

Clarifications No. 01 Dated 02.12.2019 to Bid Queries

NIB No. 343 Dated 20.11.2019.

Name of work: Limited Tender for undertaking "Industrial All Risk (IAR) Insurance Policy for the Assets of Tripura Gas Based Power Plant (101 MW), Monarchak, Tripura for a period of 1(one) year w.e.f. 00:00:00 Hours of 23.12.2019".

Sl. No.	Bidders Queries	NEEPCO's Response
1.	Bidders have requested to provide schematic diagram of Project layout and its accessibility.	The salient feature of the project is available in NEEPCO Website www.neepco.co.in . The plant layout is enclosed as Annexure-A .
2.	List of critical machines/ equipment in the plant.	List of Critical machines /equipment in the Plant is enclosed as Annexure-B .
3.	Availability of spares/ backup of critical machines/ equipment at site.	As per OEM, recommended/mandatory spares of every equipment are being maintained at site. However, available spares/ backup of critical machines/ equipment at site is enclosed as Annexure-B.
4.	The lead time for procurement of critical equipment in case of failure of existing ones	For critical equipment, back up spares are available at site and all repair and maintenance work of the plant are carried out at site by the concerned service engineers. The lead time required for repair/ procurement shall depend upon the nature of the damage/loss of the equipment. As such, specific lead time cannot be ascertained.
5.	Any other change in Sum Insured vis-à-vis previous year's tender for Standard Fire Policy	For the instant tender the Sum Insured (SI) is on RIV of Rs. 1250.99 Cr., while the SI for previous tender was based on Book Value.
6.	Under Section-IV, Clause 4.1(i) at SI 2, Architects, Surveyors, & Consulting Engineers fees, bidder suggested to exclude the word "in excess of 3% of the claim amount", as this is not inbuilt in IAR policy. It is also stated that coverage to the extent of Rs. 5 Cr. on this account is not chargeable on premium as per prevailing guideline.	Section-IV, Clause 3.1(i) Additional Insurance Covers under IAR Policy, SI 2, Architects, Surveyors, & Consulting Engineers fees: has been modified vide Corrigendum No. 01.
7.	Section-IV, Clause 4.1(i) at SI 17. Shut Down / Start up expenses: As per new IIB guideline issued by GIC, the value of coverage towards Shut Down / Start up expenses has to be mentioned specifically. It is also stated that coverage to the extent of Rs. 5 Cr. on this account is not chargeable as per prevailing guideline. However, in case the sub-limit is more than Rs. 5 Crs, the entire values is chargeable on premium.	Section-IV, Clause 3.1(i) Additional Insurance Covers under IAR Policy, SI 17. Shut Down / Start up expenses: has been modified vide Corrigendum No. 01.

Sl. No.	Bidders Queries	NEEPCO's Response
8.	Section-IV, Clause 4.1(i) at SI 12. Property in course of construction/erection: To specify the limit for single project and annual aggregate. It is also stated that coverage to the extent of Rs. 5 Cr. on this account is not chargeable on premium as per prevailing guideline. However, in case the sub-limit is more than Rs. 5 Crs, the entire values is chargeable on premium.	Section-IV, Clause 3.1(i) Additional Insurance Covers under IAR Policy, SI 12. Property in course of construction/erection: has been modified vide Corrigendum No. 01.
9.	Section-IV, Clause 4.1(i) at SI 21. Denial of access: It is our treaty declined, however, we can provide prevention of assets as per treaty wordings as mentioned below: "Prevention of access with maximum limit of four weeks (over and above the policy time excess) and with maximum radius of five kilometers from insured premises and only inland. Coverage under this section shall extend to include loss or reduction resulting from cessation, interruption, interference or inhabitation to the business as consequence of physical destruction of or damage to property belonging to the Insured or property within a radius of five kms from the Insured premises (inland only) which prevents or hinders the use of or access to the premises (excluding port blockage).	Section-IV, Clause 3.1 (i), Additional Insurance Covers under IAR Policy, SI. No. 21 has been modified vide Corrigendum No. 01.
10.	Section-IV, Clause 4.1(i) at SI 22: Interdependency cover: Coverage can be granted for independency within the insured units of the client proposed for insurance. The bidder informed that Interdependency is not an add on but it is a Clause only. Accordingly, the bidders suggested to suitably modify clause without mentioning sub-limit.	Section-IV, Clause 3.1 (i), Additional Insurance Covers under IAR Policy, SI. No. 22 Interdependency: has been modified vide Corrigendum No. 01.
11.	Section-IV, Clause 4.1(ii)(b): Documents and file reproduction cost upto 5% of the claim amount: The bidder requested to provide specific limit. It is also stated that coverage to the extent of Rs. 5 Cr. on this account is not chargeable on premium as per prevailing guideline. However, in case the sub-limit is more than Rs. 5 Crs, the entire values is chargeable on premium.	Section-IV, Clause 3.1(ii) (b) has been modified vide Corrigendum No. 01.
12.	Section-IV, Clause 4.1(ii)(j): Impact Damage due to own vehicles, fork lifts, including overhead and all type of cranes and construction equipment:	NEEPCO stated that as the limit is not specified in the bid document, it shall mean the full Sum Insured.

Sl. No.	Bidders Queries	NEEPCO's Response
	Limit to specify. Bidder suggested that this coverage is an add on and requires full sum insured to be covered to avoid under insurance.	
13.	Section-IV, Clause 4.1.1 : Deductibles: Excess applicable should be as specified by the GIC for power plants above Rs. 500 Crs, i.e., MD – 5% of the claim amount subject to a minimum of Rs. 1.25 Crs FLOP – 30 days of Standard Gross Profit MLOP – 45 days of Standard Gross Profit	Section-IV, Clause 4.1.1 has been modified vide Corrigendum No. 01.
14.	Latest Risk Inspection Report: The bidder requested NEEPCO to provide details of the nodal officer of the plant for their risk inspection.	NEEPCO requested bidders to visit the plant for inspection. M/S Reliance confirmed that their representative will visit site on 1 st December, 2019. NEEPCO intimated that the nodal officer for the purpose is Sri Jayanta Das, DGM(E/M) (Mobile NO. 9862040423, E-mail id: neepco.tgbpp@gmail.com, em.tgbp@gmail.com)
15.	Bidder requested to change the BOQ format without including the Premium Rate, as the premium provided by HO is not matching with the premium amount generated in the online Price Schedule.	NEEPCO explained that the BOQ format incorporated in the tender portal shall prevail.
16.	The bidder informed that "Theft" is not an insurable risk, hence cannot be covered under the IAR insurance policy. However, "Burglary" is included within IAR policy.	Clause 1.0 (A) (i) (m), Section-IV has been modified vide Corrigendum No. 01.
17.	Section-IV, sub-section no. 1.0 (B) and 2.0 (B) i.e. Terrorism Cover S.I., the bidder stated that the description of cover is "Terrorist Damage (Fire +FLOP+MLOP) and Material Damage (MD) including Electronic Equipment breakdown". The description may be rephrased as Terrorist Damage (Material Damage + Loss of Profit) suitably.	Clause 1.0 (B) and 2.0 (B), Section-IV has been modified vide Corrigendum No. 01.
18.	Under Section-IV, Clause 4.1(i) at Sl 3, Cost of Demolition and/or Removal of Debris including Foreign Debris / dewatering expenses. The bidder requested to provide specific limit. It is also stated that coverage to the extent of Rs. 5 Cr. on this account is not chargeable on premium as per prevailing guideline. However, in case the sub-limit is more than Rs. 5 Crs, the entire values is chargeable on premium.	Section-IV, Clause 3.1 (i), Additional Insurance Covers under IAR Policy, Sl. No. 3 Cost of Demolition and/or Removal of Debris including Foreign Debris / dewatering expenses: has been modified vide Corrigendum No. 01.

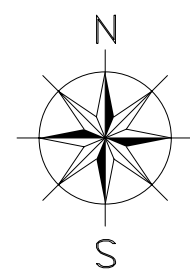
Sl. No.	Bidders Queries	NEEPCO's Response
19.	Under Section-IV, Clause 4.1(i) at Sl. 7, Escalation Clause, the bidder informed that for expenses limit upto 5% additional premium shall not be charged. Accordingly, the sub-limit may be modified.	Section-IV, Clause 3.1 (i), Additional Insurance Covers under IAR Policy, Sl. No. 7 Escalation Clause: has been modified vide Corrigendum No. 01.
20.	Under Section-IV, Clause 4.1(i) at Sl. 8, Omission to Insure, Additions, Alterations or Extensions, the bidder informed that for expenses upto 5 % of sum insured, the premium is free. In case the sub-limit is more than 5% of SI, the entire values is chargeable. Accordingly, the bidders suggested to modify the sub-limits	Section-IV, Clause 3.1 (i), Additional Insurance Covers under IAR Policy, Sl. No. 8 Omission to Insure, Additions, Alterations or Extensions: has been modified vide Corrigendum No. 01.
21.	Under Section-IV, Clause 4.1(i) at Sl. 14, Additional Customs Duty, the bidder informed that for expenses upto 5 Crore, the premium is free. In case the sub-limit is more than 5 Crore, the entire values is chargeable. Accordingly, the bidders suggested to modify the sub-limits	Section-IV, Clause 3.1 (i), Additional Insurance Covers under IAR Policy, Sl. No. 14 Additional Customs Duty: has been modified vide Corrigendum No. 01.
22.	The bidder informed that under Section-IV, Clause 4.1(i) at Sl. 18, Employee Belongings shall not be covered by IAR Policy.	Section-IV, Clause 3.1 (i), Additional Insurance Covers under IAR Policy, Sl. No. 18 is deleted vide Corrigendum No. 01.
23.	Under Section-IV, Clause 4.1(i) at Sl. 20, Additional increased Cost of Working, the bidder informed that for expenses upto 5 Crore, the premium is free. In case the sub-limit is more than 5 Crore, the entire values is chargeable. Accordingly, the bidders suggested to modify the sub-limits	Section-IV, Clause 3.1 (i), Additional Insurance Covers under IAR Policy, Sl. No. 20 Additional increased Cost of Working: has been modified vide Corrigendum No. 01.
24.	Under Section-IV, Clause 4.1(ii) at Sl. i), "Minor works clause: Property in Course of Construction/ Erection including one month of testing having project SI up to Rs. 100 Cr" the bidders informed that Testing period cover cannot be granted under an IAR policy which covers operational risks only. For expenses upto 5 Crore, the premium is free. In case the sub-limit is more than 5 Crore, the entire values is chargeable. Accordingly, the bidders suggested to suitably modify the clause.	Section-IV, Clause 3.1 (ii), Sl. (i) Minor works clause: Property in Course of Construction/ Erection including one month of testing having project SI up to Rs. 100 Cr: has been modified vide Corrigendum No. 01.
25.	Under Section-IV, Clause 4.1(ii) at Sl. k) "Claims Preparation cost for MD and BI claims limit INR 2 crore" the bidders informed that for expenses upto 5 Crore, the premium is free. Accordingly, the bidders suggested to suitably modify	Section-IV, Clause 3.1 (ii), Sl. (k) Claims Preparation cost for MD and BI claims limit INR 2 crore: has been modified vide Corrigendum No. 01.

Sl. No.	Bidders Queries	NEEPCO's Response
	the clause.	
26.	As per Section-V, Clause no. 2 (g), the terrorism cover mentioned is Standalone Terrorism Policy. The Bidder stated that the Total S.I. per location for Material Damage and Business Interruption is less than 2000 crs. As such, we would be able to provide Terrorism cover as per Indian Market Terrorism Risk Insurance Pool.	Section-V, Clause 2(g) has been modified vide Corrigendum No. 01.
27.	Section-V, Clause 5.0: Extensions: The Bidder stated that Testing period cover cannot be granted under an IAR policy which covers operational risks only.	Section-V, Clause 5 Extensions: has been modified vide Corrigendum No. 01.
28.	The Bidder stated that Clause no. 19.0 of Section-V. IAR is an annual policy and as such extensions are not applicable. However, if desired by the insured, based on claim experience, new policy can be issued on short period basis.	Section-V, Clause no. 19.0: Extension of Policy: of Section-V is deleted vide Corrigendum No. 01.
29.	BI loss without any material or physical damage due to denial of access / prevention of access.	NEEPCO enquired whether BI Loss without any material or physical damage, shall be covered by the IAR Policy. Bidders stated that BI Loss without any material or physical damage is not covered by the IAR Policy.
30.	The Bidder stated Panel of Surveyors to be specified.	Bid Stipulations as per Clause 9.0: Panel of Surveyors, Section-V of the Bid Document shall prevail.
31.	The Bidder stated that valuation of assets will have to be done and the same to be paid by the insured only.	Bid Stipulations as per Clause 6.0: Valuation of Assets, Section-IV and clause 2.0(a), 2.0(b), 2.0(c), Section-V of the Bid Document shall prevail.

RB

[Signature]
02/12/2019

(ALL DIMENSIONS ARE IN MM)



N-600
W-100

N-100

000

D-100

E-200

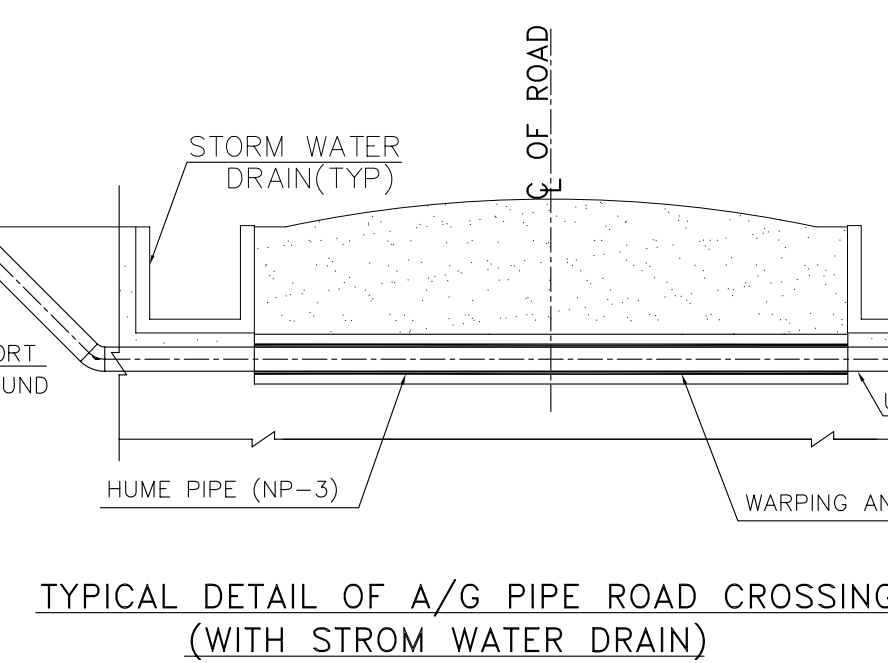
N-500

N-400

N-300

N-200

N-100



TYPICAL DETAIL OF U/G PIPE ROAD CROSSING
(WITH STORM WATER DRAIN)

TYP. MOUNTING DETAIL OF SINGLE HEADED HYDRANT
(U/G PIPING)

VIEW-XX
TYP. SUPPORT DETAIL FOR
ABOVE GROUND PIPE

VIEW-XX

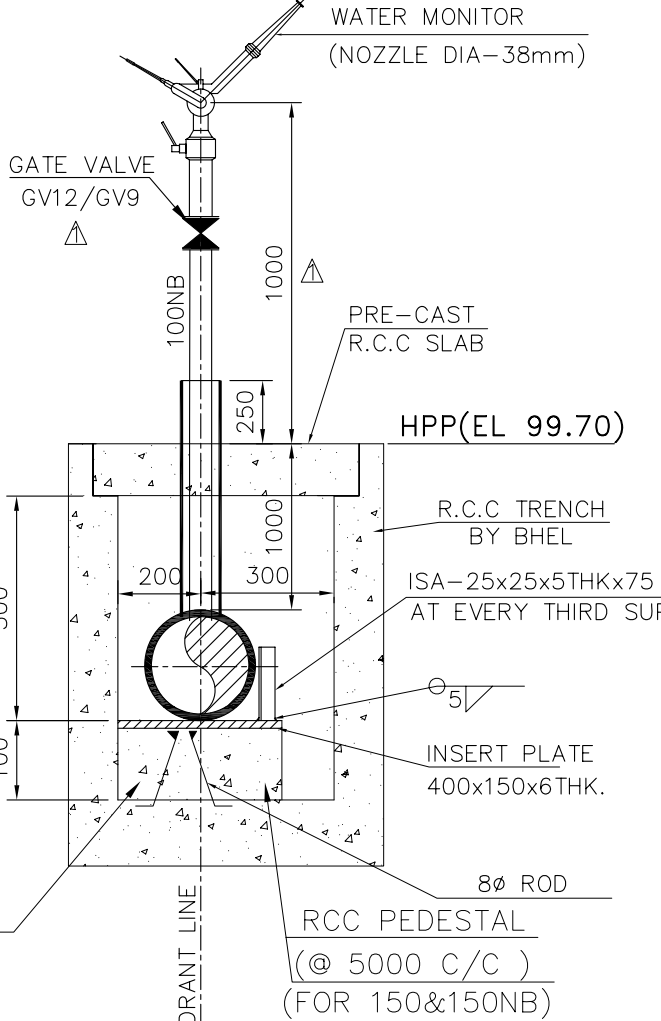
TYP. MOUNTING DETAIL OF SINGLE HYDRANT
IN RCC PIPE TRENCH

TYP. MOUNTING DETAIL OF WATER MONITOR
IN RCC PIPE TRENCH

TYP. MOUNTING DETAIL OF SINGLE
HEADED HYDRANT ON A/G PIPING

TYP. MOUNTING DETAIL OF SINGLE
HEADED HYDRANT ON A/G PIPING

TYP. MOUNTING DETAIL OF SINGLE HYDRANT
IN RCC PIPE TRENCH



SYMBOL	DESCRIPTION
	HYDRANT/SPRAY PIPE (A/G)
	HYDRANT/SPRAY PIPE IN RCC PIPE TRENCH
	SINGLE HYDRANT
	WATER MONITOR
	LANDING VALVE
	HUME PIPE
	GATE VALVE WITH FLANGED END IN VALVE CHAMBER
	GATE VALVE WITH FLANGED END
	DELUGE VALVE
	DELUGE VALVE HOUSE
	FINISHED GROUND LEVEL
	HIGHEST PAVING LEVEL
	TOP OF PIPE
	BOTTOM OF PIPE

NOTES:

- ALL DIMENSIONS ARE IN MM AND ELEVATIONS & CO-ORDINATES ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- FGL EL 99.50 CORRESPONDS TO SITE RL 16.50m AS PER M/s NEEPCO'S MAIL DTD 26.11.10.
- EL 100.00 REFERS TO FINISHED FLOOR LEVEL OF PLANT & NON-PLANT BUILDING WHICH CORRESPONDS TO SITE RL 17.00m.
- PIPES SHALL BE LAID THROUGH HUME PIPES (NP-3 CLASS) AT ROAD CROSSINGS.
- BURIED PIPES SHALL BE LAID AT LEAST 1.0M BELOW GROUND LEVEL AND PROVIDED WITH MARKING COATING TAPE.
- ALL ABOVE GROUND PIPING SHALL BE PAINTED AS PER SPECIFICATION REQUIREMENT.
- ALL PIPE LINES UP TO DELUGE VALVES, HYDRANTS/MONITORS SHALL BE HYDRAULICALLY TESTED AT 150% OF WORKING PRESSURE FOR 2 HOURS.
- 10% OF THE ALL WELDED JOINTS SHALL BE RADIO GRAPHICALLY TESTED AND HALF OF THE JOINTS RADIOGRAPHED SHALL BE FIELD JOINTS.
- MINOR MODIFICATION IN PIPE ROUTING MAY BE DONE AT SITE TO SUIT REQUIREMENT SUBJECT TO COMPLIANCE TO TAC RULES.
- HOLIDAY TESTING FOR WRAPPING & COATING SHALL BE CARRIED OUT BY U/G PIPES.
- THE LOCATION OF THE DELUGE VALVE AND ITS HOUSING MAY BE SUITABLY MODIFIED AT SITE AS PER SITE CONDITION IF REQUIRED.
- RCC PIPE TRENCH WHEREVER REQUIRED SHALL BE PROVIDED BY CLIENT.
- ALL ABOVE GROUND HYDRANT/SPRAY HEADERS SHALL BE LAID MIN. 6.0M AWAY FROM BUILDINGS /STRUCTURES/LINES CARRYING HAZARDOUS FLUIDS.
- PIPE SPACING OF SUPPORT FOR ABOVE GROUND PIPES SHALL BE 3.5M FOR 80NB & 100NB PIPES, 5M FOR 150NB, 150NB & 250NB PIPES AND 7M FOR PIPES 250NB AND ABOVE.
- COMPRESSED AIR AT MIN.PRESSURE 3.5 KG/CM2(g) SHALL BE PROVIDED BY BHEL.

REFERENCE DRAWING

- 0-381-01-01169 (PLOT PLAN)
- 0-381-01-01169 (OVERALL PLANT CABLE TRAY/TRENCH LAYOUT)
- 0-38142-02495 (PAVING LAYOUT & DETAILS)
- 0-38101-02789 (STANDARD LEGENDS FOR PROCESS & INSTRUMENTATION DIAGRAM)

CLASS OF ORDINARY HAZARD

REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
1	12.02.13	REVISED AS PER BHEL COMMENTS	KAPIL	MKC	KRS
0	03.12.12	SUBMISSION FOR APPROVAL	KAPIL	MKC	KRS

REVISIONS

CUSTOMER	नॉर्थ ईस्टर्न इलेक्ट्रिक पावर कॉर्पोरेशन लिमिटेड NORTH EASTERN ELECTRIC POWER CORPORATION LTD.
CONSULTANT	त्रिपुरा गैस आधारित सी.सी. विद्युत परियोजना TRIPURA GAS BASED CC POWER PROJECT (TRIPURA)

PACKAGE VENDOR	DESEIN PRIVATE LTD., NEW DELHI BHARAT HEAVY ELECTRICALS LTD. HYDERABAD NTPC BHEL POWER PROJECTS PVT LTD (A Joint Venture Company of NTPC & BHEL)
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PACKAGE VENDOR	THERMOSYSTEMS PVT. LTD. 28, NAGARJUNA HILLS, PUNJAGUTTA, HYDERABAD - 500082, INDIA.
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PACKAGE	FIRE PROTECTION SYSTEM
TITLE	COMPOSITE PIPING LAYOUT OF HYDRANT & SPRAY SYSTEM
DRG. NO.	TSPL-P220-LAY-104
SCALE	SCALE=1:800
SHEET NO.	1 OF 1
REV.	1

SYNOPSIS OF HYDRANT SYSTEM									
S.N.	Name of Hazard	No. of Hydrant required per TAC	Qty. of Hydrant	of Tag No. External Hydrant	Provided hydrant monitor	Qty. of Tag No. Water Monitor	of Tag No. Landing valve	Qty. of Tag No. Landing valve	Landing valve for upper floor
1	CLARIFIED & FIRE WATER PUMP HOUSE	128	3	3	SH1, SH2, SH3	-	-	-	-
2	RAW WATER PUMP HOUSE	32	1	1	SH4	-	-	-	-
3	RAW WATER PUMP HOUSE (FUTURE)	32	1	1	SH4	-	-	-	-
4	PIPE TREATMENT PLANT AREA	60	2	2	SH4, SH5	-	-	-	-
5	GAS BOOSTER COMPRESSOR	108	3	3	SH6, SH7, SH8	-	-	-	-
6	GAS COND. SKID	20	1	1	SH4	-	-	-	-
7	EFFLUENT TREATMENT PLANT SHED	120	3	3	SH1, SH2, SH3	-	-	-	-
8	GAS COND. SKID	20	1	1	SH4	-	-	-	-
9	GAS CHROMATOGRAPH ROOM	20	1	1	SH4	-	-	-	-
10	DM PLANT AREA	196	5	5	SH4, SH7, SH8, SH9, SH10, SH11	-	-	-	-
11	WATER SYSTEM MCG	196	5	5	SH4, SH7, SH8, SH9, SH10, SH11	-	-	-	-
12	DM PLANT AREA (FUTURE)	196	5	5	SH4, SH7, SH8, SH9, SH10, SH11	-	-	-	-
13	WATER SYSTEM MCG (FUTURE)	196	5	5	SH4, SH7, SH8, SH9, SH10, SH11	-	-	-	-
14	TRANSFORMER YARD	280	7	7	SH2, SH3, SH4, SH5, SH6, SH7, SH8	1	WM1	4	LV1, LV2, LV3, LV4
15	STG HALL	300	7	7	SH1, SH2, SH3, SH4, SH5, SH6, SH7, SH8	2	WM1, WM2	4	LV1, LV2, LV3, LV4
16	BFP & DEGRATER STRUCTURE	60	2	2	SH3, SH4	-	-	-	-
17	DM PLANT AREA	124	3	3	SH4, SH5, SH6	-	-	-	-
18	COOLING TOWER	147	4	4	SH3, SH4, SH5, SH6	-	-	-	-
19	CLARIFIED (FUTURE)	-	-	-	-	-	-	-	-

TOTAL EQUIVALENT NO. OF HYDRANTS

S.NO.	DESCRIPTION	PROVIDED (NOS.)	EQUIVALENT HYDRANTS (NOS.)	TOTAL EQUIVALENT HYDRANTS (NOS.)
1.	SINGLE HYDRANTS	43	43	62
2.	LANDING VALVES	11	11	
3.	WATER MONITOR	02	08	

SCHEDULE OF HUME PIPE

Tag No.	Size	Length	Co-ordinates
HP1	430	7.0	N-545.085
HP2	430	13.0M	N-519.000
HP3	430	7.0M	E-24.900
HP4	430	7.0M	N-506.730
HP5	430	6.75M	N-506.730
HP6	430	7.0M	N-463.540
HP7	430	7.0M	N-463.540
HP8	430	7.0M	E-24.900
HP9	430	7.0M	N-431.600
HP10	430	7.0M	E-24.900
HP11	430	7.0M	N-389.600
HP12	430	4.0M	E-24.900
HP13	430	7.0M	N-349.936
HP14	430	7.0M	E-24.900
HP15	430	10.3M	E-24.900
HP16	430	7.0M	N-272.000
HP17	430	7.0M	W-09.470
HP18	430	7.0M	W-267.900
HP19	430	7.0M	W-44.700
HP20	430	9.0M	W-24.900
HP21	430	7.0M	N-204.980
HP22	430	7.0M	N-176.358
HP23	430	7.0M	N-176.358
HP24	430	7.0M	N-246.600
HP25	430	22.0M	N-274.620
HP26	430	7.0M	E-84.905
HP27	430	7.0M	E-84.905
HP28	430	7.0M	N-373.400

LEGEND

SYMBOL	DESCRIPTION
	HYDRANT/SPRAY PIPE (A/G)
	HYDRANT/SPRAY PIPE IN RCC PIPE TRENCH
	SINGLE HYDRANT
	WATER MONITOR
	LANDING VALVE
	HUME PIPE
	GATE VALVE WITH FLANGED END IN VALVE CHAMBER
	GATE VALVE WITH FLANGED END
	DELUGE VALVE
	DELUGE VALVE HOUSE
	FINISHED GROUND LEVEL
	HIGHEST PAVING LEVEL
	TOP OF PIPE
	BOTTOM OF PIPE

ANNEXURE-B**List of Critical Machines/Equipment/Spares of Tripura Gas Based Power Plant (101 MW), NEEPCO Ltd. Monarchak, Tripura**

Sl. No.	List of Critical Machines/Equipment	Availability of Spares/Critical machines/equipment	Remarks
1.	SFC	Recommended Critical Spares available at site	
2.	11KV GCB	Procurement of Recommended critical spares are under process.	
3.	Generator Transformer, Station Transformers and Station Auxiliary Transformers	1. Procurement of HV Coil of Generator Transformers are under process. 2. 1(one) no Spare Station Transformers is Available. 3. 2(Two) nos. Station Auxiliary Transformers are available.	
4.	120KV Lightning Arrestors	Spare LAs are available at site	
5.	132KV Breakers	OEM recommended Spares for Breaker's maintenance are available at site.	
6.	132KV CT, CVT and EMVT	Spare CT, CVT and EMVT are available at site	
7.	1010KVA DG set	Spares for DG set maintenance are available at site	
8.	Lub oil Pump and Motors for GTG and STG	Spare Lub Oil pumps and Motors are available at site	
9.	Turning Gear Motor for GTG	Spare Turning Gear Motor is available at site	
10.	Stator and Rotor bars for GTG and STG Generator	Spare Bars are not available	
11.	GBC	1(one) no equipment as standby. Maintenance spares for Compressor and Gear Box are available.	1 Running + 1 Standby
12.	CW Motor & Pump	2(Two) nos. HV pumps are as standby and 1(one) no ACW pump is as standby. Moreover, maintenance spares for HV and ACW pumps are available at site.	HV - 1 Running + 2 Standby ACW - 1Running + 1 Standby
13.	HP BFP Motor & Pump	2(Two) nos. equipment as standby. Moreover, maintenance spares for HP, LP and IP pumps are available.	1 Running + 2 Standby
14.	Cooling Tower Fan-Motor	1(one) no motor and 1(one) no Gear box available as spare at site.	5 Running + 1 Standby
15.	Cold Preheat Re-circulation pump	Maintenance spares for pumps are available at site	1 Working + 1 Standby



16.	River Intake and Raw Water pump House	1(one) no Motor for river intake is available as spare. Maintenance spare for pumps are available at site	River Intake – 1W +1S. Raw Water – 1W+1S
17.	Gas Turbine	Order placed for HGPI spares along with hardware.	
18.	Steam Turbine	Order placed for 1 set Generator front bearing.	
19.	Steam Turbine Governing System	Procurement action for governor spares has been taken	
20.	PRDS system	Maintenance spares for Pressure and Temperature control valves for HP, IP and LP steam are available.	
21.	HRSG	Spare safety and stop valves are available. Maintenance spares for valves are available. Maintenance spares for Positioners are available.	10% Module tubes blocking is recommended by OEM.
22.	IA/PA & N2 System	Maintenance spares and PLCC spares are available at site.	1W + 2S
23.	DM Plant	OEM recommended, complete mandatory and critical spares are available for transfer and feed water pumps.	1(one) system is as standby
24.	PT plant	OEM recommended, mandatory and critical spares are available for Dosing pumps.	1(one) set standby is available for every system.
25.	Cooling Water Module	2(Two) nos. motor and Fan as standby in system. 2(Two) nos. Motors are available as spare at site.	4Running + 2Standby
26.	AVR of GTG and STG	OEM recommended spare cards are available.	
27.	Control System of GT	OEM recommended spare cards for Mark-VIe are available	
28.	DCS	OEM recommended spare cards are available	
29.	Digital Relays for Generator Protection, Transformer Protection, Feeder Protection, Bus Protection and Motor Protection	OEM recommended spare relays for Feeder Protection, Bus Protection and Motor Protection are available. Procurement of spare relays for Generator Protection and Transformer Protection are under process.	

RM

102/12/2019