

BARGE UNLOADER CONTROL	TECHNICAL CHECK LIST – FORMAT	CD-TPS-BUCS-TCL	
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Sl. No.	FACT's Requirements	Bidder's Confirmation (Strike off whichever is not applicable)	Details/Remarks/ Deviation if any
<b>1.0</b>	<b>Design and Supply of VFD based control panel with grab crane technology( 1 No)</b>		
1.1	Supply of control panel for Barge Unloader complete with Switch Dis- connector Fuse (SDF) / MCCB, Motor Control Panels, VFDs, PLC (if required in control scheme), Selector Switches, Push Buttons, Indication Lamps, Lighting Distribution Panel and lighting fixtures with lamps, HMI, terminal connectors, Power/ Control/ Auxiliary Contactors, HRC/ Thyristor/ Semiconductor fuses, socket outlets etc. as required. (Supply of motors and thruster brakes not included in the scope of Vendor)	Complied/ Not Complied	
1.2	Supply of braking resistors for Hold, Close, Long travel and Cross travel motors, if existing braking resistors (as given in CD-BUCS-TPS-MS) are not suitable for the new Control System as offered by the Vendor	Complied/ Not Complied	
1.3	Control supply for all electrics other than drive and PLC shall be 110 V 50 Hz AC	Complied/ Not Complied	
1.4	PLC/ Drive provided shall have 20% spare I/O capacity	Complied/ Not Complied	
1.5	All motors other than those controlled by drive shall be with DOL starter having contactor, overload relay, HRC fuse and single phase preventer	Complied/ Not Complied	
1.6	Make of all Electrics supplied by the Vendor shall be as specified in approved makers list	Complied/ Not Complied	
1.7	Drive supplied shall have closed loop vector control or superior technology, if the offered system does not support existing Hubner Encoders (for Hold and Close motors) and the Vendor shall supply the same, in that case	Complied/ Not Complied	

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1.8	VFDs shall be selected with appropriate de-rating, considering cyclic start/ crane duty operation/ overload tolerance as required for the Unloader.	Complied/ Not Complied	
1.9	VFD supplied by Vendor shall meet specifications provided in relevant clauses of CD-BUCS-TPS-MS	Complied/ Not Complied	
1.10	Supplied Panel shall support existing Analog 'H' type joystick for bucket operations and '+' type for Long and cross travel. If existing Joysticks are not supported by Vendor's design, new Analog type joystick shall be supplied.	Complied/ Not Complied	
1.11	Rope tension during hoist/ lower/ close/ open for all combination of operations shall be taken care by the Control System. Slack rope control facility shall be provided.	Complied/ Not Complied	
1.12	HMI module with size not less than 6 X 6 inch shall be provided in Control Panel, and shall display current status of input interlocks, output etc. In case of absence of any interlock, inhibit operation of crane shall be displayed in HMI in an alarm screen and history of same shall be accessible from HMI	Complied/ Not Complied	
1.13	There shall be provision to save open and close position of grab by selecting setting mode in operator console. When setting mode is activated, hold and close motor shall be operated very-slow.	Complied/ Not Complied	
1.14	Field interlocks like limit switches shall not be connected to Drive/ PLC directly. Vendor shall provide intermediate relays for proper isolation of circuit.	Complied/ Not Complied	
1.15	Items used by Vendor conform to Standards mentioned in clause 4.0	Complied/ Not Complied	

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1.16	Existing Inputs and Outputs mentioned in TPS shall be incorporated in new Control System	Complied/ Not Complied	
1.17	Functions of Grab Technology of existing system as per CD-BUCS-TPS-MS clause 6.4 shall be retained in the New Control Scheme supplied	Complied/ Not Complied	
1.18	Suitable Software with lifetime license for configuration and monitoring of PLC Drive and HMI device shall be provided. If system requires a separate 'Hold and Close Software module' for grab crane technology, same shall be supplied with lifetime license. Scope of supply of suitable USB cable also is in Vendor's scope.	Complied/ Not Complied	
<b>2.0</b>	<b>Execution at Site</b>		
2.1	Physical erection of various panels will be under the scope of FACT. All the works inside the panel like interconnections, termination of cable etc. Shall be in Vendor's scope	Complied/ Not Complied	
<b>3.0</b>	<b>Testing and Commissioning</b>		
3.1	Testing and Commissioning of the System, after installation of panels and associated controls, shall be carried out by authorized and trained personnel of the Vendor. (Necessary support and assistance, especially for integration of the new Control System with the existing unloading equipment, will be extended by FACT's Engineer in-charge)	Complied/ Not Complied	
3.2	Performance test at site by actual unloading of material. A minimum unloading speed of 250 MT/ hour shall be possible, without any limitation from the new Control System.	Complied/ Not Complied	

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4.0	After successful Commissioning of the System, the Vendor shall provide sufficient training to Technicians and Engineers of FACT. The level of the training shall be such that they shall be able to troubleshoot hardware/ software problems/ replace faulty devices/ cards and configure/ re-program after replacement of items	Complied/ Not Complied	
5.0	Vendor shall provide minimum 1-year performance warranty for the New Control System (including all devices/ components) supplied by him, from the date of commissioning.	Complied/ Not Complied	
6.0	Vendor shall quote for 2 year on-call basis Annual Maintenance Contract from the date of expiration of warranty. This AMC is for maintenance of the System including Configuration/ Program support. Spare for replacement will not be in Vendor's responsibility. Payment for AMC will be made on quarterly basis, after completion of work for that period.	Complied/ Not Complied	
7.0	Vendor shall complete the commissioning work within a period of 120 days from the date of issue of purchase order. The time taken by FACT, for approval of drawings and documents submitted by the Vendor and erection of various items supplied by the Vendor as per the approved documents shall be deducted for the purpose of finding the actual time taken by the Vendor for commissioning.	Complied/ Not Complied	
8.0	Vendor shall attend breakdown calls as early as possible and it shall not exceed 24 Hours in worst case.	Complied/ Not Complied	