

**NTPC LTD
CC-OS
EOC NOIDA**

Sub: Qualifying requirements & other details for Vendor Enlistment for supply of Poly Aluminium Chloride Liquid.

A)	MEG Details (MATERIAL ENLISTMENT GROUP)	
	1.0 MEG No.	10 MEG-30
	2.0 MEG Description	Poly Aluminium Chloride Liquid
	3.0 Responsibility centre	CC-CPC
B)	<p>Technical Criteria of QR:</p> <ol style="list-style-type: none"> The applicant should be manufacturer of Poly Aluminium Chloride liquid and should have valid BIS license for production of PAC i.e. BIS 15573. Manufacturer should have testing facilities for all parameters mentioned as per procedure mentioned in the Indian standard. The applicant should have supplied Poly Aluminium Chloride as per IS 15573 in the liquid form during the last 5 year from the date of application. The party should submit a test certificate on Toxicological test for Poly Aluminium Chloride from Indian Toxicological Research Centre, Lucknow (presently known as IITR) or any other institute / laboratory under CSIR / Govt. of India that their product is safe for drinking water purpose. 	
C)	<p>Document to be submitted by the applicants against qualifying requirements:</p> <ol style="list-style-type: none"> QR-1: Copy of valid BIS License for BIS 15573. QR-2: Self declaration on the form of the list of testing facilities available in house with the manufacturer of PAC. QR-3: Any purchase order executed by the applicant for supply of Poly Aluminium Chloride as per IS 15573 in liquid form and the execution proof for same order. QR-4: Copy of Certificate on Toxicological Test as mentioned in above QR. 	
D)	<p>Other documents to be submitted:</p> <p>In addition to the documents required in support of meeting technical requirements as stated above, following documents are required to be submitted by the applicant for enlistment:</p> <ol style="list-style-type: none"> Three POs of highest executed values of similar work 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 POs. Audited balance sheet including profit and 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 account may be submitted. In case, Applicant is not able to submit the certificate from practicing chartered Account certifying its financial parameters, the audited results of three consecutive financial years preceding the last financial year shall be considered for evaluating the financial parameters. Further a Certificate would be required from the CEO/CFO as per the format enclosed in the application format documents stating that the financial results of the company are under audit as on the date of Application and the Certificate from the practicing Chartered Accountant certifying the financial parameters is not available. A sheet consisting of the following details: i) Production capacity ii) Maximum quantity that can be offered in one month iii) Maximum quantity that can be arranged during monsoon only (June, July, August, September). The information should be duly signed and stamped. Any other document in addition to the above which the applicant wants to submit. 	
E)	Note-1	Similar works means: Supply of Poly Aluminium Chloride Powder (liquid/powder) as per IS 15573.
	Note-2	The executed value means basic value of quantity of similar works executed / supplied against the reference PO (also applicable to partly executed POs as on the date of application). Where PO value is composite (i.e., including taxes etc.) the applicant to give item-wise break up of composite PO mentioning basic value, taxes etc.

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Sub: Technical Specifications for Vendor Enlistment for supply of Poly Aluminium Chloride Liquid.

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	<p>1. General: The material shall be in the form of liquid having medium basicity. The liquid form shall be free from organic contaminants. The material shall conform to IS 15573. The liquid material shall be packed / transported in acid resistant rubber or plastic lined containers or tankers.</p>																																																																									
	<p>2. Requirement</p> <table border="1"> <thead> <tr> <th>Sr.</th> <th>Characteristics</th> <th>Unit</th> <th>Requirements</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Aluminium (as Al₂O₃), Min</td> <td>% by mass</td> <td>9.5</td> </tr> <tr> <td>2</td> <td>Basicity, Min</td> <td>% by mass</td> <td>35</td> </tr> <tr> <td>3</td> <td>Chloride (as Cl), Max</td> <td>% by mass</td> <td>12.5</td> </tr> <tr> <td>4</td> <td>Sulphate (as SO₄), Max</td> <td>% by mass</td> <td>2.7</td> </tr> <tr> <td>5</td> <td>Specific gravity at 25⁰C, Min</td> <td></td> <td>1.18</td> </tr> <tr> <td>6</td> <td>Viscosity (dynamic) at 20⁰C</td> <td>mPa</td> <td>3-10</td> </tr> <tr> <td>7</td> <td>Mercury (as Hg) Max</td> <td>ppm</td> <td>0.2</td> </tr> <tr> <td></td> <td>Arsenic (as As) Max</td> <td>ppm</td> <td>5</td> </tr> <tr> <td></td> <td>Cadmium (as Cd) Max</td> <td>ppm</td> <td>6</td> </tr> <tr> <td></td> <td>Lead (as Pb) Max</td> <td>ppm</td> <td>30</td> </tr> <tr> <td></td> <td>Iron (as Fe) Max</td> <td>ppm</td> <td>80</td> </tr> <tr> <td></td> <td>Manganese (as Mn) Max</td> <td>ppm</td> <td>20</td> </tr> <tr> <td></td> <td>Chromium (as Cr) Max</td> <td>ppm</td> <td>15</td> </tr> <tr> <td></td> <td>Selenium (as Se) Max</td> <td>ppm</td> <td>8</td> </tr> <tr> <td></td> <td>Total Organic Carbon (TOC) Max</td> <td>ppm</td> <td>80</td> </tr> <tr> <td>8</td> <td>Insolubles Max</td> <td>% by mass</td> <td>0.5</td> </tr> <tr> <td>9</td> <td>pH of 5% solution w/v</td> <td></td> <td>1.8 - 4.5</td> </tr> </tbody> </table>		Sr.	Characteristics	Unit	Requirements	1	Aluminium (as Al ₂ O ₃), Min	% by mass	9.5	2	Basicity, Min	% by mass	35	3	Chloride (as Cl), Max	% by mass	12.5	4	Sulphate (as SO ₄), Max	% by mass	2.7	5	Specific gravity at 25 ⁰ C, Min		1.18	6	Viscosity (dynamic) at 20 ⁰ C	mPa	3-10	7	Mercury (as Hg) Max	ppm	0.2		Arsenic (as As) Max	ppm	5		Cadmium (as Cd) Max	ppm	6		Lead (as Pb) Max	ppm	30		Iron (as Fe) Max	ppm	80		Manganese (as Mn) Max	ppm	20		Chromium (as Cr) Max	ppm	15		Selenium (as Se) Max	ppm	8		Total Organic Carbon (TOC) Max	ppm	80	8	Insolubles Max	% by mass	0.5	9	pH of 5% solution w/v		1.8 - 4.5
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	<p>3. Quality Plan: Acceptance of material based on inspection and testing at NTPC station site for pH and Aluminium contents. Manufacturers / NABL accredited laboratory test certificate for all other parameters will be required along with the consignment.</p>																																																																									
	<p>4. Note for stations: Stations have to develop TOC measurement facility. Till such time manufacturer's test certificate for TOC will held valid.</p>																																																																									