

Qualifying Requirement for Vendor Enlistment for supply of RO Water Treatment Chemicals

10MEG-41.

A	MEG Details		
	1	MEG No.	10MEG-41
	2	MEG DESCRIPTION	Supply of RO Water Treatment Chemicals: 1. FERRIC CHLORIDE- Solid /Liquid 2. SODIUM METABISULPHITE (SMBS) 3. EDTA TERTA SODIUM SALT 4. CHEMICAL DBNPA - Solid / Liquid 5. CITRIC ACID
	3	RESPONSIBILITY CENTRE	CPG-1/ VDC
	4	ENLISTMENT CATEGORY	Category-1
B	TECHNICAL CRITERIA QR-1: The applicant should be a manufacturer of “any one or more” of the RO water treatment chemical(s) given at MEG DESCRIPTION “A2” above. <p align="center">OR</p> QR-2: The applicant should be a supplier of “any one or more” of the RO water treatment chemical(s) given at MEG DESCRIPTION “A2” above meeting the specification mentioned at Annexure I, in any Govt/ Semi- Govt/ PSU/ Power/ Process Industry, within last five years from the date of application.		
C	Documents to be submitted as proof of meeting the stipulated Qualifying Requirements: QR-1: Valid factory License/ Consent to operate from any Government statutory body such as Pollution Control Board/ NSIC registration/ any other valid document as proof of manufacturing with mention of any of the following terms: Any one of the chemicals at MEG DESCRIPTION “A2” above/ Antiscalant / RO Antiscalant /Descaling Compounds / Cleaning and Descaling Chemicals/ Biocide / Cleaning Chemicals for RO / Chemicals for Membrane Cleaning/ Bio dispersant/ Coagulation Chemical/ Flocculants		

	<p>/Chemicals for treating RO water/ 2,2 -Dibromo Nitrilo Propionamide/ Treatment Chemicals for reverse osmosis.</p> <p style="text-align: center;">OR</p> <p>Valid Udyam registration certificate mentioning name of any one of the chemicals MEG DESCRIPTION “A2” above / Chemical NIC (5) code(s) and Activity as Manufacturing against the NIC Code.</p> <p style="text-align: center;">AND</p> <p>II) An undertaking on the Company letter pad, duly signed/ stamped, of being a manufacturer of any one of the chemicals MEG DESCRIPTION “A2” above /Chemicals for RO water treatment / Cleaning and Descaling Chemicals for RO, along with their Works addresses.</p> <p style="text-align: center;">OR</p> <p>QR-2:</p> <p>Copy of Purchase Order(s), corresponding Invoice(s)/ completion certificate for supplying “any one or more” of the RO water treatment chemical(s) given at MEG DESCRIPTION “A2” above to any Govt/ Semi- Govt/ PSU/ Power sector or Process industry having the specification mentioned at Annexure I (or as per the relevant IS code).</p> <p style="text-align: center;">AND</p> <p>II) An undertaking on the Company letter pad, duly signed/ stamped, that the vendor will be able to supply at least any one or more of the chemicals given at MEG DESCRIPTION “A2” above / Chemicals for RO water treatment / Cleaning and Descaling Chemicals for RO as per the specification mentioned at Annexure I; along with their Works addresses.</p> <p>NTPC can ask more documents if felt necessary. Also, all documents/ facilities can be verified / assessed if required.</p>
D	<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 “E” below) of similar works (Refer to Note-1 of “E” below) during last five years from the date of application. Copy of Invoice/ Completion certificate from the concerned buyer(s) in support of successful execution of supply against the PO’s. 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.
E	Note-1	Similar works means: Supply of “any one or more” of 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 chemicals mentioned at MEG DESCRIPTION “A2” above , Taxes etc.
	Note-3	Other income shall not be considered for computing annual turnover.
	Note-4	For any other Terms & Conditions, Applicants are requested to please refer standard Terms & Conditions available at VDC/CPC portal i.e. https://vendor.ntpc.co.in
	Note-5	Technical Specifications are attached as Annexure-I

Annexure-I

I. Technical Specification for Enlistment of Vendor for the RO Water Chemicals (10MEG-41).

A. GENERAL: The material shall be as per the requirement mentioned.

B. REQUIREMENT:

1. Specifications of FERRIC CHLORIDE- LIQUID – M1010208018.

S.N.	Characteristics	UOM	Requirement (Liquid)	Anhydrous (Solid)	REMARKS
a.	Relative Density at 25 °C	-----	Min 1.46		To be tested at Chemistry lab
b.	Insoluble Matter	% by wt	Max 0.05	Max 0.5	-do-
c.	Ferric chloride, as FeCl ₃	% by wt	Min 43.0	Min 98	-do-
d.	Ferrous salts (as FeCl ₂)	% by wt	Max 0.10	Max 0.10	-do-
e.	Free Acid (HCl)/ Basicity (as Fe ₂ O ₃)	% by wt	Max 0.02/ Max 0.2		Manufacturer's test certificate/COA
f.	Free chlorine (as Cl)	% by wt	Max 0.01	Max 0.01	-do-
g.	Sulphates (as SO ₄ ²⁻)	% by wt	Max 0.30	Max 0.30	-do-
h.	Nitrates (as NO ₃ ⁻)	% by wt	Max 0.05	Max 0.05	-do-
i.	Alkalis & alkaline Earths (expressed as sulphates)	% by wt	Max 0.2	Max 0.3	-do-
j.	Copper (as Cu)	% by wt	Max 0.015	Max 0.015	-do-
k.	Zinc (as Zn)	% by wt	Max 0.01	Max 0.01	-do-
l.	Arsenic (as As ₂ O ₃)	% by wt	Max 0.0002 (2 ppm)	Max 0.0005 (5 ppm)	-do-

- **Packing- 50 litre HDPE/PVC/Plastic drums or tanker as per site requirement.**
- **Testing Requirement: Testing procedures as per IS 711:1970, Reaffirmed 2006.**
- **Agency must provide Test report/ certificate for all the Twelve parameters (S.No.1.a to 1.l) from Government lab/ Manufacturer Lab/ NABL accredited Lab, for each consignment.**
- **First four parameters will be tested at NTPC site laboratory for material acceptance.**

2. Specifications of SODIUM METABISULPHITE (SMBS)- M1010797003

S.N.	Characteristics	UOM	Requirement	REMARKS
a.	Appearance of solution	----	20% solution should have a pale yellow colour free from extraneous impurities other than slight flocculence.	To be tested at Chemistry lab
b.	Appearance of the material	----	Dry, white/cream-coloured powder, free from extraneous matter and having a faint smell of sulphur dioxide gas.	-do-
c.	Purity (as SO ₂ content)	% by mass	Min 60	-do-
d.	pH of 5% solution	----	4.5-5.5	-do-
e.	Insoluble matter	% by mass	Max 0.1	-do-
f.	Iron (as Fe)	% by mass	Max 0.02	Manufacturer's test certificate/COA
g.	Heavy metals (as Pb)	% by mass	Max 0.01	-do-
h.	Heavy metals (as Ni and Co)	% by mass	Max 0.01	-do-
i.	Thiosulphate content (as Na ₂ S ₂ O ₃)	% by mass	Max 0.05	-do-

Note:

- i. Testing procedures as per IS 248:1987 (Reaffirmed 2020)
- ii. SMBS should not be cobalt-activated (Cobalt catalyses the oxidation of the RO membranes).

- i. **Packing:25-50 Kg HDPE/PVC/Plastic Drums with moisture proof double lining bags.**
- ii. **Agency must provide Test report/ certificate for all the nine parameters (1.a to 1.i) from Government lab/ Manufacturer Lab/ NABL accredited Lab, for each consignment.**
- iii. **First five parameters (1.a to 1.e) will be tested at NTPC site laboratory for material acceptance.**

3. Specifications of EDTA TERTA SODIUM SALT:GR-TECHNICAL (for CIP cleaning of RO membranes)- M1010172102

S.N.	Characteristics	UOM	Requirement	REMARKS
a.	Purity	%	Min 96	To be tested at manufacturer's lab and cross-checked at Chemistry lab on receipt [note (i)]
b.	Appearance	----	White-coloured dry crystalline powder, free from extraneous impurities.	To be tested at Chemistry lab.
c.	pH of saturated solution	----	10-11	-do-
d.	Chelation value	mg/g	Min 200	Chelation value test procedure available as per AATCC method 149 and test to be done by Chemistry lab . So, acceptance will be based on Chelation value of above 200 mg/g .

Note:

- i. To check the purity standard method is not available, however, to cross-check purpose at 4.a of EDTA-4Na, laboratory can follow the testing method of EDTA (as per IS-7220) and convert to EDTA-4Na by substituting the Molecular weight of EDTA-4Na instead of EDTA will give approximate value.
- ii. Packing:25-50 Kg HDPE/PVC/Plastic Drums with moisture proof double lining bags.
- iii. Agency must provide Test report/ certificate for all the four parameters (4.a to 4.d) from Government lab/ Manufacturer Lab/ NABL accredited Lab, for each consignment

4. Specifications of CHEMICAL SOLID DBNPA:99% - M1010145110

S.N.	Characteristics	UOM	Requirement	REMARKS
a.	Purity	% (Min)	99	

- i. **Packing:25-50 Kg HDPE/PVC/Plastic Drums with moisture proof double lining bags.**
- ii. **Agency must provide Test report/ certificate for purity from Government lab/ Manufacturer Lab/ NABL accredited Lab, for each consignment.**

4 (A) Specifications of CHEMICAL SOLUTION DBNPA- M1011115101

S.N.	Characteristics	UOM	Requirement	REMARKS
a.	Concentration	% (Min)	20	

- i. **Solvent used should be compatible with RO membrane. Manufacturer's certificate to this effect to be submitted at the time of supply**
- ii. **Packing: to be supplied in 25 litre new HDPE carboys on non-returnable basis.**
- iii. **Agency must provide Test report/ certificate for purity from Government lab/ Manufacturer Lab/ NABL accredited Lab, for each consignment.**

5. Specification of CITRIC ACID IS 5464 MIN PURITY 98% - M1020104949

S.No.	Characteristics	Unit	Requirement
a.	Citric Acid (as monohydrate), Min	% by mass	98.5
b.	Sulphate (as SO ₄), Max	ppm	100
c.	Halides (as Cl), Max	ppm	100
d.	Sulphated ash, Max	% by mass	0.1
e.	Heavy metals (as Pb), Max	ppm	10
f.	Iron (as Fe), Max	ppm	10
g.	Oxalates (as C ₂ H ₂ O ₄), Max	--	To pass test (as per IS code)
h.	Water, Max	% by mass	8.8
i.	Arsenic, Max	ppm	1
j.	Readily carbonizable substances	--	To pass test (as per IS code)

- i. **Packing:25-50 Kg HDPE/PVC/Plastic Drums with moisture proof double lining bags.**
- ii. **Agency must provide Test report/ certificate for all the ten parameters (6.a to 6.j) from Government lab/ Manufacturer Lab/ NABL accredited Lab, for each consignment**