/L HDR (S-06 TEE + S-11 -L&R)	SA234WP12CL1 + SA335P12	406.4	85	GTAW + SMAW	74.38 ▽▽	ER80S-B2	E8018-B2			1010/06	150	650-670	100% (ISRT+UT) 100% MPI/LPI				
							2	230	59	96	893			215					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	5/20

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos.										
									Ø2.5	Ø3.15	Ø4.0								
26	0-00-027-35601	BP UPR SIDE I/L HDR +BP UPR SIDE WALL PANEL (S-11 NIPPLE + S-12U L&R)	SA213T12 + SA213T12	50.8	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							278	2941	2394	384	-								
27	0-00-027-35601	BP UPR SIDE WALL PANEL+ BP INTER SIDE WALL PANEL (S-12U L&R + S-12I L&R)	SA213T12 + SA213T12	50.8	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							278	2941	2394	384	-								
28	0-00-027-35601	BP INTER SIDE WALL PANEL+ BP LWR SIDE WALL PANEL (S-12I L&R + S-12L L&R)	SA213T12 + SA213T12	50.8	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							278	2941	2394	384	-								
29	0-00-027-35601	LTRH OPENING LOOSE TUBES L&R	SA213T12 + SA213T12	50.8	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							40	424	345	56	-								
30	0-00-027-35601	BP LWR SIDE WALL PANEL + BP LWR SIDE WALL PANEL LOOSE TUBES (S-12L L&R + S-13 LT)	SA213T12 + SA213T22	50.8	8.13	GTAW + SMAW	8.13	ER80S-B2	E8018-B2			1012/04	150	680-720	20%RT + 80% PAUT				
							16	170	138	23	-			30					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	6/20

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Qty in Nos. Ø3.15	Qty in Nos. Ø4.0								
31	0-00-027-35601	BP LWR SIDE WALL PANEL+ BP LOWER SIDE HDR NIPPLES (S-12L L&R + S-13 L&R NIPPLE)	SA213T12 + SA213T22	50.8	8.13	GTAW + SMAW	8.13 ▽	ER80S-B2	E8018-B2			1012/04	150	680-720	20%RT + 80% PAUT				
							262	2772	2256	362	-			30					
32	0-00-027-35601	BP LWR SIDE WALL PANEL LOOSE TUBES + BP LOWER SIDE HDR NIPPLES (S-13 LT + S-13 L&R NIPPLE)	SA213T22 + SA213T22	50.8	8.13	GTAW + SMAW	8.13 ▽	ER90S-B3	E9018-B3			1014/03	150	680-720	20%RT + 80% PAUT				
							16	170	138	23	-			30					
33	0-00-027-35601 0-00-027-35572	BP LWR FRONT WALL + BP LWR FRONT WALL PANEL LOOSE TUBES (S-15L + S-14LT/S-13 LT)	SA213T12 + SA213T22	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1011/01	150	Nil	20%RT + 80% PAUT				
							12	108	138	-	-								
34	0-00-027-35601	BP LWR FRONT HDR+ BP LOWER FRONT WALL PANEL (S-14 NIPPLE + S-15L)	SA213T22 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1011/01	150	Nil	20%RT + 80% PAUT				
							148	1321	1694	-	-								
35	0-00-027-35601 0-00-027-35572	BP LWR FRONT WALL PANEL LOOSE TUBES+ BP LWR FRONT/SIDE HDR(S-14LT/S-13LT + S-14/S-13)	SA213T22 + SA213T22	44.45	7.62	GTAW + SMAW	7.62 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	20%RT + 80% PAUT				
							12	108	138	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	7/20

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Qty in Nos. Ø3.15	Qty in Nos. Ø4.0								
36	0-00-027-35601	BP LWR FRONT WALL PANEL+ BP UPPER FRONT WALL PANEL (S-15L + S-15U)	SA213T12 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							160	1428	1831	-	-								
37	0-00-027-35601	BP UPR FRONT WALL PANEL+BP UPR FRONT WALL PANEL (S-15U + S-16 PANEL)	SA213T12 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							160	1428	1831	-	-								
38	0-00-027-35601	BP UPR FRONT WALL PANEL+BP FRONT SCREEN TUBES (S-16 PANEL + S-16)	SA213T12 + SA213T12	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							160	1428	1831	-	-								
39	0-00-027-35601 0-00-027-35569	BP FRONT SCREEN TUBES+ BP FRONT O/L HDR (S-16 + S-22 NIPPLE)	SA213T12 + SA213T22	44.45	7.62	GTAW + SMAW	7.62 ▽	ER80S-B2	E8018-B2			1011/01	150	Nil	20%RT + 80% PAUT				
							160	1428	1831	-	-								
40	0-00-027-35569 0-00-027-35558	BP FRONT O/L HDR+ BP ROOF PANEL (S-22 NIPPLE + S-21)	SA213T22 + SA213T12	48.3	9.2	GTAW + SMAW	9.2 ▽	ER80S-B2	E8018-B2			1012/04	150	680-720	20%RT + 80% PAUT				
							160	1462	1226	360	-			30					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	8/20

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Qty in Nos. Ø3.15	Qty in Nos. Ø4.0								
41	0-00-027-35601	BP ROOF PANEL+ BP UPPER REAR WALL PANEL (S-21 + S-20U)	SA213T12 + SA213T12	48.3	9.2	GTAW + SMAW	9.2 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							160	1462	1226	360	-								
42	0-00-027-35601	BP UPR REAR WALL PANEL+ BP INTER REAR WALL PANEL (S-20U + S-20I)	SA213T12 + SA213T12	48.3	9.2	GTAW + SMAW	9.2 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							160	1462	1226	360	-								
43	0-00-027-35601	BP INTER REAR WALL PANEL+ BP LOWER REAR WALL PANEL (S-20I + S-20L)	SA213T12 + SA213T12	48.3	9.2	GTAW + SMAW	9.2 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							160	1462	1226	360	-								
44	0-00-027-35601 0-00-027-35572	BP LOWER REAR WALL PANEL + BP LOWER REAR WALL PANEL LOOSE TUBES (S-20L + S-13LT/S-17LT)	SA213T12 + SA213T22	48.3	9.2	GTAW + SMAW	9.2 ▽	ER80S-B2	E8018-B2			1012/04	150	680-720	20%RT + 80% PAUT				
							8	74	62	18	-			30					
45	0-00-027-35601 0-00-027-35572	BP LWR REAR WALL + BP LWR REAR HDR (S-20L+S-17 NIPP)	SA213T12 + SA213T22	48.3	9.2	GTAW + SMAW	9.2 ▽	ER80S-B2	E8018-B2			1012/04	150	680-720	20%RT + 80% PAUT				
							152	1389	1165	342	-			30					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	9/20

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
46	0-00-027-35601 0-00-027-35572	BP LOWER REAR WALL PANEL LOOSE TUBES + BP LWR REAR HDR (S-13LT/S-17LT + S-17NIPP)	SA213T22 + SA213T22	48.3	9.2	GTAW + SMAW	9.2 ▽ 8	ER90S-B3 74	E9018-B3 62	18	-	1014/03	150	680-720 30	20%RT + 80% PAUT				
47	0-00-027-35572	BP LWR FRONT HDR+ BP LWR SIDE HDRS (S-14 + S-13 ELBOW L&R)	SA335P91 + SA234WP91	406.4	80	GTAW + SMAW	70.00 ▽▽ 2	ER90S-B9 237	E9015-B91 98	130	1145	1050/06	220	740-770 200	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
48	0-00-027-35572	BP LWR SIDE HDRS+ BP LWR REAR HDR (S-13 ELBOW L&R+ S-17)	SA234WP91 + SA335P91	406.4	80	GTAW + SMAW	70.00 ▽▽ 2	ER90S-B9 237	E9015-B91 98	130	1145	1050/06	220	740-770 200	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
49	0-00-027-35569	BP FRONT O/L HDR + SPOOL PIPE	SA234WP22CL1 + SA335P12	457	75	GTAW + SMAW	65.62 ▽▽ 2	ER80S-B2 289	E8018-B2 66	108	855	1012/04	150	680-720 190	100% (ISRT+UT) 100% MPI/LPI				
50	0-00-027-35569	BP FRONT O/L HDR SPOOL PIPE + LINK FROM BP FRNT O/L HDR (S-22 SPOOL PIPE + S-25A)	SA335P12 + SA335P12	457	75	GTAW + SMAW	65.62 ▽▽ 2	ER80S-B2 289	E8018-B2 66	108	855	1010/06	150	650-670 190	100% (ISRT+UT) 100% MPI/LPI				

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	10/20

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
51	1-12-852-02195 0-00-027-35548	LINK FROM BP FRNT O/L HDR+LINK FROM BP FRNT O/L HDR (S-25A + S-25A)	SA335P12 + SA234WP12CL1	457	75	GTAW + SMAW	65.62 ♡♡	ER80S-B2	E8018-B2			1010/06	150	650-670	100% (ISRT+UT) 100% MPI/LPI				
							4	578	132	215	1709			190					
52	1-12-852-02195 0-00-027-35548	LINK FROM BP FRNT O/L HDR+ LINK TO PLATEN SH (S-25A + S25B)	SA335P12 + SA335P12	457	75	GTAW + SMAW	65.62 ♡♡	ER80S-B2	E8018-B2			1010/06	150	650-670	100% (ISRT+UT) 100% MPI/LPI				
							2	289	66	108	855			190					
53	1-12-852-02196 0-00-027-35547	LINK TO PLATEN SH+ LINK TO PLATEN SH (S-25B + S-25B)	SA335P12 + SA234WP12CL1	457	75	GTAW + SMAW	65.62 ♡♡	ER80S-B2	E8018-B2			1010/06	150	650-670	100% (ISRT+UT) 100% MPI/LPI				
							4	578	132	215	1709			190					
54	1-12-852-02196 0-00-027-35547	LINK TO PLATEN SH+ SH PLATEN FRONT I/L HDR (S-25B + S-26 TEE)	SA335P12 + SA234WP12CL1	457	75	GTAW + SMAW	65.62 ♡♡	ER80S-B2	E8018-B2			1010/06	150	650-670	100% (ISRT+UT) 100% MPI/LPI				
							2	289	66	108	855			190					
55	0-12-187-03715 0-00-027-35547	BP BYPASS PIPE+ LINK TO SH PLATEN (S-24 + S-25B)	SA335P12 + SA182F12CL2	273	45	GTAW + SMAW	39.38 ♡♡	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							2	174	40	65	206			115					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	11/20

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839
PROJECT : Yamuna nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
56	0-12-187-03715 0-00-027-35547	BP BYPASS PIPE + LINK FROM SH CONNECTING PIPE (S-24 + S-01 TEE)	SA335P12 + SA234WP12CL1	273	45	GTAW + SMAW	39.38 ▽▽	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							8	696	157	257	821			115					
57	0-12-187-03715 0-00-027-35547	BP BYPASS PIPE+ BP BYPASS PIPE (S-24 + S-24)	SA335P12 + SA335P12	273	45	GTAW + SMAW	39.38 ▽▽	ER80S-B2	E8018-B2			1010/06	150	650-670	100% RT 100% MPI/LPI				
							20	1740	392	642	2051			115					
58	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT I/L HDR+SH PLATEN FRONT I/L TERM TUBE (S-26 NIPPLE + S-27TI(1))	SA213T22 + SA213T22	50.8	8.64	GTAW + SMAW	8.64 ▽	ER90S-B3	E9018-B3			1014/03	150	680-720	20%RT + 80% PAUT				
							34	349	286	62	-			30					
59	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT I/L HDR+SH PLATEN FRONT I/L TERM TUBE (S-26 NIPPLE + S-27TI (2-3))	SA213T22 + SA213T22	44.5	7.1	GTAW + SMAW	7.1 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	20%RT + 80% PAUT				
							68	630	685	-	-								
60	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT I/L HDR+SH PLATEN FRONT I/L TERM TUBE (S-26 NIPPLE + S-27TI (4-18))	SA213T22 + SA213T22	33.4	6.6	GTAW + SMAW	6.6 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	20%RT + 80% PAUT				
							510	3122	3375	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	12/20

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
61	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT I/L TERM TUBE+SH PLATEN FRONT ASSY (S-27TI(1) + S-27(1))	SA213T22 + SA213T22	50.8	8.64	GTAW + SMAW	8.64 ▽	ER90S-B3	E9018-B3			1014/03	150	680-720	100% RT				
							34	349	286	62	-			30					
62	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT I/L TERM TUBE+SH PLATEN FRONT ASSY (S-27TI(2-3) + S-27(2-3))	SA213T22 + SA213T22	44.5	7.1	GTAW + SMAW	7.1 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	100% RT				
							68	630	685	-	-								
63	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT I/L TERM TUBE+SH PLATEN FRONT ASSY (S-27TI(4-18) + S-27(4-18))	SA213T22 + SA213T22	33.4	6.6	GTAW + SMAW	6.6 ▽	ER90S-B3	E9018-B3			1013/02	150	Nil	100% RT				
							510	3122	3375	-	-								
64	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT ASSY+ SH PLATEN FRONT O/L TERM TUBE (S-27 (1) + S-27TO (1))	SA213 UNS S30432 + SA213 UNS S30432	50.8	8.64	GTAW	8.64 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							34	4683	-	-	-								
65	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT ASSY+ SH PLATEN FRONT O/L TERM TUBE (S-27 (2-18) + S-27TO (2-18))	SA213 UNS S30432 + SA213 UNS S30432	44.45	7.11	GTAW	7.11 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							578	48606	-	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	13/20

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
66	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT O/L TERM TUBE+ SH PLATEN FRONT O/L HDR (S-27TO (1) + S-28 NIPPLE)	SA213 UNS S30432 + SA213 UNS S30432	50.8	8.64	GTAW	8.64	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							34	4683	-	-	-								
67	0-00-027-35561 0-00-027-35562	SH PLATEN FRONT O/L TERM TUBE+ SH PLATEN FRONT O/L HDR (S-27TO (2-18) + S-28 NIPPLE)	SA213 UNS S30432 + SA213 UNS S30432	44.45	7.11	GTAW	7.11	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							578	48606	-	-	-								
68	0-12-178-03679 0-00-027-35547	SH PLATEN FRONT O/L HDR+ LINK TO SH DESUPERHEATER-1 (S-28 TEE + S-29)	SA234WP91 + SA335P91	559	80	GTAW + SMAW	70.00	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	371	134	179	1663			200					
69	0-12-178-03679 0-00-027-35547	LINK TO SH DESH-1+ LINK TO SH DESH-1 (S-29 + S-29)	SA335P91 + SA234WP91	559	80	GTAW + SMAW	70.00	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							6	1111	401	535	4987			200					
70	0-12-178-03679 0-00-027-35547	LINK TO SH DESH-1+ SH DESH-1 (S-29 + S-30)	SA335P91 + SA335P91	559	80	GTAW + SMAW	70.00	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	371	134	179	1663			200					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	14/20

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK			GTAW	SMAW							SPEC. NO	ACC NORM		
							Qty in Nos.	Qty in gms	Qty in Nos. Ø2.5	Ø3.15	Ø4.0								
71	0-12-178-03680 0-00-027-35547	SH DESH-1+ LINK FROM SH DESH-1 (S-30 + S-31)	SA335P91 + SA335P91	558.8	76.2	GTAW + SMAW	66.68 ▽▽	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	376	134	179	1544			195					
72	0-12-178-03680 0-00-027-35547	LINK FROM SH DESH-1+ LINK FROM SH DESH-1 (S-30 + S-30)	SA335P91 + SA234WP91	558.8	76.2	GTAW + SMAW	66.68 ▽▽	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	376	134	179	1544			195					
73	0-12-178-03680 0-00-027-35547	LINK FROM SH DESH-1+ SH PLATEN REAR I/L HDR (S-31 + S-32 TEE)	SA335P91 + SA234WP91	558.8	75	GTAW + SMAW	65.62 ▽▽	ER90S-B9	E9015-B91			1050/06	220	740-770	100% UT 100% MPI			NDT after SR; 100% HC, 180 HB TO 300HB	
							2	378	134	179	1507			190					
74	0-00-027-35563 0-00-027-35564	SH PLATEN REAR I/L HDR+ SH PLATEN REAR I/L TERM TUBE (S-32 NIPPLE + S-33TI (1))	SA213 UNS S30432 + SA213 UNS S30432	50.8	8.64	GTAW	8.64 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							34	4683	-	-	-								
75	0-00-027-35563 0-00-027-35564	SH PLATEN REAR I/L HDR+ SH PLATEN REAR I/L TERM TUBE (S-32 NIPPLE + S-33TI (2-18))	SA213 UNS S30432 + SA213 UNS S30432	44.45	7.11	GTAW	7.11 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							578	48606	-	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	15/20

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FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

ERECTION WELDING SCHEDULE - (Preliminary)

355-005/A
(09-09-2016)

CUST No : 1839 | **PG NO : 12**

PROJECT : Yamuma nagar - 1x800MW | **PG NAME : Superheater System**

WELDING CODE : IBR / ASME | **PRESSURE PARTS/~~NON PRESSURE PARTS~~** | **SYSTEM DESCRIPTION : Superheater System**

- **CUST DOC REV : 00**

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
76	0-00-027-35563 0-00-027-35564	SH PLATEN REAR I/L TERM TUBE+ SH PLATEN REAR ASSY (S-33TI (1) + S-33 (1))	SA213 UNS S30432 + SA213 UNS S30432	50.8	8.64	GTAW	8.64 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							34	4683	-	-	-								
77	0-00-027-35563 0-00-027-35564	SH PLATEN REAR I/L TERM TUBE+ SH PLATEN REAR ASSY (S-33TI (2-18) + S-33 (2-18))	SA213 UNS S30432 + SA213 UNS S30432	44.45	7.11	GTAW	7.11 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							578	48606	-	-	-								
78	0-00-027-35563 0-00-027-35564	SH PLATEN REAR ASSY+ SH PLATEN REAR O/L TERM TUBE (S-33(1)+S-33TO (1))	SA213 UNS S30432 + SA213 UNS S30432	50.8	8.64	GTAW	8.64 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							34	4683	-	-	-								
79	0-00-027-35563 0-00-027-35564	SH PLATEN REAR ASSY+ SH PLATEN REAR O/L TERM TUBE (S-33 (2-18) + S-33TO (2-18))	SA213 UNS S30432 + SA213 UNS S30432	44.45	7.11	GTAW	7.11 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	100% RT				
							578	48606	-	-	-								
80	0-00-027-35563 0-00-027-35564	SH PLATEN REAR O/L TERM TUBE+ SH PLATEN REAR O/L HDR (S-33TO (1) + S-34 NIPPLE)	SA213 UNS S30432 + SA213 UNS S30432	50.8	8.64	GTAW	8.64 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							34	4683	-	-	-								

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	16/20

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
81	0-00-027-35563 0-00-027-35564	SH PLATEN REAR O/L TERM TUBE+ SH PLATEN REAR O/L HDR (S-33TO(2-3) + S-34 NIPPLE)	SA213 UNS S30432 + SA213 UNS S30432	44.45	7.6	GTAW	7.6	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							68	6461	-	-	-								
82	0-00-027-35563 0-00-027-35564	SH PLATEN REAR O/L TERM TUBE+ SH PLATEN REAR O/L HDR (S-33TO (4-18) + S-34 NIPPLE)	SA213 UNS S30432 + SA213 UNS S30432	44.45	8.1	GTAW	8.1	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							510	54502	-	-	-								
83	0-12-179-03684	SH PLATEN REAR O/L HDR+ LINK FROM SH DESUPERHEATER-2 (S-34 TEE + S-35)	SA234WP92 + SA335P92	559	85	GTAW + SMAW	74.38	ER90S-B92	E9015-B92			1056/04	220	755 ± 15	100% UT 100% MPI			NDT after SR; 100% HC, 186 HB TO 300HB	
							2	363	134	179	1822			215					
84	0-12-179-03684	LINK FROM SH DESH-2 +LINK FROM SH DESH-2 (S-35 + S-35)	SA234WP92 + SA335P92	559	85	GTAW + SMAW	74.38	ER90S-B92	E9015-B92			1056/04	220	755 ± 15	100% UT 100% MPI			NDT after SR; 100% HC, 186 HB TO 300HB	
							4	726	268	357	3644			215					
85	0-12-179-03684	LINK FROM SH DESH-2+ SH DESUPERHEATER-2 (S-35 + S-36)	SA335P92 + SA335P92	559	85	GTAW + SMAW	74.38	ER90S-B92	E9015-B92			1056/04	220	755 ± 15	100% UT 100% MPI			NDT after SR; 100% HC, 186 HB TO 300HB	
							2	363	134	179	1822			215					

PREPARED	CHECKED (W.T.C)	APPROVED	DATE	DOC NO.	REV NO :	PAGE NO.
RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	17/20

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
86	0-12-179-03685	SH DESH-2+ LINK TO FINISH SH (S-36 + S-37)	SA335P92 + SA335P92	559	85	GTAW + SMAW	74.38 ▽▽	ER90S-B92	E9015-B92			1056/04	220	755 ± 15	100% UT 100% MPI			NDT after SR; 100% HC, 186 HB TO 300HB	
							2	363	134	179	1822			215					
87	0-12-179-03685	LINK TO FINISH SH+ LINK TO FINISH SH (S-37 + S-37)	SA234WP92 + SA335P92	559	85	GTAW + SMAW	74.38 ▽▽	ER90S-B92	E9015-B92			1056/04	220	755 ± 15	100% UT 100% MPI			NDT after SR; 100% HC, 186 HB TO 300HB	
							3	544	201	268	2733			215					
88	0-12-179-03685	LINK TO FINISH SH+ FINISH SH I/L HDR (S-37 + S-38 TEE)	SA335P92 + SA234WP92	559	80	GTAW + SMAW	70.00 ▽▽	ER90S-B92	E9015-B92			1056/04	220	755 ± 15	100% UT 100% MPI			NDT after SR; 100% HC, 186 HB TO 300HB	
							2	371	134	179	1663			200					
89	0-00-027-35565 0-00-027-35566	FINISH SH I/L HDR+ FINISH SH I/L TERM TUBE (S-38 NIPPLE + S-39TI (1-11))	SA213 UNS S30432 + SA213 UNS S30432	44.45	7.11	GTAW	7.11 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							1144	96203	-	-	-								
90	0-00-027-35565 0-00-027-35566	FINISH SH I/L TERM TUBE+ FINISH SH FRONT ASSY (S-39TI (1) + S-39 (1-11))	SA213 UNS S30432 + SA213 UNS S30432	44.45	7.11	GTAW	7.11 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							1144	96203	-	-	-								

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RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	18/20

* REFER NDE MANUAL No.PS:CMX:002 REV.No.01/12-98. NOTE: HARDNESS CHECK OF 3% OF TOTAL WELD JOINTS IN ALLOY STEEL PIPES (OTHER THAN GR91) TO BE CARRIED OUT (260 HV MAX).
FOR TUBE BUTT JOINTS, 10% OF TOTAL RT QUANTUM SHALL BE PERFORMED USING COMPUTERIZED RT.

355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Qty in Nos. Ø3.15	SMAW Qty in Nos. Ø4.0					SPEC. NO	ACC NORM		
91	0-00-027-35565 0-00-027-35566	FINISH SH FRONT ASSY+ FINISH SH REAR ASSY (S-39 (1) + S-40 (1))	SA213 UNS S30432 + SA213 UNS S30432	44.45	8.1	GTAW	8.1 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							104	11115	-	-	-								
92	0-00-027-35565 0-00-027-35566	FINISH SH FRONT ASSY+ FINISH SH REAR ASSY (S-39 (2-11) + S-40 (2-11))	SA213 UNS S30432 + SA213 UNS S30432	44.45	7.6	GTAW	7.6 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							1040	98807	-	-	-								
93	0-00-027-35565 0-00-027-35566	FINISH SH REAR ASSY+ FINISH SH O/L TERM TUBE (S-40 (1-11) + S-40TI (1-11)	SA213 UNS S30432 + SA213 UNS S30432	38.1	9.14	GTAW	9.14 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							1144	131277	-	-	-								
94	0-00-027-35565 0-00-027-35566	FINISH SH REAR ASSY+ FINISH SH O/L HDR (S-40 (1-11) + S-41 NIPPLE)	SA213 UNS S30432 + SA213 UNS S30432	38.1	9.14	GTAW	9.14 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							1144	131277	-	-	-								
95	0-00-027-35552 0-00-027-35553 0-00-027-35554	SC FURN ARCH SUPPT I/L HDR+ STEAM COOLED SPACER TUBE (S-09A + S-44), (S-44+S-44)	SA213T12 + SA213T12	50.8	9.14	GTAW + SMAW	9.14 ▽	ER80S-B2	E8018-B2			1009/03	150	Nil	20%RT + 80% PAUT				
							6	60	50	14	-								

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RUDRABHATLA SAIKUMAR	MANIKANDAN C	NIRMAL RAJ N	09-02-2026	-	0	19/20

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355-005/A
(09-09-2016)

ERECTION WELDING SCHEDULE - (Preliminary)

CUST No : 1839
PROJECT : Yamuma nagar - 1x800MW
WELDING CODE : IBR / ASME
PRESSURE PARTS/~~NON PRESSURE PARTS~~

PG NO : 12
PG NAME : Superheater System
SYSTEM DESCRIPTION : Superheater System
- CUST DOC REV : 00

SL. NO	DRG NO. FOR WELD LOCATION & IDENTIFICATION MARK	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC				WPS NO/REV NO.	MIN. PRE HEAT TEMP.	PWHT TEMP. in TIME in mins	NDT METHOD/ QUANTUM	* REF-.		REMARKS	REV
				SIZE	THICK		Qty in Nos.	GTAW Qty in gms	SMAW Qty in Nos. Ø2.5	SMAW Ø3.15	SMAW Ø4.0					SPEC. NO	ACC NORM		
96	0-00-027-35552 0-00-027-35553 0-00-027-35554	SC SPACER TUBE + SC SPACER TUBE (S-44 + S-44)	SA213 UNS S30432 + SA213 UNS S30432	57.15	9.65	GTAW	9.65 ▽	Nittetsu YT304H / Super TIG 304H	-			1054/03	Nil	Nil	20%RT + 80% PAUT				
							49	9342	-	-	-								
97	0-00-027-35552 0-00-027-35553 0-00-027-35554	SC SPACER TUBE+SH PLATEN REAR I/L HDR (S-44 + S-32), (S-44 + S-44)	SA213T91 + SA213T91	42.4	7.11	GTAW + SMAW	7.11 ▽	ER90S-B9	E9015-B91			1036/09	220	745 ± 15	20%RT + 80% PAUT			NDT after SR; 100% HC, 180 HB TO 300HB	
							6	94	97	-	-			30					
98		GAMMA PLUG	SA335P12 + SA182F22CL3			SMAW	7 ◺	-	E8018-B2			1102/01	200	Nil	100% LPI or MPI				
							157	-	40	-	-							FOR T- (25-75) MM	
99		GAMMA PLUG	SA234WP22CL1 + SA182F22CL3			SMAW	7 ◺	-	E9018-B3			1103/01	200	Nil	100% LPI or MPI				
							2	-	1	-	-							FOR T >75 MM	

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