

# **INDIAN STRATEGIC PETROLEUM RESERVES LIMITED**

STRATEGIC CRUDE OIL STORAGE CAVERN FACILITIES  
Lovagardens, Behind HSL Fabrication Yard,  
Gandhigram Post, Post Box No: 999  
VISAKHAPATNAM, ANDHRA PRADESH, INDIA

(TENDER NO. ISPRL/VSP/RCC ROAD LAYING TO HILL TOP /T9/16 dated 28.12.2016)



## **SECTION III**

### **SPECIAL CONDITIONS OF CONTRACT (S.C.C)**

**BIDDING DOCUMENT FOR RCC ROAD TO GREEN BELT AT  
ISPRL, VISAKHAPATNAM**



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## **SPECIAL CONDITIONS OF CONTRACT**

### **1.0 GENERAL**

- 1.1 Special Conditions of Contract (SCC) shall be read in conjunction with the General Conditions of Contract (GCC). Schedule of Rates, specifications of work, drawings and any other document forming part of this Contract wherever the context so requires.
- 1.2 Notwithstanding the sub-division of the document into these separate sections and volumes, every part of each shall be deemed to be supplementary of every other part and shall be read with and into the Contract so far as it may be practicable to do so.
- 1.3 Where any portion of the GCC is repugnant to or at variance with any provisions of the Special Conditions of Contract, then unless a different intention appears, the provision(s) of the Special Conditions of Contract shall be deemed to override the provision(s) of GCC only to the extent that such repugnancies or variations in the Special Conditions of Contract are not possible of being reconciled with the provisions of GCC.
- 1.4 Wherever it is stated in this Bidding Document that such and such a supply is to be effected or such and such a work is to be carried out, it shall be understood that the same shall be effected/carried out by the Contractor at his own cost, unless a different intention is specifically and expressly stated herein or otherwise explicit from the context. Contract value (also referred to as Contract Price) shall be deemed to have included such cost.
- 1.5 In case of irreconcilable conflict between relevant Indian standards, GCC, Special Conditions of Contract, Specifications, Drawings and Schedule of Rates, the following shall prevail to the extent of such irreconcilable conflict, in order of precedence:
- i) Detailed Letter of Acceptance (along with Statement of Agreed Variations, if any) and its enclosures such as Schedule of Rates, Labour Rates, etc.
  - ii) Letter/Fax of Acceptance
  - iii) Special Conditions of Contract
  - iv) General Conditions of Contract
  - v) Job/Particular Specifications
  - vi) Drawings
  - vii) Technical/Material Specifications
  - viii) Indian Standards

### **2.0 DETAILS OF WORK**

#### **2.1 Scope of Work**

The Scope of Work shall be as described in [Appendix-I to SCC](#).

#### **2.2 Scope of Supply**

The Scope of Supply shall be as mentioned in [Appendix-II to SCC](#)

#### **2.3 Time Schedule**



- 2.3.1 The Work shall be executed strictly as per time schedule given in [Appendix-III to SCC](#). The period of completion given includes the time required for mobilisation as well as testing, rectifications, if any, retesting, demobilisation and completion in all respects to the satisfaction of the Engineer-in-Charge.
- 2.3.2 A joint programme of execution of work will be prepared by the Engineer-in-Charge and Contractor. This programme will take into account the time of completion mentioned in 2.3.1 above.
- 2.3.3 Monthly/weekly execution programme will be drawn up by the Engineer-in-Charge jointly with the Contractor based on availability of materials, work fronts and the joint programme of execution as referred to above. The Contractor shall scrupulously adhere to the Targets/Programmes by deploying adequate personnel, Construction Equipment, Tools and Tackles and also by timely supply of required materials coming within his scope of supply as per Contract. In all matters concerning the extent of target set out in the weekly/monthly programme and the degree of achievement, the decision of the Engineer-in-Charge will be final and binding on the Contractor.
- 2.3.4 Contractor shall give every day category-wise labour and equipment deployment report alongwith the progress of work done on previous day in the proforma prescribed by the Engineer-in-Charge.

## 2.4 **Construction Water and Power Supply**

No water and power shall be provided by the Owner. It shall be the responsibility of the Contractor to arrange water and power at his own cost for execution of work.

## 2.5 **Land for Site Office / Godown / Residential Accommodation**

Contractor shall arrange land for site office/godown/residential accommodation for his staff and workers at his own cost and the quoted prices shall be deemed to include the same.

## 2.6 **Measurement of Works**

The work shall be measured in accordance with provisions of [Appendix-IV](#) to SCC.

## 2.7 **Billing and Terms of Payment**

The Contractor shall submit the Bills/ invoice, in duplicate, for the work done once in a month. The Contractor shall submit all relevant documents, if specifically asked by Engineer-in-Charge, for certification of invoice.

OWNER shall release the payments **within 30 days** from the date of receipt of Bills, if found in order.

Terms of Payment will be as specified in [Appendix-V](#) to SCC.

## 2.8 **FIRM PRICE**

The quoted price shall be FIRM and no escalation in price on any account shall be admissible to the Contractor till the work is completed in all respects.



## 2.9 Temporary Works

All temporary works, ancillary works, enabling works, including dewatering of surface and subsoil water, temporary drains at the work site, preparing approaches to working areas, wherever required, for execution of the work, shall be the responsibility of the Contractor and all costs towards the same shall be deemed to have been included in the quoted prices.

## 2.10 Quality Assurance System

2.10.1 The CONTRACTOR shall adhere to the quality assurance system as per MORT&H 1500,1700 & 2200( C) with Section title Quality control for road works After the award of the contract, detailed quality assurance programme to be followed for the execution of contract shall be submitted by CONTRACTOR..

2.10.2 The CONTRACTOR shall establish document and maintain an effective quality assurance system as outlined in recognized codes.

2.10.3 Owner's representative shall reserve the right to inspect/ witness, review any or all stages of work at shop/site as deemed necessary for quality assurance.

2.10.4 The CONTRACTOR has to ensure the deployment of quality Assurance and Quality Control Engineer(s) depending upon the quantum of work. This QA/QC group shall be fully responsible to carryout the work as per standards and all code requirements. In case Engineer-in-charge feels that QA/QC Engineer(s) of CONTRACTOR are incompetent or insufficient, CONTRACTOR has to deploy other experienced Engineer(s) as per site requirement and to the full satisfaction of Engineer-In-Charge.

2.10.5 In case CONTRACTOR fails to follow the instructions of Engineer-in-charge with respect to above clauses, next payment due to him shall not be released unless until he complies with the instructions to the full satisfaction of Engineer-in-charge.

## 2.11 Working Hours

Depending upon the requirements, time schedule/ drawn up programme and the target set to complete the job in time the works may have to continue beyond normal working hours and on holidays also for which no extra claim shall be entertained.

## 3.0 **SECURITY DEPOSIT / PERFORMANCE GUARANTEE DEPOSIT**

The contractor shall within 10 (Ten) days of receipt of the notification of acceptance of the tender or letter of intent, shall remit the security deposit of amount equivalent to **10% of the Contract value** to ISPRL. The security deposit shall be in the form of Bank Draft/Pay Order/Bank Guarantee from a Scheduled Bank / Nationalized Bank **valid upto six (6) months after Contract period** and the same shall be released after **six month** from the date of completion of the work.

Bank Guarantee shall be provided as per the enclosed format. Contractor may note that payment towards running bill shall not be paid unless & until SECURITY DEPOSIT is paid to ISPRL.

Owner reserves the right to deduct any amount from the Security Deposit at the time of expiry of Contract/ Termination of Contract.



#### **4.0 PENALTY CLAUSE**

Owner shall reserve the right to impose cash penalty on the contractor and deduct such amount from his bills or Security Deposit in case Owner is put to any financial loss of any nature whatsoever, directly or indirectly by any of the contractor's personnel or by the contractor.

#### **5.0 WORKS CONTRACT TAX**

Every contractor who works for Owner should obtain an exemption certificate from the Commissioner of Sale Tax (works contract) otherwise Owner shall deduct the amount of TDS in accordance with the provisions of this Act. If at any stage the contractor's establishment gets an exemption certificate, he shall apply for refund to the Sales Tax Commissioner. Owner will furnish only a TDS certificate for the amount deducted and deposited with the Commissioner.

#### **6.0 INCOME TAX**

Income tax deduction shall be made from the gross amount billed as per the rules and regulations in force in accordance with income tax act prevailing from time to time.

#### **7.0 CONTRACTOR'S OBLIGATIONS/ RESPONSIBILITIES**

##### **7.1 OBLIGATIONS:**

The Contractor shall also be bound to discharge obligations as provided under various statutory enactments including the Employees Provident Fund Act, 1952, Employees Pension Scheme, 1995, ESI Act 1948, Contract Labour (Regulation and abolition) Act, 1970, Minimum Wages Act 1948, Payment of Wages Act 1936, Payment of Bonus Act, 1965, Payment of Gratuity Act, 1972, Workmen's compensation Act 1923, Works Contract Act 1999 and other relevant Acts, Rules and Regulations in force and as amended from time to time and are in force in the State where the subject work under this Contract are executed.

##### **7.2 RESPONSIBILITIES:**

7.2.1 It shall be the responsibility of the CONTRACTOR to obtain the approval for any revision and/or modifications decided by the CONTRACTOR from the OWNER/ Engineer-in-Charge before implementation. Also such revisions and/ or modifications if accepted/ approved by the OWNER/ Engineer-in-Charge shall be carried out at no extra cost to the OWNER.

7.2.2 All expenses towards mobilisation at site and demobilisation including bringing in equipment, work force, materials, dismantling the equipment, clearing the site etc. shall be deemed to be included in the prices quoted and no separate payments on account of such expenses shall be entertained.

7.2.3 It shall be responsibility of the CONTRACTOR to provide, operate and maintain all necessary construction equipment, steel scaffoldings and safety gadgets, and



lifting tackles, tools and appliances to perform the work in a workman like and efficient manner and complete all the jobs as per time schedules without any extra cost to the OWNER.

- 7.2.4 The CONTRACTOR shall be responsible for procurement and supply in sequence and at the appropriate time of all equipments/ materials and consumables and his rates for execution of work will include of supply of all these items.

## **8.0 PAYMENT OF TAXES, DUTIES, CESS & OTHER LEVIES**

The contractor shall be fully and exclusively responsible for the payment (and liable for all consequences in the event of default) of any and all taxes, duties, octroi, & other levies including service tax now or hereafter imposed, increased or modified from time to time in respect of the above job.

The contractor shall also be responsible for payment of Cess as per “Building and Other Construction Worker’s Welfare Act, 1996”, as applicable and the Contract Price is deemed to include the same. Contractor shall indemnify and hold harmless Owner on account of any liability arising thereto.

## **9.0 INSURANCE POLICIES**

The Contractor shall at his own cost and initiative take out and maintain at all times until the close out of the Contract, insurance policies as mentioned in General Conditions of Contract and also in respect of workmen engaged by him for providing services under this Contract, in order to keep himself as well OWNER fully indemnified from and against all claims whatsoever including but not limited to those arising out of the provisions contained in Workmen’s Compensation Act, 1923. Should the Contractor fail to take out and/or keep afoot insurance as provided for in the foregoing paragraph, OWNER shall be entitled (but without any obligation to do so) to take out and/or keep afoot such insurance at the cost and expense of the Contractor and without prejudice to any other rights or remedies of OWNER in this behalf, to deduct the sum(s) incurred thereof from any amounts due to the Contractor.

## **10.0 GOVERNING LAWS & JURISDICTION**

The terms and provisions of this Contract shall be governed and interpreted in accordance with the laws of India in force and is subjected to and referred to the court of law located at New Delhi which shall have exclusive jurisdiction.

## **11.0 CONTRACT AGREEMENT**

The successful Bidder shall be required to execute a Contract Agreement with ISPRL as per proforma attached in the Bidding. Document on the non-judicial stamp paper of appropriate value (**Minimum Rs. 100/-**) to be purchased from Delhi. The cost of stamp paper shall be borne by successful Bidder.

## **12.0 ROUNDING OFF**

All payments to and recoveries from the Contractor shall be rounded off to the





nearest rupee. Wherever the amount to be paid/recovered consists of a fraction of a rupee (paise), the amount shall be rounded off to the next higher rupee if the fraction consists of 50 (fifty) paise or more and if the fraction of a rupee is less than 50 (fifty) paise, the same shall be ignored.

### **13.0 HEALTH, SAFETY AND ENVIRONMENT (HSE) MANAGEMENT**

- 13.1 The Contractor shall adhere to the Health, Safety and Environment (HSE) management system as per our HSE management at our construction site
- 13.2 The CONTRACTOR shall establish document and maintain an effective Health, Safety and Environment (HSE) management system.
- 13.3 In case CONTRACTOR fails to follow the instructions of Engineer-in-charge with respect to above clauses, next payment due to him shall not be released till CONTRACTOR complies with the instructions to the full satisfaction of Engineer-in-charge.

### **14.0 TESTS AND INSPECTION**

The Contractor shall carry out the various tests as enumerated in the technical specifications of this Bidding Document and technical documents that will be furnished to him during the performance of the work at no extra cost to the Owner.

All the tests either on the field or at outside laboratories concerning the execution of the work and supply of materials by the Contractor shall be carried out by Contractor at his own cost.

The work is subject to inspection at all times by the Engineer-in-Charge. The Contractor shall carry out all instructions given during inspection and shall ensure that the work is being carried out according to the technical specifications of this Bidding Document, the technical documents that will be furnished to him during performance of work and the relevant codes of practice.

The Contractor shall provide for purposes of inspection access ladders, lighting equipment for testing, necessary instruments etc., as applicable, at his own cost.

### **15.0 COMPLETION DOCUMENTS**

The following documents shall also be submitted by the Contractor in triplicate as a part of completion documents:

- a) Material test reports for all supply items in the Scope of Contractor. b) Other documents as mentioned in Technical Specification.
- c) As built drawings, if asked by Engineer- in-Charge

### **16.0 STATUTORY REQUIREMENTS**

The approval from any authority required as per statutory rules and regulations



of Central/State Government shall be the contractor's responsibility unless otherwise specified in the Bidding Document. The application on behalf of the Owner for submission to relevant authorities along with copies of required certificates complete

in all respects shall be prepared and submitted by the contractor well ahead of time so that the actual construction/commissioning of the work is not delayed for want of the approval /inspection by concerned authorities. The inspection of the works by the authorities shall be arranged by the contractor and necessary coordination and liaison work in this respect shall be the responsibility of the Contractor.

#### **17.0 CONSTRUCTION EQUIPMENT**

The Contractor shall without prejudice to his overall responsibilities to execute and complete the work as per the specifications and time schedule, progressively deploy **MINIMUM CONSTRUCTION EQUIPMENTS** as per **APPENDIX-X to SCC** including other tools, tackles, and further augment the same depending on the exigencies of work and as decided by the Engineer-in-Charge so as to suit the construction schedule within scheduled completion date without any additional cost to Owner.

#### **18.0 SITE ORGANISATION**

The Contractor shall submit the details of organization proposed by him at site of work for the implementation of the works under the Contract, together with bio data of the key personnel. The Contractor shall however without prejudice to his overall responsibility to execute and complete the works as per specifications and time schedule progressively deploy adequate qualified and experienced personnel together with skilled / unskilled manpower and augment the same as decided by Engineer-in-Charge depending on the exigencies of work to suit the construction schedule without any additional cost to Owner.

#### **19.0 DEFECT LIABILITY PERIOD**

Refer clause no. 5.n of General Conditions of Contract. In partial modification to clause no. 5.n of GCC, the defect liability period shall be **12 months** from the date of completion of work, accepted by Engineer-in-Charge. During this period the Contractor shall, at his own cost, be liable to rectify all defects of workmanship and replace defective/inferior quality materials supplied by him.

#### **20.0 SITE CLEANING**

The CONTRACTOR shall clean and keep clean the work site from time to time to the satisfaction of the Engineer- in-Charge for easy access to work site and to ensure safe passage, movement and working. The Contractor shall also clean the work site to the satisfaction of Engineer-in-Charge before handing over. No extra payment shall be paid on this account. The rates quoted in SOR are deemed to be inclusive of all the costs towards all the above activities as well.

#### **21.0 ENGINEER-IN-CHARGE**

OWNER's authorised representative shall be the Engineer-in-Charge for this work.

#### **22.0 ROYALTY**



The quoted rates/price shall be inclusive of all royalties, if any, which the Contractor may have to pay to the statutory bodies/Govt.

### **23.0 SCHEDULE OF RATES**

The Schedule or Rates (SOR) shall be read in conjunction with Special Conditions of Contract, General Conditions of Contract, Technical Specifications, Drawings and any other Document forming a part of this Contract. The quantities shown against the various items are only approximate and subject to any variations as per the stipulation made in General Conditions of Contract.

The Owner reserves the right to interpolate or extrapolate the rates for any new item of work not covered in Schedule of Rates from the similar items already available in Schedule of Rates. All the works item wise, shall be measured upon completion and paid for the contracted rates. In case any activity though specifically not covered in Schedule of Rates, description but the same is covered under Scope of Work / Specification / Drawings etc., no extra claim on this account shall be entertained, since SOR is to be read in conjunction with other documents forming part of the Contract. All items of work in the Schedule of Rates shall be carried out as per the Specification, drawings and instructions of the Engineer-in-Charge and the Rates are inclusive of all materials, consumables, labour, supervision, tools and tackles, as well as preparatory, incidental, intermediate / auxiliary / ancillary or enabling works.

### **24.0 VENDOR LIST FOR CEMENT AND STEEL**

The contractor shall purchase Steel and Cement from the following manufacturer or their stockist.

#### **24.1 TMT Bars**

- a. Steel Authority of India (SAIL)
- b. Rashtriya Ispat Nigam Limited (RINL)
- c. Tata Iron & Steel Company (TISCO)
- d. Essar Steel (Essar)
- e. Jindal Steel & Power Limited (Jindal)
- f. Shyam Steel Industries, Kolkata
- g. SRMB Udyog Ltd. Kolkata
- h. Usha Martin, Ranchi/ Jamshedpur
- i. Rathi Udyog Ltd, Ghaziabad

#### **24.2 Structural Steel (Including Plates)**

- a. Steel Authority of India (SAIL)
- b. Rashtriya Ispat Nigam Limited (RINL)
- c. Tata Iron & Steel Company (TISCO)
- d. Essar Steel (Essar)



e. Jindal Steel & Power Limited (Jindal)

**24.3 Cement**

- a. Associated Cement Companies Limited (ACC Cement)
- b. Ultratech Cement ( L&T Cement I Aditya Birla Cement / Ultratech)
- c. Gujarat Ambuja Cements Limited ( Gujarat Ambuja Cement)
- d. Shree Cement Limited ( Shree Ultra Cement1 Bangur Cement)
- e. Lafarge Cement India Limited (Lafarge Cement)
- f. Cement Corporation of India Limited (CCI Cement)
- g. Jaypee Cement Limited (Jaypee Cement)
- h. JK Lakshmi Cement Limited (JK Lakshmi Cement)
- i. Madras Cement Ltd (Ramco Group)
- J Anjani portland Cement



**APPENDIX TO**  
**SPECIAL CONDITIONS OF CONTRACT**



**SCOPE OF WORK**  
**APPENDIX- I TO SPECIAL CONDITIONS OF CONTRACT**



**SCOPE OF WORK**

**1.1 GENERAL**

- 1.1.1 The scope of work covered in this tender shall be as specified in the Technical Section of the Bidding Document. It is, however, explicitly understood and confirmed by the Contractor that the scope as described in the Bidding Document is not limiting, in so far as the responsibilities of the Contractor shall include, inter-alia, carrying out any and all works and providing any and all facilities those are required in completing the work in all respects and satisfying all performance and guarantee requirements stated or implied from the contents of the Bidding Document.



**SCOPE OF SUPPLY  
APPENDIX-II TO SPECIAL CONDITIONS OF CONTRACT**





## APPENDIX-II

### **SCOPE OF SUPPLY**

- 1.0 The scope of supply is as mentioned in Job Specifications/Technical Specifications, Schedule of Rates etc. of Bidding Document. All materials, equipments, labour and consumables required for successful completion of work as per the description of item in Schedule of Rates shall be supplied by the Contractor and the cost of such supply shall be deemed to be included in the quoted rates without any additional liability on the part of the Owner except for the material specifically covered under Owner's Scope of Supply.



**TIME SCHEDULE  
APPENDIX- III TO SPECIAL CONDITIONS OF CONTRACT**



## APPENDIX-III TO SCC

### TIME SCHEDULE

DESCRIPTION OF WORK	TIME FOR COMPLETION
Laying the Reinforced cement concrete road on hilly terrain at an elevation ranging from +70 meters MSL( mean sea level) to +80 meters, i.e., from flare area to watch tower no: 2&3 , spreading approximately 670 meters length Road as per the Scope of Work specified in the technical section of the document <b>(TENDER NO. ISPRL/VSP/RCC ROAD LAYING TO HILL TOP /T9/16 dated 28.12.2016)</b>	<b>45 days</b>

Notes :

- a) Time for completion shall be reckoned from date of issue of Fax/ Letter of Acceptance , whichever is issued earlier.
- b) The time indicated for completing all works in all respects including submission of all reports as per specifications, codes, drawings and instructions of Engineer-in-Charge.
- c) It should be noted that the period completion of all works given above includes the time required for Mobilization at site, carrying out the works as per the requirements of Contract documents, demobilization, preparation of all reports in requisite quantities as mentioned in the Bidding Document, rectification's, if any, rework etc., complete in all respects to the entire satisfaction of Owner/ Engineer-in-Charge and direction of Engineer-in-charge.

(SIGNATURE OF BIDDER)



**MEASUREMENT OF WORKS  
APPENDIX-IV TO SPECIAL CONDITIONS OF CONTRACT**



## APPENDIX - IV

### MEASUREMENT OF WORKS

#### 1.0 GENERAL

1. The mode of measurement shall be as mentioned in technical specification.
2. Payment will be made on the basis of joint measurements taken by Contractor and certified by ISPRL. Measurement shall be based on "Approved for Construction" drawings, to the extent that the work conforms to the drawings and details are adequate.
3. Wherever work is executed based on instructions of Engineer-in-Charge or details are not adequate in the drawings, physical measurements shall be taken by Contractor in the presence of Engineer-in-Charge.
4. No other payment either for temporary works connected with this Contract shall be made. Such items shall be deemed to have been included for in the rates quoted.
5. Measurements will be made for various items under schedule of rates on the following basis as indicated in the unit column.

i) Weights	MT or Kg
ii) Length	M (Metre)
iii) Number	No.
iv) Volume	Cu.M
v) Area	Sq.M
6. Wherever the unit of items has been indicated as lump sum, the payment shall be made on lump sum basis on completion & no mode of measurement shall be applicable.
7. All further mode of measurements not covered in above clauses shall be measured in accordance with relevant BIS codes/ Schedule of Rates/ Specifications etc. and/ or as decided by ISPRL.
8. Necessary tools and tackles required for measuring the above shall be in the scope of vendor only.

(STAMP & SIGNATURE OF BIDDER)



**TERMS OF PAYMENT**  
**APPENDIX- V TO SPECIAL CONDITIONS OF THE CONTRACT**



**TERMS OF PAYMENT**

1.0 **SECURED ADVANCE :-**

No Secured advance shall be paid.

2.0 **ON ACCOUNT PAYMENTS :-**

a. The payment shall be made on stage wise completion of individual item/work on pro rata monthly running account bills. This payment shall be based on the joint measurements in the following manner after deduction of necessary dues such as income tax, other recoveries payable by contractor to the Owner in accordance with various provisions made elsewhere in this bid document.

Progress Payments shall be released to Contractor against monthly running account bills duly certified by Engineer-in-charge after affecting the necessary deductions / recovery of mobilisation advance including interest charges accrued thereon. The basis for payment against various items shall be below:

b. **CIVIL Works**

- 95% progressively on completion of work on pro-rata basis.
- 5% after completion of all works in all respects and acceptance thereof.

c. **For any other items not mentioned above**

- 95% progressively on completion of individual items of work.
- 5% on completion of all works in all respects and acceptance thereof.

(STAMP & SIGNATURE OF BIDDER)



**PLANNING, SCHEDULING, MONITORING**  
**APPENDIX- VI TO SPECIAL CONDITIONS OF CONTRACT**





1.0 PROJECT, SCHEDULING & MONITORING

The following Schedules/documents/reports shall be prepared and submitted by the Contractor for review / approval at various stages of the contract.

1.1 ALONGWITH BID

A. Time Schedule

The Bidder is required to submit a Project -Time Schedule in Bar Chart form along with the Bid. The Schedule shall cover all activities as per scope of work within the completion time indicated in the Tender Document. The Owner interface activities shall be clearly identified with their latest required dates. Owner reserves the right to disqualify the Bidder if the above Schedule submitted by the Bidder is not in line with the overall project requirement.

B. Scheduling & Monitoring System

The Bidders should describe their system of Project Scheduling and monitoring, the extent of computerisation, level of detailing, tracking methodology etc. with the name of computer packages and sample outputs.

C. Project execution plan:

Bidder shall indicate in his bid clearly the detailed execution plan to achieve the completion of the project as indicated in the tender.

1.2 OVERALL PROJECT SCHEDULE

The Contractor shall submit within 1 week of Fax of Acceptance, a sufficiently detailed overall project schedule in the activity network form clearly indicating the major milestones, inter-relationship / interdependence between various activities together with analysis of critical path and floats.

The Schedule will be reviewed and approved by Engineer-In-Charge and the comments if any, shall be incorporated in the schedule before issuing the same for implementation. The schedule thus finalised shall form part of the contract document and the same shall not be revised without the prior permission from Engineer-In-Charge during the entire period of contract.

1.3 PROGRESS MEASUREMENT METHODOLOGY

The Contractor is required to submit within one week of award of work, the methodology of progress measurement of delivery, sub-contracting, construction works and the basis of computation of overall services/physical progress informed. The weightages shall be fixed in consultation with the Owner. Owner



reserves the right to modify the methodology in part or in full.

1.4 FUNCTIONAL SCHEDULES

The Contractor should prepare detailed functional schedule in line with overall schedule for functional monitoring and control and submit scheduled progress curves for each function.

1.5 PROJECT REVIEW MEETINGS

The Contractor shall present the programme and status of various review meetings as required.

**A. Weekly Review Meeting**

Level of Participation : Contractor's / ISPRL's Site-Incharge and Job Engineers.

Agenda            a)      Weekly programme v/s actual achieved in the past week and programme for next week.  
                         b)      Remedial Actions and hold-up analysis.  
                         c)      query/approval.  
Venue            :      Site Office

**B. Monthly Review Meeting**

Level of Participation: Engineer-in –charge of ISPRL and Contractor.

Agenda            a)      Progress Status/Statistics  
                         b)      Completion Outlook  
                         c)      Major hold-ups/slippages  
                         d)      Corrective actions if any  
                         e)      Critical issues  
                         f)      Client query/approval  
Venue            :      Site Office

1.6 PROGRESS REPORTS

**A. Over all Monthly Progress Report**

This report shall be submitted on a monthly basis on the first of every month and shall be submitted based on the progress achieved as on 25<sup>th</sup> day of every month which will be taken as cut-off date, covering overall scenario of the work as under:

- Overall progress Summary in terms of Percentages actual v/s planned.
- Major activities executed/ achieved during the month.
- Area of concern/ problem/ holdings, impact and action plan.
- Resources deployment status.
- List of project mile stones and their status.

The report shall be submitted in 2 sets to ISPRL through Engineer-in- charge.



**(B) Weekly Report**

This report (2 copies) will be prepared and submitted by the Contractor on weekly basis and will cover following items:-

- i. Activities programmed and completed during the week.
- ii. Resource deployed man and machine.
- iii. Qty. achieved against target in construction.
- iv. Record of Mondays lost.
- v. Construction percentage progress, scheduled & actual.
- vi. Week's highlights, major milestone achieved



**QUALITY MANAGEMENT SYSTEM**  
**APPENDIX- VII TO SPECIAL CONDITIONS OF CONTRACT**



## **QUALITY MANAGEMENT SYSTEM**

**(Refer Quality Assurance Hand book for Roads by MORD for  
CC roads under section 1501, Earth work under section 302,  
Shoulder construction under section 407  
And other Quality control checks during and before  
execution are given under 1501 mentioned above for road  
works)**



**SAFETY REQUIREMENT FOR THE CONTRACTOR**  
**APPENDIX- VIII TO SPECIAL CONDITIONS OF CONTRACT**



## **SAFETY REQUIREMENTS FOR CONTRACTORS**

**(Refer our HSE management at our construction site specifications)**



## **KEY CONSTRUCTION PERSONNEL**

**(APPENDIX- IX TO SPECIAL CONDITIONS OF CONTRACT)**





**APPENDIX – IX**

<b>CATEGORY</b>	<b>QUALIFICATION &amp; EXPERIENCE REQUIRED</b>			
Resident Construction Manager/ Resident Engineer/Site-In-Charge	Degree or Diploma in Engineering with minimum following relevant experience in construction:			
	Contract value (Rs)	< 5 Cr. works	5-20 Cr. works	> 20 Cr. works
	Degree holders	5 yrs	10 yrs	15 yrs
	Diploma holders	8 yrs	13 yrs	20 yrs
Lead Discipline Engineer (Mechanical, Civil, Electrical, Instrumentation)	Degree or Diploma in relevant Engineering discipline with following minimum experience in Construction:			
	Contract value (Rs)	≤ 20 Cr. works	> 20 Cr. works	
	Degree holders	5 yrs	10 yrs	
	Diploma holders	8 yrs	13 yrs	
Lead Welding/ NDT Engineer	Degree or Diploma in Mechanical Engineering/ Metallurgy with the following experience in Welding & NDT (Non Destructive Testing) plus Level-II in RT (Radiographic Testing) (refer Note 1 also):			
	Contract value (Rs)	≤ 20 Cr. Works	> 20 Cr. Works	
	Degree holders	5 yrs	10 yrs	
	Diploma holders	8 yrs	13 yrs	
Lead QA/QC Engineer	Degree in Engineering with following experience (refer Note 2 also):			
	Contract value (Rs)	≤ 20 Cr. Works	> 20 Cr. Works	
	Experience	5 yrs of construction experience of which 2 years should be as QA Manager	10 yrs of construction experience of which 3 years should be as QA Manager	
Lead Planning Engineer	Degree in Engineering with following experience in Planning & Scheduling:			
	Contract value (Rs)	≤ 20 Cr. works	> 20 Cr. works	
	Experience	5 yrs.	10 yrs.	
Safety Officer	As standard specification for HSE Management at construction sites			
Warehouse- In- Charge/ Materials Manager	Diploma in Engineering or Diploma in Materials Management or Graduate in any stream with min. following experience in Warehousing/ Stores Management:			
	Contract value (Rs)	≤ 20 Cr. works	> 20 Cr. works	
	Experience	5 yrs.	10 yrs.	



Quantity Surveyor	Degree or Diploma in Engineering with minimum following experience in quantity estimation, field measurement, rate analysis, bill preparation etc. in Construction field:		
	Contract value (Rs)	≤ 20 Cr. works	> 20 Cr. works
	Degree holders	2 yrs.	5 yrs.
	Diploma holders	5 yrs.	10 yrs.
Discipline Engineer	Degree in relevant Engineering Discipline with minimum 2 years of experience in construction or Diploma in relevant Engineering Discipline with minimum 4 years of experience in Construction.		

**Notes: (for Table on previous page)**

1. For Mechanical, Composite, EPC or EPCC Contracts of value more than Rupees 20 crores, the Lead Welding/NDT Engineers shall also possess Certified Welding Inspector qualification from American Welding Society or CSWIP3.1 Welding Inspector qualification from The Welding Institute, UK.
2. For Mechanical, Composite, EPC or EPCC Contracts of value more than Rupees 20 crores, the Lead QA/QC Engineer shall also be a qualified internal auditor for ISO 9001.
3. CVs of key construction personnel proposed to be deployed shall be submitted to Owner/Engineer-in-Charge prior to their mobilization at site. The mobilization of key personnel shall be done at site subject to prior approval of their CVs by Owner/Engineer-in-Charge.

**PENALTY FOR NON - MOBILIZATION OF KEY CONSTRUCTION PERSONNEL**

**I) Penalty for non-mobilization per day per person after the contractual mobilization**

**period unless agreed otherwise by the Engineer-in-Charge:**

- Rs. 5000/- for Resident Construction Manager/ Resident Engineer/ Site-in-Charge;
- Rs. 3000/- for Lead QA/QC Engineer, Lead Planning Engineer, Lead Safety Officer and Warehouse In-charge

**II) Penalty for non-mobilization per day per person after completion of the mobilization period agreed during the Kick off Meeting:**



- Rs. 3000/- for Lead Discipline Engineer, Lead Welding/ NDT Engineer and the Quantity Surveyor

**Notes: (for Penalty clauses)**

- a) All intervening off days (Sundays etc.) and holidays will be counted for levy of penalty
- b) Mobilized personnel shall not be demobilized till contractual completion or based on consent of Engineer-in-Charge else penalties as above shall be applied.
- c) Total of above penalties shall not exceed 3% of the contract value.
- d) The above penalties are over & above all other contractual provisions for late mobilization of resources.



**LIST OF DEPLOYMENT OF MINIMUM CONSTRUCTION EQUIPMENT  
AND MANPOWER**

**(APPENDIX- X TO SPECIAL CONDITIONS OF CONTRACT)**



APPENDIX – X

MINIMUM REQUIREMENT OF EQUIPMENT TO BE MOBILIZED BY THE CONTRACTOR FOR RCC ROAD TO GREEN BELT AT VISAKHAPATNAM FOR STRATEGIC STORAGE OF CRUDE OIL PROJECT OF M/S ISPRL AT VISAKHAPATNAM

SL. NO	EQUIPMENT DESCRIPTION	CAPACITY (MINIMUM)	MINIMUM REQUIREMENT DURING CONSTN
1.	JCB	0.2 M3	AS REQD.
2.	EXCAVATOR	0.7 – 1 M3	AS REQD.
3.	DUMPER	15 TON	AS REQD.
4.	TRACTOR TRAILER		AS REQD.
5.	WATER TANKER	5 KL	AS REQD.
6.	MIXER MACHINE WITH WEIGH BATCHER	18 M3/DAY	AS REQD.
7.	TOTAL STATION / THEODOLITE	1 SEC	AS REQD.
8.	DUMPY LEVEL		AS REQD.
9.	PLATE COMPACTOR		AS REQD.
10.	VIBRATORY COMPACTOR	10 TON	AS REQD.
11.	DEWATERING PUMPS	5 HP	AS REQD.
12.	HOT MIX PLANT		AS REQD.
13.	PAVER	2000 M2 / DAY	AS REQD.
14.	ROAD ROLLER	8 – 10 TON	AS REQD.
15.	AIR COMPRESSOR	300 CFM	AS REQD.
16.	TOOLS AND TACKLES FOR TREE CUTTING		AS REQD.
17.	TOOLS AND TACKLES FOR CONTROLLED BLASTING AS PER SOQ		AS REQD.
18.	LAB EQUIPMENTS		AS REQD.

**NOTES**

1. The details of minimum critical equipments in good working condition, required to be mobilized by the Contractor, to complete the work within the schedule is given. The actual deployment schedule of Construction Equipments shall be approved by Engineer-in-Charge. Contractor shall augment the above list with additional numbers / categories of equipments, tools & tackles, as required and directed by Engineer-in-Charge to complete the work within the completion time schedule and quoted price.
2. Contractor to confirm that the above minimum equipments are available with him in good working condition and shall be timely mobilized on this project site. Contractor has the option to hire some of these equipments from equipment-hiring agencies also.
3. Owner reserves the right to physically check & verify the availability of these equipments prior to award of work.
4. Contractor shall replace any defective / damaged equipment promptly to complete the work without any time & cost implication to the Owner .



MINIMUM REQUIREMENT OF EQUIPMENT TO BE MOBILIZED BY THE CONTRACTOR FOR RCC ROAD TO GREEN BELT AT VISAKHAPATNAM FOR STRATEGIC STORAGE OF CRUDE OIL PROJECT OF M/S ISPRL AT VISAKHAPATNAM

The Contractor shall employ the required Key Personnel named in the Schedule of Key Personnel to carry out the functions stated in the Schedule or other personnel approved by the Engineer-in-charge. The Engineer-in-charge will approve any proposed replacement of Key Personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

Schedule of Minimum Key Personnel:

The successful tenderer shall have to employ the following technical staff on full time basis to be available at site.

Cost of work (Technical sanction amount)	Qualification of Technical Staff
Upto Rs.50 Lakhs	One Diploma Engineer
Above Rs.50.00 lakhs and up to Rs.100.00 lakhs	One Graduate Engineer.

7.2 Employment of technical personnel shall be with reference to the estimate cost of work.

7.3 In case the contractor himself is a Diploma holder / Graduate Engineer no agent need to be appointed to supervise works costing up to Rs.5.00 lakhs. Even if the contractor is himself a technically qualified person, he shall employ technical staff on the scale prescribed for supervising works when more than one work is undertaken and if they are beyond a radius of 5 Kms. One or more works within a radius of say 5 Km. shall be treated as a single work for the purpose of employment of technical staff.

7.4 The appointment of technical staff shall be on full time basis. And they shall be available at work site for supervising the work including quality checking of all items from time to time. Failure to employ the required technical personnel by the contractor the following amounts will be recovered from the contractors bills

- i. I.T.I Candidate -Rs. 17280/-per month
- ii. Diploma Engineer -Rs. 21000/-per month.
- iii. Graduate Engineer -Rs. 24000/-per month.

7.5 The Executive Engineer is the sole judge (a) to decide whether qualified technical staff is actually supervising the work and (b) to decide the actual period of absence of such staff which requires the above recovery to be enforced and his decision is final and binding on the contractor.



- 7.6 The technical agents appointed by the contractor shall have to maintain properly site order book at site and make signatures at appropriate places in token of compliance to instructions of inspecting Officers.
- 7.7 The technical personnel should be on full time and available at site whenever required by Engineer in Charge to take instructions.
- 7.8 The names of the technical personnel to be employed by the contractor should be furnished in the statement enclosed separately.
- 7.9 In case the contractor is already having more than one work on hand and has undertaken more than one work at the same time, he should employ separate technical personnel on each work.
- 7.10 If the contractor fails to employ technical personnel the work will be suspended or department will engage a technical personnel and recover the cost at penal rate of two times thereof from the contractor
- 7.11 If the Engineer-in-charge asks the Contractor to remove a person who is a member of Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the site forthwith and has no further connection with the work in the contract

(STAMP & SIGNATURE OF BIDDER)