

| Sr. No. | Description  | Unit | Rate<br>(in Rs.)<br>2007-2008 | Rate<br>(in Rs.)<br>2008-2009 |
|---------|--|------|-------------------------------|-------------------------------|
| 1       | 2  | 3    | 4                             | 5                             |
| 1.      | <p><b>XIX. RCC ESR</b></p> <p>Designing (aesthetically), and constructing <b>RCC elevated service reservoirs</b> of following capacity with RCC staging consisting of columns, internal and external bracings spaced vertically not more than 4.5 meters centre to centre for ESR having Capacity upto 500 Cum. and not more than 6 m c/c for ESRs having capacity above 500 cum including excavation in all types of strata, foundation concrete, cement plaster with water proofing compound to the inside face of the container including refilling disposing of the surplus stuff within a lead of 50 meters, all labour and material charges including lowering, laying, erecting, hoisting and jointing of pipe assembly of inlet, outlet, washout, overflow and bypass arrangements as per departmental design, providing and fixing accessories such as M.S. ladder, C. I. manhole frame and covers water level indicators, lightening conductor, G. I. pipe railing around walk way and top slab, providing spiral staircase from ground level to roof level, M.S. grill gate of 2 mtr. height with locking arrangement of approved design. B.B. masonry chambers for all valves, ventilating shafts, providing and applying three coats of cement paint to the structure including roof slab epoxy painting to internal surface &amp; anti termite treatment for underground parts of the structure. and giving satisfactory water tightness test as per I.S. code, The job to include painting the name of the scheme and other details on the reservoir as per the directions of Engineer-in-charge.</p> <p><b>Note :</b></p> <ol style="list-style-type: none"> <li>1. The design of the structure be in accordance with relevant ( I.S. 3370 - 1965 or revised.)</li> <li>2. The design shall satisfy the stipulations as per IS 1893 -1984 and I.S. 13920 / 1993 for seismic force and I. S.-11682/1985 for R.C.C. staging of overhead tanks.</li> <li>3. For design having more than 6 columns, provision of internal bracing is obligatory. External bracing is also obligatory.</li> <li>4. The entire structure shall be in M-250 mix only.</li> <li>5. Plain round mild steel bars grade - I confirming to I.S. 432 part-I or high yield strength deformed bars confirming to I.S. 1786 or I. S. 1139 shall be used, grade-II mild steel bars will not be allowed.</li> <li>6. Irrespective of the type of foundation proposed in the design, one set of bracing be provided at the ground level.</li> </ol> |      |                               |                               |

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|         | <p>7) These rates include providing M.S. ladder for E.S.R's upto 2 lakh litres capacity and providing spiral staircase for E.S.R. above 2 lakh litres capacity.</p> <p>8) Staggering shall have to be designed with stresses of M-200 for ESR. However all RCC construction should be done in M-250</p> <p>9) These rates are including the cost of uplift pressure if any and entire dewatering during execution. In case of water logging area where water is struck at shallow depth extra provision of dewatering shall be made as per site condition.</p> <p>10) All conditions given in the Member Secretary's Circular No.MJP / TS-I / 350 / 1668 dt. 2-8-97 and MJP / S-1/350/2127 dt. 13-7-99 shall be strictly followed and additional cost, if any, due to these conditions is included in the rates mentioned below.</p> <p>11) 75% part rate shall be payable for reinforcement concrete and plastering items of containers of E.S.R. till satisfactory hydraulic testing for water tightness is given; and till that work shall be treated as incomplete.</p> <p>12) The rates indicated in the table are excluding the cost of pipes, specials and valves required for inlet, outlet, washout, overflow and by-pass arrangement. The scope of work, however and includes cost of erecting, laying and jointing of pipes and valves including cost of jointing materials upto 5 M beyond outer face of outermost column.</p> <p>13) For ESR upto 500 cum capacity C.I. Double flanged pipe upto 300 mm dia shall be provided and C.I. specials shall be used. For ESR above 500 cum capacity C.I. /M.S. pipe assembly with minimum 8 m.m. thickness up to 500 mm dia. and minimum 10 mm. thickness above 500 mm.dia can be used with proper anti-corrosive epoxy treatment from inside and outside.</p> <p>14) Below mentioned rates are for foundations, with individual footing with bearing capacity of 20 tonnes per square metre. For raft</p> |      |                               |                               |

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| 1       | 2   | 3    | 1                             | 5                             |
|         | <p>foundations, these rates shall be increased by 7.5% Where safe bearing capacity (SBC) is 5 M.T. per sqm and by 5% where SBC is more than 5 MT/ sqm and upto 10 MT /Sqm. This % of 5% or 7.5 % is applicable for estimation of amount of L.S. item of ESR. For Extra Item due to change from individual foundation to raft, actual increase in concrete and steel be paid as per relevant DSR Item.</p> <p>15. The rate shall be increased by 30% for bearing piles upto depth of 10 m &amp; for further increased in depth by 5 M each, it shall be increased by another 10%. These rates are applicable where raft is not feasible for pile foundations sulphate resistant cement shall only be used. Single pile for the column is not permitted Group of piles shall be designed with pile cap for each column of ESR.</p> <p>16. The rates are applicable for staging height of 12 M. These rates shall be increased or decreased for per metre variation in this staging height as below.</p> <p style="padding-left: 40px;">12 to 16 M staging - 2% per metre<br/>16 to 20 M staging - 3% per metre<br/>20 M and above - 4% per metre</p> <p>For 17 M Staging height percentage calculation will be like below.</p> <p style="padding-left: 40px;">12 to 16 M --- 4 X 2 = 8 %<br/>16 X 17 M --- 1 X 3 = 3 %<br/>Total = 11 %</p> <p>For 21 M Staging height percentage calculation will be like below.</p> <p style="padding-left: 40px;">12 to 16 M --- 4 X 2 = 8 %<br/>16 X 20 M --- 4 X 3 = 12 %<br/>20 X 21 M --- 1 X 4 = 4 %<br/>Total = 24 %</p> <p>17. Following rates are for seismic zone-III For zone-IV, these rates shall be increased by 5% and for zone - II, these rates shall be decreased by 5%. Concerned Executive Engineer shall confirm the seismic zone for the scheme from seismic zones plan before estimation and adopt appropriate rates as per actual seismic zones. (Seismic maps attached in this C.S.R.)</p> |      |                               |                               |

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| 1       | 2   | 3        | 4                                       | 5                             |
|         | <p><b>Note :</b> 1) Conditions from Sr. No. 1 to 11 of form a part and parcel of the tender shall be included in the draft tender papers for works of R.C.C.E.S.R.</p> <p>2) Conditions from Sr. No.12to17 are for estimation purpose only and shall not be appear in the tender.</p> |          |   |                               |
| Sr. No. | Capacity in litres  | Unit     | for Seismic Zone-III<br>Rate n Lakh Rs. |                               |
| 1.      | Upto 25,000 litres  | Per Lit. | 11.24                                   |                               |
| 2.      | Cost of 25,000 litres capacity E.S.R.   | ----     | 2,81,060.00                             |                               |
| 3.      | Add for capacity<br>above 25,000 upto 50,000 litres   | Per Lit. | 6.28                                    |                               |
| 4.      | Cost of 50,000 litres capacity E.S.R.   | -----    | 4,38,035.00                             |                               |
| 5.      | Add for capacity<br>above 50,000 upto 75,000 litres   | Per Lit. | 5.38                                    |                               |
| 6.      | Cost of 75,000 litres capacity E.S.R.   | -----    | 5,72,585.00                             |                               |
| 7.      | Add for capacity<br>above 75,000 upto 1,00,000 litres   | Per Lit. | 4.78                                    |                               |
| 8.      | Cost of 1,00,000 litres capacity E.S.R.   | -----    | 6,92,185.00                             |                               |
| 9.      | Add for capacity<br>above 1,00,000 upto 1,50,000 litres   | Per Lit. | 3.77                                    |                               |
| 10.     | Cost of 1,50,000 litres capacity E.S.R.   | -----    | 8,50,650.00                             |                               |
| 11.     | Add for capacity<br>above 1,50,000 upto 2,00,000 litres   | Per Lit. | 3.54                                    |                               |
| 12.     | Cost of 2,00,000 litres capacity E.S.R.   | ----     | 10,28,170.00                            |                               |
| 13.     | Add for capacity<br>above 2,00,000 upto 2,50,000 litres   | Per Lit. | 3.31                                    |                               |
| 14.     | Cost of 2,50,000 litres capacity E.S.R.   | -----    | 11,94,050.00                            |                               |

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| 1       | 2              | 3  | 4                             | 5   |
|         | <b>Sr. No.</b> | <b>Capacity in litres</b>                              | <b>Unit</b>                   | <b>for Seismic Zone-III Rate n Lakh Rs.</b> |
|         | 15.            | Add for capacity above 2,50,000 upto 3,00,000 litres   | Per Lit.                      | 3.20  |
|         | 16.            | Cost of 3,00,000 litres capacity E.S.R.                | -----                         | 32,54,210.00                                |
|         | 17.            | Add for capacity above 3,00,000 upto 4,00,000 litres   | Per Lit.                      | 2.80  |
|         | 18.            | Cost of 4,00,000 litres capacity E.S.R.                | ----                          | 16,43,510.00                                |
|         | 19.            | Add for capacity above 4,00,000 upto 5,00,000 litres   | Per Lit.                      | 2.51  |
|         | 20.            | Cost of 5,00,000 litres capacity E.S.R.                | -----                         | 18,91,890.00                                |
|         | 21.            | Add for capacity above 5,00,000 upto 7,50,000 litres   | Per Lit.                      | 2.21  |
|         | 22.            | Cost of 7,50,000 litres capacity E.S.R.                | -----                         | 25,31,035.00                                |
|         | 23.            | Add for capacity above 7,50,000 upto 10,00,000 litres  | Per Lit.                      | 1.94  |
|         | 24.            | Cost of 10,00,000 litres capacity E.S.R.               | -----                         | 29,07,190.00                                |
|         | 25.            | Add for capacity above 10,00,000 upto 15,00,000 litres | Per Lit.                      | 1.83  |
|         | 26.            | Cost of 15,00,000 litres capacity E.S.R.               | -----                         | 38,22,390.00                                |
|         | 27.            | Add for capacity above 15,00,000 upto 20,00,000 litres | Per Lit.                      | 1.77  |
|         | 28.            | Cost of 20,00,000 litres capacity E.S.R.               | ----                          | 47,08,990.00                                |
|         | 29.            | Add for capacity above 20,00,000 upto 25,00,000 litres | Per Lit.                      | 1.72  |
|         | 30.            | Cost of 25,00,000 litres capacity E.S.R.               | -----                         | 55,66,990.00                                |