

REPLIES TO PRE BID QUERIES LOT-1 DATED -27.4.2023

NIT NO : PNMM/PC-183/E-4018/NCB

SUB : COAL/PETCOKE/LIMESTONE HANDLING FROM RAILWAYSLIDING TO STORAGE YARD ON LSTK BASIS

S. NO.	REFERENCE OF TENDER DOCUMENT			SUBJECT	BIDDER'S QUERY	PMC'S REPLY
	SEC. NO.	PAGE NO.	CLAUSE NO.			
1	PC0183/4018/Sec VI/10.0 SECTION VI- 10.0 VENDOR LIST	SHEET 72 of 85	10	Distributed Control System 1. ABB India Limited India 2. Emerson process management India Pvt. Ltd. India 3. Foxboro India/Intl. 4. Honeywell Automation India Limited India 5. Siemens Ltd. India 6. Yokogawa Limited India 7. Bailey controls company U.S.A 8. Emerson process management Singapore ltd. Singapore 9. Honeywell Inc. U.S.A 10. Invensys Holland 11. Siemens AG Germany 12. Yokogawa Electric Corporation Japan	BHEL propose ValmetDNA based Distributed Control System for control of vaious system in bid package.This system is manufactured by BHEL at Electronics Division, Bangalore under collaboration with Valmet Automation, Finland. This is well proven system, supplied in various power plants and implemented as part of OEM proprietary standard. Request you to please add BHEL-EDN Banglore in vendor list for DCS.	Bidder to follow Vedor List as per mentioned in Tender. However All proposed additional sub-vendors shall have proven track record/credential and shall be subjected to owner's / consultant approval during detail engineering.
2	PC0183/4018/Sec VI/10.0 SECTION VI- 10.0 VENDOR LIST	SHEET 72-73 of 85	10	ESD SHUT- DOWN SYSTEM 1 HONEYWELL 2 HIMA CONTROLS 3 PAUL HILDEBRANDT (HIMA) 4 RTP Control system 5 Rockwell automation pvt. Ltd. 6 SIEMENS AG 7 TRICONEX / IMPROTEC 8. YOKOGAWA	BHEL propose ValmetDNA based ESD.This system is manufactured by BHEL at Electronics Division, Bangalore under collaboration with Valmet Automation, Finland. This is well proven system, supplied in various power plants and implemented as part of OEM proprietary standard. Request you to please add BHEL-EDN Banglore in vendor list for ESD.	Bidder to follow Vedor List as per mentioned in Tender.However All proposed additional sub-vendors shall have proven track record/credential and shall be subjected to owner's / consultant approval during detail engineering.
3	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 9 of 66	3.2	System / Marshalling/ Packages cabinet size shall be 2100 (H) X 1200 / 800 (W) X 800 (D) Rittal make.This size is applicable for Control room panel not for standalone local panels.	All field signals will be connected to designated TB's in DCS panels. (it will not be directly connected to module), hence Marshalling is not required. Please confirm.	Noted.
4	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 33 of 66	3.2	c) PANELS: All panels shall be either 1200 mm (wide) x 800 mm (depth) x 2100 mm (height) or as a special case 600 mm(wide) x 800 mm (depth) x 2100 mm (height), RITTAL make, with 100 mm black powder coated metal base frame and with colour shedding of RAL7032 (Siemens Grey) and removable gland plates at bottom only. This applies to all types of instrument panels to be used in the whole project like various PDB, Electrical / Instrument panels, Third party device panels, etc.	Cubical/cabinates, racks and panels shall be BHEL make and shall be manufactured and supplied as per BHEL proprietary standard. The components used in these systems shall be as per our design standard and selected from BHEL approved vendor's list. The dimensions of DCS panels shall be 800x800x2325 mm. Panel assembly, internal wiring and other accessories shall be as per product standard. Please confirm.	Kindly follow Tender requirement.
5	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 15 of 66	3.2	Copper conductor shall be of 1Cx10 Sq mm as minimum. For surge protection devices separate earthing shall be used.	All the IO modules have inbuilt SPD. In add-tion SMPS are mounted in the panel, that will act as surge protector for the DCS sys-tem (controller and card) No separate de-vice will be provided. Please confirm.	Noted.
6	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 18 of 66	3.2	The component enclosures shall meet IP65 protection standards	Generally, Valmet DNA DCS panel is IP42 compatible. If Ingress protection of IP65 is required, panels need to be Type Tested specifically for NMDC project at additional cost for Type Testing. Please clarify the requirement of IP65 panel.	DCS make shall be as per Vendor List.
7	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 28-29 of 66	3.2	9.0 GENERAL SYSTEM REQUIREMENTS The system/equipment shall be capable of working satisfactorily to the guaranteed performance under dust laden atmospheric conditions having an ambient temperature of surrounding up to 50 degree and relative humidity up to 95%.	ValmetDNA DCS module humidity should be 5 to 85%. It is recommended to keep System in air condition for better performance/longevity. Please confirm.	Noted. However, DCS make shall be as per Vendor List.

8	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 35 of 66	3.2	9.3.2 Sequence of event (SOE)	ValmetDNA based DCS has in-built SOE. Hence, SOE is not required. Clarification only.	Inbuilt SOE is ok. However, DCS make shall be as per Vendor List.
9	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 35 of 66	3.2	9.3.3 System Clock The PLC control system clock shall have facility for synchronising with a Main plant DCS through hardwire DI signal. Bidder shall consider Ethernet port/TCIP for synchronising to Master GPS clock.	We understand that existing master clock system shall be used and purchaser to en-sure the availability of NTP ports for inter-facing bidder supplied systems. Pl. confirm.	Kindly follow Tender requirement.
10	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 9of 66	3.2	3.46 Fibre optic cables shall be armoured, multicore type. All fibre optics cable must be laid through HDPE conduit. The make of fibre optic cables shall be Belden / Leoni.	Make of Fiber optic cable shall be as per BHEL standard list. Please confirm.	Kindly follow Tender requirement.
11	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 9of 66	3.2	3.47 Fire Alarm system & Fire and Gas detection system(if applicable) shall be interfaced with the Central fire control room, all the necessary communication up to the central fire system PLC shall be in bidder's scope. Including supply of OFC and network switches etc	Any modification in customer's existing plant PLC or existing hardwired or softlink communication shall be in customer's scope. Pl. confirm.	Noted. Kindly follow Tender requirement.
12	PC0183/4018/SEC VI/3.2 SECTION VI-3.2 CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	SHEET 58 of 66	3.2	Annexure - 3 SYSTEM CONFIGURATION Required furniture of GODREJ make shall be considered in the offer.	Make of furniture shall be as per BHEL standard list. Please confirm.	Kindly follow Tender requirement.
13	Section VI- 2.0		Clause 1.0	CONTRACTOR'S GENERAL SCOPE OF WORK: Inspection by Third Party Inspection Agency (TPI) as applicable of the complete system	Please clarify TPI scope of work. whether TPI is required during inspection of supplied material or during construction phase at site.	TPI is required during inspetcion of supplied material only.
14	General Query	-	-	General Query	Bidder has not considered any electric/diesel engine, dozer, pay loader, wheel loader, truck, trailer etc any vehicle for their scope of supply. Please confirm.	Confirmed.
15	Tender Drawings	-	-	Drawing no: PC0183-1400-0001 Material Flow Diagram and Drawing no: PC0183-1411-0002 GA Of Wagon Tippler and Belt Conveyor BC-02A & BC-02B	At wagon Tippler complex, Flap gate-3 is shown after apron feeder in flow diagram, but not shown in conveyor profile drawing. In order to accommodate the same conveyor profile will be changed with higher inclination and wagon tippler complex depth may be increased. Please confirm.	Confirmed . The attached drawings are indicative.
16	General Query	-	-	General Query	Please inform coordinate of tapping point for service water, dust suppression water and potable water. Also inform tentative location of DFDS pump house.	Loaction of DFDS shall be decided during DED stage.
17	General Query	-	-	General Query	Please inform location of MCC and control room.	Tentative loaction of MCC and control room is alreday shown in conveyor layout.
18	Tender Drawings	-	-	Drawing no: PC0183-1400-0002 Conveyor Layout	Please inform location of weigh bridge as weigh bridge is marked at one place in plot plan.	Loaction of Weigh Bridge is alreday shown in conveyor layout.
19	General Query	-	-	General Query	Bidder wants to optimize layout by by rearranging conveyor system without compromising functionality of the system. Kindly allow.	Bidder can optimize conveyor layout system without compromising functionality of the system with approval of OWNER/PMC..
20	Technical Part 1	4 of 33	3.13	EXTENT OF SUPPLY- All field & control room instrumentation including PLC, Control Desk, Monitors etc as per Instrumentation specifications.	No separate conventional control desk is considered in control room, all the display details with control will be displayed in large screen HMI. Separate furniture sets will be provided to place all the equipment's.	Noted.
21	SECTION:VI- 3.2	41 of 66	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION 14.2.1	Perforated FRP cable trays/cable ducts shall generally be used for main cable trays.	Please confirm consideration of GI Cable trays.	Kindly follow Tender requirement.
22	Technical Part 1	General	General	Cable tray arrangements	Vertical cable tray arrangement is considered in conveyor gallery and horizontal tray arrangements in trenches. Kindly confirm.	shall be discussed during detail engineering

23	SECTION:VI- 3.2	32 of 66	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION 14.2.1	System Redundancy-Power supply (Power supply for all CPUs, I/O power supply modules)-1:3	Power supply (Power supply for all CPUs, I/O power supply modules)-1:2, Kindly confirm.	Noted.
24	SECTION:VI- 3.2	5 of 66	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION 3.16	Bidder to provide PLC (DMR) with redundancy at all levels for Wagon tippler, Paddle feeder ,conveyor etc. with latest model / software /license. It shall have provision to communicate with main DCS system (Ammonia Urea control room) through Modbus protocol/ OFC in redundant mode.	1. We understand DCS is acceptable. Kindly confirm. 2. Only provisions will be made in bidder DCS/PLC for communication with main DCS of customer, cabling nor considered in bidders scope. Kindly confirm.	cabling shall be in bidder scope.Control system shall be as per Tender requirement.
25	SECTION:VI- 3.2	5 of 66	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION 3.15	RIO shall not be considered anywhere in the package.	RIO shall be considered in CHP switchgear room in addition to local RIO for Wagon tippler. Please confirm.	Kindly follow Tender requirement.
26	SECTION:VI- 3.2	28 of 66	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION 8	All analogue and digital inputs / outputs (I/O) shall be individually isolated, digital I/O and shall be individually fused for protection. Digital Input modules shall be of 16 channels & 16 channels digital outputs at 24V DC. Analogue modules shall be capable of 4 or 6 or 8 isolated channels analogue inputs or analogue outputs at level signal level off 4 - 20mA @24VDC. The I/O modules must be the type that can be pulled or replaced while the rack is still under power (RIUP) without disrupting any of the programmed software and damaging any of the control system hardware.	We propose DI/DO cards with 32 channels and AI/AO cards with 16 channels. Kindly confirm.	Kindly follow Tender requirement.
27	SECTION:VI- 3.2	6 of 66	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION 3.16	Dis/DOs from MCC to control system or from control system to MCC shall be with relays only (no fuse shall be considered). Separate panels for DI/DO and AI/AO. The details will be discussed during detailed engineering.	We propose combined panel for DI/DO/AI/AI for space optimisation. Kindly confirm.	Kindly follow Tender requirement.
28				d) Dry Fog Dust suppression system at all appropriate location as mentioned.	Please provide the terminal points clearly for our offer consideration	All raw material & utility piping lines shall be made available to the contractor/bidder at one point only at their battery limit (Tentative co-ordinate E=1020m and N=500m). Further distribution to the required location considering attached piping specification shall be under scope of contractor/bidder. a) Drinking Water b) Service Water c) Instrument Air d) Cooling Water if required e) Fire water f) Service/plant air for Power Tie-in points refer Electrical SECTION:VI-3.3 DESIGN PHILOSOPHY- ELECTRICAL
29	SECTION VI - 2.0- SCOPE OF WORK	SHEET 3 OF 3 (10 OF 750)	1.0 CONTRACTOR'S GENERAL SCOPE OF WORK:	e) Air Compressor & Piping required for service air, service water and drinking water at all appropriate location	Please provide the terminal points clearly for our offer consideration	
30	SECTION VI - 3.0-DESIGN SPECIFICATIONS	SHEET 4 OF 33 (17 OF 750)	2.0 SCOPE OF WORK	c) Dry fog Dust suppression system at all appropriate location as mentioned.	Please provide the terminal points clearly for our offer consideration	
31	SECTION VI - 3.0-DESIGN SPECIFICATIONS	SHEET 5 OF 33 (18 OF 750)	3.0 EXTENT OF SUPPLY	15. Road Weigh Bridge required for the plant including control system/facilities.	Please confirm for what application road weigh bridge is used for? And provide the location for the same.	Road weigh bridge shall be used for weighing of raw material (coal/petcoke/limestone) trucks/dumper and for location refer weigh Bridge-A shown in document -PC0183-1400-0002.Rev 0_CONVEYOR LAYOUT attached in NIT.
32		SHEET 12 OF 33 (25 OF 750)	10.0 DETAILS OF EQUIPMENT	10.1 CONVEYORS SYSTEM INCLUDING RELATED ITEMS xxv) Minimum service factor for coupling shall be taken as 2.0 on the absorbed power.	Please confirm this service factor is applicable for Flexible couplings only and not applicable for Fluid couplings	For fluid coupling, service factor shall be taken as 1.5 on the absorbed power
33		SHEET 13 OF 33 (26 OF 750)	10.0 DETAILS OF EQUIPMENT	xxxiii) All diverter & gate shall be electrically operated.	Please confirm for the gates the actuator shall be Integral type.	confirmed

34		SHEET 20 OF 33 (33 OF 750)		10.4 ROAD WEIGH BRIDGE: a) Two (2) Nos. Electronic type road Weigh Bridge (Pitless type) of 100 MT capacity each of platform size min 18m x 4m (approx) each with boom barrier along with weigh bridge cabin facility shall be provided for weight recording and handling of Coal / Petcoke / Limestone and Ash/slag via road.	Please confirm the location and why its to be included in the scope, since there is no provision for Unloading by trucks in this tender	Road weigh bridge shall be used for weighing of raw material (coal/petcoke/limestone) trucks/dumper and for location refer weigh Bridge-A shown in document -PC0183-1400-0002.Rev_0_CONVEYOR LAYOUT attached in NIT.
35	SECTION VI - 3.0-DESIGN SPECIFICATIONS	SHEET 21 OF 33 (34 OF 750)	10.0 DETAILS OF EQUIPMENT	10.5 OTHER RELATED SYSTEMS i) Piping of all required services Following utility piping lines shall be made available to the contractor / bidder at one point of battery limit of Coal Handling plant, further distribution to the required location considering attached piping specification shall be under scope of contractor/bidder. a) Drinking Water b) Service Water c) Cooling water if required d) Instrument Air e) Service air as mentioned above (complete piping scope from compressor to required location) Refer to DESIGN SPECIFICATION – PIPING Bidder to provide/mention in the bid following utility requirements for applicable individual equipments/system – a) Instrument air b) Cooling Water if require	Please provide the following: 1. terminal points 2. Marked locations 3. Available pressure at those points.	All raw material & utility piping lines shall be made available to the contractor/bidder at one point only at their battery limit (Tentative co-ordinate E=1020m and N=500m). Further distribution to the required location considering attached piping specification shall be under scope of contractor/bidder. a) Drinking Water b) Service Water c) Instrument Air d) Cooling Water if required e) Fire water f) Service/plant air for Power Tie-in points refer Electrical SECTION:VI-3.3 DESIGN PHILOSOPHY- ELECTRICAL
36		SHEET 5 OF 66 (361 OF 750)	3.0 CONTROL PHILOSOPHY (GENERAL)	3.13. 1 no. OS will be placed in the Ammonia Urea Control room Control room.	Please provide the location of Ammonia Urea Control room and how much distance to be consider from our Proposed contro room.	Tentatively 1500 mtr to be considered from Proposed control room ti Ammonia Urea Control room.Kindly refer plot elsewhere attacehd in the Tender to locate the Ammonia Urea Control room.
37	SECTION:VI- 3.3 DESIGN PHILOSOPHY- ELECTRICAL	SHEET 18 OF 66 (374 OF 750)	7.0 FIELD INSTRUMENTS	7.5 Chute Plug Switches	As per Tender Blocked Chutes and Chute Plug swichthes to be consider in the offer. However funcation wise both are same. So please confirm which type to be consider.	Noted. The same to be discussed during detaul Engineering.
38		SHEET 23 OF 66 (379 OF 750)		7.18 Rip Detection	Normally this application used for long distance conveyors only, so its not applicable for this system. Please confurm	Noted. However Tender requirement to be followed.
39		SHEET 7 OF 78 (442 OF 750)		u. Cable trench/Cable tray with supporting structure.	Please specify the location of Cable supporting structure.	All cable trench/cable tray with supporting structure within Battery limit shall be in Bidder's cope. Moreover Cable trench/Cable tray with supporting structure for Incoming 11 kV Cables, Control Cables etc. from OUSS shall be in Bidder's cope. Owner's Piperack shall be used, as available. However, cable tray and support for cable trays shall be in Bidder's scope.
40	SECTION:VI- 3.3 DESIGN PHILOSOPHY- ELECTRICAL	SHEET 8 OF 78 (443 OF 750)	1.0 SCOPE	1.5 Normal power supply shall be tapped from 2 Nos. 11KV feeders at Owner's Offsite & Utilities Substation (OUSS) and further distribution shall be in LSTK Contractor's scope. Emergency power supply shall be tapped from 1 Nos. 11KV feeders (Emergency Bus) at Owner's Offsite & Utilities Substation (OUSS) and further distribution shall be in LSTK Contractor's scope.	1. Provide the location of OUSS amd the distance between OUSS and Proposed CHP Sub Station. 2. As per tender 2 No 11KV Normal feeders + 1 No 11KV Emerergency Power supply feeder of 11KV provided at Owner OUSS, where as in your SLD showing 2 Nos Normal Power Feeder only. Please check and confirm.	1. Refer Plot Plan. 2. 2 Nos. 11KV Normal feeders and 1 No 11KV Emergency Power supply feeder shall be provided at Owner's OUSS. Tapping of Normal Power & Emergency Power and further Distribution of same shall be as per NIT.

41		SHEET 9 OF 78 (444 OF 750)		<p>1.8. 1 No. 415 V Feeder (400 A) at Existing Substation near 132 KV Switchyard shall be made available by Owner for Construction Power. Tapping of Construction Power (on chargeable basis) from this feeder (including supply & erection of all required materials like structural supports for cable tray, cable trays, power cables, control cables, protection & metering, cable termination etc. as well as under ground cabling work) and further distribution shall be in LSTK contractor's scope.</p> <p>However during non availability of construction power, LSTK contractor shall have to arrange emergency power, if required, through DG set at their own cost</p>	<p>Provide the location of 132KV Switchyard and the distance between Switchyard and the Track Hopper location.</p> <p>Construction power is mandatory and executing with DG set is difficult. So please confirm the construction power availability.</p>	<p>Refer Plot Plan.</p> <p>Construction Power is available. However, during non availability of construction power, LSTK contractor shall have to arrange emergency power, if required, through DG set at their own cost</p>
42		SHEET 20 OF 78 (454 OF 750)		<p>5.1.2 In the event of failure of normal power in the plants, the plants shall be brought to safe shut down condition through Emergency power. Emergency power shall cater to the load of emergency lighting, UPS system, battery charger, motorized valves, Fire alarm system, PA & Paging system in addition to the process loads for safe shutdown of the Plant and wherever required as per detail design. Emergency power supply shall be tapped from 1 numbers of feeders (at Owner's Offsite & Utilities Substation – OUSS) and further distribution shall be in LSTK Contractor's scope. However, Bidder shall indicate the details of Emergency Loads in the bid.</p>	<p>Generally Emergency Power are LT Loads. Please check and revert back how to take Load from 11kv for our emergency Loads. Please give clarity on the same.</p>	<p>1 No 11KV Emergency Power supply feeder shall be provided at Owner OUSS. Tapping of Emergency Power and further Distribution of emergency power shall be as per NIT.</p>
43	SECTION:VI- 3.3 DESIGN PHILOSOPHY- ELECTRICAL	SHEET 21 OF 78 (455 OF 750)	5.0 POWER SUPPLY AND DISTRIBUTION.	<p>5.1.14 For the use of the Owner during plant shut down period, 1 No. indoor type feeder pillar, which shall be located in a separate room other than substation building and away from hazardous area. The feeder pillar shall be fed from the 415 V switchboards (PMCC) of the nearby substation. Each feeder pillar shall comprise of 1 No. 630 A 4 P MCCB incomer, 2 Nos. of 250 A TPN MCCB outgoing feeders, 2 Nos. 125 A TPN MCCB outgoing feeders and 4 Nos. 63 A TPN MCCB outgoing feeders. Other construction details shall be as per specification of sheet steel distribution board (PC183-TS-0808). Location of feeder pillar shall be decided during detailed engineering.</p>	<p>Please provide the location of Room of Feeder Pillar and confirm whether this is located in new building. If yes whose scope of this building. How much distance to be consider from existing PMCC to Feeder Pillar and Feeder Pillar to our proposed Sub Station.</p>	<p>Location of Feeder Pillar shall be finalised during detailed engineering.</p>
44		SHEET 15 OF 20 (750 OF 750)	TECHNICAL SPECIFICATION FIRE DETECTION AND ALARM SYSTEM	<p>11.2 Heat Sensing Cables Heat sensing cable shall be analogue type.</p>	<p>Please allow us to consider Digital type Cable instead of Analog type.</p>	<p>Heat sensing cable shall be analogue/Digital type & shall be UL & FM Approved</p>
45	-	Drg. No.PC0183-1411-0002	GA OF WT & BC-2A/2B	<p>TP-2 - DISCHARGE END OF BC-2A/2B</p>	<p>As per referred drawing and flow diagram, the discharge end of BC-2A/B is having flap gate i.e. 1:2 feeding in TP-2; however, as per GA of BC-3A/B the discharge end of BC-2A/2B is having 1:1 feeding in TP-2.</p> <p>The height of feeding chute shown in the GA of 3A/B is seems to be for 1:1 feeding which is not sufficient to accommodate flap gate i.e. 1:2 feeding. If we go for 1:2 feeding in TP-2, the required depth to fit the flap gate would be more than what is shown in the drawing.</p> <p>Request you to confirm the feeding arrangement and share the revised tender drawing accordingly.</p>	<p>All drawings are indicative. Bidder to consider depth to accommodate to flap gate. Flap gate are to be installed at discharge end of all conveyors.</p>
46	-	DATA SHEET: In-line Magnetic separators	PC0183 Page no. 60 of 750	<p>SHEET 1 of 1: ILMS datasheet</p>	<p>In absence of specifications, we are considering following for ILMS and Suspended magnet required in the project:- Material of coil - ALUMINIUM Insulation class -H Magnet core material-Pure annealed iron or equivalent high permeability mild steel (magnetic).</p> <p>Flux density - 1000 Gauss at 400mm. height at the centre of belt width. Force index - 1,00,000 at 400mm. height at the centre of belt width</p> <p>This is for clarity.</p>	<p>To be discussed in detail engineering</p>

47	-	Drg. No.PC0183-1400-0002	PLANT LAYOUT	CENTER LINE OF WT HOPPER	As discussed in pre-bid meeting, we are offering side discharge type wagon tippler . In order to fit the same the the layout, we are shifting the wagon tipper hopper centerline 6.55m towards west side of the plant from the track line no.1. This is for clarity.	Noted. Bidder to check sufficient space between track no.-1 and track no.-2 to accomodate wagon tippler and same shall be discussed during detail engineering.
48	SECTION VI- 3.1.1 DESIGN SPECIFICATION – MATERIAL HANDLING	-	3.0 EXTENT OF SUPPLY	Any other items/equipments not mentioned here, but required for the system, have to be mentioned & supplied by bidder. Completeness of the system is the responsibility of the bidder.	This is applicable for "within present package scope".PI. Confirm.	Applicable for present package.
49	SECTION VI- 3.1.1 DESIGN SPECIFICATION – MATERIAL HANDLING	-	8.0 DESCRIPTION OF THE SYSTEM	(iii) Bidder to consider VFD drive for Apron Feeder and for rotary blade of Paddle feeders to control flow rate of three different material (Coal (-100mm), Petcoke (-30mm), Limestone (-200mm)) received at Wagon tippler & Track Hopper and to maintain constant flow rate at downstream conveyors (Rated/Design-1250tp/1500tp).	Paddle feeders Rotary blade-wheel will be driven by VFD.PI. confirm.	confirmed
50	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	3.13- 1 no. OS will be placed in the Ammonia Urea Control room Control room.	This will be loose supply for Ammonia Urea Control room. PI. Confirm.	No loose supply . Bidder shall install 1 OS for viewing pupose
51	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	3.15 RIO shall not be considered anywhere in the package.	Clause No. 3.8 & 3.17 -allows to use RIO Panel. Also in Wagon tippler-RIO is required to interface Field IO & MCC IO , as MCC rooms are located at a distance due to Space constraint. PI. Clarify.	Kindly follow the Tender requirement.
52	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	3.16 Package Unit PLCs : Bidder to provide PLC (DMR) with redundancy at all levels for Wagon tippler, Paddle feeder ,conveyor etc. with latest model / software /license.	Paddle Feeder being very small equipment,hence common Redundant PLC will be provided for all Four Paddle feeders. PI. Confirm.	Noted .
53	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	5.0 HAZARDOUS AREA CLASSIFICATION & ELECTRICAL EXECUTION	We are considering the Area under present Package Scope as " SAFE AREA". All E&I Equipments / Electro Mechanical -Equipments will be suitable for safe Area. Ingress Protection will be as per Clause No. 5.1. PI. Confirm.	Kindly follow Tender requirement.
54	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	7.16 Thermal Monitoring All motors, flywheels, gear reducers and pulley bearings shall include RTD temperature sensors for continuous monitoring. If a bearing high temperature is triggered then an alarm will be raised in the SCADA system. Prolonged period of high temperature levels will trip the conveyor	This will be applicable for Motors HT / HV Motors only. PI. Confirm	Yes. Bidder understading is correct.
55	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	7.17 Pipe Conveyor Overfill Switches	Not Applicable for present Package. PI. Confirm.	Noted.
56	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	Bidder to note that number of cameras/ NVR must be sufficient to enable the purpose of round the clock monitoring and surveillance of the proposed ROM COAL/PETCOKE/LIMESTONE HANDLING unit.Minimum cameras shall be 8 Nos. , however the exact no. of CCTV camera shall be decided during detail engineering based on actual plant layout. Bidder to consider CCTV system in all respect to connect minimum 12 cameras.	PI. Confirm the Number of Camers to be considered for present package scope & CCTV Camera Locations.	Approx 8 no. of cameras to be considered as per Tender. However, Numbers may vary during deatil engineering. CCTV camera location shall be freezed during detail engineering .
57	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION	7.21 Communication system 3.) The EPABX will have provision for connecting 60 extensions, 8 Digital and 52 Analog. 8 Nos. of extensions are considered with Digital phone instrument, with 2 line display. 12.)The exact no. of Digital phone instrument to be considered shall be decided during detail engineering.	PI. clarify & Indicate the Number of Digital phone instrument required for the present package scope.	Approx 8 no. of Digital to be considered as per Tender. However, Numbers may vary during deatil engineering.
58	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	9.0 GENERAL SYSTEM REQUIREMENTS 9.1 General System Redundancy	Following system redundancy shall be available as a minimum. 1. Controller 1:1 (CPU for control, I/O communication, network communication) 2. Communication Bus 1:1 3. I/O communication modules with CPU 1:1 (I/O bus between CPU and I/O with all necessary hardware)	DI/DO/AI /AO Modules will be Non Redundant.PI. Confirm.	Kindly follow Tender requirement

59	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATI ON	g) I/O cards' Channel density shall not exceed the following limits: Analog Input 8 Channels Analog Output 8 Channels Digital Input 16 Channels Digital Output 16 Channels	DI/DO Cards -Pl. allow to use 32Channels as the Panel sizes can be reduced.	Kindly follow Tender requirement
60	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATI ON	9.3.2 Sequence of event (SOE) Bidder shall provide the Sequence of event recorder function, with a time resolution not above the machine scanning time.	The Requirement to be re-confirmed considering the present package scope & process.In our opinion SOE is not required. Pl. Confirm.	Noted.However the same to be finalized during detail engineering.
61	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATI ON	11.12 All panels shall be provided with vibration dampening pads. 11.13 Each panel section shall be provided with illumination level of 300 Lux min.	11.12- Vibration dampening pads-are not required for Panels mounted in Switchgear room / MCC Room. This is applicable for Panels mounted on Movable equipments. 11.13-Each Panel section will be provided with normal 60W to 100W- CFL / LED bulbs. Achieving illumination level of 300 Lux min.in each section may not be required for panels located in MCC rooms / Control Rooms. Pl. review & Clarify.	Kindly follow Tender requirement
62	SECTION VI- 3.2 DESIGN SPECIFICATION – MATERIAL HANDLING	-	CONTRACTOR SCOPE OF WORK - INSTRUMENTATI ON	15.0 Training Supplier shall train Clients' maintenance engineers as well as operations staff in his works at Vendors Center of Excellence. The training imparted shall be by qualified and experienced staff available. It shall be exhaustive and aimed at making clients' maintenance & operations staff self reliant for most of the day to day applications. Operating Staff Training Engineering staff Training	Vendors Center of Excellence-may not be available with OEMS. In such case the Training will be arranged at PLC Vendors place. Pl. clarify Number of Operating staff attending the Training and Number of Days. Only Training will be arranged at Vendor place. All other expenses (Travel /Lodging/Boarding etc) are in Clients scope. Pl. clarify Number of Engineering staff attending the Training and Number of Days. Only Training will be arranged at Vendor place. All other expenses (Travel /Lodging/Boarding etc) are in Clients scope.	Kindly follow Tender requirement
63	SECTION:VI- 3.3 DESIGN SPECIFICATION – MATERIAL HANDLING	-	DESIGN PHILOSOPHY- ELECTRICAL	1.5 Normal power supply shall be tapped from 2 Nos. 11KV feeders at Owner's Offsite & Utilities Substation (OUSS) and further distribution shall be in LSTK Contractor's scope.	2 Nos. 11KV feeders at Owner's Offsite & Utilities Substation (OUSS)-does not need any Modification. Pl. Confirm.	11 kV feeders shall be made available at OUSS. No modification is envisaged presently.
64	SECTION:VI- 3.3 DESIGN SPECIFICATION – MATERIAL HANDLING	-	DESIGN PHILOSOPHY- ELECTRICAL	1.5 Emergency power supply shall be tapped from 1 Nos. 11KV feeders (Emergency Bus) at Owner's Offsite & Utilities Substation (OUSS) and further distribution shall be in LSTK Contractor's scope.	1 No. 11KV feeders (Emergency Bus) at Owner's Offsite & Utilities Substation (OUSS)-does not need any Modification. Pl. Confirm.	11 kV feeder shall be made available at OUSS. No modification is envisaged presently.
65	SECTION:VI- 3.3 DESIGN SPECIFICATION – MATERIAL HANDLING	-	DESIGN PHILOSOPHY- ELECTRICAL	1.11 For control, monitoring, load management, data logging and printing of status of all important electrical equipment and feeders, a Programmable Logic Controller (PLC) / RTU based Electrical Control and Monitoring System (ECMS) shall be provided by Electrical Distribution System (EDS) LSTK Contractor.	The Requirement to be re-confirmed considering the present package scope & process. Pl. Confirm.	ECMS is in scope of Electrical Distribution System (EDS) LSTK Contractor. However, all requirement in this package Contractor's switchgear / equipment shall be complied in line with ECMS requirement.
66	SECTION:VI- 3.3 DESIGN SPECIFICATION – MATERIAL HANDLING	-	DESIGN PHILOSOPHY- ELECTRICAL	1.11 Online Energy/Load Management System	The Requirement to be re-confirmed considering the present package scope & process. Pl. Confirm.	ECMS is in scope of Electrical Distribution System (EDS) LSTK Contractor. However, all requirement in this package Contractor's switchgear / equipment shall be complied in line with ECMS requirement.
67	PC183/4018/SecVI/ 3.4	PAGE 9 OF 37	2.2 SITE RELATED INVESTIGATION & WORK	The Soil Investigation Report carried out for proposed plant area is enclosed with the tender. This is indicative only and is enclosed purely for information/guidance purpose to the bidder. However Bidder shall make his own assessment for the type of foundations envisaged based on his site visit and data collected from site during the site visit. b) In any case, the Bidder has to carryout detailed Soil investigation after the award of contract and submits Soil investigation report with recommendations for Owner's review and approval. The recommendation given in approved final report becomes binding on the contractor. The Bidder is not eligible to increase his cost or demand any extension of time because the final report is in variance from preliminary report furnished by Owner.	Bidder like to clarify that , Estimation of Civil works shall be based on preliminary soil investigation report. Any variation in soil investigation report and soil data after award of work shall be mutually discussed and resolved during execution.	Soil investigation report is just attached for reference purpose only. Bidder to carry out their own soil investigation and its relevant work in accordance with tender condition,

68	PC183/4018/SecVI/ 3.4	PAGE 11 OF I598	ANNEXURE- I - SOIL INVESTIGATION REPORT	Bore hole location plan & location details	Bidder request client to provide the Bore hole details of proposed construction area of Wagon Tipper & Track hopper in-between Coordinate E-900 to E-1000 and N-300 to N-1600. The NIT furnished Soil investigation data bore holes are located at another for location.	Soil investigation report is in bidder's scope. Bidder to consider the bore hole location as per their planning and requirement based on facility layout. The soil investigation attached only for reference purpose.
69	PC183/4018/SecVI/ 3.4	PAGE B18 OF B18	3.0 REMOVAL / REROUTING OF OBSTRUCTIONS	All underground or above ground structures / foundations which will cause obstruction to new structures / foundations, and which can be removed without disturbing any functions of the existing plant, shall be removed by the Contractor. All existing underground or above ground facilities requiring rerouting due to fouling with new facilities shall be rerouted by the Contractor in such a manner that rerouted facilities keep on functioning as before.	Bidder like to inform that, Estimation of underground obstruction is not possible pre-bid since underground obstruction are not known hence same needs to be discussed mutually during execution (if applicable). Cost of same can not be considered during bidding.	Bidder shall be provided fairly graded green field land.it is anticipated that no underground existing facilities are in the plot. however during execution if any underground facilities are encountered ,demolition of same shall be in bidder's scope. for further clarity bidder is requested to visit the site.
70	PC183/4018/SecVI/ 3.4	PAGE 19 of 20	2.15 REMOVAL OF UNDERGROUND AND ABOVE GROUND STRUCTURES	All above ground structures will be demolished by Owner. Proposed site area shall be handed over to the contractor as in where is basis after demolition. All underground facilities /structures shall be demolished /removed by the Contractor provided removal of former will not disturb the functions of existing plant. Rerouting of cables / pipes etc. encountered during excavation in the plot shall be in CONTRACTOR's scope of work. Existing underground installations found, if any, such as foundations and pipelines, which fall /obstruct the construction activities, shall have to be removed by The Contractor. Existing piles if any, needs to be adjusted while making new piling / foundations.	Bidder like to inform that, Estimation for removal of underground construction & rerouting scope is not possible pre-bid since no data is available for underground construction are not known hence same needs to be discussed mutually during execution (if applicable). Cost of same can not be considered during bidding.	"do"
71	PC183/4018/SecVI/ 3.4	PAGE 21 of 37	2.19 OTHER MISCELLANEOUS WORKS	Scope work includes in outside battery limit area, if any civil & structural work required for completion of work	Kindly clarify scope at Outside Battery Limit (OSBL) Area for estimation purpose.	In order to complete the project if any miscellenous job as per engineering is required outside the battery limit of the bidder's area ,it shall be in bidder's scope.Bidder may accordingly consider obtaining any statutory clearance/ approvals are in Bidder's scope.
72	PC183/4018/SecVI/ 3.4	PAGE D8 OF D55	3.1 EXCAVATION	Excavations in hard rock - meant excavation made in hard rock to be done manually, or by blasting using only explosives and / or pneumatic hammers. In case of blasting, control blasting should be adopted depending on site	Bidder request client to confirm that incase of controlled blasting requirement for excavation in hard rock then any kind of obtaining statutory clearance/approvals for Blasting license and forest clearance from Government authorities shall be in Clients scope.	
73	PC183/4018/SecVI/ 3.4	Sheet 6 of 37	2.0 SCOPE OF CIVIL, STRUCTURAL AND OTHER ALLIED WORKS	q) Obtaining Statutory Approvals.	A)Bidder likes to clarify that, Statutory approval for construction from local authorities needs to considered be in client scope. Only labour license shall be obtained by bidder contractor. B)Bidder requests client to clarify what is the scope covered under statutory approvals.	"do"
74	PC183/4018/SecVI/ 3.4	Sheet 9 of 37	2.2.2 TOPOGRAPHICAL / CONTOUR SURVEY	The OWNER has carried out a preliminary topographical survey of the proposed plant area. However the proposed plant site was developed. The Topography survey drawing for plant complex area is attached with this document as Annexure-E. This is indicative only and is enclosed for reference to the bidder for bidding purpose only.	Attachment not found. Bidde request client to furnish the latest survey report drawing as NIT Annexure E indicates the Quality Assurance plan details.	Attachment is added ,bidder is requested to refer the same.
75	PC183/4018/SecVI/ 3.4	PAGE10 of 37	2.2.4 GRADING	Fairly graded land site shall be provided to the CONTRACTOR. However, micro grading works shall be in COTRACTOR's scope.	Bidder like to clarify that ,Micro grading of +/-300mm shall be considered around the 5m width all around building and structures only.	Micro grading as per requirement shall be in Bidder's scope.
76	PC183/4018/SecVI/ 3.4	PAGE 19 of 37	2.14 DISPOSAL OF SURPLUS EARTH	The CONTRACTOR shall dispose-off all surplus and unserviceable earth (if any), outside the plant in accordance to local Governing authority, at his own cost with the consent of OWNER/ PMC. Disposal shall be done at a place outside the plant, with the consent of the OWNER/ PMC. Location of disposal area shall be decided by the CONTRACTOR and the required necessary approvals from the local bodies shall be the CONTRACTOR's responsibility.	Bidder request client to kindly furnish approximate distance of disposal for estimation purpose. Approval for disposal of earth from local body needs to be considered in client scope.	since it is in bidder's scope ,bidder has to finalize the disposal point and obtain statutory approval if required without any extra cost.
77	PC183/4018/SecVI/ 3.4	PAGE 15 of 37	2.6.2 PAVING	The CONTRACTOR shall provide RCC pavement in entire process unit area and in associated facilities as per design requirements. For the purpose of paving the Contractor's scope is not limited only up to Battery Limit, but shall extend up to the adjacent roads around the unit.	Bidder request client to confirm the Scope of RCC paving like particular area/structures/building etc.	Since engineering activities are in bidder's scope,Bidder may accordingly consider.

78	PC183/4018/SecVI/ 3.4,PC183/4018/SecVI/ 3.4.	PAGE D17of D55	5.0 STEEL REINFORCEMENT	5.1 Steel reinforcement shall comprise: CRS bars TMT bars	Bidder understood that work is to be executed in non corrosive environment hence bidder does not foresee use of CRS steel for Construction activities and normal TMT reinforcement (fe 500/550) steel be considered.	There may be excessive of chloride/ phosphorus content in soil or may be possibility of ground water in corrosive nature.Hence Tender condition shall prevail
79	PC183/4018/SecVI/ 3.4	PAGE F6 to F9	SECTION : VI - 3.4 VENDOR LIST CIVIL:	9.1 FLASE CEILING / WALL CLADDING (ALUMINIUM STRIP/ TRAY TYPE) - a) INTERARCH BUILDING PRODUCTS(P) LTD. b) HUNTER DOUGLAS c) MASCOT OVERSEAS	Bidder request for client acceptance for using "Armstrong" make for false ceiling.	Bidder is requested to stick on the clause ,Tender condition shall prevail .
80	PC183/4018/SecVI/ 3.4	PAGE 28 OF 37	3.2.11 b)	General	As per Clause 3.2.6 , cross over will be placed at 100 m, however as per this clause 4 legged to be placed at 90 m. Bidder considers 4 legged to be placed at 100 m as per Clause 3.2.6.	ok.
81	PC183/4018/SecVI/ 3.4	PAGE 31 OF 37	3.9.1 i)	COLOUR COATED AND OTHER SHEETING	Bidder will consider all the options of sheeting menioned in the clause 3.9.1 i) and will follow only this clause , not other clauses of architectural part.	Bideer has to check for options ,however the final chosen shall be astheccally good and as per approval of Client.
82	PC183/4018/SecVI/ 3.4	PAGE A10 OF A69	3.1.1	Hand Rail : 150 kg/m Ladder : 40 kg/m Operating floor with grating : 100 kg/m ²	Bidder will consider the mentioned loading as per following values, Hand Rail : 15 kg/m Ladder : 100 kg per support Operating floor with grating : 35 kg/m ²	It shall be as per NIT.
83	PC183/4018/SecVI/ 3.4	REV PAGE A52 OF A69	7.2.4.2 PERMISSIBLE DEFLECTION	General	The following permissible deflection limits has considered which are not mentioned in NIT. i) Coke conveyor gallery/ bridges a) Gallery side girder/frame -Span/ 325 b) Floor beams/stringers -Span/300 c) Trestle supporting gallery in the transverse direction. - Height /1000. ii) Junction Tower a) Continuous braced frames of junction towers frames - Height / 325 b) Junction tower at gallery supporting level in transverse direction. - Height /1000. c) Floor Beams other than directly supporting drive machinery , motors , gear boxes, screens, hoppers - Span/300 d) Monorail beams - Span/500 Plz confirm.	Relevant latest IS code shall prevail incase if any details/ Data are not specified in NIT.
84	PC183/4018/SecVI/ 3.4	PAGE A13 OF A69	3.1.3 WIND LOAD (WL)	The Wind forces on buildings / structures and equipments due to effects of wind shall be calculated as per IS 875 (Part-3)	Bidder will consider Ka, Kc, Kd values as prer IS875 :2015 (part 3), during wind load calculation	It Shall be as per latest IS Code.
85	PC183/4018/SecVI/ 3.4	PAGE A48 OF A69	7.2.2 DESIGN CONSIDERATIONS	Interaction ratio shall be restricted to 0.9.	Bidder will consider only for stress ratio limit as 0.9 not for deflection or slenderness ratio limit	Structural element utilization ratio shall be restricted to 0.9.
86	PC183/4018/SecVI/ 3.4	PAGE A48 OF A69	7.2.3 DESIGN BASIS AND REQUIREMENTS FOR SPECIFIC APPLICATIONS	Expansion joints shall be provided at 80 – 100 m centres, where possible column bracing shall be provided at the center of a longitudinal frame, rather than at the ends so as to avoid constraints on free expansion. An expansion joint for the structure shall be as per clause 3.10 of IS: 800-2007.	Bidder has considered these bracing arrangement only for long shed like buildings ,not applicable for junction houses , CRH or other buildings.	Shall be as per NIT & latest code depending upon the merit of the structure & shall be decided during detailed engineering

87	PC183/4018/SecVI/ 3.4	PAGE C21 OF C30	2.5.16 STAIRCASES	a) Stairs width : 1500 mm minimum, (1000 mm minimum for emergency exit) b) Tread : 250 mm minimum c) Riser : 150 mm maximum d) Ratio of tread & riser : 2 Riser + Tread = 600 to 650 mm	Bidder has considered stair specification as per 7.2.3.4 STAIRS & LADDERS a) Stairs / Cage Ladders shall be provided from grade level to highest operating level. All buildings with flat roof shall be made accessible. All stairs shall have not more than twelve (12) risers in one flight. Height of risers shall be 150mm to 166mm (maximum 180mm for fire escape stairs) and width of treads shall be 250 mm (minimum). Minimum width of stairs shall be 1200 mm. Minimum headroom of 2500 mm to be maintained in all staircases.	Shall be as per NIT .
88	PC183/4018/SecVI/ 3.4	PAGE C21 OF C30	2.5.17 RAILINGS	Railings shall be provided in roofs, stairs and in all unprotected openings in slabs as a safety device. Railings in high level loading / unloading bay of substations shall be of removable type. Parapets shall be given precedence over railings in roofs.	Bidder has considered No railing for sloped roof.	OK.
89	PC183/4018/SecVI/ 3.4	PAGE A22 OF A69	3.2 LOAD COMBINATIONS	General	Bidder has considered load combinations based on IS 800-2007	OK.
90	SECTION VI- 3.1.1 DESIGN SPECIFICATION – MATERIAL HANDLING	-	Cl no.10.1.3 SHEET 14 of 33 Page no. 27 of 750	The belt construction will be of nylon / nylon carcass with rubber covers anti-abrasive type.	As per BELT CONVEYOR DATA SHEET, the belt grade is mentioned as FR grade however we are considering the M24 belt grade as per referred clause . Please confirm.	The belt construction will be of nylon / nylon carcass with rubber covers anti-abrasive type.Belt conveyor shall be FR grade
91	SECTION VI- 3.1.1 DESIGN SPECIFICATION – MATERIAL HANDLING	-	Cl no.10.1.4 SHEET 14 of 33 Page no. 27 of 750	The Conveyor drive shall be directly coupled through helical gear box.	The Conveyor drive shall be directly coupled through helical /Bevel helical gear box as per layout and space availability.	confirmed
92	SECTION VI- 3.1.1 DESIGN SPECIFICATION – MATERIAL HANDLING	-	Cl no.2 SHEET 4 of 33 Page no. 17 of 750	Layout of Conveyor gantry, Transfer towers etc, levels of conveyors/ height of transfer towers, size, capacity and number of equipment mentioned in tender documents/shown in the conceptual drawings / layout are minimum requirements and tentative	We understand that bidder can optimise the dimensions on lower side by following good engineering practices and without compromising the system requirement.	Bidder can optimise the dimensions on lower side by following good engineering practices and without compromising the system requirement with approval of Owner/PMC.
93	General	-	General	Integral Weighbridge for WT	Please inform whether the scope of calibration test weights requirement for integral weighbridge of Wagon tippler is in tkll scope of supply or not?	Calibration test weights requirement for integral weighbridge of Wagon tippler is in Bidder scope of supply.
94	Datasheet of Side Arm Charger PC0183 Rev 0	-	Application data / Service Page no. 56 of 750 of technical part 1 of Tender Document	Rake Placement Philosophy	We presume that placement of loaded rake by locomotive shall be pushing the rake from behind to place first loaded wagon just before the tippler. tkll has not considered any additional travel for loaded rake pulling at inhaul side. Please confirm.	Bidder has to consider additional travel for loaded rake pulling at inhaul side with fully loaded rake with two nos. locomotive.
95	PC0183/4018/Sec VI/3.1.1	-	10.5, Sheet 21 of 33	OTHER RELATED SYSTEMS Contractor/Bidder to consider & provide following other systems related to raw material handling. i) Piping of all required services Following utility piping lines shall be made available to the contractor/bidder at one point of battery limit of Coal Handling plant, further distribution to the required location considering attached piping specification shall be under scope of contractor/bidder. a) Drinking Water b) Service Water c) Cooling water if required d) Instrument Air e) Service air as mentioned above (complete piping scope from compressor to required location)	Client to furnish the water & compressed air terminal points. Client to furnish the co-ordinate points and available pressure at tie-in-points.	Refer Conceptual fire water layout drg. in NIT, for tentative tie-in points, which may be further finalised during detail engg by bidder. Pressure available at tie-in point is 7kg/cm2(g) minimum. Tentative Coordinate of tie-in points E=1020m and N=500m

96	PC0183/4018/Sec VI/3.1.5	-	3.5, Sheet 3 of 17	Tapings with the fire water mains provided at plant battery limit (adjacent to the proposed location) shall be provided as per requirement. The same (tie-in location/s) shall be decided during the detail engineering.	Client to furnish the fire water tie in points location and available pressure at each tie-in point.	already replied above
97	PC0183/4018/Sec VI/3.1.5	-	5.1, ix) Sheet 6 of 17	F.W. header / line shall be laid in RCC trench on pedestal supports with sand filled and covered with pre-cast slab. Cathodic protection also to be considered for underground / trenched piping	Bidder has considered over ground fire water pipe along with RCC pedestals, Hence RCC trench is not envisaged. Please check & confirm.	Noted.
98	PC0183/4018/Sec VI/3.1.5	-	7.2, Sheet 11 of 17	Medium velocity Water Spray (MVWS) System to be provided for the followings locations, but not limited to. - Compressor seals - Lube oil consoles - Cable cellars - Coal/ Pet coke/ solid hydrocarbon material handling plant area - Pumps under racks	a) Whether MVWS system has to be considered for coal/petcock handling conveyors. b) Whether MVWS system has to be considered for Transfer house /WT complex/ track hopper buildings. Please check & clarify. c) Bidder has to considered MVWS system at pumps under racks. All pump motors are maximum motor rating of 75KW. Hence we have not considered the same.	MVWS system is required for conveyors, Transfer house /WT complex/ track hopper buildings, pumps under racks & other facilities/items mentioned in NIT.
99	PC0183/4018/Sec VI/3.1.5	-	7.3, Sheet 12 of 17	Clean Agent System The Automatic clean agent protection system shall be provided in control rooms as Per NFPA 2001. The system shall be designed to meet the minimum.....Preferred clean agents are either Argonite or Inergen only.	Bidder proposes Aerosol system (clean agent system). It is easy to install & maintain the product and effective for control room & panel room. Please check & confirm.	Clean agent shall be either Argonite or Inergen only.
100	PC0183/4018/SEC VI/3.2	-	3.4.7, Sheet 9 of 66	Fire Alarm system & Fire and Gas detection system(if applicable) shall be interfaced with the Central fire control room, all the necessary communication up to the central fire system PLC shall be in bidder's scope. Including supply of OFC and network switches etc. Any alarm generated in ROM COAL/PETCOKE/LIMESTONE HANDLING units shall be displayed at Fire Control Room. Repeater panel at central fire control station shall be in bidder scope.	Client to furnish the location of central fire control room in the plant layout.	Refer Conceptual fire water layout drg. in NIT.
101		-		General comment	Technical specification is silent about service water cleaning in the conveyor gallery and transfer house floors. Bidder has considered service water system for cleaning purpose. At every 50m interval one service tap point considered with hose pipe (30m) length for cleaning of gallery. At each floor two (2) service water tap points are considered for cleaning of floors.	Noted
102		-		General comment	Bidder has not envisaged booster pumps for fire fighting system.	Fire water pressure at the farthest point shall be a minimum of 7 kg/cm2 after installation of headers and sub headers. If booster pump is required for the system to fulfill the TAC/NFPA/IS norms, same to be provided by vendor.
103		-		General comment	Bidder has considered 1 hr. storage RCC tank for proposed plant.	Bidder to clarify for which purpose this RCC tank is considered by them.