

NTPC LTD
Central Procurement Cell, EOC, NOIDA
**VENDOR ENLISTMENT FOR O&M WORKS PACKAGE ON PAN NTPC
BASIS**

1	CEG No.	MGR-04
2	Brief description of CEG	Supply, Stacking and Spreading of ballast for Railway Track (MGR)
3	Responsibility Centre	CPC
4	Brief scope of work	<p>Supply, Stacking and Spreading of Ballast for Railway Track (MGR):</p> <p>Scope of Work:</p> <ol style="list-style-type: none"> 1. The scope of work under this contract includes Supply, Transportation, stacking and spreading of Machine crushed stone ballast of 65mm size at MGR track for MGR track by road transportation 2. The ballast is to be stacked at MGR Station or at the identified locations and as per instruction of EIC. 3. The stacked ballast is to be spread up/boxed up/dressed up on the entire length of NTPC MGR track, as per requirement /instruction of EIC. 4. All work shall be done as per provision of technical specification, BOQ and instruction of EIC <p>Specifications for Track Ballast</p> <ol style="list-style-type: none"> 1. Basic quality: Ballast should be hard, durable and as far as possible angular along edges/ corners, free from weathered portions of parent rock, organic impurities and inorganic residues. 2. Particle shape: Ballast should be cubicle in shape as far as possible. Individual pieces should not be flaky and should have generally flat faces with not more than two rounded / sub rounded faces. 3. Physical properties: Ballast sample should satisfy the following physical properties in accordance with IS: 2386, Pt. IV-1963 when tested as per procedure. <ol style="list-style-type: none"> a. Aggregate abrasion value - 30% Maximum b. Aggregate impact value - 20% Maximum c. The water absorption tested as per IS: 2386 Pt.III -1963 should not be more than 1%. 4. Size and gradation: Ballast should satisfy the following size and gradation. <ol style="list-style-type: none"> (i) Retained on 65 mm square mesh sieve - 5% Maximum (ii) Retained on 40mm square mesh sieve - 40% to 60% (iii) Retained on 20 mm square mesh sieve - Not less than 98% for machine crushed ballast. 5. Oversize Ballast <ol style="list-style-type: none"> (i) Retention on 65mm square mess sieve: <ul style="list-style-type: none"> • A maximum of 5% ballast retained on 65mm square mesh sieve shall be allowed and no deduction in payment shall be done. • In case ballast retained on 65mm sieve exceeds 5% but does not exceed 10%, payment at 5% reduction in contracted rate shall be made for the full stack. Stack having more than 10% retention of ballast on 65mm sieve shall be rejected. (ii) If ballast retained on 40mm square mesh sieve (machine crushed case only) > 60%, payment at the reduced rates shall be made

		<p>for the full stack in addition to the reduction worked out above.</p> <ul style="list-style-type: none"> • 5% reduction in contracted rates if retention on 40mm sq. mesh sieve is between 60% (excluding) and 65% (including) • 10% reduction in contracted rates if retention on 40mm sq. mesh sieve is between 65% (excluding) and 70% (including). <p>(iii) In case of retention on 40 mm square mess sieve exceed 70%, the stack shall be rejected.</p> <p>6. Undersize ballast:</p> <p>The ballast shall be treated as under size and shall be rejected if:</p> <p>(i) Retention on 40mm sq. mesh sieve is less than 40%.</p> <p>(ii) Retention on 20mm sq. mesh sieve is less than 98 % (for machine crushed)</p> <p>7. Method of Sieve Analysis:</p> <p>(i) The following tolerance in the size of holes for 65, 40 and 20mm nominal size sieves size shall be permitted.</p> <table data-bbox="667 779 1236 902"> <tr> <td>65mm square mesh sieve</td> <td>± 1.5mm</td> </tr> <tr> <td>40mm square mesh sieve</td> <td>± 1.5mm</td> </tr> <tr> <td>20mm square mesh sieve</td> <td>± 1.0mm</td> </tr> </table> <p>(ii) Mess sizes of the sieves should be checked before actual measurement. The screen for sieving the ballast shall be of square mesh and shall not be less than 100 cm of length, 70cm in breadth and 10 cm in height on sides.</p> <p>(iii) While carrying out sieve analysis, the screen shall not be kept inclined but held horizontally and shaken vigorously. The pieces of ballast retained on the screen can be turned with hand to see if they pass through but should not be pushed through the sieve.</p> <p>(iv) The percentage passing through or retained on the sieve shall be determined by weight only.</p> <p>8. Method of measurement:</p> <p>Stack Measurement:</p> <p>(i) Stacking shall be done on a neat plain and firm ground with good drainage. The height of stack shall not be less than 1m. The height shall not be more than 2.0 m. Top width of stack shall not be less than 1.0m. Top of stack shall be kept parallel to the ground plane. The side slopes of stack should not be flatter than 1.5:1 (Horizontal: Vertical). Cubical content of each stack shall normally be not less than 30M3 in plane area.</p> <p>9. Sampling and Testing:</p> <p>In order to ensure supply of uniform quality of ballast the following norms shall be followed in respect of sampling, testing and acceptance.</p> <p>(9.1). Minimum three samples of ballast for sieve analysis shall be taken for measurement done on any particular date.even if the numbers of stacks to be measured are less than three.</p> <p>(9.2) The test viz. determination of Size of ballast, Abrasive value, impact value and water absorption should be got done through NTPC laboratory/NTPC approved lab on chargeable basis.</p> <p>(9.3) In order to ensure supply of uniform quality of ballast, the following norms shall be followed in respect of sampling, testing and acceptance.</p> <p>(9.3.1) On supply of the first 100 cum, the tests for size gradation, Abrasion value, Impact value and water absorption shall be carried out by NTPC. Further supply shall be accepted only after this ballast satisfies the specifications for these tests. NTPC reserves the right to terminate the contract at this stage itself in case the ballast supply fails to Confirm to any of these specifications.</p> <p>(9.4) During supply of ballast subsequent tests shall be carried out at follows:</p>	65mm square mesh sieve	± 1.5mm	40mm square mesh sieve	± 1.5mm	20mm square mesh sieve	± 1.0mm
65mm square mesh sieve	± 1.5mm							
40mm square mesh sieve	± 1.5mm							
20mm square mesh sieve	± 1.0mm							

		Sl.	Description	Supply in stacks	
		A	Test	For each stack of volume less than 100M3	For each stack of volume more than 100M3
		1	Size & Gradation Tests		
			No. of Tests	One for each Stack	One for each Stack
			Size of one sample	0.027M3	0.027M3 for every 100 cum or part thereof.
		2	Abrasive value, Impact value & Water absorption tests		
			Testing Frequency	One of every 2000M3	
			Size of one sample	25 Kg	
		<p>9.4.1) The sample should be collected using a wooden box of internal dimensions 0.3m x 0.3m x 0.3m from different part of stack.</p> <p>9.5) the above shall be done for the purpose of maintaining quality during supply. In case the test results not being as per prescribed specifications at any stage, further supplies shall be suspended till suitable corrective action is taken and supplies ensured as per specifications.</p> <p>9.6) The above tests may be carried out more frequency if warranted at the discretion of EIC.</p> <p>9.7) All tests for abrasion value, Impact value, Flakiness and water absorption conducted subsequent to award of contract shall be done as per Field Quality Plan.</p> <p>Other details of works shall be given in tender document.</p>			
2.	Technical Qualifying requirements	<p>The applicant should have executed the Supply, Transportation & Spreading of machine crushed stone ballast along Railway track as per RDSO/Indian Railway specifications through rail/road during last five years from the date of application.</p> <p>Note-The combined activity of “Supply and Transportation” and activity “Spreading” of machine crushed stone ballast along Railway track as per RDSO/Indian Railway specifications through rail/road” should be executed into one or multiple Work Orders.</p>			
	Document to be submitted by Vendor in support of meeting QR	<p>Relevant PO copy and Client’s Completion Certificate/RA bill/Final Deviation Statement and other certificate/documents as mentioned elsewhere.</p>			

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6	<p>Additional Documents to be submitted</p> <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 Applicants applying for enlistment: -</p> <p>1.Three POs of the highest executed values of similar work (see definition at point D-Note below) during previous five years from the date of application. Copy of Invoice / Completion certificate in support of successful execution of supply against the POs is to be submitted.</p> <p>2.Financial statements:</p> <p>2.1 In case of proprietorship and partnership firm having turnover more than 1 crore & Companies incorporated as per Companies act 2013: Audited Financial statements for the previous three completed financial years reckoned from the date of application.</p> <p>2.2 For Proprietorship and partnership firm having turnover less than 1 Crore: Certified copy of Financial statements by a registered practicing Chartered accountant for the previous three completed financial years reckoned from the date of application.</p> <p>2.3 In case the audited financial statements of last financial year are not ready / available, then, certified copy of financial statements by a registered practicing Chartered accountant duly considered/accepted by CEO/CFO/Key Managerial Personnel</p> <p>Note: Financial statements means/includes balance sheet, profit and loss account/income and expenditure account, cash flow statement, statement of changes in equity and any explanatory note annexed to the same.</p> <p>3. Any other documents in addition to the above which the applicant wants to submit.</p> <p>i 4. NTPC can ask other documents as necessary during the course of evaluation.</p>
7	<p>NOTES:</p> <p>1.0 Similar work means: “Supply, Transportation & stacking” or “Supply, Transportation & Spreading” of machine crushed stone ballast along Railway track as per RDSO/Indian Railway specifications through rail/road.</p> <p>2.0 Value means basic value of the PO. Where PO value is composite (i.e. including taxes etc.), the applicant has to give break-up of composite PO value mentioning basic value, taxes etc.</p>