BHARAT HEAVY ELECTRICALS LIMITED RAMACHANDRAPURAM: : HYDERBABD-502032 M&S-P&C DEPARTMENT

TENDER No.: M&S/P&C/2020/99, DT.:19.03.2021

WORK: "Repair/Modification of 100 kVA Stepdown Transformer for Salt bath Furnace."

ANNEXURE - I (SCOPE OF WORK)

SLNo. Description Of the work Function of Transformer 100 kVA Step down Transformer of Salt bath Furnace is using for selective hardening of various jobs. The present heating method is through Set of Electrodes immersed in crucible through Step Down transformer. 1.0 1.0 The Heat Treatment salt is Neutral salt with melting point 660 1100 °C. Initially the salt is melted by shorting two electrodes through an auxiliary electrodes which acts as a resistance. During shorted condition heavy unbalanced load is experienced by Step Down Transformer , which is leading to frequent breakdown of Transformer and Tap Changer Switch(14-26V). The Maximum working temperature of the furnace is 1100 °C. Technical Details of the Transformer. Type of Transformer : Step Down Transformer as per IS::2026. Rating of Transformer : 100 kVA Phases Input / output : 3 / 3 / 3 Frequency : 50 Hz. Primary voltage : 415 Volts Maximum Primary current in each phase: 139 Amps Secondary Voltages : 14 to 26 Volts in minimum 6 Steps Dry or oil Immersed : Infloor Mounted Type of cooling : Natural Cooling (Atmosphere). Tappings : Three main fixed tapping and minimum Stx variable Tappings on Primary side to get 14 to 26 Volts in Secondary side. Method of earthling : Neutral earthed system on the Transformer. Load Condition : Initially unblance load i.e., be between two phases of Secondary side auxiliary electrode will be connected to melt the heat treatment salt. Connection : Primary side through cable Secondary side through Copper bus bar from the top surface of the transformer, gap to be maintained between phases as per the existing set up for fixing furnace electrodes. Secondary side connection : Copper bus bar flats are to be provided. Activities to be carriedout by Vendors : 1) Supply and fixing of the new suitable OFF load tap changer switch : 1) Supply and fixing of the new suitable OFF load tap changer switch : 1) Supply and fixing of the new suitable OFF load tap changer switch : 1) Supply and painting of transformer of the		ANNEXURE - I (SCOPE OF WORK)	
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SIGNATURE AND SEAL OF CONTRACTOR