

**Qualifying Requirement for Vendor Enlistment for supply of Cooling Water Treatment Chemicals
10MEG-36.**

A	MEG Details		
	1	MEG No.	10MEG-36
	2	MEG DESCRIPTION	Supply of Cooling Water Treatment Chemicals: <ol style="list-style-type: none"> 1. PHOSPHONO BUTANE TRICARBOXYLIC ACID (PBTC) - M1020635245, 2. ACID: HEDP ACID:MOLECULAR WT-206 - M1020283002, 3. CO-POLYMER DISPERSANT:ACTIVE CONTENT-50% - M1011064805, 4. SOLN:POLYACRYLAMIDE-DISPERSANT:INDL GR- M1011065201, 5. CHEMICAL-PASP- POLY ASPARTIC ACID(C4H5NO3) – M1020529101, 6. TER-POLYMER DISPERSANT-TECHNICAL GRADE - M1011064910, 7. SOLN:BIO-DISPERSANT- M1011065100, 8. BENZOTRIAZOLE (BTA) - M1010063342, 9. SOLN:NON OXIDISING BIOCID:25-40% - M1011951525.
		RESPONSIBILITY CENTRE	CPG-1/ VDC
B	TECHNICAL CRITERIA		
	<p>1. The applicant should be a supplier of “any one or more” of the cooling water treatment chemical(s) given at MEG DESCRIPTION “A2” above, in any Govt/ Semi- Govt/ PSU/ Power/Process Industry.</p> <p>and</p> <p>2. Minimum supplied value of the order of the chemical(s) at MEG DESCRIPTION “A2” above, in an individual order shall be Rs 4 Lakh, within last five years from the date of application.</p>		
C	<p>Other Documents to be uploaded: In addition to the documents required in support of Qualifying Requirements as stated at B) above, following documents are also required to be uploaded by the applicants applying for enlistment: -</p> <ol style="list-style-type: none"> 1. Three PO’s of the highest executed values (Refer to Note-2 of “D” below) of similar works (Refer to Note-1 of “D” below) during last five years from the date of application. Copy 		

		<p>of Invoice/ Completion certificate from the concerned buyer(s) in support of successful execution of supply against the PO's.</p> <p>2. Audited balance sheet including Profit & Loss statement for the previous three completed financial years reckoned from the date of application. In case the audited results for the preceding financial year is not available, certification of financial statements from a practicing chartered accountant is to be uploaded. In case, applicant is not able to submit the certificate from practicing chartered accountant certifying its financial parameters, the audited results of the three consecutive financial years preceding the last financial years shall be considered for evaluating the financial parameters. Further, a certificate would be required from the CEO/CFO stating that the financial results are under audit as on date of application and certificate from the practicing chartered certifying the financial parameters are not available.</p>
D	Note-1	Similar works means: Supply of “any one or more” of cooling water treatment chemicals mentioned at MEG DESCRIPTION “A2” above.
	Note-2	The executed value means “Basic value of quantity of similar works supplied against the reference PO” (also applicable to partly executed POs as on date of application). Where PO value is composite (i.e. including Taxes etc.), the applicant to give item-wise break-up of Composite PO value mentioning Basic Value of “any one or more” of cooling water treatment chemicals mentioned at MEG DESCRIPTION “A2” above, Taxes etc.
	Note-3	Other income shall not be considered for computing annual turnover.

I. Technical Specification for Enlistment Vendor for the Supply of Cooling Water Treatment Chemicals.

- a) GENERAL: The material shall be as per the requirement mentioned.
- b) REQUIREMENT:

1. Specifications of PHOSPHONO BUTANE TRICARBOXYLIC ACID (PBTC) - M1020635245

S.No.	Characteristics	Unit	Requirement
1.1	Appearance		Colorless to Pale yellow clear liquid
1.2	Molecular weight		270
1.3	Active Acid Content	%	49-51
1.4	Phosphorous acid (as PO4) (max).	%	0.5
1.5	Phosphoric acid (as PO4) (max)	%	0.2
1.6	Density (20°C)	g/cm ³	1.27-1.30
1.7	pH (1% water solution) (max).		2.0
1.8	Iron Content (max).	ppm	5
1.9	Chloride as Cl' (max)	ppm	10
1.10	Calcium sequestration (min)	mg CaCO ₃ /gm	400 mg of CaCO ₃ / gm of product
1.11	Solubility		soluble in water

- IR Spectra to be submitted with supply.
- Packing- 50-60 litre HDPE/PVC Carbouys.
- Testing Requirement:
 - a) Test Certificate of the material from Original Manufacturer or Govt. Approved or NABL Accredited Laboratory for all the parameter has to be submitted along with each consignment.
 - b) Chemical is required to be tested at Shriram Institute of Industrial Research, New Delhi to confirm the material Qualitatively. Test to be carried out for each lot of supplied chemical.

Joint sampling shall be done for this purpose at NTPC Site after receipt of material. Vendor may depute their representative for this purpose.

Collected samples will be sent to Shriram Institute for Industrial research, New Delhi by NTPC station to confirm the material Qualitatively for each lot.

The cost of testing charges shall be borne by the Supplier which will amount to Rs 12500/- for PBTC.

2. Specifications of ACID:HEDP ACID:MOLECULAR WT-206 - M1020283002.

S.No.	Characteristics	Unit	Requirement
2.1	Appearance		colorless transparent liquid
2.2	Molecular weight		206
2.3	Active Acid Content	%	50 ± 2
2.4	Phosphorous acid (as PO4) (max).	%	2.5
2.5	Phosphoric acid (as PO4) (max)	%	0.7
2.6	Density (20°C)	g/cm ³	1.39-1.49
2.7	pH (1% water solution) (max).		2
2.8	Calcium sequestration (min)	mg CaCO ₃ /gm	>= 500 mg/gm of product
2.9	Solubility		soluble in water

- **Packing- 50-60 litre HDPE/PVC Carbouys.**
- **Testing Requirement:**
 - a) **Test Certificate of the material from Original Manufacturer or Govt. Approved or NABL Accredited Laboratory for all the parameter has to be submitted along with each consignment.**
 - b) **Chemical is required to be tested at Shriram Institute of Industrial Research, New Delhi to confirm the material Qualitatively. Test to be carried out for each lot of supplied chemical.**

Joint sampling shall be done for this purpose at NTPC Site after receipt of material. Vendor may depute their representative for this purpose.

Collected samples will be sent to Shriram Institute for Industrial research, New Delhi by NTPC station to confirm the material Qualitatively for each lot.

The cost of testing charges shall be borne by the Supplier which will amount to Rs 12500/- for HEDP.

3. Specifications of CO-POLYMER DISPERSANT:ACTIVE CONTENT-50% - M1011064805,

S.No.	Characteristics	Unit	Requirement
3.1	Nature		Non-foaming Type, biodegradable
3.2	Function		Dispersant, descalant or anti precipitant in Cooling water system (Non-foaming Type, biodegradable)
3.3	Composition		Low molecular weight (> 4000 & <5000) - Sulphonated Acrylic Co-polymer
3.4	Active Content	%	50 ± 3
3.5	pH (as is basis)		3.0 -4.5
3.6	Total solids	%	42.5-46
3.7	Sp. Gravity		1.1 - 1.25

- Phosphate inhibition test for initial screening.
- IR Spectra to be submitted with supply.
- **Packing- 50-60 litre HDPE/PVC Carbouys.**
- **Testing Requirement:**
 - a) **Test Certificate of the material from Original Manufacturer or Govt. Approved or NABL Accredited Laboratory for all the parameter has to be submitted along with each consignment.**

4. Specifications of SOLN:POLYACRYLAMIDE-DISPERSANT:INDL GR- M1011065201.

S.No.	Characteristics	Unit	Requirement
4.1	Nature		Non-foaming Type, biodegradable
4.2	Function		Dispersant, descalant or anti precipitant in Cooling water system (Non-foaming Type, biodegradable)
4.3	Composition		Low molecular weight (> 2000 & <5000) - Polyacrylate/ polyacrylamide/ Acrylic Homopolymer/ Homopolymer of Maleic Acid
4.4	Active Content	%	40 ± 2
4.5	pH (as is basis)		3.0 -8.0
4.6	Total solids	%	42.5-46
4.7	Sp. Gravity		1.1 - 1.25

- Phosphate inhibition test for initial screening.
- IR Spectra to be submitted with supply.
- Packing- Packing- 50-60 litre HDPE/PVC Carbouys.
- Testing Requirement:
 - a) Test Certificate of the material from Original Manufacturer or Govt. Approved or NABL Accredited Laboratory for all the parameter has to be submitted along with each consignment.
 - b) Chemical is required to be tested at Shriram Institute of Industrial Research, New Delhi to confirm the material Qualitatively. Test to be carried out for each lot of supplied chemical.

Joint sampling shall be done for this purpose at NTPC Site after receipt of material. Vendor may depute their representative for this purpose.

Collected samples will be sent to Shriram Institute for Industrial research, New Delhi by NTPC station to confirm the material Qualitatively for each lot.

The cost of testing charges shall be borne by the Supplier which will amount to Rs 9000/- for Polymer dispersant.

5. Specifications of CHEMICAL-PASP- POLY ASPARTIC ACID (C4H5NO3):AR - M1020529101

S.No.	Characteristics	Unit	Requirement
5.1	Specification		PASA: AR Grade
5.2	Appearance		Clear Solution
5.3	Total Solids	%	41-43
5.4	Active Solids	%	37.5-39.5
5.5	pH		4.0-4.3
5.6	Density	g/ cc at 25°C	1.18-1.20

- **Packing- Packing- 50-60 litre HDPE/PVC Carbouys.**
- **Testing Requirement:**
Test Certificate of the material from Original Manufacturer or Govt. Approved or NABL Accredited Laboratory for all the parameter has to be submitted along with each consignment.

6. Specification of TER-POLYMER DISPERSANT-TECHNICAL GRADE - M1011064910

S.No.	Characteristics	Unit	Requirement
6.1	Nature		Non-foaming Type, biodegradable
6.2	Function		Dispersant, descalant or anti precipitant in Cooling water system Non-foaming Type, biodegradable)
6.3	Mol Wt.		Low molecular weight (> 4000 & <5000)
6.4	Chemical Nature		Three Functional group of one weak Carboxylic acid, another Strong Sulphonic Acid & third Non-ionic group (Carboxylate/ Sulfonate/Non-ionic). The non-ionic group to further enhance dispersancy
6.5	Active Content	%	40 ± 2
6.6	pH (as is basis)		2.5 -4.0
6.7	Total solids	%	42.5-46
6.8	Sp. Gravity		1.1 - 1.25
6.9	Hardness stability Test		Stable upto Ca hardness of 1000 mg/l as CaCO ₃ in CWS
6.10	Dissolved Iron as Fe at Normal dosing without affecting performance		2.0 mg/l in CWS
6.11	Thermal Stability Temp. without degradation/reversion/disintegrate	°C	250

- **Phosphate inhibition test for initial screening.**
- **IR Spectra to be submitted with supply.**
- **Packing- 50-60 litre HDPE/PVC Carbouys.**
- **Testing Requirement:**
Test Certificate of the material from Original Manufacturer or Govt. Approved or NABL Accredited Laboratory for all the parameter has to be submitted along with each consignment.

7. Specifications of SOLN:BIO-DISPERSANT - M1011065100.

S.No.	Characteristics	Unit	Requirement
7.1	Nature		Non-foaming Type, biodegradable
7.2	Function		Biodispersant, prevents deposition of organic fouling and enhances performance of biocide in Cooling water system
7.3	Composition		Nonyl phenyl polyethylene glycol ether based/ EOPO Condensate based/ blends of superior functional groups that include Amide based molecules
7.4	Active Content	%	95 ± 2
7.5	pH (as is basis)		7.0-9.5
7.6	Sp. Gravity		0.85-1.1

- **Toxicological information is to be provided.**
- **Packing- 50-60 litre HDPE/PVC Carbouys.**
- **Testing Requirement:**
- **Test Certificate of the material from Original Manufacturer or Govt. Approved or NABL Accredited Laboratory for all the parameter has to be submitted along with each consignment.**

8. Specifications of BENZOTRIAZOLE (BTA-C₆H₅N₃) IS-12125:1987 - M1010063342

S.No.	Characteristics	Unit	Requirement
8.1	Appearance		White to cream-coloured needles or granular powder
8.2	Active Content	% (Min)	99
8.3	Melting Point	oC	95.0-98.5
8.4	Moisture	% (Max)	0.1
8.5	Ash Content	% (Max)	0.05

- Benzotriazole is used to control the corrosion of cupro-nickel based alloy alongwith zinc sulphate.
- Packing- 50-60 litre HDPE/PVC Carbouys.
- Testing Requirement:
Test Certificate of the material from Original Manufacturer or Govt. Approved or NABL Accredited Laboratory for all the parameter has to be submitted along with each consignment.

9. Specifications of SOLN:NON OXIDISING BIOCIDES:25-40% - M1011951525

S.No.	Characteristics	Unit	Requirement
9.1	Nature		Non-foaming Type, biodegradable
9.2	Type of Compound		Quaternary Ammonium Compound (viz
9.3	Compounds		Alkyldimethyl(phenylmethyl) ammonium chlorides or Alkylbenzyldimethyl ammonium chloride or Benzalkonium chloride
9.4	Content	% (Min)	40
9.5	pH (10% sol)		6.0-8.0
9.6	Appearance		Clear to light-straw coloured liquid
9.7	Specific Gravity/ Density		9.4-9.8
9.8	Odour		Characteristic
9.9	Ionicity		Cationic
9.10	Dispersion Properties		Soluble in Water

- **Packing- 50-60 litre HDPE/PVC Carboys.**
- **Testing Requirement:**
Test Certificate of the material from Original Manufacturer or Govt. Approved or NABL Accredited Laboratory for all the parameter has to be submitted along with each consignment.