

Pre bid query reply Lot 9 dated 27.07.2021

Pre bid query reply Lot 9 dated 27.07.2021
 PDIL NIT NO : PNMM/PC-183/E- 4008/NCB
 Item:INSTRUMENT AIR & PLANT AIR SYSTEM

Pre Bid Comments on PDIL/TFL											
Sr. No.	Document number	Document Title	Clause No./ Line No.	Page No.	Technical Requirement Specified	Deviation / Clarification	PDIL/TFL Reply	Deviation / Clarification dated 6th July, 2021	PDIL/TFL Reply	Deviation / Clarification dated 23rd July, 2021	PDIL/TFL Reply
1	PC183/E/4008/ SEC-VI/PART-1.0	SCOPE OF WORKS	1.1	2 of 13	Knock Out Drum Aftercooler Heater type Air Dryer 1 No. Dried Air After Cooler 2 No. Dry Air Receiver vessel 2 No. Low Pressure Wet Air Receiver 1 No. High pressure compressor @ 40 kg/cm2g discharge pressure for back up receiver.	This will be integral part of cooler. Aftercooler is not required as per suggested scheme. Please advise whether we can use HOC dryer or heater type (No-purge split flow type Dryer) After Cooler is integral Part of Compressor Please advise the capacity of Dry Air Receiver Vessel Please advise capacity of High Pressure Compressor	Knockout drum after cooler -As per NIT Vendor to consider Hot air from upstream air compressor discharge (Before after cooler) for use in regeneration of dryer beds. Further heating of air to meet the regeneration requirement is to be supplemented by reactivation heater. However electric heater shall be designed by considering only cold air case.under review for type of dryer along with regeneration unit &for capacity of high pressure compressor Amendment if required, shall be issued shortly.	Noted as per amendment 1 dated 5th July, 2021 .Electric Heater will be designed considering Hot Air & Cold Air for Regeneration Purpose. Also the Guaranteed heater power will be committed considering Hot Air Only	The Guaranteed heater power will be committed considering 100 % cold Air passing through the regeneration heater. Point closed	We have requested for considering Heater selection considering Hot Air only . Hot Air will be generated as soon as Compressor gets started therefore there is no point of considering heater selection basis on Cold Air as heater will be of higher rating. Still, in case it is required then we would suggest for Electric Heater will be designed considering Hot Air & Cold Air for Regeneration Purpose. Also the Guaranteed heater power will be committed considering Hot Air Only	The Guaranteed heater power will be committed considering 100 % cold Air passing through the regeneration heater. Point closed
2	PC183/E/4008/ SEC-VI/PART-3.2.1 (SOW)	MECHANICAL STATIC EQUIPMENT	1.1	3 of 3	SURFACE PREPARATION	Painting as per manufacturer's standard practice suitable for the Fertiliser plant.	NIT to be followed. Under review Painting chapter shall be provided, Amendment if required, shall be issued shortly	Painting as per manufacturer's standard practice suitable for the Fertiliser plant as per prove track record of supplied compressor for same industry	As per Amendment 1, Sr No. 3 Point closed	We have requested for Painting as per manufacturer's standard practice suitable for the Fertiliser plant as per prove track record of supplied compressor for same industry since it is related to Branding of equipment	Noted for Painting of rotating equipment viz. Compressor and its accessories acceptable with manufacturer standards suited to ammonia -urea complex atmospheric condition.
3	PC183/E/4008/ SEC-VI/PART-3.2.2	DESIGN SPECIFICATION – ROTATING EQUIPMENTS	3.2.6	6 of 10	performance characteristics	Please note that IR will submit performance characteristics as per prove track record of supplied compressor	NIT requirement shall be followed	performance curve will be submitted as below: a. Capacity Vs Pressure b. Capacity Vs Power	As per NIT Point closed	We have requested to accept for below curves only as it can only be provided and we have given below curves only in all past jobs performance curve will be submitted as below: a. Capacity Vs Pressure b. Capacity Vs Power	NIT / API requirement to be met by bidder . Vendor to furnish valid reason with proof for the non-submission of the same during detail engineering.
			3.2.7	6 of 10	Torsional and lateral critical speed analysis	Please note that it will be as per prove track record of supplied compressor	NIT requirement shall be followed	Torsional & lateral speed analysis is not required for existing established frames having proven track record.	As per NIT Point closed	We have requested for accepting it as Torsional & lateral speed analysis is not required for existing established frames having proven track record.	NIT Condition shall prevail.
			3.2.10	6 of 10	Tip speed	Please note that it will be as per prove track record of supplied compressor	NIT requirement shall be followed	Tip Speed of the offered compressor will be higher as per standard OEM proven track record.	As per NIT Point closed	We have requested that Tip Speed of the offered compressor will be higher as per standard OEM proven track record.	NIT / API requirement to be met by bidder . Vendor to furnish valid reason with proof for the acceptance of the same during detail engineering.
			3.2.11	6 of 10	Seal	Please note that it will be as per prove track record of supplied compressor	NIT requirement shall be followed	Non Contact Carbon ring seals will be provided as per standard OEM proven track record	As per NIT Point closed	It will be Non Contact Carbon ring seals will be provided as per standard OEM proven track record	NIT / API requirement to be met by bidder . Vendor to furnish valid reason with proof for the acceptance of the same during detail engineering.
			3.2.13	7 of 10	vibration monitoring instruments	Please note that IR will provide Axial and Radial Vibration Measurement and its control will be done from IR Control Panel. Dedicated VMS will not be provided	NIT requirement shall be followed	Please note that Axial and Radial Vibration Measurement and its control will be done from Local Control Panel. Dedicated VMS is not required and will not be provided	As per NIT Point closed	We have mentioned that Axial and Radial Vibration Measurement and its control will be done from Local Control Panel. Dedicated VMS is not required and will not be provided so need clarification in place of generic reply	Noted & closed as vendor shall provide dedicated LCP which will be communicated to control room.
4	PC183/E/4008/ SEC-VI/PART-3.3	DESIGN SPECIFICATION- ELECTRICAL	3	8 of 34	AREA CLASSIFICATION	Since there is nothing mention on Hazardous Area, we are considering the Safe Area.	Area classification shall be in accordance with IS 5572 along with latest update	As per amendment 1 dated 5th July, 2021 ,Air Compressor will be installed in safe Area only . We will provide instruments suitable for Zone-2 gas group IIA/B temperature class T3. Motor , heater , dew point meter and Control Panel will be for safe area only	As per Amendment -1 , Sr. No 13, Remaining items shall be finalised during detailed engineering. Point closed	We shall comply As per amendment 1 dated 5th July, 2021 ,Air Compressor will be installed in safe Area only . We will provide instruments suitable for Zone-2 gas group IIA/B temperature class T3. Motor , heater , dew point meter and Control Panel will be for safe area only	As per Amendment -1 , Sr. No 13, Remaining items shall be finalised during detailed engineering. Point closed
6	PC183/E/4008/ SEC-VI-PART-3.4	DESIGN PHILOSOPHY – INSTRUMENTATION	3.45	15 of 87	System / Marshalling/ Packages cabinet	Please advise on selection, should it be separate panel or combination of all	Depending on IO counts Bidder to segregate or combine marshaling /system/package cabinets	Please advise Min & Max qty of I/O counts which will decide to segregate or combine marshaling /system/package cabinets	IO counts shall be in Bidders scope.The same to be reviewed during detail engineering.Point closed.	We need IO account as there is detailed engg activity linked. We need to know the criteria for selection of common or separate cabinet	As per NIT
20			3	5 of 8	2.1.4 Multi-pair junction boxes shall be provided with telephone sockets and plugs for connection of hand-powered telephone set	Is this required?	This requirement shall be discussed during detail engineering	Multi-pair junction boxes shall be provided with telephone sockets and plugs for connection of hand-powered telephone set are not in Bidder's scope	This requirement shall be discussed during detail engineering. Point closed	Noted, however plugs for connection of hand-powered telephone set are not in Bidder's scope	As per NIT
25	PC183/E/4008/ SEC-VI-PART-3.4	CONTRACTOR SCOPE OF WORK - INSTRUMENTATION DESIGN PHILOSOPHY – INSTRUMENTATION	2	3 of 87	One no. Aux. Console with Ann. window, push buttons, switches for critical trip and alarm shall also be provided	This is not required since we are providing control panel in each compressor skid	This is required in control room	We are providing dedicated Microprocessor based pre-programmed Control Panel which will have push buttons & HMI Screen. Hence Annuciation window can not be providedand not considered. Alarms & trips will be thru Local Control Panel only mounted on Compressor skid	This is required in control room.point closed.	As we are providing dedicated Microprocessor based pre-programmed Control Panel which will have push buttons & HMI Screen. Hence Annuciation window can not be providedand not considered. Alarms & trips will be thru Local Control Panel only mounted on Compressor skid	Noted & Closed. All Critical alarms shall be provided at Aux. Console with Ann. window, push buttons, switches for critical trip and alarm .
			3	3 of 87	All the required protections & interlocks shall be carried out in DCS/PLC.	All the required protections & interlocks shall be carried out in the compressor control panel provided on each compressor skid	kindly comply NITrequirement	Since we are providing dedicated Microprocessor based pre-programmed Control Panel in each compressor skid hence separate PLC control is not considered for Compressor	kindly comply NITrequirement.point closed.	We need clarification Since we are providing dedicated Microprocessor based pre-programmed Control Panel in each compressor skid hence separate PLC control is not considered for Compressor	All Compressor logic to be implemented in Engg Station of PLC
			4	4 of 87	Beside this, Bidder to arrange power distribution to additional 4 operator station. Supply of 4 OS not in bidder scope, power supply distribution from PDB to OS is in Bidder scope. Bidder to consider PDB panel to achieve the same.	We would suggest that power required for individual OS to be provided by purchaser. This will avoid a PDB in the control room.	kindly comply NITrequirement	We will consider 1 Power Distribution Board for 4 Nos. Operating Stations	Kindly comply NIT requirement.point closed.	We need clarification as we will consider 1 Power Distribution Board for 4 Nos. Operating Stations	Noted& Closed
27			6	6 of 87	The system shall be capable of operating on a continuous or intermittent basis and shall be completely automatic, requiring no operator attention, with all cycle control valves actuated by a control system.	Please check if this is really required. If yes, it will need lot of automation like automatic on/off valves on water lines, air lines, etc.	kindly comply NITrequirement	We have provision in our compressors for Remote Start/Stop however before utilizing this facility healthiness of other important parameters to be checked so request you to please advise for consideration	kindly comply NIT requirement. point closed.	We have given our clarificatoin since We have provision in our compressors for Remote Start/Stop however before utilizing this facility healthiness of other important parameters to be checked so request you to please advise for consideration	kindly comply NIT requirement. point closed.
29			8	9 of 87	One no. Aux. Console with Ann. window, push buttons, switches for critical trip and alarm shall also be provided.	Not required. If required, where do we provide this	This is required in control room	We are providing dedicated Microprocessor based pre-programmed Control Panel which will have push buttons & HMI Screen. Hence Annuciation window can not be providedand not considered. Alarms & trips will be thru Local Control Panel only mounted on Compressor skid	alarm, trips, annunciator window etc. all to be provided in control room .Kindly comply NIT requirement Point closed	As we are providing dedicated Microprocessor based pre-programmed Control Panel which will have push buttons & HMI Screen. Hence Annuciation window can not be providedand not considered. Alarms & trips will be thru Local Control Panel only mounted on Compressor skid	Noted & Closed. All Critical alarms shall be provided at Aux. Console with Ann. window, push buttons, switches for critical trip and alarm .

35			14	59 of 87	8.7 Annunciator	Not required since faults will be visible on the HMI	kindly comply NITrequirement	We will provide HMI where all faults , alarms & trips will be visible	kindly comply NITrequirement Point closed	We have clarified that We will provide HMI where all faults , alarms & trips will be visible	Noted & Closed. All Critical alarms shall be provided at Aux. Console with Ann. window, push buttons, switches for critical trip and alarm .
36			15	60 of 87	9.4 Instrument air shall be provided for purging of local panels.	Not required for safe area	kindly comply NITrequirement	As per amendment 1 dated 5th July, 2021 ,Air Compressor will be installed in safe Area only . Control Panel will be for safe area only hence purging is not considered	As per amendment 1, Sr. No 13. However all control panel purging shall be as per NIT Point closed	We have clarified as per amendment 1 dated 5th July, 2021 ,Air Compressor will be installed in safe Area only . Control Panel will be for safe area only hence purging is not considered	As per NIT
39	Document No. PC150/E/4004/P-VI-3.3	TECHNICAL SPECIFICATION - LOCAL CONTROL STATION (PC183-TS-0817)	1	3 of 9	5.0 GENERAL DESIGN AND CONSTRUCTIONAL FEATURES 5.2 The enclosure shall be of die cast Aluminium alloy LM-6. As an alternative to cast Aluminium, fibre glass enclosure is also acceptable.	Please confirm the MOC of JB - SS316, FRP or LM6	As per NIT.	Noted as per reply given by PDIL/TFL under line No. 84 above . JB MOC shall be FRP	As per NIT Point closed	Noted as per reply given by PDIL/TFL under line No. 84 above . JB MOC shall be FRP	As per NIT Point closed
40			2	4 of 9	6.0 SPECIAL FEATURES FOR FLAME PROOF LOCAL CONTROL STATION	Not applicable for safe area application	As per NIT.	As per amendment 1 dated 5th July, 2021 ,Air Compressor will be installed in safe Area only . Control Panel will be for safe area only hence FLP is not considered	As per NIT Point closed	We have clarified as per amendment 1 dated 5th July, 2021 ,Air Compressor will be installed in safe Area only . Control Panel will be for safe area only hence purging is not considered	As per NIT Point closed
41	Document No. PC150/E/4004/P-VI-3.3	TECHNICAL SPECIFICATION - INDUCTION MOTOR (PC183-TS-0810)	1	4 of 12	4.2 Cooling For CACA motor - Aluminium tubes having minimum thickness of 1.6 mm	We will offer CACA motor with cooling as per IC611. Thickness of aluminum tubes needs to be checked with motor supplier	As per NIT.	Attaching Comments & deviation on Electrical specifications from our Motor Supplier. Request you to please check & confirm	As per NIT Point closed	We have shared Comments & deviation on Electrical specifications from our Motor Supplier. Request you to please check & confirm	As per NIT Point closed
45			3	10 of 34	5.2 MOTOR AND DRIVE COORDINATION b. To arrange where necessary for testing with Soft starter unit to confirm compliance with requirements of load, noise, vibration, temperature rise, etc.	Testing with soft starter has not been considered	As per NIT	It is not possible at works so it will be done at site only	As per NIT, Point closed	We have clarified that it is not possible at works so it will be done at site only	Noted.
			11	19 of 34	5.9 Local Control Stations	Local Control Stations for motors are not considered.	As per NIT.	Local Control Station for individual Motor is not required for offered design compressor system	As per NIT, Point closed	We need clarificaiton on it as it can be clarified here instead of open comment so Local Control Station for individual Motor is not required for offered design compressor system	As per NIT, Point closed
			12	25 of 34	11.5 At least following tests shall be specifically conducted before commissioning in presence of owner's representative. All the test results shall be recorded and submitted to the owner. a) Insulation Test b) Continuity Test c) High Voltage Test d) Simulation Test e) Earth Resistance Test	These tests cannot be performed before commissioning. These can be offered in vendor works prior to shipment	As per NIT.	These tests cannot be performed before commissioning. These can be offered in vendor works prior to shipment. We have attached QAP from our Motor Vendor , it will be applicable for Motor. Request you to please check & confirm	As per NIT, Point closed	We have clarified that these tests cannot be performed before commissioning at site. These can be offered in vendor works prior to shipment. We have attached QAP from our Motor Vendor , it will be applicable for Motor. Request you to please check & confirm	Bidder shall be responsible for all Tests of Motors before pre-commissioning and commissioning at Site.
46			1.0 SCOPE 1.1 General	3 of 10	1.1.1 This Philosophy states that scope of work shall include basic & detailed engineering, procurement, supply, manufacturing, fabrication, transportation, loading, insurance during transit of all Mechanical Rotating Equipment with allied electrical, instrumentation and civil scope, obtaining all necessary statutory approvals from concerned government authorities as applicable, testing , mechanical completion , supervision/assistance in erection, Mechanical Completion, Pre-Commissioning, Commissioning, performance guarantee test runs of INSTRUMENT AIR / PLANT AIR SYSTEM for M/s TFL ODISHA.	1.1.1 This Philosophy states that scope of work shall include basic & detailed engineering, procurement, supply, manufacturing, fabrication, transportation, loading, insurance during transit of all Mechanical Rotating Equipment with allied electrical, instrumentation and civil scope, obtaining all necessary statutory approvals from concerned government authorities as applicable, testing , mechanical completion , supervision/assistance in erection, Mechanical Completion, Pre-Commissioning, Commissioning, performance guarantee test runs of INSTRUMENT AIR / PLANT AIR SYSTEM for M/s TFL ODISHA.	Same shall be as per the NIT.	As agreed in above that any type Civil work is not in Bidder's scope so we shall not consider the same . Moreover any statutory approvals from concerned government authorities is not in Bidder scope as per amendment 1 dated 5th July ,2021	Same shall be as per the NIT. Point closed	We have clarified that statutory approvals from concerned government authorities is not in Bidder scope as per amendment 1 dated 5th July ,2021 as bidder will be allowed to work inside premises of owner and for that it is to be obtained by owner only	Same shall be as per the NIT. Point closed
50	PC183/E/4008/SEC-VI/PART-3.2.2	DESIGN SPECIFICATION – ROTATING EQUIPMENTS	3.2 Centrifugal Compressors (for Air services)	6 of 10	3.2.6 Following performance characteristics shall be furnished for compressor: a. Discharge pressure vs Inlet capacity (i.e.actual inlet volume) b. Polytropic head vs Inlet capacity (i.e.actual inlet volume) c. Compressor BKW vs Inlet capacity (i.e.actual inlet volume) d. Polytropic efficiency vs Inlet capacity (i.e.actual inlet volume) The performance shall be shown from surge limits to choke limits. Expected surge line and surge control line shall be shown on each performance map.	b & d cannot be provided	drg-doc schedule of NIT to prevail.	performance curve will be submitted as below: a. Capacity Vs Pressure b. Capacity Vs Power	drg-doc schedule of NIT to prevail. Point closed	We have requested to accept for below curves only as it can only be provided and we have given below curves only in all past jobs performance curve will be submitted as below: a. Capacity Vs Pressure b. Capacity Vs Power	NIT / API requiremnt to be met by bidder . Vendor to furnish valid reason with proof for the non-submission of the same during detail engineering.
52			3.3 Reciprocating Compressors	7 of 10	3.3.1 Lateral and torsional critical speed analysis shall be carried out to ensure the elimination of any lateral and torsional vibration that may hinder the operating speed range.	Not required for belt driven machine	belt driven machine to be avoided. Direct coupled machine to be provided.and requisite test as per NIT / API to be conducted.	HP Reciprocating Compressor is small compressor and as per API 618 , belt drive is acceptable below 200HP Rated Motor Lateral and torsional critical speed analysis is not applicable	As per NIT, Point closed	We need clarificaiton instead of open replt sinceHP Reciprocating Compressor is small compressor and as per API 618 , belt drive is acceptable below 200HP Rated Motor Lateral and torsional critical speed analysis is not applicable	NIT Condition shall prevail. belt driven compressor shall not be allowed.
60			2.0 Material of Construction	9 of 39	2.2.9 Unless otherwise specified girth flanges shall be of forged quality and ultrasonically tested	We have not considered any girth flanges in the receivers we have quoted	Refer clause number 3.3.16 of PC183/E/4008/SEC-VI/PART-3.2.1 for girth flange requirement. However requirement of flange or manhole will be decided during detail engineering as per NIT.	Noted. Manhole will be provided but Girth flange is not considered	To be finalized during detailed engineering as per NIT condition. Point closed	We have noted. We have clarified that manhole will be provided but Girth flange is not considered	To be finalized during detailed engineering as per NIT condition. Point closed
66	DOCUMENT NO PC183/E/4008/SEC-VI/PART-2.0	SECTION –VI: TECHNICAL PART – 2.0 TECHNICAL SPECIFICATION	2.0 DESIGN BASIS: 2.1 DESIGN CAPACITY	Page 3 of 10	Online Dew point analyser with range of 0 – (-) 60 Degree Celsius at the inlet of IA receiver shall be provided.	Dew point meter will be adequate for the application and we have considered the same	As per NIT	Dew point meter will be adequate for the application and we have considered the same	As per NIT Point closed	We have clarified it but reply was received in general so need clarification again as Dew point meter will be adequate for the application and we have considered the same	As per NIT Point closed
67			2.0 DESIGN BASIS: 2.1 DESIGN CAPACITY	Page 3 of 10	2.4 Hazardous Area Classification: In general Area classification shall be in accordance with IS 5572 along with latest update.	We are considering safe area for all equipments including elctricals, instrumentation andcontrols	As per NIT	As per amendment 1 dated 5th July, 2021 ,Air Compressor will be installed in safe Area only . We will provide instruments suitable for Zone-2 gas group IIA/B temperature class T3. Motor , heater , dew point meter and Control Panel will be for safe area only	As per Amendment 1, Sr.No-13 Point closed	We shall comply As per amendment 1 dated 5th July, 2021 ,Air Compressor will be installed in safe Area only . We will provide instruments suitable for Zone-2 gas group IIA/B temperature class T3. Motor , heater , dew point meter and Control Panel will be for safe area only	As per Amendment 1, Sr.No-13 Point closed
77			3.0 Guarantees:	Page 7 of 10	3.0 Guarantees: 3.1 Workmanship guarantee: Bidder shall guarantee all components of package against faulty design, improper material of construction and poor workmanship in addition to performance guarantee. Repaired or replaced part shall also be covered by same guarantee as in case of main supply	Please repalce guarantees with warranties Repaired or replaced part shall also be covered by same warrantee as in case of main supply. The warranty period for the repaired or replaced component will not exceed the original warranty period agreed in the contract	As per NIT	Please repalce guarantees with warranties Repaired or replaced part shall also be covered by same warrantee as in case of main supply. The warranty period for the repaired or replaced component will not exceed the original warranty period agreed in the contract	AS per NIT, Point closed	We have clarified so please repalce guarantees with warranties Repaired or replaced part shall also be covered by same warrantee as in case of main supply. The warranty period for the repaired or replaced component will not exceed the original warranty period agreed in the contract	AS per NIT, Point closed

78			3.3 Process Guarantees: Performance Guarantee parameters for Instrument air system:	Page 9 of 10	3.3 Process Guarantees Performance Guarantee parameters Instrument air system 3.3.9 Pressure drop across each Air Instrument dryer & across the system shall not exceed 0.5 Kg/cm ² .	Pressure drop across the dryer will be 0.5 Kg/cm ² . So pressure drop across the system will be more than this	As per NIT	We will meet your requirement of 8.8 Kg/Cm2 at the outlet of Dryer for Instrument Air and 9.3 Kg/Cm2 for Plant Air	AS per NIT, Point closed	Noted, We will meet your requirement of 8.8 Kg/Cm2 at the outlet of Dryer for Instrument Air and 9.3 Kg/Cm2 for Plant Air	AS per NIT, Point closed
83			Temporary Construction Facilities:	Page 4 of 13	i. Construction power supply facilities: 1 No. 11 kv Feeder (rated for 2 MVA) at Existing Substation near 132 KV Switchyard shall be made available	11kV for construction power is not required. Please provide 415 V and 220V as construction power	As per NIT	Please provide 415 V and 220V as construction power as step down of voltage is not possible for temporary arrangement	AS per NIT, Point closed	We have clarified it, but reply was received in general. We need 415 V and 220V as construction power as step down of voltage is not possible for temporary arrangement.	1 No. 415 Feeder at Existing Substation near 132 KV Switchyard shall be made available 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 underground cabling work) and further distribution shall be in LSTK Contractor's scope.
85				Page 5 of 13	2.3 Bidder's scope of Work (For Static Equipment) shall include but shall not be limited to following: a) Process Design and Engineering comprising preparation of the following documents:- Interlock and logic diagram with full description	We cannot share compressor surge logic diagram	As per NIT	We cannot share compressor surge logic diagram as it's Proprietary Item	As per NIT	We will share manual of compressor but not surge logic as it is proprietary item	As per NIT
86				Page 6 of 13	b) Detailed Engineering comprising of:- Plot plan development,	Plot plan needs to be provided by purchaser	Plot plan already provided	Noted	Point closed	Noted & Closed	Plot plan for IA/PA inside B/L, development is in bidders scope
92				Page 7 of 13	2.5.1 Process Design and Engineering comprising preparation of the following documents:- PFD with major controls, material & energy balance,	Controls need to be defined by purchaser Energy Balance is not included in our scope	As per NIT	Controls need to be defined by purchaser Energy Balance is not included in our scope	AS per NIT, Point closed	We have clarified that we shall provide Electrical load and other utilities list so please confirm in place of generic reply	AS per NIT, Point closed
93				Page 7 of 13	2.5.2 Detailed Engineering comprising of:- - Plot plan development	Plot plan development is not part of bidders scope	As per NIT	Noted as it has been agreed in Sr. No. 86	Point closed	Noted & Closed	Plot plan for IA/PA inside B/L, development is in bidders scope
94				Page 7 of 13	All type of Insulation, cladding, and painting of the plant.	Insulation will be on dryer only Painting of plant is not in bidders scope	As per NIT	Please clarify as we have considered Insulation will be on dryer only Painting of plant is not in bidders scope	As per NIT. Point closed.	We have clarified that Insulation will be on Dryer only and painting of supply items within Battery limit will be bidder scope	As per NIT. Point closed.
95				Page 7 of 13	Unloading, prolong storage/preservation and security at site.	Prolong storage/preservation and security at site s not included in scope	Upto commissioning of plant Unloading, prolong storage/preservation and security at site shall be in bidder's scope	Please advise the timelines as it's open statement	Upto commissioning of plant Unloading, prolong storage/preservation and security at site shall be in bidder's scope. Point closed.	We have clarified that upto commissioning of plant Unloading, prolong storage/preservation and security at site shall be in bidder's scope but in case of any delay in commissioning which is not attributed to Bidder then it will be owner's scope.	Upto commissioning of plant Unloading, prolong storage/preservation and security at site shall be in bidder's scope. Point closed.
96				Page 7 of 13	Construction, erection, installation, assembly, hook ups and field	Construction not included in bidders scope	Civil, structural and architectural works are not in bidder's scope. However,	We shall supply material required for earth Pit and laying & installation will be	We shall supply material	Noted & Closed	Point Closed
97				Page 8 of 13	- Filling of lubricants, Oils, consumables, chemicals etc. (for first filling and replacement as required before handing over to owner) - Clear the work space of all construction aids debris etc. and provide a tidy work place from pre-commissioning stage.	These are not included in bidders scope of work	As per NIT	Noted as agreed in Sr. No 100. We shall supply equipment with 1st filled and rest will be procured by owner as per supplier's recommendations	As per NIT, Point closed	We have clarified that we shall supply equipment with 1st filled and rest will be procured by owner as per supplier's recommendations	As per NIT, Point closed
98				Page 8 of 13	All statutory clearances and permits from local, statutory and other bodies such as Indian Boiler Regulations, Static and mobile pressure vessel rules, Chief controller of explosives, Factory inspector, Labour Inspector, Electrical inspector, pollution controls board etc. - Contractor shall prepare a comprehensive equipment List showing all items classified on the basis of each Process and utility unit. Equipment list shall also identify Equipment requiring:- - Approval from Statutory authorities (PESO, IBR, etc.), - ASME Code Stamping, - Compliance to Petroleum rules, etc	These are not included in bidders scope of work	Support activities for all statutory clearances and permits from local, statutory and other bodies shall be in bidder's scope	We shall follow all statutory requirements for Labour like PF, wages & insurances and anything other than it, shall be in Owner scope. All approval required for working at site to be taken by Onwer from Government/local body	Support activities for all statutory clearances and permits from local, statutory and other bodies shall be in bidder's scope, Point closed	We have clarified that all statutory requirements for Labour like PF, wages & insurances etc. are in bidder's scope. However support activities for all statutory clearances and permits from local and other bodies shall be in owner's ship to work inside premises	Support activities for all statutory clearances and permits from local, statutory and other bodies shall be in bidder's scope, Point closed
99				Page 8 of 13	2.5.3 Equipment data sheets including accessories and auxiliaries etc. indicating operating Parameters, performance requirements, construction features, instrumentation & Controls, inspection and testing.	Please explain the requirement against construction features	As per NIT	We understood that construction features means mechanical construction of equipment. Please clarify	Any type of construction features like mechanical, electrical, & instrumentation. Point closed	Noted, we shall share construction features means mechanical, electrical, & instrumentation i.e P&ID, ES only construction of equipment	Any type of construction features like mechanical, electrical, & instrumentation. Point closed
101				Page 8 of 13	Technical advisory control on all Mechanical matters, throughout all phases of project Execution i.e. from design through procurement, construction and commissioning/ Ⓜ Problems resolution.	This is not part of bidders scope	As per NIT	We shall consider only for the scope which is in bidder's scope	As per NIT, Point closed	Noted, we shall share for bidder scope of supply only	As per NIT, Point closed
104					3.1 Scope of Services Detailed process design including preparation of P&ID, heat and mass balance diagram, control and logic diagram, interlock schemes, etc	Heat and mass balance - not in bidders scope Logic diagram for surge logic cannot be sahred with purchaser	As per NIT	Logic diagram for surge logic cannot be shared with purchaser as it is propriety items. Heat and mass balance - not in bidders scope	As per NIT. Point closed.	We have clarified that we shall provide Electrical load and other utilities list so please confirm in place of generic reply. We will share manual of compressor but not surge logic as it is proprietary item	Surge logic is also in Bidder scope so pl. Follow NIT conditions. Point closed.

105					d) Documentation & approvals including approvals from statutory authorities including those required to be taken by Owner	Approvals from statutory authorities is not in bidders scope	Support activities for all statutory clearances and permits from local, statutory and other bodies shall be in bidder's scope	We shall follow all statutory requirements for Labour like PF, wages & insurances and anything other than it, shall be in Owner scope. All approval required for working at site to be taken by Owner from Government/local body	All statutory requirements for Labour like PF, wages & insurances etc. are in bidder's scope. However support activities for all statutory clearances and permits from local and other bodies shall be in bidder's scope. Point closed	We have clarified that all statutory requirements for Labour like PF, wages & insurances etc. are in bidder's scope. However support activities for all statutory clearances and permits from local and other bodies shall be in owner's ship to work inside premises	All statutory requirements for Labour like PF, wages & insurances etc. are in bidder's scope. However support activities for all statutory clearances and permits from local and other bodies shall be in bidder's scope. Point closed
106					q) Undertake a HAZOP and Disaster Management studies for the system. The HAZOP will be carried out at PDIL/TFL office. Bidders to incorporate all HAZOP changes into their design and supply without any price and time implication.	Bidders to incorporate all HAZOP changes into their design and supply with additional price and time implication	As per NIT, Disaster management excluded from bidder scope	Bidders to incorporate all HAZOP changes into their design and supply with additional price and time implication	All HAZOP changes into their design and supply with additional price and time implication shall be in bidder's scope, Point closed	We will submit our detailed P&ID and other technical details and in case of any addition of items other than NIT scope then it will be charges extra	All HAZOP changes into their design and supply are in bidder's scope, without any price implementation and time. Point closed
107	REPLIES TO PRE BID QUERIES -LOT- 6 DATE 13.07.2021	SR NO -4 Clause No./ Line No.- 1.6 DESIGN SPECIFICATION ELECTRICAL	1 of 13	Heater control panel shall be installed in Offsite & utilities substation of respective plants.	Based on the reply received from owner/PMC vide PRE BID QUERIES -LOT- 6 DATE 13.07.2021, cable length required to be considered by bidder is approx. 1000 M. We have calculated cable sizing, as per tender Design Specification - Electrical PC183/E/4008/SEC-VI/Part-3.3, Rev-P1, CLAUSE NO.6.0. s.no.I) .Now if we consider above cable length there will be substantial amount of voltage drop and it is not technically feasible. e.g. For a 30 KW motor required Cable size is 2Rx3Cx120sq.mm. (with considering maximum voltage drop at running 5% and starting voltage drop maximum 10%) and condition is worst in case of UPS load and other lower rated motor. We would suggest owner/PMC to consider substation location within a maximum distance 200 mtr. from proposed IA/PA plant to minimize the cable size. We would request owner/PMC to review on above points and send confirmation based on which we will submit our Bid.	As per plot plan, Proposed utility control and substation building is already finalized and further no change is envisaged. However approx distance may be considered 500-600 m .The OUSS and Area earmarked for Inst. Air / Plant Air System are indicated in the Plot Plan, further it is clarified that bidder should calculate the exact distance from given plot plan.Drawing (Plot plan) is in scale. The grid number is already marked in the plot plant, distance between two grid is 100M. Point Closed	Based on the reply received from owner/PMC vide PRE BID QUERIES-LOT- 8 DATE 22.07.2021, cable length required to be considered by bidder is approx. 500-600M. Now, even if we consider cable length of 500 - 600m then there will be still substantial amount of voltage drop. e.g. Considering buried cable for a 30 KW motor required Cable size is 1Rx3Cx120sq.mm. and for above ground cable, cable size for the same motor will be 1Rx3Cx95sq.mm. Size for both the cables as mention above can not be accommodated in 30 KW motor terminal Box and hence not feasible. Request owner/PMC to confirm the cable laying route, and also confirm whether cable will be laid buried or through trench or above ground.	As per Reply to Pre-bid Queries Lot 8. Cable shall be laid on cable tray (above ground).			
108	SECTION -VI: TECHNICAL PART - 2.0 TECHNICAL SPECIFICATION	Clause NO. 3.3.9	9 of 10	Pressure drop across each Air Instrument dryer & across the system shall not exceed 0.5 Kg/cm ² .	0.5 Kg/cm ² pressure drop across Air dryer is not possible. Minimum Pressure drop across each Air dryer will be 0.7 Kg/cm ² .	As per NIT					