To be given on Letter head of Bidder

Ref:	Date:
То,	
Bharat Heavy Electricals Limited	
PEM, PPEI Building,	
Plot No 25, Sector -16A	
Noida (U.P)-201301	
Reference:	
Tender Enquiry No	
Offer No	
Name of Package:	
Order no. F. No. 6/18/2019-PPD dt. 23.07.2020 issued by Ministry of Fir Expenditure Public Procurement Division.	nance, Department of
Dear Sir,	
I have read the clause regarding restriction on procurement from a bide a land border with India. I hereby certify that Company name , is not from to be considered.	•
Thanking You,	
Yours faithfully,	
(Company director seal and signature)	

Letter head of Company

Ref	Date
To,	
Bharat Heavy Electricals Limited	
PEM, PPEI Building, Plot No 25,	
Sector -16A, Noida (U.P)-201301	
Subject: - Certification regarding local content	
Reference: Tender Enquiry No	
Name of Package:	
Dear Sir,	
We hereby certify that items offered by us for Name) have local content of	
Further, it is also certified that the local content perconflocal content given in point no 2 of Public Procure revision, having ref. no. P-45021/2/2017-PP(BE-II) of Class-I supplier.	ement (Preference to Make in India), Order 2017
We further confirm that address of the location at ${f v}$ follows:	which the local value addition is made will be as
1	
2	
Thanking You,	
(authorized signatory of company	()
(firm name)	
authorized signatory	
of company	



These Conditions shall be read and construed along with General Condition of Contract enclosed along with the tender enquiry. In case of any conflict or inconsistency, the condition given in special condition of contract shall prevail over the general condition of the contract and its corrigenda, if any.

Project Name Sagardighi Thermal Power Extension Project Phase- III, Unit 5 [1X660MW, Supercritical] 1.0

2.0 Customer West Bengal Power Development Corporation Limited.

3.0 **Consignee-Ship** Construction Manager-BHEL Site office Unit-V to Address Sagardighi Thermal Power Project {to be

mentioned in LR/RR, P.O. Manigram,

District - Murshidabad, PIN:742237, West Bengal, India consignment note}

4.0 Consignee/Buyer's Name For Supply Packages: (Purchase order by BHEL-PEM):

Bharat Heavy Electricals Limited To be mentioned in Power Sector – Project Engineering Management

Supplier's Invoice PPEI Building, Plot No.25, Sector-16A,

> Noida-201301 (Uttar Pradesh) GSTIN No. - 09AAACB4146P2ZC

For Turnkey Packages: (LOA by BHEL-PEM and PO by BHEL-PSER, Sagardighi site):

Construction manager, BHEL Site office,

1X660 MW WBPDCL SAGARDIGHI TPP EXTENSION UNIT 5

P.O. Manigram, District - Murshidabad, PIN:742237, West Bengal, India

BHEL PSER GSTIN No.- 19AAACB4146P1ZC

BHEL Site Office Address 5.0 **Construction Manager**

BHEL site office Unit-V

Sagardighi Thermal Power Project

P.O. Manigram, District - Murshidabad, PIN:742237, West Bengal, India

6.0 **Customer Address** Deputy General Manager (I/C projects)

Sagardighi Thermal Power Project

P.O. Manigram,

District - Murshidabad, PIN:742237, West Bengal, India

By Rail/Road on Door Delivery and freight Pre-Paid Basis. 7.0 **Mode of Dispatch**

Nearest Railway Station :- Manigram

8.0 Road Permit/Way Bill

Required

Procedure

(Bill To)

Yes. Supplier to generate the e-waybill at their end and furnish the scanned copy of e-

waybill along with dispatch document to BHEL immediately on dispatch. In case of

default, supplier shall be held responsible.

9.0 **Project Consultant DCPL**

10.0 **Material Inspection** All equipment's/items under inspection category shall be sub categorized as follows:

> CAT-A: QAP will be submitted to WBPDCL / DCPL for approval. Inspection activities will be jointly witnessed by BHEL QC / TPIA and WBPDCL/TPIA of WBPDCL as per approved

QAP witness/hold points.

CAT-B: QAP will be submitted to WBPDCL / DCPL for approval. Inspection shall be carried

out by BHEL QC/TPIA only.

CAT-C: These are non QAP items and shall be accepted by BHEL QC/ TPIA on the basis of review of manufacturer's test certificate / certificate of compliance (COC) / internal



inspection report/ guarantee certificate etc. issued by the equipment manufacturer itself confirming all the technical and contractual requirements. For these items, submission of QAP and approval by WBPDCL are not envisaged. However, quality of these items must be ensured through respective BHEL QC.

Vendor to give five (05) days advance notice for stage inspection and ten (10) days for final inspection.

Details for Inspection procedure involving the TPIA shall be intimated later by BHEL/WBPDCL.

11.0 Clearance for Dispatch of materials

MDCC will be issued by BHEL/WBPDCL.

12.0 Prior Dispatch intimation to BHEL Site Office and Underwriters

YES

NOTE: One set consisting dispatch documents indicating the items dispatched (with their gross and net weights) and after informing the underwriters about the value of consignment and dispatch details to be sent to following

- a) BHEL Site Office
- b) BHEL- PEM, PPEI Noida(U.P)
- c) Insurance Co.

It is Vendor's responsibility to ensure availability of trucks well in advance where consignment will require more number of trucks to be deployed for dispatch. No concession for non-availability of trucks, after having given dispatch clearance shall be admissible.

13.0 Transit Insurance

By BHEL (vendor to intimate the underwriters quoting the insurance policy no. as below)

14.0 Insurance Policy No.

For intimation to Underwriters (Contact Person) Policy details and number shall be informed later

15.0 **a. Customer GST No.** : 19AABCT3027C1ZQ

b. BHEL-PEM GST No. : 09AAACB4146P2ZC

c. BHEL PSER GST No. : 19AAACB4146P1ZC

16.0 Unloading at site : BY BHEL site for supply packages.

(The supplier shall give LR wise Gross Wt. Of the consignment for the purpose of

handling the consignment by BHEL site loading/unloading Contractor.)
By Vendor for turnkey packages (Scope consists of supply and Erection &

Commissioning).

NOTE: - Please note that unloading of materials at site shall take at least 3-4 days. As such, transporters to be advised suitably before dispatch of materials in this regard. Also, no claim on a/c of delay in unloading shall be entertained.

17.0 Storage and handling at

site

By BHEL site for supply packages

By Vendor for Turnkey packages* (Scope consists of supply and Erection & Commissioning).



*Any shortages or damages during unloading and handling at site, including at the time of erection and commissioning, shall be made good by the Seller/ Contractor at his risk and cost, to meet the project schedule. In case of faults/ discrepancies in any material, component, sub-assembly, assembly, etc., the same shall be supplied/ replenished free of cost to enable the equipment to be put to service.

18.0 Movement of Material

within Site

By BHEL/BHEL appointed agency for supply packages

By Vendor for Turnkey packages Scope consists of supply and Erection &

Commissioning).

No movement of loose materials shall be allowed. Items are to be properly packed to

ensure proper and safe transportation & storage at site.

19.0 Paying Authority

For packages where PEM will issue the Purchase Order: BHEL PEM will be the paying

authority.

For packages where PEM will issue only the LOA and Purchase Order shall be issued by

PSER: BHEL Sagardighi Site /PSER will be the paying Authority.

20.0 Documents Required (for

supply + freight payment)

Original + 2 Copies of the following documents: -

- 1. Invoice checklist duly signed and stamped
- 2. Invoice
- 3. Receipted LR (signed & stamped)/ confirmation from site regarding receipt of packages/ Boxes original/ copy)
- 4. Packing List Clearly showing number of packages, gross weight net weight.
- 5. Copy of BHEL MDCC
- 6. Guarantee Certificates as per GCC.
- 7. Copy of insurance Intimation.
- 8. PVC Calculation, and copy of all applicable indices, if PVC applicable as per NIT
- 9. Transporters document indicating the freight amount
- 10. Document as proof of Declaration by supplier that GST payment has been made on GST portal to be submitted for GST claim.
- 11. For claiming PVC if applicable as per NIT, invoice to be submitted on PO unit rates and PVC to be claimed as separate debit/credit note. The debit/ credit note to be submitted along with the main invoice.

21.0 Documents Required (for MRC payment)

Original + 2 Copies of the following documents:-

- a. Invoice
- b. Copy of MRC
- c. Proof of submission of final documents (6 sets)
- d. O&M Manuals (2CD's + 15 Hardcopies)

NOTE:-

- 1. Customer or his representative will be involved for inspection as per approved Quality Plan.
- 2. MDCC will be issued by BHEL in line with approved BBU.
- 3. The supplier during inspection of Main supplies & Mandatory Spares by BHEL/BHEL TPIA, WBPDCL/WBPDCL-Nominee shall obtain separate MDCC for Main Supplies & Separate MDCC for Mandatory Spares in line with the approved Billing Break Up. 4. It is deemed that copy of complete set of dispatch documents along with necessary
- TCs will be submitted to BHEL on the date of dispatch.

22.0 Material Certificate(MRC)

Responsibility to obtain MRC from customer at site

- a) For Supply Packages:- For supply packages BHEL- PEM will arrange MRC from BHEL Site. However supplier/contractor shall provide support for verification of material at site, if required.
- b) For Turnkey Packages:- By Vendor, where Supply/ Erection and commissioning is under Vendor's scope.



23.0 Dispatch markings

- Each box shall be marked with Capital Letters in "Red" indicating: Main Supply OR Commissioning spare OR Mandatory Spare for 1X 660 MW SAGARDIGHI TPP EXTENSION UNIT 5, P.O. Manigram, District Murshidabad, PIN:742237, West Bengal, India Each package/Drum delivered under the Contract shall be marked by Supplier as per details listed below and such marking must be distinct and in English Language (all previous irrelevant markings being carefully obliterated) for purposes of identification. Each and every box(package) shall be marked with following:-
- 1) Name and address of the consignee.
- 2) Project Reference.
- 3) Name of Supplier
- 4) P.O. reference no. along with package name.
- 5) Packing No. (1/10, 2/10, 3/10 when there are 10 packages for one consignment)
- 6) The Gross weight and net weight of the package.

Besides above necessary, packing shall bear a special marking "TOP", "BOTTOM", "DO NOT TURN OVER", "DEEP DRY", "HANDLE WITH CARE", etc.

IMPORTANT

• Two copies of respective standard manufacturer's erection instruction /operation manual shall be provided for immediate reference by BHEL site.

The Copy of complete Packing list for the consignment must be put inside the Box/Boxes.

12 copies of supplier's Erection/ Instruction manuals to be given to the BHEL, PEM, PPEl-Noida and 3 copies to BHEL, PSER, Sagardighi site within 30 days of dispatch for handing over to Customer/BHEL site.

Items like pumps, Valves, Hoists, Cranes, etc. shall essentially have O&M Manuals and E&C guidelines duly enclosed in the packing box.

24.0 Commissioning Spares

The commissioning spares shall be properly packed separately in separate box and each spare shall be properly tagged giving details i.e. dispatch (to match the description given in the packing slip) to facilitate their proper identification. One Copy of Packing list must be put inside the Box.

25.0 Mandatory Spares

Supplies of spares will be separate from main supply and separate manufacturing clearance shall be given for mandatory spares. The Mandatory spares shall be properly packed separately in separate boxes & boxes should be painted in red indicating Mandatory Spares in bold letters and each spare shall be properly tagged giving details i.e. item number of the equipment in line with the WBPDCL approved BBU for Mandatory spares & Number per item (to match the description given in the packing slip) to facilitate their proper identification by ultimate customer M/s WBPDCL. One Copy of Packing List must be put inside the BOX along with Manufacturing drawing no. reference, Catalogue reference etc.

Note:- MDCC for mandatory Spares shall be issued only after receipt of detailed list of mandatory spares & photographs before final packing clearly showing mandatory spares with due tagging as per packing list (to be sent over mail/CD). Separate dispatch clearance will be issued for the mandatory spares in line with availability of customer's stores at site.

- 26.0 Statutory Clearance and License (For turnkey packages)
- : Bidder has to arrange and obtain all statutory clearances and required licenses at their own cost without any financial implication on BHEL.
- 27.0 Health, Safety and Environment (HSE) (For turnkey packages)
- : The bidder will comply with HSE (Health, Safety & Environment) requirements of BHEL and follow all applicable Operational Control Procedures (OCPs) within quoted rate/price.

Refer Document Number: HSEP:14-SGD Rev.: 02, DATE: 01.09.2020. Refer Document



Title: Health, Safety and Environment Plan for Site Operation by Subcontractors for Sagardighi.

28.0 Responsibilities with regard to employment of Labour etc. (For turnkey packages)

: Recruitment of Local Labour:

Local labours shall be engaged for unskilled work. Preference may also be given for appointment of local people in semiskilled and skilled categories, if such suitable persons are available.

Labour Laws and Local Regulations:

The Contractor shall abide by the prevailing labour laws and shall have to obtain labour license from the appropriate authority as per the law at his cost and shall indemnify the Purchaser about his financial and other obligations arising out of labours/workers employed by him. On obtaining the labour license, the Contractor at appropriate time shall submit certified photocopy of the same to the Purchaser. The Contractor and its sub-contractor (s) shall possess valid PF & ESI Code.

Wages and Working Hours:

The Contractor shall pay rates of Wages and observe hours and conditions of labour not less favourable than those established for the trade or industry in the district where the work is carried out but not less than the applicable minimum wages or by machinery of negotiation or arbitration to which the parties are organizations of employers and trade union's representatives respectively of substantial proportions of the employers and workers engaged in the trade or industry in the district. In the absence of any rates of Wages, hours or conditions of labour so established the Contractor shall pay rates of wages and observe hours and conditions of labour which are not less favorable than the general levels of wages and hours and conditions observed by other contractor whose general circumstances in the trade or industry in which he is engaged are similar.

Contractor to furnish return of labour employed:

The Contractor shall, if required by the Engineer, deliver to the Engineer or to his office a return in such form and at such intervals as the Engineer may prescribe showing in detail category-wise number of classes of labour from time to time employed by the Contractor on the Site and such information respecting construction machinery as the Engineer may require.

The Contractor shall make his own arrangements for the engagement of all labour and provide on the Site in so far as the Contract otherwise provides, for the transport, housing, feeding and payment thereof.

The Contractor shall, so far as is reasonably practical, having regard to local conditions, provide on the Site, to the satisfaction of the Engineer an adequate supply of drinking and other water for the use of his staff and labour.

Other Requirements:

- a) The Contractor shall not, otherwise than in accordance with the Statutes, Ordinances and Government Regulation or Orders for the time being in force, import, sell, give, barter or otherwise dispose of any alcoholic liquor, or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by his subcontractor(s), agents of employees.
- b) The Contractor shall not give, barter or otherwise dispose of to any person or persons any arms or ammunition of any kind or permit the same as aforesaid.
- c) The Contractor shall in all dealings with labour in his employment have a due regard to all recognized festivals, days of rest and religious or other customs.



- d) In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government, or the local municipal or sanitary authorities for the purpose of dealing with and overcoming the same.
- e) The Contractor shall at all times take all reasonable precautions to prevent any unlawful riotous or disorderly conduct by or amongst his employees and for the preservation of peace and protection of persons and property in the neighborhood of the Site against the same.
- f) The Contractor shall be responsible for observance by his sub-contractor(s) of the foregoing provisions.

Contractor shall deploy only qualified and experienced engineers/ supervisors. They shall have professional approach in executing the work.

The contractor's supervisory staff shall execute the work in the most professional manner in the stipulated time. Accuracy of work and aesthetic finish are essential part of this contract. They shall be responsible to ensure that the assembly and workmanship conform to dimensions and tolerances given in the drawings/instructions given by BHEL engineer from time to time. The supervisory staff employed by the contractor shall ensure proper outturn of work and discipline on the part of the labour put on the job by the contractor. Also in general they should see that the works are carried out in a safe and proper manner and in coordination with other labour and staff employed directly by BHEL or other contractors of BHEL or BHEL 's client.

If at any time, it is found that the contractor is not in a position to deploy the required engineers/supervisors/workmen due to any reason, BHEL shall have the option to make alternate arrangements at the contractor's risk and cost.

29.0 Type of Project

Project Import Route (Non Mega)

30.0 Taxes and duties

- i) Concessional Custom duty in line with the Essentiality certificate issued by customer shall be applicable for packages for which CIF content is available as per NIT.
 - ii) GST- CGST/SGST/IGST: as per GCC Rev 07 or further revisions of BHEL PEM GCC as applicable for the specific Tender enquiry.
 - iii) Vendor has to comply the BOCW norms as per details of activities noted vide relevant Annexure of NIT.

Information as per Annexure-1 shall be provided by supplier in the GST compliant invoice.

Vendor may collect TCS under section 206C(1H) of Income Tax Act,1961if applicable In case, vendor collects TCS under section 206C(1H) of Income Tax Act,1961, following compliance is required.

- a) TAN and PAN of vendor should appear in all invoices/claims. Copy of TAN /TCS registration is to be submitted.
- b) Amount of TCS and Assessable value on which TCS has been calculated should be specified clearly in the invoice.
- c) You shall be required to submit certificate of TCS in Form no. 270 within 15 days from the due date for furnishing the statement of tax collected at the source.

In case, you do not collect TCS under section 206C(1H) of Income Tax Act, 1961, following declaration is to be submitted alongwith each invoice: -



"I/We hereby declare that I/We are not required to collect TCS" under section 206C(1H) of Income Tax Act,1961, on this bill.

In event of failure to comply with the provisions of the Act, or proper certificate not issued, or if tax collected but not remitted to the Government, or for any other reason and thereby causing loss to BHEL, the same shall be recoverable from the vendor with applicable interest.

Vendor shall comply with all statutory amendment/notifications in this respect

31.0 Construction power & Construction water

Construction power shall be provided on free of charge. Construction water shall be provided free of cost. However, metering arrangement shall be established for measuring electricity & water consumption.



ANNEXURE -1 TO SCC

Excerpts from Chapter VI for compliance of GST Invoice as per Rule 46 TAX INVOICE, CREDIT AND DEBIT NOTES

46. Tax invoice.- Subject to rule 54, a tax invoice referred to in section 31 shall be issued by the registered person containing the following particulars, namely,-

- name, address and Goods and Services Tax Identification Number of the supplier;
- (b) a consecutive serial number not exceeding sixteen characters, in one or multiple series, containing alphabets or numerals or special characters- hyphen or dash and slash symbolised as "-" and "/" respectively, and any combination thereof, unique for a financial year;
- (c) date of its issue;
- (d) name, address and Goods and Services Tax Identification Number or Unique Identity Number, if registered, of the recipient;
- (e) name and address of the recipient and the address of delivery, along with the name of the State and its code, if such recipient is un-registered and where the value of the taxable supply is fifty thousand rupees or more;
- (f) name and address of the recipient and the address of delivery, along with the name of the State and its code, if such recipient is un-registered and where the value of the taxable supply is less than fifty thousand rupees and the recipient requests that such details be recorded in the tax invoice;
- (g) Harmonised System of Nomenclature code for goods or services;
- (h) description of goods or services;
- (i) quantity in case of goods and unit or Unique Quantity Code thereof;
- (j) total value of supply of goods or services or both;
- taxable value of the supply of goods or services or both taking into account discount or abatement, if any;
- rate of tax (central tax, State tax, integrated tax, Union territory tax or cess);
- amount of tax charged in respect of taxable goods or services (central tax, State tax, integrated tax, Union territory tax or cess);
- (n) place of supply along with the name of the State, in the case of a supply in the course of inter-State trade or commerce;
- address of delivery where the same is different from the place of supply;
- (p) whether the tax is payable on reverse charge basis; and
- (q) signature or digital signature of the supplier or his authorized representative:
- (r) Quick Reference code, having embedded Invoice Reference Number (IRN) in it, in case invoice has been issued in the manner prescribed under sub-rule (4) of rule 48".

	PREPARED BY	CHECKED BY	REVIEWED BY	APPROVED BY
Name:	TARUN ARYA	ASHUTOSH SHARMA	HASEEN AHMED	B. L. BEDI
Designation	DY MANAGER /PEM (PG I)	DY MANAGER /PEM (PG I)	SR. MANAGER /PEM (PG I)	AGM(DH)/ PEM (PG I&II)
Signature				
Date				

	OF BIDDER :								
NAME	OF PROJECT:	1X660 MW SAGARDIGHI TPP EXTENSION UNIT 5							
NAME	OF PACKAGE:	CONDENSATE POLISHING UNIT							
TECHN	IICAL SPECIFICATION:	PE-TS-445-155-A001 REV. 01							
TENDE	R ENQUIRY NO :	PE/PG/SGI/E-6719/2021 Dated 06.08.2021							
S. No.		DESCRIPTION	UNIT	QTY	Total Ex-works Price (INR)	Freight in %	Freight in INR	Total FOR Site Price Including Freight but excluding GST (INR)	Total FOR Site Price Including Freight but excluding GST in Words
1.0	drawing/ documents including " As Built " drawings and Ovendor's & sub-vendor's works, painting, maintenance tools & spares alongwith spares for erection, startup and commissi handling, transportation & storage at site, in site transportating guarantee tests at site, training of customer/ client O&M ste	RT & MANDATORY SPARES comprising of design (i.e. Preperation and submission of &M Manuals), engineering, manufacture, fabrication, assembly, inspection / testing at tackles (as applicable), fill of lubricants & consumables (excluding chemicals), mandatory oning as required, forwarding, proper packing, shipment and delivery at site, unloading, on, assembly, erection & commissioning, trial run at site and carrying out performance iff & final handing over to end customer in flawless condition for project and package ope defined as per BHEL NIT & tender technical specification, amendment & agreements	Set	1					
2.0	MAJOR BREAK-UP OF PRICES GIVEN IN 1.0 ABOVE.								
2.1	drawings and O&M Manuals), engineering, manufacture, famaintenance tools & tackles (as applicable),fill of lubricant commissioning as required, forwarding, proper packing, shi accessories for the total scope defined as per BHEL NIT & ten	of design (i.e. Preperation and submission of drawing/ documents including "As Built" ibrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, ts & consumables (excluding chemicals), alongwith spares for erection, startup and pment and delivery at site for project and package specified above complete with all der technical specification, amendment & agreements till placement of order.	Set	1					
2.2	assembly, erection & commissioning, final painting at site, tri	prising of unloading, handling, transportation & storage at site, in site transportation, al run at site and carrying out performance guarantee tests at site, training of customer/ lyless condition for project and package specified above complete with all accessories for ecification, amendment & agreements till placement of order.	Set	1					
2.3		manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, site & guarantee as per tender technical specification , amendment & agreements till be furnished as per Annexure- I).	Lot	1					
2.4	Total lump sum firm price for ENGINEERING PART for project specification, amendment & agreements till placement of order	ct and package specified for the total scope defined as per BHEL NIT & tender technical r.	Set	1					

¹⁾ The Engineering charges as mentioned above in S.No. 2.4 shall not be more than 2% of the total lumpsump value as per Sl. No. 1.0 as per GCC
2) Please note that the complete engineering of the package is in the scope of bidder as per the tender requirement. However, for the payment purpose bidder to note that 50% of price as per sl. no. 2.4 shall be made against basic engineering (i.e. Preparation and submission of basic drawing/ documents as indicated in tender specification Section-I, Sub section-IA, Annexure-VII) and the remaining payment shall be made for the balance engineering part on pro-rata basis.

ANNEXURE-I LIST OF MANDATORY SPARES

NAME OF PROJECT: 1X660 MW SAGARDIGHI TPP EXTENSION UNIT 5
NAME OF PACKAGE: CONDENSATE POLISHING UNIT

TECHNIC	CAL SPECIFICATION:	PE-TS-445-155-	A001 REV. 01	
S. N.	Equipment	UNIT	Quantity	Total Ex-Works duly packed (INR)
1	Screens and Nozzles for the under drain system			
1.1	Activated Carbon Filter	%	15% of ACF Vessel	
1.2	Polisher Service Vessels	%	100% for one vessel of each	
2	lon Exchange resins for makeup losses during first three (3) years of operation which have been guaranteed by the bidder. (But in any case the make-up quantity to be supplied by bidder shall not be less than the quantity considering as attrition loss of 3% per annum for cation resins and 12% per annum for Anion resins).	Lot	1 Lot	
3	Blowers for Regeneration and Service Vessel			
3.1	Bearings	Sets	1 Set for each type/ size/ ratings (one set means complete replacement for 1 no. of each type/ rating of blower)	
3.2	Impeller	Sets	1 Set for each type/ size/ ratings (one set means complete replacement for 1 no. of each type/ rating of blower)	
3.3	Electrical Spares as applicable as per the Electrical List		Applicable Item & Quantity same as indicated in Electrical list below.	
4	Horizontal Centrifugal Pumps			
4.1	Impeller complete Assembly	Sets	1 Set for each type/ size/ ratings (one set means complete replacement for 1 no. of each type/ rating of pump)	
4.2	Bearings for the pumps	Sets	1 Set for each type/ size/ ratings (one set means complete replacement for 1 no. of each type/ rating of pump)	
4.3	Shafts	Sets	1 Set for each type/ size/ ratings (one set means complete replacement for 1 no. of each type/ rating of pump)	
4.4	Shaft Sleeve of each type	Sets	1 Set for each type/ size/ ratings (one set means complete replacement for 1 no. of each type/ rating of pump)	
4.5	Casing wearing rings (if applicable)	Sets	1 Set for each type/ size/ ratings (one set means complete replacement for 1 no. of each type/ rating of pump)	
4.6	Impeller wearing rings (if applicable)	Sets	1 Sets for each type /size/ ratings (one set means complete replacement for 1 no. of each type/ rating of pump)	
4.7	Thrust Bearings (if applicable)	Sets	1 Set for each type/ size/ ratings (one set means complete replacement for 1 no. of each type/ rating of pump)	
4.8	Sleeve nuts and O-rings	Sets	1 Set for each type/ size/ ratings (one set means complete replacement for 1 no. of each type/ rating of pump)	

4.9	Gland & Gland Packing (if applicable)	Sets	2 Sets for each type/ size/	
			ratings (one set means	
			complete replacement for 1 no.	
			of each type/ rating of pump)	

Set Set for each type at lazer Set Set for each type at lazer Interpretation Set Set Set for each type at lazer Interpretation Set					
A.11 Complete Coupling (Pump and Motor) Sets Set for each type intellige of pump) 4.12 Mechanical seal (if applicable) 4.13 Electrical Sparce as applicable as per the Electrical List Applicable (Intelligence Assembly of Metering (Doeing) Pumps & motor 5 Complete Assembly of Metering (Doeing) Pumps & motor 6 Valvies 6 Valvies 6. Valvies 6. Complete Set of Or O'M Valvie with Pheumatic Actuator (including noise inviting Disputage of Assembly of Metering (Doeing) Pumps & motor 7. Fold Instruments & Others as applicable as per the C&I List 8 Agriculture (Intelligence Assembly of Metering (Doeing) Pumps & motor 8 Valvies 6. Complete Set of Or O'M Valvie with Pheumatic Actuator (including noise inviting Disputager of different native of the Complete Set of Or O'M Valvie with Pheumatic Actuator (including noise inviting Disputager of different native in the Complete Set of Or O'M Valvie with Pheumatic Actuator (including noise inviting Disputager of different native in the Complete Set of Or O'M Valvie with Pheumatic Actuator (including noise inviting Disputager of different native in the Complete Set of Or O'M Valvie with Pheumatic Actuator (including noise inviting Disputager of different native in the Complete Set of Or O'M Valvie with Pheumatic Actuator (including noise inviting Disputager of different native in the Complete Set of Or O'M Valvie with Pheumatic Actuator (including noise inviting Disputager of O'M Valvies (including noise inc	.4.10	Fasteners	Sets	1 Set for each type/ size/	
4.11 Complete Coupling (Pump and Motor) Sets Sets Sets Sets on Complete Polymer and Motor) 4.12 Machanical seal (if applicable) 4.13 Electrical Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Cell List same as indicated in Electrical International Sparos and				ratings (one set means	
4.11 Complete Coupling (Pump and Motor) Sets Sets Sets Sets on Complete Polymer and Motor) 4.12 Machanical seal (if applicable) 4.13 Electrical Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Electrical List same as indicated in Electrical International Sparos as applicable as per the Cell List same as indicated in Electrical International Sparos and				complete replacement for 1 no.	
4.11 Complete Coupling (Pump and Motor) Sets I Set for each type sized rating (one set meman complete replacement for 1 no. of each type rating (one set meman complete replacement for 1 no. of each type rating (one set meman complete replacement for 1 no. of each type rating (one set meman complete replacement for 1 no. of each type sized and pump). 4.12 Mechanical seal (if applicable) 5. Complete Assembly of Metering (Dosing) Pumps & motor 6. Valves 6. Valves 6. Complete Set of CN/ Off Valve with Presumate Actuator (including those having Dipphragm of different material) 6. Disphragm Valve (including those having Disphragm of different material) 7. Felid instruments & Others as applicable as per the C&I List 8. 415 Voll. Motor 8. 145 Voll. Motor 8. 15 Word or dosh type and rating (Note: motors covered in mechanical spare items need not to be included here again) 10% of the installed quantity or minimum 1 mumber withchever be higher. 8. 2 End Shield Cover Driving & Non-Driving End 8. 4 Bearings (De and NDE) for each type and rating of motor 8. 4 Bearings (De and NDE) for each type and rating of motor 8. 5 Cooling Fan for all type and rating of motor 8. 6 Searings (De and NDE) for each type and rating of motor 8. 8 Searings (De and NDE) for each type and rating of motor 9. Feld Instruments 10 Pressure 10 Pressure 10 Pressure 10 Differential Pressure 11 Nos. 12 Level 12 Nos. 13 (One) no. complete set for each type and minuter with the model and model range used in the system 13 Differential Pressure 14 Nos. 15 (One) no. complete set for each type and minuter each type and model range used in the system 15 Differential Pressure 16 Nos. 17 (One) no. complete set for each type and minuter each type and minuter each type and model range used in the system 17 (One) no. complete set for each type and model range used in the system 18					
atlangs (one set means complete replacement for 1 no. of each type rating of pump) 4.12 Mechanical seal (if applicable) 5. Complete Assembly of Metering (Dosing) Pumps & motor 5. Complete Assembly of Metering (Dosing) Pumps & motor 6. Valves 6. Valves 6. Complete Assembly of Metering (Dosing) Pumps & motor 8. Sets 1 Set for each type/ size/ rating. 6. Valves 6. Complete Set of Oru Off Valve with Presurable Actuator (including voice having Disphasm of different meterial) 7. Fold Instruments & Others as applicable as per the C&I List 8. Disphasmy maker (including those having Disphasmy of different material) 8. The Complete Set of Oru Off Valve with Presurable Actuator (including voice having Disphasmy maker (including those having Disphasmy of different material) 8. The Complete Set of Oru Off Valve with Presurable Actuator (including voice having Disphasmy maker (including those having Disphasmy of different material) 8. The Complete Set of Oru Off Valve with Presurable Actuator (including voice having Disphasmy maker (including those having Disphasmy of different material) 8. The Complete Set of Orughny Maker (including voice having Disphasmy of different material) 8. The Complete Set of Orughny Maker (including those having Disphasmy of different material) 8. The Complete Set of Orughny Maker (including those having Disphasmy of different material) 8. The Complete Set of Orughny Maker (including those having Disphasmy of different material) 8. The Set of Country of the material of Motor or minimum 1 number whichever be higher. 8. The Set of Country of Motor or minimum 1 number whichever be higher. 8. Each Sheld Cover Driving & Non-Driving End 8. Set of Set of Orughny Maker (including those having disphasmy of the material of Motor or Motor	1 1 1	Complete Coupling (Dump and Mater)	Coto		
4.12 Mechanical seal (if applicable) 4.13 Electrical Spares as applicable as per the Electrical List 5 Complete Assembly of Meloring (Dosing) Pumps & motor 6 Valves 6 Valves 6.1 Chock Valves 7. Fold instruments & Others as applicable as per the CEI List 8.1 No. for each type sizer rating. 8.2 Complete Set of On VOIf Valve with Pneumatic Actuator (including hose having Disphragm of different material) 7 Field instruments & Others as applicable as per the CEI List 8 415 Voit Motor 8.1 Motor of each type and rating (Note: motors covered in mechanical spare listen seed not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Hasters 8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Cooling Fan for all type and rating of the rotors 8.6 Dosle rose and gasted for each type and rating of Motor 9.5 Sets 9.6 Dosle rose and gasted for each type and rating of Motor 10 Differential Pressure 10 Differential Pressure Switch 11 Core pro. complete set for each type and minimum of model range used in the system 12 (Core) no. complete set for each type and minimum of model range used in the system 13 Differential Pressure Switch 14 Differential Pressure Switch 15 Differential Pressure Switch 16 Differential Pressure Switch 17 Differential Pressure Switch 18 Differential Pressure Switch 19 Differential	4.11	Complete Coupling (Pump and Motor)	Seis		
4.12 Mechanical seal (if applicable) 4.13 Electrical Spares as applicable as per the Electrical List 5 Complete Assembly of Metering (Dosing) Purips & motor 5 Complete Assembly of Metering (Dosing) Purips & motor 6 Valves 6.1 Chreck Valves 6.2 Complete Set of On't Off Valve with Pneumatic Actuator (including hose having Disphragm of different material) 6.3 Disphragm Valve (including hose having Disphragm of different material) 7 Field Instruments & Others as applicable as per the C&I List 8 415 Volt Molor 8.1 Hy Volt Molor 8.1 Hy Volt Molor 8.2 End Sheld Cover Driving & Non-Driving End 8.3 Heaters 9.4 Heaters 9.5 Each Sheld Cover Driving & Non-Driving End 9.5 Cooling Fan for all type and rating of Lift motors 9.5 Cooling Fan for all type and rating of Lift motors 9.6 Cooling Fan for all type and rating of Lift motors 9.7 Motor Terminal Block 9.8 Disphragm Cooling Fan Sheld Cover Driving & Non-Driving End 9.8 Heaters 9.6 Cooling Fan for all type and rating of motors 9.6 Cooling Fan for all type and rating of Lift motors 9.6 Cooling Fan for all type and rating of motors 9.7 Field Instruments 9.7 Motor Terminal Block 9.8 Cooling Fan for all type and rating of motors 9.8 Cooling Fan for all type and rating of Lift motors 9.8 Cooling Fan for all type and rating of Lift motors 9.8 Cooling Fan for all type and rating of motors 9.8 Cooling Fan for all type and rating of motors 9.8 Complete Set of Coupling 9.8 Field Instruments 9.1 Electronic Transmitters 9.1 Electronic Transmitters 9.2 Field Instruments 9.3 Ultrasortic Lift motors 9.4 Field Instruments 9.5 Set Office Set of Coupling 9.7 Field Instruments 9.8 Field Instruments 9.9 Field Instruments 9.1 Electronic Transmitters 9.1 Electronic Transmitters 9.2 Field Instruments 9.3 Different type of Switches 9.4 Cover of Coupling Set Set of Coupling Set Set Office Set Set Office Set Office Set Set Office Set Of					
4.12 Mechanical seal (if applicable) 4.13 Electrical Sparses as applicable as por the Electrical List 5 Complete Assembly of Metering (Dosing) Pumps & motor 5 Complete Assembly of Metering (Dosing) Pumps & motor 6 Valves 6.1 Check Valves 6.2 Complete Set of On/ Off Valve with Pneumatic Actuator (including those having Disphragm of different material) 6.3 Disphragmy Valve (including those having Disphragmy of different material) 7 Field instruments & Others as applicable as por the C&I List 8 4 15 Volt Motor 8.1 Motor of each type and rating (Not : motors covered in mechanical spare items need not to be included here again) 10% of the installed quantity or minimum 1 mumber witchever be higher. 8.2 End Sheld Cover Driving & Non-Driving End 8.3 Bearings (DE and NDE) for each type and rating of motor 8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Cooling Fan for all type and rating of II motors 8.6 Cooling Fan for all type and rating of II motors 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field instruments 9 Field instruments 10 Differential Pressure Nos. 11 Set or each type and rating of Motor 12 Sets or each type and rating of Motor 15 Set or each type and rating of Motor 16 Sets or each type and rating of Motor 17 Sets or each type and rating of Motor 18 Sets or each type and rating of Motor 19 Field instruments 10 Differential Pressure Nos. 10 Complete Set of Coupling 10 Differential Pressure Nos. 11 Conglete Set of Coupling 11 Pressure Nos. 12 Complete Set of Coupling 13 Differential Pressure Switch Nos. 14 Conglete Set of Coupling Sets or each type of motors Nos. 15 Couplete Set of Coupling Sets or each type and rating of Motor each type and rating of Motor each type and rating o					
4.13 Electrical Spares as applicable as per the Electrical List Applicable flors & Quantity same as indicated in Electrical list below.				of each type/ rating of pump)	
4.13 Electrical Spares as applicable as per the Electrical List Applicable flors & Quantity same as indicated in Electrical list below.					
4.13 Electrical Spares as applicable as per the Electrical List Applicable flors & Quantity same as indicated in Electrical list below.	4.12	Mechanical seal (if applicable)	Sets	1 Set for each type/ size/	
same as indicated in Electrical list below. 5 Complete Assembly of Metering (Dosing) Pumps & motor 6 Valves No. 1 No. for each type isize/ rating. 6 Valves No. 1 No. for each type isize/ rating. 6 Complete Set of On/ Off Valve with Pneumatic Actuator (including hose having Desphragm of different national) 7 Field instruments & Others as applicable as per the C&I List 8 415 Voll Motor 8.1 Motor of each type and rating (Note : motors covered in mechanical sparse liters need not to be included here again) 10% of the installed quantity or minimum I number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Cooling Fan for all type and rating of motor 8.6 Dust seals and agastos for each type and rating of Motor 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field instruments 9.1 Electronic Transmitters Nos. 1 no. for each type and rating of Motor Nos. 1 no. for each type and rating of Motor 1 one for each type and rating of Motor 1 one for each type and rating of Motor 2 sets for each type and rating of Motor 8 set S		, <i>,</i>		. , , , , , , , , , , , , , , , , , , ,	
5 Complete Assembly of Metering (Dosing) Pumps & motor 5 Complete Assembly of Metering (Dosing) Pumps & motor 5 Sots 5 Complete Assembly of Metering (Dosing) Pumps & motor 5 Sots 5 Complete Assembly of Metering (Dosing) Pumps & motor 5 Sots 5 Complete Set of Cort Off Valves with Presumatic Actuator (including No. 1 No. for each type) sizer rating of valves with the property of the propert	4.13	Electrical Spares as applicable as per the Electrical List			
5 Complete Assembly of Metering (Dosing) Pumps & motor 6 Valves 6. 1. Check Valves No. 1 No. for each typer size/ rating. 6. 2. Complete Set of On/ Off Valve with Pneumatic Actuator (including those having Disphragm of different material) 3. Disphragmy Valve (including those having Disphragm of different material) 7 Field instruments & Others as applicable as per the C&I List 8 415 Volt Motor 8. 1 Motor of each type and rating (Note : motors covered in mechanical spare items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8. 2 End Shield Cover Driving & Non-Driving End 8. 3 Heaters 8. 4 Eerd Sound Cover Driving & Non-Driving End 8. 4 Bearings (DE and NDE) for each type and rating of motor Sets 8. 6 Dust seads and gaskets for each type of motors 8. 7 Motor Terminal Block 8. 8 Complete Set of Coupling 9 Field Instruments 9 Field Instruments 1) Pressure Nos. 1 (One) no. complete set for each type and mode/ range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and mode/ range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and mode/ range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and mode/ range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and mode/ range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and mode/ range used in the system 1) Differential Pressure Switch Nos. 2 (Ww) no. of each type & mode/ range used in the system 1) Differential Pressure Switch Nos. 2 (Ww) no. of each type & mode/ range used in the system 1) Differential Pressure Switch Nos. 2 (Ww) no. of each type & mode/ range used in the system 1) Differential Pressure Switch Nos. 2 (two) no. of each type & mode/ range used in the system 2 (Ww) no. of each type & mode/ range used in the system 2 (Ww) no. of each type & mode/ range used in the sy				same as indicated in Electrical	
6.1 Check Valves 6.1 Check Valves 7. Complete Set of On/ Off Valve with Pneumatic Actuator (including those having Disphragm of different material) 8.2 Disphragm Valve (including those having Disphragm of different material) 9.3 Disphragm Valve (including those having Disphragm of different material) 9.4 If No. for each type size/ rating of valves. 9.5 Disphragm Valve (including those having Disphragm of different material) 9.6 Is a first transmitter of the C&I List of valves. 9.7 Field instruments & Others as applicable as per the C&I List Applicable item & Cauntity some as indicated in C&I list some of valves. 9. A 15 Volt Motor 9. A 16 Volt Motor 9. A 16 Volt Motor 9. A 17 Volt Motor 9. A 18 Volt Motor 9. A 18 Volt Motor 9. A 19 Volt Motor 9					
6.1 Check Valves 6.2 Complete Set of On/ Off Valve with Pneumatic Actuator (including those having Diaphragm of different material) 6.3 Diaphragm Valve (including those having Diaphragm of different material) 7 Field Instruments & Others as applicable as per the C&I List 8 145 Volt Motor 8.1 Motor of each type and rating (Note: motors covered in mechanical sparse litems need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Sets 8.6 Coults Sets of each type and rating of LT motors 8.7 Motor from the part of the	5	Complete Assembly of Metering (Dosing) Pumps & motor	Sets	1 Set for each type/ size/ rating.	
6.1 Check Valves 6.2 Complete Set of On/ Off Valve with Pneumatic Actuator (including those having Diaphragm of different material) 6.3 Diaphragm Valve (including those having Diaphragm of different material) 7 Field Instruments & Others as applicable as per the C&I List 8 145 Volt Motor 8.1 Motor of each type and rating (Note: motors covered in mechanical sparse litems need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Sets 8.6 Coults Sets of each type and rating of LT motors 8.7 Motor from the part of the					
6.1 Check Valves 6.2 Complete Set of On/ Off Valve with Pneumatic Actuator (including those having Diaphragm of different material) 6.3 Diaphragm Valve (including those having Diaphragm of different material) 7 Field Instruments & Others as applicable as per the C&I List 8 145 Volt Motor 8.1 Motor of each type and rating (Note: motors covered in mechanical sparse litems need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Sets 8.6 Coults Sets of each type and rating of LT motors 8.7 Motor from the part of the	6	Valves			
6.2 Complete Set of On/ Off Valve with Pneumatic Actuator (including those having Diaphragm of different material) 5. Diaphragmy Valve (including flose having Diaphragm of different material) 7. Field Instruments & Others as applicable as per the C&I List 8. 415 Volt Motor 8. 1 Motor of each type and rating (Note: motors covered in mechanical spare filters made and to be included here again) 10% of the installed quantity or minimum in number whichever be higher. 8. 2 End Sheld Cover Driving & Non-Driving End 8. 3 Heaters 8. 4 Eserting (De and NDE) for each type and rating of motor 8. 4 Bearings (DE and NDE) for each type and rating of motor 8. 5 Cooling Fan for all type and rating of IT motors 8. 6 Doust seals and gaskets for each type of motors 8. 7 Motor Terminal Block 8. 8 Complete Set of Coupling 9. Field Instruments 10 Yes of the installed quantity or minimum in number whichever be higher. 11 Set or seach type and rating of Motor or seach type and rating of Motor or minimum in number whichever be higher. 12 Set of seach type and rating of IT motors 8. Cooling Fan for all type and rating of IT motors 9. Set of the complete Set of Coupling 9. Field Instruments 10 Differential Pressure 11 (One) no. complete set for each type and model range used in the system 12 Separation of the system 13 Differential Pressure 14 (One) no. complete set for each type and model range used in the system 15 (One) no. complete set for each type and model range used in the system 16 (One) no. complete set for each type and model range used in the system 17 (One) no. complete set for each type and model range used in the system 18 (One) no. complete set for each type and model range used in the system 19 Differential Pressure Note Nos. 11 (One) no. complete set for each type and model range used in the system 19 Differential Pressure Switch 10 Differential Pressure Switc			No	1 No. for each type/ size/ rating	
those having Diaphragm of different material) 6.3 Diaphragm Valve (including those having Diaphragm of different material) 7 Field Instruments & Others as applicable as per the C&I List 8 415 Vot Motor 8. 415 Vot Motor 8. 10 Notor of each type and rating (Note : motors covered in mechanical spare items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8 Sets 8 1 set for each type and rating of Motor 8 2 sets for each type and rating of Motor 8 3.3 Heaters 8 Sets 8 2 sets for each type and rating of Motor 8 3.5 Cooling Fain for all type and rating of Interest Set One (1) set 1 set	0.1	Crieck valves	INO.	i No. for each type/ size/ fatting.	
those having Diaphragm of different material) 6.3 Diaphragm Valve (including those having Diaphragm of different material) 7 Field Instruments & Others as applicable as per the C&I List 8 415 Vot Motor 8. 415 Vot Motor 8. 10 Notor of each type and rating (Note : motors covered in mechanical spare items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8 Sets 8 1 set for each type and rating of Motor 8 2 sets for each type and rating of Motor 8 3.3 Heaters 8 Sets 8 2 sets for each type and rating of Motor 8 3.5 Cooling Fain for all type and rating of Interest Set One (1) set 1 set		0 14 0 4 60 400041 30 0 30 4 4 4 6 4 5		4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
6.3 Diaphragm Valve (including those having Diaphragm of different material) 7 Field Instruments & Others as applicable as per the C&I List 8 415 Volt Motor 8.1 Motor of each type and rating (Note : motors covered in mechanical spare items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8.4 Beatings (DE and NDE) for each type and rating of Motor 8.5 End Shield Cover Driving & Non-Driving End 8.6 Dust seaks and gaskets for each type and rating of Motor 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field Instruments 1 on for each type and rating of Motor 8.8 Complete Set of Coupling 9 Field Instruments 1) Pressure Nos. 1 (One) no. complete set for each type and model range used in the system 1) Offerential Pressure Nos. 1 (One) no. complete set for each type and model range used in the system 1) Offerential Pressure Nos. 1 (One) no. complete set for each type and model range used in the system 1) Offerential Pressure Nos. 1 (One) no. complete set for each type and model range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and model range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and model range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and model range used in the system 1) Differential Pressure Switch Nos. 2 (two) no. of each type & model range used in the system 1) Differential Pressure Switch Nos. 2 (two) no. of each type & model range used in the system 1) Pressure Switch Nos. 2 (two) no. of each type & model range used in the system 1) Pressure Switch Nos. 2 (two) no. of each type & model range used in the system 1) Temperature Switch	6.2		No.	7.	
materiary 7 Field Instruments & Others as applicable as per the C&I List 8 415 Voit Motor 8. 1 Motor of each type and rating (Note : motors covered in mechanical spare Items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.1 Motor of each type and rating (Note : motors covered in mechanical spare Items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters Sets 2 sets for each type and rating of Motor 8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Cooling Fan for all type and rating of IT motors 8.6 Dust seeds and gaskets for each type of motors 8.7 Motor Terminal Block 8.8 Complete Set of Coupling Sets 1 set for each type and rating of Motor 8.8 Complete Set of Coupling Sets 1 set for each type and rating of Motor 8.9 Field instruments 9.1 Electronic Transmitters Nos. 1 (One) no complete set for ach type and model/ range used in the system 1) Pressure Nos. 1 (One) no complete set for each type and model/ range used in the system 1) Differential Pressure Nos. 1 (One) no complete set for seach type and model/ range used in the system 1) Differential Pressure Nos. 1 (One) no complete set for each type and model/ range used in the system 1) Differential Pressure Switch Nos. 1 (One) no complete set for each type and model/ range used in the system 1) Differential Pressure Switch Nos. 1 (One) no complete set for each type and model/ range used in the system 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model/ range used in the system) 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model/ range used in the system) 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model/ range used in the system)					
materiary 7 Field Instruments & Others as applicable as per the C&I List 8 415 Voit Motor 8. 1 Motor of each type and rating (Note : motors covered in mechanical spare Items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.1 Motor of each type and rating (Note : motors covered in mechanical spare Items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters Sets 2 sets for each type and rating of Motor 8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Cooling Fan for all type and rating of IT motors 8.6 Dust seeds and gaskets for each type of motors 8.7 Motor Terminal Block 8.8 Complete Set of Coupling Sets 1 set for each type and rating of Motor 8.8 Complete Set of Coupling Sets 1 set for each type and rating of Motor 8.9 Field instruments 9.1 Electronic Transmitters Nos. 1 (One) no complete set for ach type and model/ range used in the system 1) Pressure Nos. 1 (One) no complete set for each type and model/ range used in the system 1) Differential Pressure Nos. 1 (One) no complete set for seach type and model/ range used in the system 1) Differential Pressure Nos. 1 (One) no complete set for each type and model/ range used in the system 1) Differential Pressure Switch Nos. 1 (One) no complete set for each type and model/ range used in the system 1) Differential Pressure Switch Nos. 1 (One) no complete set for each type and model/ range used in the system 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model/ range used in the system) 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model/ range used in the system) 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model/ range used in the system)	6.3	Diaphragm Valve (including those having Diaphragm of different	No.	1 No. for each type/ size/ rating	
Field Instruments & Others as applicable as per the C&I List Same as indicated in C&I list		[material]			
8 415 Voit Motor 8.1 Motor of each type and rating (Note : motors covered in mechanical spare items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8.4 Bearings (DE and NDE) for each type and rating of Motor 8.5 Cooling Fan for all type and rating of Interest Sets 8.6 Dust seals and gaskets for each type of motors 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field Instruments 9.1 Electronic Transmitters 1) Pressure Nos. 1 (One) no. complete set for each type and model range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for 1) Cifferential Pressure Nos. 1 (One) no. complete set for 1) Cifferential Pressure Nos. 1 (One) no. complete set for 1) Cifferential Pressure Nos. 1 (One) no. complete set for 1) Cifferential Pressure Nos. 1 (One) no. complete set for 1) Cifferential Pressure Nos. 1 (One) no. complete set for 1) Cifferential Pressure Nos. 1 (One) no. complete set for 1) Cifferential Pressure Nos. 1 (One) no. complete set for 1) Cifferential Pressure Nos. 1 (One) no. complete set for 2) Cifferential Pressure Nos. 1 (One) no. complete set for 2) Cifferential Pressure Nos. 1 (One) no. complete set for 2) Cifferential Pressure Switch Nos. 1 (One) no. complete set for 2) Cifferential Pressure Switch Nos. 2 ((wo) no. of each type & model range used in the system 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model range used in the system 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model range used in the system 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model range used in the system 1) Pressure Switch Nos. 2 ((wo) no. of each type & model range used in the system 1) Differential Pressure Switch Nos. 2 ((wo) no. of each type & model range used in the system	7				
8 415 Volt Motor 8.1 Motor of each type and rating (Note : motors covered in mechanical spare letems need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8.4 Bearings (DE and NDE) for each type and rating of Motor 8.5 Cooling Fan for all type and rating of IT motors 8.6 Dust seeds and gaskets for each type of motors 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 8.8 Complete Set of Coupling 8.9 Field Instruments 9 Field Instruments 9 Field Instruments 1) Pressure 1) Pressure 1) Differential Pressure 1) Differential Pressure 1) Differential Pressure Switch 2) (Woo) no. of each type & model/ range used in the system 2) Differential Pressure Switch 2) (Woo) no. of each type & model/ range used in the system 2) Differential Pressure Switch 2) (Woo) no. of each type & model/ range used in the system 2) Differential Pressure Switch 3) Differential Pressure Switch 4) Nos. 2 ((Woo) no. of each type & model/ range used in the system 3) Differential Pressure Switch 4) Pressure Switch 5) Pressure Switch 5) Pressure Switch 6) Pressure Switch 7) Pressure Switch 8) Social Setts Seats				1 ' '	
8. 145 Volt Motor 8. 1 Motor of each type and rating (Note : motors covered in mechanical spare items need not to be included here again / 10% of the installed quantity or minimum 1 number whichever be higher. 8. 2 End Shield Cover Driving & Non-Driving End 8. 3 Heaters 8. 4 Bearings (DE and NDE) for each type and rating of motor 8. 4 Bearings (DE and NDE) for each type and rating of motor 8. 6 Douling Fain for all type and rating of LT motors 8. 6 Douls easis and gaskets for each type of motors 8. 7 Motor Terminal Block 8. 8 Nos. 8 Nos. 8 Tiset for each type and rating of Motor 8 Set One (1) set 8 One (1) set 8 One (1) set 8 One (1) set 9 Field Instruments 9 Field Instruments 1) Pressure Nos. 1 (One) no. complete set for each type and model' range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for 2 (Ww) no. or each type and model' range used in the system 1 (One) no. complete set for 2 (Ww) no. of each type & model' range used in the system 3 D Ultrasonic level Transmitter 8 Nos. 1 (One) no. or each type & model' range used in the system 1 (One) no. or each type & model' range used in the system 1 (Order one) or each type & model' range used in the system 1 (Order one) or each type & model' range used in the system 1 (Order one) or each type & model' range used in the system 2 (Ww) no. of each type & model' range used in the system 2 (Ww) no. of each type & model' range used in the system 2 (Ww) no. of each type & model' range used in the system 2					
B.1 Motor of each type and rating (Note : motors covered in mechanical spare items need not to be included here again) 10% of the installed quantity or minimum 1 number whichever be higher.		115 Volt Motor		DGIOW.	
spare items need not to be included here again 10% of the installed quantity or minimum 1 number whichever be higher. 8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8.4 Bearings (DE and NDE) for each type and rating of Motor 8.5 Cooling Fan for all type and rating of I.T motors 8.6 Dust seals and gaskets for each type and rating of Motor 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field Instruments 9.1 Electronic Transmitters 1) Pressure Nos. 1 (One) no. complete set for each type and model' range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and model' range used in the system 1) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model' range used in the system 1) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model' range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and model' range used in the system 1) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model' range used in the system 1) Differential Pressure Nos. 1 (One) no. complete set for each type and model' range used in the system 1) Pressure Nos. 1 (One) no. complete set for each type and model' range used in the system 1) Differential Pressure Switch Nos. 2 (two) no. of each type & model' range used in the system 1) Differential Pressure Switch Nos. 2 (two) no. of each type & model' range used in the system 1) Pressure Switch Nos. 2 (two) no. of each type & model' range used in the system 1) Pressure Switch Nos. 2 (two) no. of each type & model' range used in the system 1) Flow Switch Nos. 2 (two) no. of each type & model' range used in the system 1) Flow Switch Nos. 2 (two) no. of each type & model' range used in the system			0/	400/ -546 - in-4-11-1	
Installed quantity or minimum 1 number whichever be higher.	8.1		%		
8.2 End Shield Cover Driving & Non-Driving End 8.3 Heaters 8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Cooling Fan for all type and rating of Indicor 8.6 Dust seals and gaskets for each type of motors 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field Instruments 1) Pressure Nos. 1 (One) no. complete set for each type and model range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for 2 (Nos. 3 (One) no. complete set for 3 (One) no. complete set for 4 (One) no. complete set for 4 (One) no. complete set for 4 (One) no. complete set for 5 (One) no. complete set for 6 (One) no. complete set for 8 (One) no. complete set for 8 (One) no. complete set for 8 (One) no. complete set for 9 (One) no. complete set for 1 (One) no. complete set for 1 (One) no. complete set for 2 (One) no. complete set for 3 (One) no. compl		'			
Motor Sets 2 sets for each type and rating of Motor Sets 2 sets 2 sets 2 sets 2 sets 3 set		installed quantity or minimum 1 number whichever be higher.		number whichever be higher.	
Motor Sets 2 sets for each type and rating of Motor Sets 2 sets 2 sets 2 sets 2 sets 3 set					
Motor Sets 2 sets for each type and rating of Motor Sets 2 sets 2 sets 2 sets 2 sets 3 set	8.2	End Shield Cover Driving & Non-Driving End	Sets	1 set for each type and rating of	
Basings (DE and NDE) for each type and rating of Motor Sets 2 sets for each type and rating of Motor Sets 2 sets					
Sets 2 sets 2 sets 3 s	8.3	Heaters	Sate		
8.4 Bearings (DE and NDE) for each type and rating of motor 8.5 Cooling Fan for all type and rating of LT motors 8.6 Dust seals and gaskets for each type of motors 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field Instruments 9.1 Electronic Transmitters Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system v) Flow Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system v) Flow Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system v) Flow Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system v) Flow Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system v) Flow Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system v) Flow Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system v) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch	0.0	liteaters	0613		
8.5 Cooling Fan for all type and rating of LT motors 8.6 Dust seals and gaskets for each type of motors 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field Instruments 9.1 Electronic Transmitters Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for liv) Speed Nos. 1 (One) no. complete set for live in live in live in live in live in live live live live live live live live	- 0.4	Description (DEscription of AIDE) for each time of the first of the fi	0.4		
8.6 Dust seals and gaskets for each type of motors 8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field Instruments 9.1 Electronic Transmitters Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system iii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
8.7 Motor Terminal Block 8.8 Complete Set of Coupling 9 Field Instruments 9.1 Electronic Transmitters Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system iii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
8.8 Complete Set of Coupling 9 Field Instruments 9.1 Electronic Transmitters Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system iii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system V) Flow Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system V) Flow Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system Vi) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system V) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
8.8 Complete Set of Coupling 9 Field Instruments 9.1 Electronic Transmitters Nos. 1 (One) no. complete set for each type and model/ range used in the system i) Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system	8.7	Motor Terminal Block	Nos.	1 no. for each type and rating of	
9.1 Electronic Transmitters 9.1 Electronic Transmitters Nos. 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 2 (two) no. of each type & model/ range used in the system 3 Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system 3 Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system				Motor	
9.1 Electronic Transmitters 9.1 Electronic Transmitters Nos. 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 1 (One) no. complete set for each type and model/ range used in the system 2 (two) no. of each type & model/ range used in the system 3 Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system 3 Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system	8.8	Complete Set of Coupling	Sets	1 set for each type and rating	
9.1 Electronic Transmitters Nos. 1 (One) no. complete set for each type and model/ range used in the system	0.0	Complete Set of Coupling	0613	1 Set for each type and rating	
each type and model/ range used in the system i) Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system iii) Level Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Transmitter Nos. 1 (One) no. complete set for voy Transmitter Nos. 1 (One) no. complete set for voy Transmitter Voy and model/ range used in the system voy Tressure Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Transmitch Voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the syst	9	Field Instruments			
each type and model/ range used in the system i) Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system iii) Level Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Flow Transmitter Nos. 1 (One) no. complete set for voy Transmitter Nos. 1 (One) no. complete set for voy Transmitter Nos. 1 (One) no. complete set for voy Transmitter Voy and model/ range used in the system voy Tressure Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Transmitch Voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system voy Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the syst	9.1	Electronic Transmitters	Nos.	1 (One) no. complete set for	
ii) Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system iii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for lone in the system Nos. 1 (One) no. complete set for lone in the system Nos. 1 (One) no. complete set for lone in the system Nos. 1 (One) no. complete set for lone in the system Nos. 1 (One) no. complete set for lone in the system Nos. 1 (One) no. complete set for lone in the system Nos. 1 (One) no. complete set for lone in the system Nos. 2 (two) no. of each type & model/ range used in the system iii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
i) Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system Nos. 1 (One) no. complete set for each type and model/ range used in the system ii) Pressure Switch Nos. 1 (One) no. complete set for each type and model/ range used in the system iii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
ii) Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system iii) Level Nos. 1 (One) no. complete set for iii) Level Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for iv) Speed Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system					
each type and model/ range used in the system ii) Differential Pressure		Draggura	Non		
ii) Differential Pressure Nos. 1 (One) no. complete set for iii) Level Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for v) Flow Transmitter Nos. 1 (One) no. complete set for v) Flow Transmitter Nos. 1 (One) no. complete set for vi) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system 9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system	1)	Pressure	NOS.		
ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system 9.2 Different type of Switches Nos. 2 (two) no. of each type & model/ range used in the system ii) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
ii) Differential Pressure Nos. 1 (One) no. complete set for each type and model/ range used in the system 9.2 Different type of Switches Nos. 2 (two) no. of each type & model/ range used in the system ii) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system				model/ range used in the	
iii) Level Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for v) Flow Transmitter Nos. 1 (One) no. complete set for vi) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system 9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
iii) Level Nos. 1 (One) no. complete set for iv) Speed Nos. 1 (One) no. complete set for v) Flow Transmitter Nos. 1 (One) no. complete set for vi) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system 9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system	ii)	Differential Pressure	Nos.	1 (One) no. complete set for	
iv) Speed Nos. 1 (One) no. complete set for v) Flow Transmitter Nos. 1 (One) no. complete set for vi) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system 9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system		l evel	Nos	· , , .	
v) Flow Transmitter vi) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system 9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system				` '	
vi) 3-D Ultrasonic level Transmitter Nos. 1 (One) no. complete set for each type and model/ range used in the system 9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system		•		` ,	
each type and model/ range used in the system 9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system	v)	Flow Transmitter	Nos.	1 (One) no. complete set for	
each type and model/ range used in the system 9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system	yi)	3-D Ultrasonic level Transmitter	Nos	1 (One) no, complete set for	
9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system	- ''		. 100.		
9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
9.2 Different type of Switches i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system				9	
i) Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system				system	
ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system	i)	Pressure Switch	Nos.		
ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system				model/ range used in the	
ii) Differential Pressure Switch Nos. 2 (two) no. of each type & model/ range used in the system iii) Level Switch Nos. 2 (two) no. of each type & model/ range used in the system iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system				system	
iii) Level Switch Nos. 2 (two) no. of each type & Nos. 2 (two) no. of each type & nodel/ range used in the system V) Temperature Switch Nos. 2 (two) no. of each type & nodel/ range used in the system Nos. 2 (two) no. of each type & nodel/ range used in the system	ii)	Differential Pressure Switch	Nos.		
iii) Level Switch Nos. 2 (two) no. of each type & iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system	,				
iii) Level Switch Nos. 2 (two) no. of each type & iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system Nos. 2 (two) no. of each type & model/ range used in the system				9	
iv) Flow Switch Nos. 2 (two) no. of each type & model/ range used in the system v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system vos. 2 (two) no. of each type & model/ range used in the system	jji\	Level Switch	Non		
v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system v) model/ range used in the system					
v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system	IV)	FIOW SWITCH	NOS.		
v) Temperature Switch Nos. 2 (two) no. of each type & model/ range used in the system					
model/ range used in the system					
system	v)	Temperature Switch	Nos.	2 (two) no. of each type &	
system				model/ range used in the	
				9	
in the interest the interest in the interest i	vi)	Dust Detector	Nos		
	• • • •	1		,, s. sas type a model	

9.3	Thermocouple	%	10% of each type and length used in one unit	
9.4	RTD	%	10% of each type and length used in one unit	
9.5	Thermo-well for both TC and RTD		2 (Two) nos. for each type and rating/ length used in the system	
9.6	Solenoid Valve			

i۱				
i)	Complete Solenoid Valve Assembly	Nos.	2 Nos. for each type and rating	
,			used in the	
			system	
::\	Cail (aireala an devela anil terra)	0/		
ii)	Coil (single or double coil type)	%	10% of total nos. used in the	
			system or minimum 5 (five)	
			Nos. whichever is more for	
			each type and rating.	
9.7	Different types of Gauge		out in the area raining.	
		0/	400/ - \$ t - t - 1 1 t	
i)	Pressure Gauge	%	10% of total nos. used in the	
			system or minimum 1 (one) no.	
			whichever is more for each type	
			and range.	
::\	Differential December Course	%		
ii)	Differential Pressure Gauge	%	10% of total nos. used in the	
			system or minimum 1 (one) no.	
			whichever is more for each type	
			and range.	
:::\	T	%		
iii)	Temperature Gauge	%	10% of total nos. used in the	
			system or minimum 1 (one) no.	
			whichever is more for each type	
			and range.	
:	Manustia I and Cana	0/		
iv)	Magnetic Level Gauge	%	10% of total nos. used in the	
			system or minimum 1 (one) no.	
			whichever is more for each type	
			and range.	
0.0	Air Filter Degulator including positions are set to a constitution of the	KI = -		
9.8	Air Filter Regulator including moisture separator complete set with	Nos.	10 nos.	
	pressure gauges			
9.9	Rotameter	%	10% of total nos. used in the	
			system or minimum 2 (Two)	
			` ′	
			nos. whichever is more for each	
			type, rating/ model and size	
			used in the system	
0.40	Course Class	Maa		
9.10	Gauge Glass	Nos.	1 No. for each type and size	
9.11	Erection Hardware			
i)	Transmitter's Manifold	%	10% of total nos. used in the	
			system or minimum 2 (Two)	
			nos. whichever is more for each	
			type, rating/ model and size	
			used in the system.	
ii)	Impulse Line Root/Source valve	%	10% of total nos. used in the	
,	Impaide Eme recorded valve	,,	I	
			system or minimum 2 (Two)	
			nos. whichever is more for each	
			type, rating/ model and size	
			used in the system.	
			uoca in the cycloni.	
iii)	Impulse Line Isolation valve	%	10% of total nos. used in the	
,	·		system or minimum 4 (four)	
			nos. whichever is more for each	
			I	
			type, rating/ model and size	
			used in the system.	
		2,	·	
iv)	Impulse Line Drain valve	%	10% of total nos. used in the	
			system or minimum 4 (four)	
			nos. whichever is more for each	
			type, rating/ model and size	
			l is an in the second of the s	
			used in the system.	
V)	Impulse Line fittings	0/2	-	
v)	Impulse Line fittings	%	10% of total nos. used in the	
V)	Impulse Line fittings	%	10% of total nos. used in the system or minimum 4 (four)	
V)	Impulse Line fittings	%	10% of total nos. used in the	
ŕ			10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each	
v) vi)	Impulse Line fittings Impulse Pipe	% Nos.	10% of total nos. used in the system or minimum 4 (four)	
ŕ			10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each	
ŕ			10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each	
vi)	Impulse Pipe	Nos.	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos.	
ŕ			10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each	
vi)	Impulse Pipe	Nos.	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos.	
vi)	Impulse Pipe	Nos.	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos.	
vi)	Impulse Pipe Copper/ SS Tube	Nos. Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs	
vi)	Impulse Pipe	Nos.	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos.	
vi)	Impulse Pipe Copper/ SS Tube	Nos. Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs	
vi)	Impulse Pipe Copper/ SS Tube	Nos. Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs	
vi)	Impulse Pipe Copper/ SS Tube	Nos. Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs	
vi)	Impulse Pipe Copper/ SS Tube Fittings for Copper/SS Tube	Nos. Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs	
vi)	Impulse Pipe Copper/ SS Tube	Nos. Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs	
vi)	Impulse Pipe Copper/ SS Tube Fittings for Copper/SS Tube	Nos. Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs	
vi)	Impulse Pipe Copper/ SS Tube Fittings for Copper/SS Tube Conductivity Type Level Switch	Nos. Meters Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs Each type/ size 100 Mtrs	
vi)	Impulse Pipe Copper/ SS Tube Fittings for Copper/SS Tube	Nos. Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs Each type/ size 100 Mtrs	
vi)	Impulse Pipe Copper/ SS Tube Fittings for Copper/SS Tube Conductivity Type Level Switch	Nos. Meters Meters	10% of total nos. used in the system or minimum 4 (four) nos. whichever is more for each Each type/ size 25 Nos. Each type/ size 100 Mtrs Each type/ size 100 Mtrs	

ii)	Complete Electronics unit	Set	1 Set	
iii)	Isolating/Root Valve	Nos.	2 Nos.	
9.13	Cable This particulat items shall be common for BTG , CHP and AHP areas.			

i)	Thermocouple Cable	Km.	3 (three) Kms. of each type, size & rating of Cables	
ii)	Control & Instrumentation Cable	Km.	3 (three) Kms. of each type, size & rating of Cables	
9.14	Cold Junction Compensation Boxes	%	10% of total nos. used in the system or minimum 2 (two) nos. for each type/ size whichever is	
9.15	Current/Voltage Transducers	Nos.	1 (one) no. each type/ rating used in the system	
9.16	MWatt/MVAR Transducer	Nos.	1 (one) no. each type/ rating used in the system	
9.17	Chlorine Leak Detector System			
i)	Sensor Unit (complete)	Nos.	2 Nos.	
ii)	Transmitter/Processing Unit (complete)	Nos.	2 Nos.	
10.0	SWAS			
10.1	Conductivity Analyser			
i)	Conductivity Sensor/cell for each type of Cell Constant	%	20% of the total no. used in the system or minimum 2 (two) nos.	
ii)	Conductivity Transmitter Complete Set	%	20% of the total no. used in the system or minimum 2 (two) nos. whichever is higher.	
10.2	pH Analyser			
i)	pH Sensor	%	20% of the total no. used in the system or minimum 2 (two) nos.	
ii)	pH Transmitter Complete Set	%	20% of the total no. used in the system or minimum 2 (two) nos. whichever is higher.	
iii)	Sensor recharger	%	20% of the total no. used in the system or minimum 2 (two) nos. whichever is higher.	
10.3	Sodium Analyser			
i)	Sodium Analyser Electrode	No.	1 (one) no.	
ii)	Critical Electronic spare part for Sodium Analyser/ Monitor	Nos.	1 (one) no. each type	
iii)	Reagent container	No.	1 (one) no.	
iv)	Refurbishment kit for sodium analyser	No.	1 (one) no.	
v)	Consumable kit/ Chemical Reagent for Sodium Analyser		For maintaining the system for 1 (one) Year continuous operation	

	Silica Analyser			
10.4				
	Critical Electronic spare part for Silica Analyser/ Monitor	Nos.	1 (one) no. each type	
i)	, ,		, ,	
	Reagent container	No.	1 no.	
ii)				

iii)	Cuvette assy for silica	No.	1 no.	
iv)	Pump motor for silica	No.	1 no.	
v)	Tube replacement kit	Set	1 set	
vi)	Fuses of each type	Nos.	2 nos. each	
vii)	Consumable kit/ Chemical Reagent for Silica Analyser		For maintaining the system for 1 (one) Year continuous operation	
10.5	Hydrazine Analyser			
i)	Critical Electronic spare part for Hydrazine Analyser/Monitor	Nos.	1 (one) no. each type	
ii)	Cell Recharge kit	No.	1 (one) no.	
iii)	Porus Disc	No.	1 (one) no.	
iv)	Seal rings	Set	1 set	
v)	Fuses of each type	Nos.	2 (two) nos.	
vi)	Consumable kit/ Chemical Reagent for Hydrazine Analyser		For maintaining the system for 1 (one) Year continuous operation	
10.6	Dissolve Oxygen			
i)	Dissolve Oxygen Sensor Complete Set	No.	1 (one) no.	
ii)	Dissolve Oxygen Analyser Complete Set	No.	1 (one) no.	
10.7	Phosphate Analyser			
i)	Critical Electronic spare part for Phosphate Analyser/ Monitor	Nos.	1 (one) no. each type	
ii)	Flow Chamber	No.	1 (one) no.	
iii)	Calibration Kit	No.	1 (one) no.	
iv)	Reagent Container	Nos.	1 (one) no. each type	
v)	Consumable kit/ Chemical Reagent for phosphate Analyser		For maintaining the system for 1 (one) Year continuous operation	
10.8	Chloride Analyser		,	
i)	Chloride Cell/Electrode	No.	1 (one) no.	
	<u> </u>	1		

ii) Reag	cal Electronic spare part for Chloride Analyser/ Monitor gent container (if required)	Nos.	1 (one) no. each type	
iii)	gent container (if required)			
Refu		Nos.	1 (one) no. each type	
iv)	urbishment kit for Chloride analyser	No.	1 (one) no.	
V) Cons	sumable kit/ Chemical Reagent for Chloride Analyser		For maintaining the system for 1 (one) Year continuous operation	
10.9 Other	er Hardware			
i) Stain	ner each type	Nos.	2 (two) nos.	
ii) Samp	iple Cooler	Nos.	2 (two) nos.	
High iii)	Pressure Reducing Valve	Nos.	5 (five) nos.	
iv) Catio	on column	Nos.	5 (five) nos.	
V) Temp	ssure Gauge, Pressure Switch, Temperature Gauge, perature ch,Isolating Valve, Solenoid Valve, Temperature Shut-Off e,Rota Meter etc.	%	10% of total quantity of each item and type/ rating used in the system or minimum 1(one) no. whichever is higher.	
vi) Annu	unciation System			
Each a.	n type of PCB	Nos.	1 (one) no. each	
b.	p Box with Facia & Lamps (LED type)	Nos.	5 (five) nos.	
c. Hoote	ter	No.	1 (one) no.	
I I	liary/Power Contactor, Push Button, Indicating Lamp, Fuse etc. Chiller Unit	%	10% of total quantity of each type of items used in the system or minimum 2 (two) nos.	
10.1	er Unit			
I I	liary/Power Contactor, Push Button, Indicating Lamp, Fuse, mal overload etc. for Chiller Unit	%	10% of total quantity of each type of items used in the system or minimum 1 (one) nos. whichever is more.	
I I	sure Switch, Temperature Switch,Isolating Valve, Solenoid e, Thermostat etc.	%	10% of total quantity of each type of items used in the system or minimum 1 (one) nos. whichever is more.	
	umatic Control Valve & Power Cylinder (Applicable for all ulating Type & On- Off/Isolating Type)			
11.1 Conti	trol Valve			
i) Pneu	umatic Diaghragm for Diaghragm actuated valve	Nos.	2 (two) nos. for each type of Actuator	
ii) Actua	ator Seal Kit for Pneumatic Cylinder actuated valve	Nos.	2 (two) nos. for each type of Actuator	

iii)	Gland Packing	Sets	1 (one) set for each type of Control Valve	
	Stem	Sets	1 (one) set for each type of Control Valve	
V)	Plug	Sets	1 (one) set for each type of Control Valve	
	Seat	Sets	1 (one) set for each type of	
vi)			Control Valve	
vii)	Cage	Sets	1 (one) set for each type of Control Valve	
viii)	Retainer Ring	Sets	1 (one) set for each type of Control Valve	
ix)	Seal rings	Sets	1 (one) set for each type of Control Valve	
x)	Gasket	Sets	2 (two) Sets. for each type of Control Valve	
xi)	Smart Positioner of the Valve	%	10% of total quantity used in the system or minimum 2 (two) nos.	
xii)	Seal Kit for the Positioner	Sets	2 (two) Sets. for each type of Positioner	
xiii) t	Position Feedback Transmitter (applicable if it is not integral with the Smart Positioner)	%	10% of total quantity used in the system or minimum 2 (two) nos.	
	Complete Set of Solenoid Valve for Pneumatic type On/Off Valve	Nos.	2 Nos. for each type & ratings	
xv)	Solenoid Coil for Pneumatic type On/ Off Valve	Nos.	5 Nos. for each type & ratings	
11.2 F	Power Cylinder			
i)	Actuator Seal Kit	Nos.	2 (two) nos. for each type of Power Cylinders	
ii)	Gasket	Nos.	2 (two) nos. for each type of Power Cylinders	
iii)	Complete Set of Power Cylinder	Nos.	1 (one) no. each type for all application	
iv)	Smart Positioner of the Valve	%	10% of total quantity used in the system or minimum 2 (two) nos.	
v)	Seal Kit for the Positioner	Sets	2 (two) Sets. for each type of Positioner	
vi) t	Position Feedback Transmitter (applicable if it is not integral with the Smart Positioner)	%	10% of total quantity used in the system or minimum 2 (two) nos.	
	Complete Set of Solenoid Valve for Pneumatic type On/Off Valve	Nos.	2 Nos. for each type & ratings	
viii)	Solenoid Coil for Pneumatic type On/ Off Valve	Nos.	5 Nos. for each type & ratings	
ix)	Position Limit Switch for Pneumatic type On/Off Power Cylinder	Nos.	10 Nos. for each type & ratings	

11.3 If PConverter for Control Valve-Prover Cylinder (fl applicable) 11.3 If PConverter for Control Valve-Prover Cylinder (fl applicable) 11.4 It Al Lock Relay Nos. 10 Nos. for each type 12.0 Centrol Panel And Local/Remute Control Desk 12.1 Masaic Type Push button Station Missaic Type Push button Station 12.2 Mosaic Type Push button Station with LED Indication 12.3 Mosaic Type Push button Station with LED Indication 12.4 Mosaic Type Push button Station Mosaic Type Push button Station 12.5 Mosaic Type Push button Station 12.6 Mosaic Type Push button Station 12.7 Mosaic Type Push button Station 12.8 Mosaic Type Push button Station 12.9 Mosaic Type Push button Station 12.0 Mosaic Type Push button Station 12.					
11.5 Signal Air Booster Uni Nos. 2 Nos. for each type	11.3	I/P Converter for Control Valve/Power Cylinder (if applicable)	%	minimum 5 (five) nos. whichever is more for each type and model.	
12.0 Control Panel And Local/Remote Control Desk 12.1 Mosaic/Conventional Type Push button Station Station Mosaic Type Push button Station with LED Indication Mosaic Type Push button Station with LED Indication Mosaic Type LED Indicaton Station Mosaic Type Push button Station Mosaic Type Push button Station in the system or minimum 2 (two) nos. winchever is more for each type minimum 2 (two) nos. winchever is more for each type and model. Indicator Type Indicator Indicator Nos. Indicator Ind	11.4		Nos.	10 Nos. for each type	
Mosaic Type Push button Station 12.1 Mosaic Type Push button Station Mosaic Type Push button Station Mosaic Type Push button Station with LED Indication 12.2 Mosaic Type LED Indication Station Nos. 2 (two)Nos. each type III. Indication Station Lamp Box with Facis & Lamps (LED type) Nos. 1 (one) No. each III. Indication Station Lamp Box with Facis & Lamps (LED type) Nos. 1 (one) No. 1 (one) No. III. Indication Nos. 1 (one) No. III. Indication Nos. 2 Nos. of each type, make and reting, 1 no. for taxor water temperature controller Complete set of Actuato Nos. 4 Nos. of each type III. Nos. 4 Nos. of each type III. Nos. 4 Nos. of each type Limit Switch Assembly Nos. 2 No. each type and rating	11.5	Signal Air Booster Uni	Nos.	2 Nos. for each type	
system or minimum 2 (two) nos, whichever is more for each type and model. Mosaic Type Push button Station with LED Indication 95 10% of total quantity used in the system or minimum 2 (two) nos, whichever is more for each type and model. 12.2 Mosaic Type LED Indication Station 12.3 Simaphore Indicator 12.4 Simaphore Indicator 12.5 Simaphore Indicator 12.5 Annunciation System 12.5 Lamp Box with Facia & Lamps (LED type) 10 Lamp Box with Facia & Lamps (LED type) 11 Mooter 12.1 Complete set of Actuator 13.1 Power Unit for Modulating Actuator 13.2 DC-DC Power Pack Unit 13.3 DC-DC Power Pack Unit 13.4 Position Feed Back Transmitters 13.5 Control Unit Nos. 4 Nos. of each type 14 Nos. of each type 15 Nos. 4 Nos. of each type 16 Nos. 6 each type 17 Nos. 4 Nos. of each type 18 Nos. 6 each type 19 Position Feed Back Transmitters Nos. 4 Nos. of each type 19 Nos. 6 each type 10 Limit Switch Assembly Nos. 6 Nos. 6 each type 10 Limit Switch Assembly Nos. 7 Nos. 6 each type 11 Nos. 6 each type 12 Nos. of each type 13 Nos. 6 each type 13 Nos. 6 each type 14 Nos. of each type 15 Nos. 6 each type 16 Limit Switch Assembly Nos. 7 Nos. 6 each type 17 Nos. 6 each type 18 Nos. 6 each type 19 Nos. 6 each type and rating	12.0	Control Panel And Local/Remote Control Desk			
12.2 Mosaic Type LED Indication Station 10% of I of I quantity used in the system or minimum 2 (two) nos. whichever is more for each type and model. 10% of I of I quantity used in the system or minimum 2 (two) nos. whichever is more for each type and model. 12.4 Simaphore Indicator Nos. 2 (two)Nos. each type 2 (two)Nos. ea	12.1	Mosaic/Conventional Type Push button Station	%	system or minimum 2 (two) nos. whichever is more for each type	
12.3 Simaphore Indicator Nos. 2 (two) nos. whichever is more for each type and model. 12.4 Annunciation System	12.2	Mosaic Type Push button Station with LED Indication	%	system or minimum 2 (two) nos. whichever is more for each type	
12.4 Annunciation System 12.5 Annunciation System	12.3	Mosaic Type LED Indication Station	%	system or minimum 2 (two) nos. whichever is more for each type	
12.5 Each type of PCB (for non-PLC driven system) Nos. 1 (one) No. each	12.4	Simaphore Indicator	Nos.	2 (two)Nos. each type	
ii) Lamp Box with Facia & Lamps (LED type) Nos. 10 (ten) Nos. 13.0 Actuator Complete set of Actuato Power Unit for Modulating Actuator DC-DC Power Pack Unit Electronic cards Position Feed Back Transmitters Nos. 4 Nos. of each type Nos. 4 Nos. of each type Nos. 4 Nos. of each type A Nos. of each type Nos. 4 Nos. of each type Nos. 4 Nos. of each type Nos. 4 Nos. of each type Limit Switch Assembly Nos. 4 Nos. of each type Nos. 4 Nos. of each type	12.5	Annunciation System			
iii) Hooter No. 1 (one) No. 13.0 Complete set of Actuato 13.1 Complete set of Actuato Nos. 2 Nos. for each type, make and rating, 1 no. for H2 cooler Temperature controller and 1 no. for stator water temperature controller Power Unit for Modulating Actuator Nos. 4 Nos. of each type 13.2 DC-DC Power Pack Unit Nos. 4 Nos. of each type 13.4 Electronic cards Nos. 4 Nos. of each type 13.5 Position Feed Back Transmitters Nos. 4 Nos. of each type 13.6 Control Unit Nos. 4 Nos. of each type 13.7 Limit Switch Assembly Nos. 2 No. each type and rating	i)	Each type of PCB (for non-PLC driven system)	Nos.	1 (one) No. each	
iii) 13.0 Actuator Complete set of Actuato Complete set of Actuato Nos. 2 Nos. for each type, make and rating, 1 no. for H2 cooler Temperature controller and 1 no. for stator water temperature controller Nos. 4 Nos. of each type 13.2 DC-DC Power Pack Unit Nos. 4 Nos. of each type 13.3 Electronic cards Nos. 4 Nos. of each type 13.4 Position Feed Back Transmitters Nos. 4 Nos. of each type 13.5 Control Unit Nos. 4 Nos. of each type 13.6 Limit Switch Assembly Nos. 2 No. each type and rating	ii)	Lamp Box with Facia & Lamps (LED type)	Nos.	10 (ten) Nos.	
13.0 Complete set of Actuato	iii)	Hooter	No.	1 (one) No.	
13.1 Power Unit for Modulating Actuator Nos. Power Unit for Modulating Actuator Nos. Power Unit for Modulating Actuator Nos. A Nos. of each type 13.3 DC-DC Power Pack Unit Nos. A Nos. of each type 13.4 Electronic cards Nos. A Nos. of each type 13.5 Position Feed Back Transmitters Nos. A Nos. of each type 13.6 Control Unit Nos. A Nos. of each type 2 Nos. of each type 13.6 Limit Switch Assembly Nos. Nos. A Nos. of each type 2 Nos. of each type	13.0	Actuator			
13.2 DC-DC Power Pack Unit Nos. 4 Nos. of each type 13.4 Electronic cards Nos. 4 Nos. of each type 13.5 Position Feed Back Transmitters Nos. 4 Nos. of each type 13.6 Control Unit Nos. 4 Nos. of each type 13.6 Limit Switch Assembly Nos. 2 No. each type and rating	13.1	Complete set of Actuato	Nos.	rating, 1 no. for H2 cooler Temperature controller and 1 no. for stator water temperature	
13.3 Electronic cards Nos. 4 Nos. of each type 13.4 Position Feed Back Transmitters Nos. 4 Nos. of each type 13.5 Control Unit Nos. 4 Nos. of each type Limit Switch Assembly Nos. 2 No. each type and rating	13.2	Power Unit for Modulating Actuator	Nos.	4 Nos. of each type	
13.4 Position Feed Back Transmitters Nos. 4 Nos. of each type Control Unit Nos. 4 Nos. of each type Limit Switch Assembly Nos. 2 No. each type and rating	13.3	DC-DC Power Pack Unit	Nos.	4 Nos. of each type	
13.5 Control Unit Nos. 4 Nos. of each type Limit Switch Assembly Nos. 2 No. each type and rating	13.4	Electronic cards	Nos.	4 Nos. of each type	
Limit Switch Assembly Nos. 2 No. each type and rating	13.5	Position Feed Back Transmitters	Nos.	4 Nos. of each type	
	13.6	Control Unit	Nos.	4 Nos. of each type	
	13.7	Limit Switch Assembly	Nos.	2 No. each type and rating	

13.13				
	Complete Seal kit	Sets	2 Sets for each type and rating	
13.12	Motor	Nos.	1 No. each type and rating	
13.11	Thermal Over Load Relay	Nos.	2 No. each type and rating	
13.10	Auxiliary Contactor	Nos.	5 No. each type and rating	
13.9	Power Contactor	Nos.	5 No. each type and rating	
13.8	Torque Switch Assembly	Nos.	2 No. each type and rating	

Notes:

¹⁾ Mandatory spares listed above is bare minimum requirement. In case any additional mandatory spares requirement is covered elsewhere in the tender specification apart from specified above, same shall be deemed to have been covered in bidders scope of supply.

²⁾ Unless stated otherwise, a "set" or "Lot" means items required for complete replacement in one equipment of each type/ size/ range.

3) In case of Bought Out items, itemised spares list may be vendor specific and may differ from the list of spares mentioned above. In such cases, the quoted price shall be considered for applicable items only without any change in the contract price.

	ANNEXURE-II DEVIATION SHEET (COST OF WITHDRAWAL)									
	PROJECT:-						1X660 MW SAGARDIGHI TPP EXTENSION UNIT 5			
	PACKAGE:-						G UNIT			
			TENDER E	NQUIRY :-		PE/PG/SGI/E-6719/202	1 Dated 06.08.2021			
			NAME OF 1	THE BIDDER						
SI. No.	Volume/Section	Page No.	Clause No.	Technical Specification/Tender Document No	Complete Description of Deviation	Cost of withdrawal of deviation to be entered by the bidder in	Reference of price Schedule of which Cost of Withdrawal of Deviation is applicable	Nature of cost of withdrawal of deviation (Positive/Negative)	Reasons for quoting deviation	
1	TECHNICAL DEVIATION									
1.01										
1.02										
1.03										
1.04										
1.05										
1.06										
1.07										
1.08										
2	COMMERCIAL DEVIATION									
2.01										
2.02										
2.03										
2.04										
2.05										
2.06										
2.07										
2.08										

- Cost of Withdrawal of deviation will be applicable on the basic price (i.e. excluding taxes, duties & freight) only.
 All the bidders have to list out all their technical & commercial deviations (if any) in details in the above format.
- 3.Any deviation not mentioned above and shown separately or found hidden in offer, will not be taken cognizance of.
 4.Bidder shall submit duly filled unpriced copy of above format indicating "quoted" in "cost of withdrawl of deviation" column of the schedule above along with their Techno-commercial offer, wherever applicable. In absence of same, such deviation(s) shall not be considered and offer shall be considered in total compliance to NIT.
- 5. Bidder shall furnish price copy of above format along with price bid.
- 6.The final decision of acceptance/ rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.
- 7. Bidders to note that any deviation (technical/commercial) not listed in above and asked after Part-I opening shall not be considered.

 8. For deviations w.r.t. Credit Period, Liquidated damages, Firm prices if a bidder chooses not to give any cost of withdrawl of deviation loading as per Annexure-VII of GCC, Rev-07 will apply. For any other deviation mentioned in un-priced copy of this format submitted with Part-I bid but not mentioned in priced copy of this format submitted with Priced bid, the cost of withdrawl of deviation shall be taken as NIL.

 9. Any deviation mentioned in priced copy of this format, but not mentioned in the un-priced copy, shall not be accepted.

- 10. All techno-commercial terms and conditions of NIT shall be deemed to have been accepted by the bidder, other than those listed in unpriced copy of this format.

 11. Cost of withdrawl is to be given seperately for each deviation. In no event bidder should club cost of withdrawl of more than one deviation else cost of withdrawl of such deviations which have been clubbed together shall be considered as NIL.
- 12. In case nature of cost of withdrawl (positive/negative) is not specified it shall be assumed as positive.

 13. In case of descrepancy in the nature of impact (positive/ negative), positive will be considered for evaluation and negative for ordering.

PROJECT:	
PACKAGE:	
VENDOR NAME:	

CREDENTIAL BOOKLET

TABLE OF CONTENTS

CHAPTER 1	PAGE NO
WORKS RELATED DETAILS OF THE COMPANY	
CHAPTER 2	
QUALIFICATION DETAILS	
CHAPTER 3	
REFERENCE LIST INDICATING PURCHASE ORDER , CUSTOMER NAME, PO DATE, EXECUTION DATE	
CHAPTER 4	
FEW NOTEWORTHY PERFORMANCE CERTIFICATE, PURCHASE ORDER	

ISSUED BY CLIENT