CHAPTER - I

1.0 Functions of Employer

1.1 INTRODUCTION

Employer is a wholly owned company of the Government of India registered under the companies Act, 1956. The authorized share capital of the company is presently Rs.--- Crores and the present subscribed & paid up capital of the company is Rs. ---- Crores.

Employer has been incorporated by the Government of India as a Special Purpose Vehicle (SPV) for speedy implementation of all Hydro Electric Power generation projects envisaged by the Government (State as well as Central) all over the Country. Employer has been acting as a coordinating & implementing agency for implementing Hydro-electric power projects involving Civil, Hydro–Mechanical and Electro-Mechanical Works in Construction of Dams, Spillways, Stilling Basins, Power Houses and Switch Yards, Water intake and Off-take works viz. laying of Penstocks, access Tunnels, Underground Galleries, Tail race Canals etc.

1.2 EMPLOYER’S FUNCTIONS

Whenever a proposal is received from Ministry, or a Department of Government or a local body, it is placed before the Board of Directors for a suitable decision on taking up the work.

If the Board decides not to take up the works the decision of the Board is conveyed to the concerned Ministry / Dept. or the proposing body.

If the Board decides to take up the work, then Government approval is sought to take up the work. In case, the concerned Client Department/CEA conveys the approval of the Government along with the proposal, then Government approval is not sought again.

The employer, thus, needs to adopt effective project management techniques utilizing highly specialized management skills to execute and coordinate complex activities of modern day Hydro-electric Power projects.

To achieve best project performance results with minimum time and cost over-run, a comprehensive Works Manual therefore has been
prepared by CEA duly supported by all concerned including CIDC with the objective to adopt a systematic and uniform approach for execution of all Hydel project works entrusted to the Employer by Ministries, Govt./Semi-Government Departments and other agencies of Central or State Govts. of India.

1.2.1 Finance Functions

The paradigm change in project financing for Hydro Power projects entail a quick overview of Finance and Accounts functions for financing of projects and the financing and accounting policy & process of the corporation are elaborated below:

1.2.1.1 Financing of project:

The Corporation appoints Consultants having expertise and experience in preparation of financial models of each individual project. They will also evaluate the possibility of having different financial structures viz. Public Private Participation (PPP) involving these projects to be taken up on BOOT, BOLT & BOT basis.

The projects which would not be financed in the above mechanism are to be funded by the State/Central Government. In order to speed up the implementation of the project, the Corporation has decided to take up the projects simultaneously with market borrowings in the form of loans from Banks, Financial Institutions, Bonds and other financial instruments. Servicing of the loans to be by way of annuity provisions provided in the budget of the Central/State Government every year. The loans obtained are to be secured by the issue of Government Guarantees by the Ministry of Finance, Department of Expenditure, Plan Finance II Division of GOI or Finance Department of concerned State Government where Project is located. The servicing of the loans along with interest thereon are to be made by way of Annuity payment provided in the budget of the Central/State Government every year.

1.2.1.2 Accounting Policy of the Corporation:

General: The main features of accounting policy of the Employer are as follows:

1. The Employer would enter into agreement/MOU with concerned Client i.e. State/Central Government/ CEA /local authorities for development of new Project.
2. The Client would reimburse all the expenditure related to project development to the Employer.

3. Employer to receive from the Client, the development fees slab-wise for the entire project cost on annual basis as under:

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Project cost/yearly expenditure</th>
<th>Development fees (%)</th>
</tr>
</thead>
</table>

Employer shall bear the entire administrative expenditure. The Government shall not reimburse this expenditure to Employer. However, in case of project cost/yearly expenditure is less than Rs. --- Crore in any year, the Government/CEA shall reimburse to the Employer, the entire administrative expenditure and other overheads considering that the Employer is incorporated as a Special Purpose Vehicle of the Government to implement Hydro Power development in the Country.

4. The development fees to be levied by the Employer is mainly to recover the administrative cost and other overheads of the Corporation incurred for formulation of project feasibility report/DPR (including generic structure thereof), to pay dividend to the Government and to strengthen the financial base of the Corporation.

1.3 OBJECTIVE AND SCOPE OF THE MANUAL

The manual is prepared with an objective to lay down appropriate guidelines, instructions and procedures ensuring harmonization, uniformity and requisite transparency encompassing entire works award and post award monitoring activities for execution of works.

This Manual provides following major guidelines that would enable Employer to execute projects with due diligence following procedures issued by Government Ministries / Agencies and Central Vigilance Commission (CVC).

- Project formulation and initiation by preparing feasibility / detailed project reports
- Statutory clearances, Client/Government approval and project financing
- Base Engineering, monitoring of Engineering, Procurement of Machineries & Goods and Construction in respect of
Contractor’s compliance of his contractual obligations as per Contract Agreement.
- Completion and Handing Over to the Client
- Accounts & Finance
- Personnel / Human Resource

1.4 DEFINITIONS

WORKS: Include Civil, Hydro-Mechanical & Electro-Mechanical works of Hydel Power projects

EMPLOYER is the “_________________________”.

CLIENT is the Department, Authority, Agency, Ministry or Public/Statutory person of Central or State Government (whether autonomous or not) of India who has entrusted the Project/Works to Employer.

COMPETENT AUTHORITY is the authority to take appropriate decisions stipulated in this manual. Such authority will be Board of Directors and / or the Managing Director/ CMD.

CONSULTANT / PROJECT MANAGEMENT CONSULTANT (PMC) / ENGINEER: is the person or the firm assigned by Employer to act for and on his behalf for monitoring of the works.

RESIDENT ENGINEER: is the person nominated by PMC for site administration of contract.

NODAL OFFICER: The General Manager (Projects) is the Nodal Officer on behalf of EMPLOYER who is assigned duty of project monitoring and coordination with PMC.

CONTRACTOR means the person or the Firm who has been awarded the EPC or LSTK or Design-Build Contract for execution of works.

OTHER DEFINITIONS ARE COVERED IN APPENDIX-A

1.5 WORKS CATEGORIES AS PER VALUE OF WORKS:
The works have also been divided in the following categories with respect to their value.

a. MINOR Works: up to Rupees 100 crores
b. MAJOR Works: above Rs. One hundred crores upto Rs. One Thousand crores

c. MEGA Works: above Rs. One Thousand crores

1.6 INFORMATION AVAILABLE IN THE WORKS MANUAL UNDER RIGHT TO INFORMATION ACT’2005 (RTI ACT’2005):

As per the Act, 17 Manuals as per details below are required to be prepared, maintained including regular updations and hosted on the website. The Manuals have been prepared in accordance to the act and can be accessed from the link www.Employerltd.com. Necessary compliance to meet the objectives of RTI Act shall be adhered to and one Nodal officer (Public Information) shall be assigned responsibility for the same.

<table>
<thead>
<tr>
<th>RTI Manual No.</th>
<th>Description</th>
<th>Covered under Serial No. …. Of RTI Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual 1</td>
<td>Particulars of Organization, Functions and Duties</td>
<td>Section 4(1) (b) (i)</td>
</tr>
<tr>
<td>Manual 2</td>
<td>Powers and Duties of Officers and Employees</td>
<td>Section 4(1) (b) (ii)</td>
</tr>
<tr>
<td>Manual 3</td>
<td>Procedure followed in Decision Making Process</td>
<td>Section 4(1) (b) (iii)</td>
</tr>
<tr>
<td>Manual 4</td>
<td>Norms set by it for the discharge of its functions</td>
<td>Section 4(1) (b) (iv)</td>
</tr>
<tr>
<td>Manual 5</td>
<td>Rules, regulations, instructions, manuals and records for discharging functions</td>
<td>Section 4(1) (b) (v)</td>
</tr>
<tr>
<td>Manual 6</td>
<td>A statement of the categories of documents that are held by it or under its control</td>
<td>Section 4(1) (b) (vi)</td>
</tr>
<tr>
<td>Manual 7</td>
<td>Particulars of any arrangement that exists for consultation with or representation by the members of the public in relation to the formulation of its policy of implementation</td>
<td>Section 4(1) (b) (vii)</td>
</tr>
<tr>
<td>Manual 8</td>
<td>A statement of boards, councils, committees and other bodies constituted</td>
<td>Section 4(1) (b) (viii)</td>
</tr>
<tr>
<td>Manual 9</td>
<td>Directory of Officers and</td>
<td>Section 4(1) (b) (ix)</td>
</tr>
<tr>
<td>Manual</td>
<td>Description</td>
<td>Section</td>
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<tr>
<td>Manual 10</td>
<td>The Monthly Remuneration Received by Each of its Officers and Employees, including the System of Compensation as provided in Regulations</td>
<td>Section 4(1) (b) (x)</td>
</tr>
<tr>
<td>Manual 11</td>
<td>The Budget Allocated to each agency (Particulars of all plans, proposed expenditures and reports on disbursement made)</td>
<td>Section 4(1) (b) (xi)</td>
</tr>
<tr>
<td>Manual 12</td>
<td>- Not Applicable -</td>
<td>Section 4(1) (b) (xii)</td>
</tr>
<tr>
<td>Manual 13</td>
<td>Particulars of Recipients of Concessions, permits or authorization granted by it</td>
<td>Section 4(1) (b) (xiii)</td>
</tr>
<tr>
<td>Manual 14</td>
<td>Particulars of Recipients of Concessions, permits or authorization granted by it</td>
<td>Section 4(1) (b) (xiv)</td>
</tr>
<tr>
<td>Manual 15</td>
<td>Particulars of the facilities available to citizens for obtaining information</td>
<td>Section 4(1) (b) (xv)</td>
</tr>
<tr>
<td>Manual 16</td>
<td>Name &amp; designation and other particulars of Public Information Officers</td>
<td>Section 4(1) (b) (xvi)</td>
</tr>
<tr>
<td>Manual 17</td>
<td>Other information as may be prescribed</td>
<td>Section 4(1) (b) (xvii)</td>
</tr>
</tbody>
</table>
CHAPTER – II

2.0 STAGES FOR EXECUTION OF WORKS:

2.1 Receipt of proposal from the client:

Any proposal received by Employer from Government / Semi-Government Departments of the Government of India or State Government or reflected in the approved five year Plans prepared by Planning Commission and if the proposal falls within the scope of works specified under the Articles of Association, then the same is placed before the Board of Directors for their approval to take up the work subject to the Client/Government approval. It is also equally important that the placement of fund to be identified either from the respective department or from the annuity fund allotted to Employer depending upon the nature of the project and the decision of the Client/Government.

To enable Employer to promptly evaluate & commence further activities on the proposal, all the clients may be advised to furnish basic information required to process any proposal in the format ‘l-(a)’ of Appendix – A of this Manual.

2.2 Role of Employer

In the current scenario, most Hydro-power Projects are becoming more complex involving advanced technologies for speedy implementation. Employer, therefore, has to play a key role providing utmost attention in the initial stages of Project Formulation for appraisal and approval by its Client Organization.

As most Power Projects being unique in view of varying nature of project sites and their approachability, the Employer may require substantial time to carry out specialized tasks for effective preparation of pre-feasibility study/feasibility Report (FR) and detailed Project Report (DPR) covering all features for Techno-Financial evaluation.

It may sometime be appropriate for Employer to engage a Consultant/team of Consultants of repute having adequate experience for performing project activities including conceptualizing, planning and review of engineering & design, estimation, preparation of tender documents, evaluation of tenders, project & Contract management and supervision for implementation.
of the project with least Time and Cost over-runs for Major or Mega Projects.

The Employer's role would, thus, be more of a project monitor, progress chaser and reporter to the Client. He may approve progress payments by his organization for work, satisfactorily completed by Contractor, on the recommendation of the Consultant.

In addition, the Employer shall assign coordination activities of each project to a senior officer of at least Dy. General Mgr. Level who will be named as NODAL OFFICER in the contract documents and who shall play a committed role of a monitor & progress chaser closely interacting with Consultant. It shall be Nodal Officer's duty to keep Top Management promptly abreast of any hold-ups & constraints likely to cause delays of the project/works with duly analyzed recommendations of the representative of the consultancy organization who shall be named ENGINEER in the contract documents.

2.2 Role of Consultants:

The Consultant’s role is quite comprehensive as it involves preparation of feasibility / detailed project reports, estimates, advising the Employer on best choice in project planning, designing, preparation of bid/contract documents, analysis and recommendation of tenders, contract administration, checking quality and progress, and exercising close supervision over the project.

In the project Formulation stage, the Consultant may also be involved along with the Employer in preparing reports and interacting for obtaining clearances from various statutory Agencies and meeting other project/works related contingencies.

Consultant’s scope of work will depend on the strategy being adopted for implementation of the project considering its nature, complexity and past experience of Employer in handling similar projects. In addition, some time Employer may require assistance of some specialized consultant’s viz. Railway consultants, Forest consultants, Environment consultants, etc. before proceeding with execution / during execution to meet all statutory and legal provisions of concerned Government agencies. All the consulting activities related to above can be assigned to consultants on contract basis either as a single package or in multiple packages as is convenient.
2.4 Stages of Works Formulation and Approval of Client

The under mentioned stages are basic pre-requisite which are required to be followed before the works are taken in hand or liabilities incurred in connection with its formulation.

2.4.1 To obtain in-principle approval of the Client, Employer directly or through its consultant shall undertake preparation of basic scope of works and preliminary cost estimation based on study of works, subsurface and hydrological condition’s survey at the site, conceptual design and compilation of reports in sufficient details including its time schedule estimates.

2.4.2 If Employer decides to engage a consultant for Geotechnical/Foundation Engineering/Architectural Engineering/Structural Engineering or a project management consultant, consultancy firms empanelled with Employer under various categories may be invited to participate in the competitive consultancy bidding process.

2.4.3 The preliminary cost estimates along with FR prepared by the engaged consultant are examined by Employer with respect to degree of definition of the project proposal before submission to client conveying to him that the accuracy rating at this preliminary stage may vary from -20% to +20% and therefore at this stage, in-principle approval may be accorded to enable Employer to proceed with detailed project cost estimation.

2.4.4 While forwarding the preliminary estimate to the client department for accord of In-Principle approval, an indication shall be given in the history sheet that the cost projected in the preliminary estimate is liable to revision due to probable escalation in cost of construction apart from reasons such as change in scope, area, design and specifications etc. desired by the client at a later date.

2.4.5 On receipt of Client’s In-Principle approval, Employer shall prepare to enter into an MOU with the Client (a draft format for this purpose is available in this Manual in Appendix – A, Format ‘I – b’). This would require finalization of detailed scope of works and to further proceed with preparation of draft detailed estimates based on detailed drawings, designs & specifications along with time schedule estimates.
2.4.6 The expenditure required to be incurred on these pre-project activities may be kept under a separate accounting head for later incorporation in project cost estimates for Client’s approval.

2.4.7 With this detailed project/works report (DPR), Employer shall move the case to Client for obtaining Government approval and Expenditure Sanction for allocation of funds.

2.4.8 On receipt of Government Approval, the Client Department shall proceed with acquisition of land for handing over to Employer without any encumbrances and also obtain all statutory approvals with necessary assistance of consultant engaged by Employer for providing consultancy services.

2.4.9 If any utility services like water, temporary power and Fuel etc., are required to be arranged at site, the infrastructure including approach Roads etc. are required to be laid on priority before commencement of Works activities at project site.

2.5 Basis of Cost Estimates

Cost estimates shall be prepared by Employer/Consultant adopting any of the following Methodology (basis) in same order:

2.5.1 Rates for items are to be taken from latest Schedule of Rates published by Local Public Works Department (PWD). Items for which GSR is not available, RAR (Recently Awarded Rates) limited to 3 months from date of award, duly updated by cost index for the current year shall be adopted. If RAR for such items is also not available, then the rates shall be worked out with the help of market rates obtained by a committee comprising officers of Engg. And Finance Department constituted for this purpose.

2.5.2 Cost Estimates for complex projects of specialized nature shall be prepared using project cost data obtained on budgetary basis or drawn from already executed similar Works, or Employer’s costing Software Data Base (Project Estimation System Software- PES).

2.5.3 Indications should be made of accuracy levels of the estimation process while forwarding project proposals to Client for expenditure sanction which is normally considered as between -10% to +10%

2.5.4 In addition to the provision for all expenditures which can be foreseen for a Works, following provision of contingencies shall also be kept.
   (a) Estimated cost upto RS. 100 Crores – 5%
   (b) Estimated cost above Rs. 100 Crores – 3% (subject to minimum of Rs. 5 Crores)
2.5.5 Pre – operational expanses, which are the costs, incurred on start
up/commissioning of project should be appropriately factored in to
preparation of project cost estimate (Pl. refer Cl. 9.1.1).

2.6 Entering into MOU with the client

2.6.1 Entering into MOU with the client

Once the Client conveys the approval of the Government along
with detailed Project Proposal, Employer will submit draft MOU to
the Client Department along with final Project Estimation, activity
wise time schedule to be met by both sides viz. handing over of
works sites, schedule of progressive release of funds, schedule of
floating of tender Enquiries, construction schedules and handing
over after completion (Pl. refer Format ‘I - b’ for MOU, Appendix –
A). After signing of memorandum of Understanding (MOU)
between the Client and Employer, the date of signing the MOU
shall be reckoned as “Zero Date”.

2.6.2 Funding Pattern and relevant MOU

Employer was formed as a Special Purpose Vehicle (SPV) to carry
out setting up of Hydro Electric Power Plants in the Country.

The works are being taken up as explained in Para 1.2 of ‘Chapter
– 1’. The funding pattern of projects falls into the following
categories:

a. Borrowings from Banks, Private Financial Institutions with the
   approval of the Government.

b. Budgetary support from Government.

c. Placement of funds from Client Departments.

The pattern of funding for the projects has to be decided by
the Board of Directors by considering the following options: -

a. Either project is to be funded by the State Government through
   its Finance Department, by way of Budgetary support and/or
   market borrowings.

   OR

b. Either project is to be funded by the Client Department (CEA),
   through funds provided in their Budget.
c. A mix of (a) and (b).

By considering the above funding pattern the MOU between the Client Department and Employer will have to be drafted suitably with modifications wherever necessary.

2.6.3 Viability Gap Funding for Public Private Partnership (PPP) Projects

Projects involving Viability Gap Funding of (VGF) approach under PPP Projects, Suitable M.O.U. concession agreement shall be adopted in accordance with the Office Memorandum conveyed by the Government of India, Ministry of Finance. (Refer Format - VII, Appendix A).

2.7 Statutory Approvals:

Obtaining expedient approval from the licensing authorities or any statutory bodies for project implementation on fast track is extremely important and therefore prompt action should be initiated by the Client Department by duly signing the needful drawings/documents/formats prepared by the Employer.

3.0 Project Planning and Scheduling with Engagement of Consultant:

3.1 Project Planning & Scheduling:

Any HYDEL Project will have many specialized & complex technical features and activities, timely execution of which shall require a comprehensive and integrated approach.

3.1.1 The following shall be key activities for appropriate planning and implementation of any such project by Employer.

- Pre-Project activities like Preparation of Feasibility Report (FR), Detailed Project Reports (DPR), Project Cost Estimates, preparation of reports (for Client) for obtaining clearances from various Statutory Agencies
- Project planning and base Engineering Design & Specifications
- Preparation of necessary base documents for plant equipment and services, imported & indigenous
- Preparation and issue of Bid/tender documents and issue of NITs, Pre-qualification of prospective Bidders, Processing and Evaluation of Bids, Recommendation for engagement of selected contractor(s) for construction or EPC/LSTK Works
- Construction and erection Supervision including management of all site activities e.g. progress management and Quality Assurance
- Full range of project management services, such as, planning and scheduling, cost and schedule monitoring, control and generation of multi-level information reports suited for different level of Employer management.
- Project completion and demonstration of performance, Guarantees and Warrantees.

**Performance Demonstration**: Employer has been involved in many Dams & Hydel Projects. In most of such projects, many improved and technologically advanced & specialized equipments are installed and commissioned using latest Information and Communication Computer Networking etc. At the time of testing and commissioning of such equipments, a demonstration of performance is necessary for certification.

3.1.2 To enable Employer to undertake expeditious action on these activities, prompt engagement of an experienced Expert/Consultant suitable to handle the proposed project activities at the pre-project stage itself can only be accomplished if the consultants are technically pre-qualified at a much earlier stage.

**Empanelment Of Consultants:**

3.2.1 Empanelment of Consultants is done on a regular basis as approved by Board, Employer. After seeking the approval from the Board, the Managing Director assigns the job to Engineering Wing for empanelment / enlargement of panel of consultants for the various categories.

3.2.1.1 The Employer publishes notice for empanelment / enlargement of panel of Consultants in leading State/regional and national dailies and simultaneously, notice is also launched on the Employer’s website.

3.2.1.2 The Consultants who wish to get empanelled have to apply with a separate application for each category & section (Type) of Works. The applications received are scrutinized in accordance with technical and financial eligibility criteria by the Engineering Wing.

3.2.1.3 Finally, a report consisting of a list of qualified / disqualified Consultants is made. This report is
placed before the Board to obtain its approval. Upon receiving the approval of the Board, the qualified Consultants are issued a letter regarding the confirmation of empanelment which is valid for 3 years.

3.2.2 Categories for Empanelment:

Eligibility and Minimum Criteria for Empanelment:

This invitation is open to applicants registered or permitted to carry on business in India and having offices in India for the last 10 years.

To be eligible for empanelment the applicant shall provide evidence satisfactorily to the Employer of their eligibility and of their capability and adequacy of resources to carry out the services. To this end, all applications submitted shall include the following information:

(i) **Letter of Transmittal.**

(ii) Copies of original documents defining the construction or legal status, structure of organization, place of business of the Company or Firm or Partnership.

(iii) The financial status of the applicant shall be furnished.

(iv) The qualification and experience of key personnel with the applicant.

(v) Details of the experience and past performance of the applicant on works of similar nature within the past five years and details of current works in hand and other commitments.

(vi) Brief details of best 5 projects of the categories applied completed or in progress.

(vii) Any other relevant additional information.

(viii) All information furnished above should be substantiated with documentary evidence.
3.2.4 QUALIFICATION CRITERIA:

3.2.5 FEE STRUCTURE:

The cost of each application is Rs. _____ for each category and there is a processing fee for the empanelment.

Processing Fee:
For ___________ Projects it is Rs. _______ for each section, which is non refundable.

For ___________ Projects it is Rs. ________ for each section, which is non refundable.

3.3 Selection of Consultants:

Technical suitability and competence of the Consultant to perform the required services is the most important criterion in the selection of the consultant. For specialty Tasks, on receipt of response to the "expression of interest" published for the purpose of locating appropriate consultants, the pre-qualification evaluation may be done to restrict the competition to those firms who are capable to perform for that task and from the pre-qualified Consultants for these specialty tasks, the short listing of the Consultant should be done through Competitive Bidding Process. The lowest bidder amongst these pre-qualified Consultants shall be considered for award of project.

3.3.1 Selection of Transaction Advisor for Public Private Partnership (PPP) Project

In case of PPP projects as regards to payment to the Transaction Advisor, the term success fees should be added. The source of realization i.e. the BOOT Operator or Employer of the success fees should be clearly spelt out in the agreements and followed accordingly.

This will be in accordance with the Office Memorandum conveyed by the Government of India, Ministry of Finance. (Refer Format - VII, Appendix A).

3.4 Compilation of Bid Documents For Consultancy Services:

The scope of services to be provided by the Consultant shall be very specifically and clearly stipulated in the bid documents besides co-ordination and reporting procedures for integration &
supervision of various agencies involved in project implementation. Bidder may also be asked to furnish details of duties and functions to be assigned to each of its engineer viz. Team Leader, Resident Engineer etc.

The consultant’s own liability to the employer towards his own performance shall commence only after successful completion of the project for a minimum period of 2 years.

The bid document shall generally be framed consisting of following three sections:

Section – I, This section shall consist of following three chapters;

Chapter – 1: Instructions to Bidders
Chapter – 2: Technical Proposal
Chapter – 3: General Conditions of Contract

Section – 2, This section shall consist of following four chapters;

Chapter – 4: Notice inviting consultancy services
Chapter– 5: Data Sheet defining Scope & Cost, Activity Time Schedule & bid Validity, Minimum requirement of personnel, Bid security
Chapter – 6: Scope of Work and Terms of reference
Chapter – 7: Special Conditions of contract

Section – 3, Chapter – 8: Financial offer

In most cases, the consultancy services may have to be provided in several phases of project activities. These activities shall be distributed and specified in detail for each phase defined in scope of Works. Some project phases shall be Pre-project activities and some post Project/Works approval phases. The Bid document for consultancy service will clearly demarcate payment terms for Pre Project activities up to the stage of preparing detailed Project Reports, preparation of detailed estimates and seeking approval of Employer and Client. The time schedule for this phase shall be laid in the bid document. Similarly, activities required to be undertaken and performed in the post project approval phases require time and fee schedules to be laid in bid document. The fee may be quoted as lumpsum or percentage of project cost which shall reach a firm stage upon award of Works to the Contractor. The consultant’s fees shall be frozen at this stage and Works cost additions towards escalation, price variation on account of Extra/ deviated/ substituted
items of Works which may become payable to the Contractor shall not be taken into account for adjustments in fees payable to the Consultant.

3.5 Award of Consultancy Work and Signing of Agreement:

3.5.1 The fees to the Consultant would have to be based on the work order issued to the Consultant. Normally the quotation for consultancy fees shall be offered on percentage of estimated Project cost, which may keep varying from the pre estimation stage to the tendered value and finally revised to the awarded cost of the works. Fees paid to the Consultant is determined by the Competitive Bidding, which is usually quoted as a percentage of the cost of the project. In some cases like PPP this shall be called as the “Success Fees” (Ref:3.9). However, the fees paid to the Consultant is directly proportional and linked to the Work Progress / Project Progress or Financial Progress of the work. Again the amount of fees payable to the Consultant shall not be more than what he is entitled at a given stage of the project. Financial progress means the amount of the Contractor’s bill disbursed.

3.5.2 The Consultancy Services Agreement to be entered by Employer with the consultant shall normally consist of following documents which shall define in details the services to be rendered by him.

- Form of Agreement
- Articles 1 to 11
- Annexures i to vii

3.5.2.1 The form of Agreement is given in Format –II in Appendix – A.

Article – 1 - Definitions
Article – 2 - Effective date and duration of contract
Article – 3 - Project description and scope
Article – 4 - Obligations of Employer
Article – 5 - Terms of Payment
Article – 6 - Time schedule
Article -- 7 - Foreclosure, Suspension and Termination
Article – 8 - Guarantees and Liabilities
Article – 9 - Insurance
Article – 10 - Force Majeure
Article – 11 - Dispute Resolution

3.5.2.2 Annexure – i: Pre Project Management and Technical services
Annexure – ii: Tendering, Construction supervision & Supervision of Commissioning Assistance
Annexure – iii: Project planning & Scheduling, CPM Charts, Bar
In case Employer may have to decide not to proceed further after completion of Pre Project Consultancy Stage, a provision for Foreclosure of Consultancy Agreement shall have to be clearly laid in the agreement.

3.5.2.3 Since these activities are considered critical for seeking project approval and its funding needs, a high end performance of consultant is essential and it may thus be necessary to lay penal provisions for any delay due to poor performance by the consultant for these Pre Project activities.

3.5.2.4 The Agreement shall also clearly lay down that whatever work has to be done by the consultant(s) shall be the property of the employer and all papers, drawings and designs etc. shall be secured in suitable form before final payment to consultant is made.

3.5.2.5 The consultancy agreement shall also provide a safeguard to the employer in the contingency of any infringement of patent rights during their current engagement or in future and the consultant must be required to guarantee indemnification for all time.

3.5.2.6 A penalty clause shall be provided (in addition to the right to determine the agreement) in case of delay in execution or unsatisfactory performance and also a right to postpone the payment of any installment in such a situation.

3.6 PROJECT ESTIMATION SYSTEM SOFTWARE (PES)

Employer has designed and developed a Project Estimation System Software for preparing estimates for the projects. The same shall be made available to all Consultants empanelled with Employer for preparation and submission of estimates.
The licensing fee equivalent to 1% of consultancy fees shall be recovered from all the R. A. Bills of the consultants towards use of Project Estimation System Software (PES). The estimate thus notified by Employer as “accepted” will have to be submitted by the Consultants in Triplicate.

4.0 PROJECT IMPLEMENTATION AND MONITORING:

4.1 Commencement of Project Implementation:

4.1.1 Once the work of consultancy services is awarded by Employer to the Consultants, he is directed to furnish Performance Security within 15 days from the date of issue of Letter of Award. His activities for project implementation shall commence from the date of award and pretender activities viz. survey, preparation of conceptual design, block estimate, pre-project report, getting in-principle approval of Employer/Client, preparation of detailed estimates based on detailed designs & drawings shall be pursued vigorously to enable Employer for seeking Budgetary and funding approval from Govt./Client.

4.1.2 Preparation of estimates for Works contract is an area, which needs special emphasis. A well defined scope of work and a realistic estimate can prove to be a vital input for successful execution of a contract with high standards of quality. The estimates should take into consideration all relevant factors based on the prevailing Schedule of Rates.

4.1.2.1 Material Rates Review Committee:

The Employer shall have a “Material Rates Review Committee” formed under the chairmanship of the Managing Director and will comprise of the following members as mentioned below:

1. _____________
2. _____________
3. _______________

The functions and the task of the committee is as enumerated below:-

1. To collect the rates of cement, steel, stone aggregates, sand, bitumen, bricks and laterite stone from source of supply spread across at different locations close to Site.
2. The members of the committee shall obtain the rates of basic materials at source every fortnight and will forward it to the Managing Director for approval. On the approval of the rates, the same are loaded or entered in the computerized Data Bank and this shall be updated every fortnight preferably on the 1st and 15th of every calendar month. These rates shall be utilized for the estimation purpose.

3. Maintaining the records of rates of materials mentioned in the Data Bank as a soft copy after taking the approval of the Managing Director.

4.1.3 For big projects and other turnkey projects where financial assessment of the works is done well in advance, before the finalization of the contract, the financial amount indicated in Detailed Project Report (DPR) should be duly analyzed and any deficiency or inadequacy of data (in terms of rate or quantity), if found in such report, should be highlighted beforehand in order to prepare realistic estimates for the tenders. The consultant shall submit the estimates along with relevant backup documents consisting of budgetary quotations, last purchase rates (not later than one year) with suitable loading as per RBI or CEA-CIDC cost indices to meet the current market level costs.

4.1.4 The detailed estimate supported by complete details such as schedule of all items, quantities, rate, cost, drawings, rate analysis, measurement details need to be prepared for each works and approval obtained from the Board. The nomenclature and description of various items of works should be without ambiguity.

4.1.5 For procurement of proprietary items, supplier’s price list/rates along with the applicable discounts shall be obtained for preparing the estimates.

4.1.6 **Single Source Procurement of Proprietary Items:**

For Single Source Procurement the following procedure will be adopted with the permission of the Board of Directors.

4.1.6.1 Single-source procurement shall be adopted in case the goods which are available only from a particular supplier or manufacturer, or a particular supplier or Agent has exclusive rights in respect of the goods, and no reasonable alternative or substitute exists.
4.1.6.2 There is an urgent need for the goods and engaging in competitive tendering process would, therefore, be impractical, provided that the circumstances giving rise to the urgency were neither foreseeable by employer nor the result of dilatory conduct on its part.

4.1.6.3 Owing to a natural calamity, there is an urgent need for the goods, making it impractical to use other methods of procurement because of the time involved in using those methods.

4.1.6.4 The employer, having procured goods, equipments or technology from a supplier or contractor, determines that additional supply must be procured from that supplier or contractor for reasons of standardization or because the need for compatibility with existing goods, equipments or technology. Taking into account the effectiveness of the original procurement in meeting the needs of the employer, the limited size of the proposed procurement in relation to the original procurement, the reasonableness of the price and the unstability of alternatives to the goods in question.

4.1.6.5 The procurement entity seeks to enter into a contract with the Manufacturer/supplier for the purpose of research, experiment, study or development leading to the procurement of a prototype except where the contract includes the production of goods to quantities to establish their commercial viabilities or to recover research and development cost.

4.2 Project Time Management:

The need to control time in project implementation cannot be over emphasized. This is the most crucial element of project implementation and it is imperative that modern techniques of time management are adopted. Employer has adopted the system described herein to suit the specific needs of the project implementation.

4.2.1 Essence of time management is controlling key activities through functional schedules in various phases of project implementation, such as,

- Engineering schedule
- Procurement schedule
- Construction schedule, and
4.2.2 It is preferable to generate the lower level functional schedules in the form of bar charts, which would also enable scheduling on a time frame for major activities of works in project implementation. This will give information regarding peak rates of achievement required for each item of work such as earth work, foundations, civil & structural work, Tunnel Boring/ Penstock Laying, equipment erection, electrical works, instrumentation works, etc. to monitor timely execution. It would also enable identification of approximate resources requirement for carrying out the works within the scheduled time frame.

4.2.3 Time management involves project planning, scheduling, monitoring and control, using CPM (Critical Path Management) network as the basic management tool. CPM shall be prepared by the consultant soon after award of consultancy services to him and he shall interact with all concerned for finalizing an agreed detailed project programme, while at the same time allowing full independence to each functionary to schedule and control their own activities.

4.2.4 Key functional areas involved in any project implementation are:

- Engineering Services (Includes all engineering disciplines to be performed by the Consultant in case of design- build Contract and by Contractor in case of EPC/LSTK Contract )
- Procurement Services (Contracting, Expediting, Inspection and shipping to be performed by contractor)
- Contract Services for site Construction (to be performed by contractor)

4.3 Project Cost Control:

Project cost control function starts immediately after the Client asks EMPLOYER formally to commence the project execution. The Project cost estimate should conform to the cost coding system of EMPLOYER to facilitate tracking and collection of various elements of the activity-wise expenditure. Cost summaries shall be prepared by the specialist (Cost Accountant) of the Consultant assigned to perform this task

4.3.1 The expenditure records shall be maintained in the Accounts/Finance Department of EMPLOYER as they are responsible for authorizing expenditure against the budget. In accordance with their standard procedures and controls, they should check that all invoices are duly authorized, with all expenses
related with respective project heads are properly controlled and accounted for.

4.3.2 Some of the important steps in the budgeted cost control process are:

- Codification of expenditure heads
- Booking of each item of expenditure under proper expenditure heads
- Coordination
- Data feedback of actual spending
- Comparison of actual spending with budget
- Analysis of variances
- Initiation of remedial action
- Assessment of physical achievement
- Comparison of physical progress with expenditure progress

4.3.3 As cost control impinges on every facet of project management system, all systems supplying information on cost to Finance/Accounts dept. must ensure the following:

- Cost should be clearly identifiable to facilitate comparison with the control budget estimate at item level;
- Scope changes, if any, should be spelt out at item level of the control estimate; and
- Any bifurcation or regrouping of items should be related at item level to the control estimate.

5.0 ENGAGEMENT OF CONTRACTORS FOR EXECUTION OF WORKS

Selection of proper contractors and contract management is one of the most important functions in the project implementation with least time and cost overruns. The sequential stages of various contracting Functions are as follows:

- Contract strategy
- Contract Planning
- Compilation of tender specifications and issue of notice inviting tenders (NIT)
- Processing and evaluation of bids
- Award of contract
- Post award follow-up
- Management of contract changes
- **Control of claims**

The detailed guidelines on above functions are laid below. Deviation from the prescribed procedures shall be only by exception and not as a practice and shall have the approval of the competent authority.

### 5.1 Contract Management System and Strategy:

#### 5.1.1 Types of Tenders:

Contract strategy depends on the philosophy of project implementation. Several types of contractual arrangements are feasible. They differ only in the way in which contract scope and price is expressed or calculated. The following are the type of tenders, which are generally invited by EMPLOYER for execution of works:

**5.1.1.1.A Percentage Rate Tender**

Percentage rate tenders should be used in respect of leveling and development works including such works as storm water drainage, water supply and sewer lines and repetitive types of works such as construction of residential quarters of various types as per standard design and drawing.

The percentage rate tender may also be used in case of Civil construction jobs for Minor Works using CEA Schedule of Rates and marked traits for Non-Schedule Items.

**5.1.1.1.B Item Rate Tender**

Item rate tenders are invited where bidders are required to quote rates for individual items of work and work out total bid amount on the basis of schedule of quantities furnished in the tender document.

Mostly, in this type of tenders, problems arise on account of large variation in the quantity from the estimated to the actual. The contractor may be entitled to an adjustment of the rate if there is a change in quantities which makes the quoted rate unreasonable or inapplicable, which leads to delay and contractual complications. It is, therefore, essential that the site is investigated properly and designs are worked out in sufficient details so that items involved in the project are fully identified and quantities of individual items are worked out within reasonable accuracy.
While evaluating these tenders, special care should be taken to check reasonableness of rates by comparison with pre-determined estimates and very high or very low rates should not be accepted so that the contractor does not draw any advantage due to variations in quantities. The clause for determination of rates for extra items as well as variation in quantities should be unambiguous.

5.1.1.2 Lump-sum Turnkey (LSTK)/ Engineer-Procure-Construct (EPC)

Tender:
Such tenders are invited in respect of works for which bidders are required to quote a lump-sum price for completing the works and services in accordance with the Bid requirements.

Lump-sum Turnkey/EPC Tenders can be only for executing the works as per the predetermined Base design and functional specifications. Alternately it may include elements of design and preparation of detailed drawings and specifications as well, which shall be keeping with the given basic engineering design i.e. functional, structural and performance parameters.

The greatest advantage of this contract strategy is that the cost of the total project is known with greatest certainty at an early stage. The contractor assumes all the risks and there is a strong motivation for him to complete the project on time, because extensions to the schedule will cause loss for him. The project management effort is considerably reduced and simplified in this approach.

The fundamental pre-requisite to adopt this approach to project implementation is that a sufficient number of qualified and competitive contractors should be willing to bid and to assume the financial risk associated with the project. There must be a complete definition of facilities, site working conditions and contract scope to enable the bidders to accurately price their bids.

The main disadvantages of adopting this strategy is that It takes more time to evaluate the bids and the overall project cost in this type of contract is bound to be higher, due to the contractor’s inclination to cover up the financial risk and uncertainty in his price bid. In a lump-sum fixed price turnkey bid, the contractor normally provides, absolutely minimum design margin in order to be competitive cost wise with others. This may sometimes prove as a constraint to achieve performance parameters and the consequential loss incurred due to non-performance guarantee.
The bid documents should be carefully prepared ensuring that the scope of work is defined precisely. It is necessary to freeze the parameters and specifications for design, and avoid subsequent modifications during execution. Mid-stream corrections are costly in terms of time and cost. The specifications of materials/equipment should be based on their availability in the market, to avoid deviations while executing work.

As the prospective turnkey contractors may not have experience in all disciplines and specialties involved in design and execution of the project, they can be permitted to form Consortium or Joint Venture, each member having experience in his respective field. In such a case, the members should be required to agree for joint/several responsibility clause for timely execution, quality of work and total performance of the Plant. One of the members is required to be nominated as a leader with whom the employer will coordinate for all purposes.

It is essential that at the very beginning of the contract negotiation, agreement is reached on the following major aspects:

- Overall time schedule is established, indicating the duration of stages of contract like Design, Engineering, Civil and Structural, Contract procurement, Hydro-Mechanical and Electro-Mechanical construction installations and commissioning after completion including Tests on completion and handing over to Employer.
- Detailed schedules for all the major works are furnished by the contractor and agreed to by the Employer/Consultant.
- Weight-ages assigned by the Contractor to the various components of the work, together with the basis, is carefully evaluated by Employer/Consultant. Any inappropriate weight-age system can depict wrong percentage completion. This weight-age evaluation is to be more thoroughly done in case the payments to the contractor are tied up to progress measurement system.
- Quality assurance programme of the Contractor is required to be obtained and major milestones at which Employer/Consultant clearance is required need to be established.
- The evaluation criteria on the parameters to be measured as part of performance Tests/guarantee runs need to be mutually agreed along with the system of measurement.
- Points at which Employer’s obligations/inputs will be met.
5.1.1.3 Deposit Works:

If any utility services like water supply lines, Electricity lines etc. are required to be shifted, the concerned Central/State Government departments such as State Electricity Board, State PWD etc. are required to do the needful before EMPLOYER proceeds with execution of Project. The shifting charges for such activities are to be borne by EMPLOYER and the concerned Government departments shall carry out relocation work as Deposit Work. The shifting charges are later on passed to the Client Department or the proposer of the project.

Full estimated cost of the work as worked out by the concerned Government Department / Body Who will undertake the work shall have to be deposited by EMPLOYER or Client Department with that Government Body before the work is taken up for execution.

5.1.1.4 Public – Private Participation (PPP) Projects through BOT, BOOT, BOO SPV, DBFO and Swiss Challenge Approach Contracts:

Development of Physical Infrastructure is primarily the responsibility of the State. The Govt. needs heavy investments for this key activity to sustain growth of Indian economy. It has been realized that participation of Private Enterprises providing funding support to the government would accomplish this mission speedily. Thus, the State identifies the need and opportunity to seek partnership of private sector for part financing/funding and adopts project implementation strategy to achieve the goal by seeking and identifying the partner who develops the execution plan in close interaction with concerned Government Authority/Department. Such venture is known as PPP (Public – Private Partnership) Venture.

Build Own and transfer (BOT) Contract and its variations like BOOT (Build Own Operate and Transfer), BOO SPV (Build Own Operate Special Purpose Vehicle) etc. have become prevalent in many Infrastructure sectors especially in Bridges, Roads/Highways/Expressways wherein the contractor builds the project with his money and subsequently recovers the money from the tariff collected from the users for a pre-laid time and these type of Contracts are gaining momentum.

Another unique way of identifying a most suited and committed partner lies in following the mechanism of “Swiss Challenge Approach”. For this strategy, the Nodal Government Agency/Authority who has to take up duly identified Infrastructure Development Project, through its web site, seeks Suo- Motu proposal from an interested Private sector participant (individual, group of individuals or a body corporate) to be named as “Original Project Proponent” furnishing details of his technical, commercial, managerial and financial capability and details of the proposal
besides submitting details of concession agreement. After thorough evaluation of the Original Project Proponent’s proposal and ascertaining that the scale and scope of the project is in line with the requirements of the Project Authority and whether sharing of the risks as proposed in the concession agreement is acceptable in conformity with long term objectives of the Government. Once accepted and approved, the Govt. Agency/authority invites competing counter proposals. In case the original project proponent matches or improves on the competing counter proposal, The project will be awarded to the original project proponent, otherwise bidder making the competing counter proposal will be selected to execute the project. In this event when the project is not being awarded to the original project proponent and being awarded to another bidder, the Nodal Agency/Authority will reimburse reasonable costs incurred for preparation of the Suo motu proposal and the concession agreement (which is a much larger activity compared to preparation of DPR) to the Original Project proponent.

It is noteworthy to mention that the PPP approach is quite workable catering to many exigent constraints of fund availability resulting in improving the quantum of overall economic progress requiring more sustained efforts to be made to adopt PPP approach in cases especially Power Generation.

The guidelines for Formulation, Appraisal and Approval of Public Private Partnership (PPP) Projects issued by the Govt. Of India, Ministry of Finance are placed at Format ---, Appendix--- of this manual which covers all important aspects in respect of project identification, preliminary Government Approval, Appointment of Project Appraisal Committee, approval of the competent Authority/ Government, Formulation of Project Documentation, Expression of Interest, Request for Proposal (RFP), Invitation of Bids and Viability Gap Funding of PPP Projects.

5.1.2 CONTRACT PLANNING AND SCHEDULING:

Based on time schedules indicated on the Project Master Network, the contract schedule may be prepared by the Consultant indicating the time limits for achievement of the following milestones / activities upto the stage of award of each contract:

- Technical specifications, form of bid and standard conditions of tender finalization by the consultant/Employer
- Approval by the competent authority
- Approval by external Funding Agency/donor, where applicable
- Issue of bid documents
- Bid opening, technical and Financial Bid
- Evaluation of bids and finalization of recommendations for Financial Bid opening
- Financial Bid opening
- Evaluation of price bids and recommendation for award of contract
- Approval of recommendations by competent authority
- Approval by Client/Government, if required
- Issue of Letter of Intent/ Work order
- Final contract agreement

The contract schedule for each contract shall form the basis of monitoring the contracting activity. Further, a detailed schedule for bid evaluation may be prepared before the bids are opened. This would enforce time discipline on everyone involved in the process.

5.1.3 COMPILATION OF TENDERS

5.1.3.1 Methods of Tendering

The following are the routinely adopted methods of tendering:

- Open Tender Enquiries (OTE)
- Limited Tender Enquiry (LTE)

EMPLOYER shall usually adopt the most preferred, competitive and transparent method of tendering which is Open Tender Enquiry (OTE).

The tender enquiry can be issued as LSTK/EPC or Item Rate Tender with single Bill of quantity schedule consisting of Supply and Erection portion together or different schedules of Supply portion and Erection portion.

5.1.3.2 Qualification Of the Bidder

EMPLOYER may adopt one of the two following procedures subject to the decision of the Board.

- A) Pre-qualifying the bidders before bid submission.
- B) Qualifying the bidders after submission of bids.

For item rate bids, EMPLOYER shall normally adopt procedure ‘B’ for Minor and Major Works.

For EPC/LSTK bids for Major & Mega Works (refer clause 1.5), Procedure ‘A’ shall be followed and pre-qualification of bidders shall
be carried out to ensure that eligible bidders possess the necessary means and capabilities to execute the contract effectively and efficiently.

5.1.3.2.1 Pre-Qualification of Bidders

The criteria for pre-qualification of the bidders, e.g., technical competence, past performance in last fifteen years, financial soundness, organizational capability, current work load etc. shall be clearly spelt out in the tender which each bidder shall furnish in prescribed formats specified in the Tender/bid documents.

5.2. Preparation of Tender/Bid Documents:

5.2.1 Structure of Bidding Documents: The tender documents shall be generally structured adopting following framework

- NIT – Notice Inviting Tender
- ITB -- Instructions to Bidders
- Forms of Bid, Qualification Information and Letter of Submission of Tender
- GCC: General conditions of contract
- SCC: Special conditions of contract as per applicability
- Technical Specification / Drawings
- Bill of quantities (BOQ) in case of Item/Percentage rate Tenders
- Standard Formats for Bid Acceptance including letter of intent/ work order and agreement

Keeping in mind the varied nature of works being executed by EMPLOYER, the Consultant preparing the tender/bid document for administratively approved works shall follow above noted framework and prepare draft bidding documents depending upon Scope of the works.

5.2.2 While preparing the draft tender document, the Consultant shall refer to the Appendix-__ for defining words often used in the contract and Appendix – _____ for core and important General Conditions of Contract (GCC) which are compulsory for incorporation in the Draft Tender document. In addition, consultant may add some more provisions in GCC to specify general obligations and duties required to be complied by the Contractor in respect of interpretation, communication, labor Laws and regulations, dealing with other contractors and his own subcontractors etc. which may be added in the Draft Tender document.
Any additional contract requirement which are specific to the works and generally not laid in the "General Conditions of Contract (GCC)" may be put down/added in "Special Conditions of Contract (SCC)". Also, if any additional information / commitment is required from bidders, it shall be added in "Instructions to bidders (ITB)". The Consultant shall also pick up various Standard Forms listed in Appendix-________ for appropriate use while drafting the tender with minimal additions/changes as required. Approval of competent authority must be obtained for the draft tender/bid document before inviting the tender.

5.2.3 Preparation of Notice Inviting Bids / Tenders (NIT)

The EMPLOYER / Consultants shall keep following aspects in view while preparing N.I.T.:

(i) The Notice Inviting Tenders (NIT) will clearly indicate the place, date and time by which tenders will be received and the place, date and the time at which these will be opened.

(ii) NIT will indicate name of the work and its estimated cost.

(iii) The Qualification Procedure required to be adopted must be specified clearly in the NIT so that prospective bidders are aware of this requirement at the time of purchasing bidding documents.

(iv) The date, time and venue of the pre-bid meeting (if envisaged) also must be clearly specified in the NIT.

(v) Notice Inviting Tender shall include clear instructions regarding submission of bid.

(vi) NIT will indicate cost of tender documents, place & period of sale of tenders.

(vii) NIT will indicate Web site and e-mail address of EMPLOYER.

(viii) NIT will indicate the provision in respect of purchase preference applicability as per Govt. directives, if any.

(ix) NIT will indicate amount and mode of the Earnest Money Deposit (EMD) with the instruction that the EMD is to be deposited by the bidder in a separate cover.

(x) NIT will indicate that a copy of allotment letter in respect of EPF No. duly attested by notary Public is required to be submitted by the Bidders.

(xi) NIT will indicate the provision with regards to right of Employer to reject any or all the Bids so received without assigning any reasons.
5.2.4 Instruction To Bidders (ITB):

Instruction to Bidders (ITB) is an important part of the bidding document as it lays down complete methodology and framework for guiding bidders to familiarize them with all the terms and provisions of the tender conditions. These instructions also specify all details about the Works, documents, certificates, acknowledgements, Formats, studies etc. which would enable them to submit bid which shall comply fully with all stipulations placed in the Tender Enquiry and accepted for further evaluation. The following critical instructions must be suitably drafted and put in the ITB besides other instructions.

- Scope of Bid
- Eligible Bidders
- Qualification of the Bidder, details of documents to be furnished
- Cost of bidding for preparation and submission to be borne by bidder
- Site visit
- Contents of bidding documents
- Clarification of bidding documents and pre-bid meeting
- Amendment of bidding documents
- Bid validity
- Earnest Money
- Bid Format and signing the bid
- Submission of bids
- Bid opening and Evaluation
- Award of works
- Security deposit

5.3 Important Contract Conditions of Tender:

It is of particular importance to emphasize that the bidding document must contain all the core conditions of contract, whether General Conditions (GCC) or Special Conditions (SCC) as applicable to specific tender, in an unambiguous language with a view to place rights and responsibilities of the parties to the contract on equitable and fair basis to minimize chances of disputes and to avoid Arbitration/Litigation. The important core conditions of contract, which must be clearly stated in the bid documents, are given below for ready reference. The clauses can be suitably modified as per the requirement of works and duly approved by competent authority.
5.3.1 Core Conditions of Contract:

The following conditions are considered to be the CORE CONDITIONS OF CONTRACT and these are stated in detail in Appendix-B.

1) - Eligibility and Qualification criteria of Bidders
2) - Earnest Money Deposit (EMD)
3) - Security Deposit (SD) for Performance of Contract
4) - Variations; Extra Items / Substituted Items; Deviated items
5) - Payment of Running Bills
6) - Payment of Final Bill
7) - Payment of Advances; Mobilization Advance, Construction Equipment Advance
8) - Secured Advance
9) - Liquidated Damages (LD)
10) - Escalation
11) - Disputed Items; Conciliation and Arbitration (Refer Chapter -8)
12) - Employer’s Risk and Compensation Events

5.3.2 Other Important Conditions of Contract:

Besides the above mentioned core conditions, there are following important conditions which also play a significant role in equitable execution of the contract besides other General Conditions of Contract (GCC).

1) - Site Visit / Local Conditions
2) - Taxes and Duties
3) - Completion Period
4) - Guarantee / Warranty
5) - Insurance
6) - Employee Provident Fund (EPF) No.
7) - Solvency certificate
8) - Letter of Submission of Tender
9) - Organizational set up at site
10) - Dummy price Sets
11) - Statement of Exceptions/Deviations
12) - Letter of Authority
13) - Sale Tax Clearance Certificate
14) - Permanent Account Number (PAN No.) of the Bidder
15) - Time Schedule
16) - Details of Turnover
17) - Certificate of Registration copies
18) - Quality Assurance
19) - Details of Tools/ Equipment etc.
20) - Extension of Time, Compensation for delay, Rescinding of Contract
21) - Health, Safety and Environment Protection at Construction Site, “HSE” Policy
22) - Engagement of Labour; Labour Laws and Regulations

The clauses can be suitably modified as per the requirement of works and duly approved by competent authority.

5.4 Invitation and Opening of Tenders:

5.4.1 Publicity of Tenders & issue of NIT

The Press Notification in respect of open tender enquiries shall be given in 2 or more national dailies.

With the widespread use of Information Technology, the tender notices shall also be put on the website and e-mail & Website address of EMPLOYER shall be indicated in the tender notice (NIT) published in the Newspapers.

The press notification issued for Notice Inviting the Tender (NIT) in the approved newspapers will contain the following brief in respect of the Tender Enquiry.

1. Tender enquiry Reference number/ Brief description of work.
2. The contact person's designation and Fax No for additional information.
3. EMPLOYER’s Website address for detailed NIT including tender document.
4. EMPLOYER’s e-mail number for seeking additional information/quarries on NIT/Tender Document.

The press notification has to be uploaded on the Corporation’s website along with the release of NIT in newspaper, dailies. Website address must be given in the press notification / NIT published in newspapers. The cost of tender documents shall be paid by the bidder in the form of Demand Draft/Cash at the EMPLOYER premises towards the purchase of the bid documents.

5.4.2 Sale of Tender Documents

5.4.2.1 The cost of tender documents for sale to bidders in line with value of works as per clause - 1.5 will be as follows:
(a) Minor works: Rs. ______
(b) Major works: Rs. ______
(c) Mega works: Rs. ______

5.4.2.2 The tender fee will be acceptable in the form of crossed (“Payee Account Only”) Bank draft payable to EMPLOYER, at ________.

5.4.2.3 The tender fee shall not be refunded even if the tender has been cancelled or re-invited. However in case of re-invitation of tenders, tender fee shall not be charged from those bidders who had purchased the original tender.

5.4.2.4 The entries of the issue of the bidding documents will be made in the Tender issue/receipt Register to be maintained by the ‘EMPLOYER’ with following details.

i) sl. No. allotted to the document, ii) Name of the firm to whom this serial numbered tender document has been issued, iii) date of issue, iv) details of bank draft/ cashier’s receipt, v) signature of firm’s representative (if taken by hand), vi) signature of tender issuing officer.

5.4.3 Time limits for sale of Tender Papers:

With a view to have wider, fair and adequate competition, it is important that sufficient time for sale of say 4 – 6 Months in case of tender for Major & Mega Works and 2 – 4 Months in case of Minor Works is allowed.

5.4.4 Amendment / Corrigenda to Tender Enquiry:

Before the deadline for submission of bids, the Employer may modify the tender documents by using addenda / corrigenda. Any addendum / corrigendum thus issued shall form part of the tender document and shall be communicated in writing to all the purchasers of the bidding document or to whom the tender enquiry has been issued. The same shall also be hosted on EMPLOYER’s website. Prospective bidders shall acknowledge receipt of each addendum / corrigendum. To give prospective bidders reasonable time in which to take an addendum / corrigendum into account in preparing their bids, the Employer shall extend as necessary the deadline for submission of bids.
5.4.5 Pre-Bid Clarifications and pre-Bid Meeting:

5.4.5.1 A prospective bidder requiring any clarification of the bidding documents may notify the Employer by e-mail or by Fax as indicated in NIT. The Employer shall respond to any such request for clarification received earlier than 10 days prior to deadline for submission of bids. Copies of the employer response will be forwarded to all purchasers of the bidding documents but without identifying the source (Bidder who sought clarification). The response shall also be notified on the Website giving reference number of the NIT.

5.4.5.2 If a pre-bid meeting is to be held, the bidder or his authorized representative is invited to attend it. The pre-bid meeting's date, time and address are provided in the NIT. The purpose of the meeting will be to clarify issues and respond to queries related to bid documents/ Works.

5.4.5.3 Pre-bid meeting shall be attended by the ‘Engineer’ and the Nodal Officer.

5.4.5.4 Minutes of the meeting, including the text of the questions/queries raised and the responses will be transmitted without delay to all purchasers of the bidding documents and will also be hosted on website of EMPLOYER.

5.4.5.5 Any modification of the bidding document which may become necessary as a result of the pre-bid meeting shall have to be made exclusively through the issue of Addendum/corrigenda along with the record note of the pre-bid meeting. The same shall also be hosted on the EMPLOYER’s website.

5.4.5.6 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

5.4.6 Time Extension for Bid Submission:

To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend the deadline for submission of bids as deemed necessary. In such cases, all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

5.4.7 Submission / Receipt of Tenders:

5.4.7.1 Submission of Tenders:
A suitable clause in the tender document in the Instructions to Bidders (ITB) shall have to be included instructing that all the tenders shall have to be prepared by typing/writing and printing with indelible black ink on white paper in sequentially numbered pages and be in solid binding. Each page of the bid being submitted by the bidder including addendum/ corrigendum is required to be signed by the authorized signatory of the bidder and affixing Bidder’s stamp below the signature. Each bidder shall submit his proposal one in original together with number of copies as specified in the tender document. The duly signed bidder's tender and the documents attached thereto shall be considered as forming part of the contract documents. In case of discrepancy between original and copy, original shall prevail.

5.4.7.2 Order of Precedence in Tender Document:

The order of precedence in the Tender documents shall be as follows:

a) The Contract Agreement
b) Letter of Acceptance
c) Bill of Quantities(if any)
d) Contract Data
e) Scope of work
f) Technical specifications
g) Working drawings
h) Special Conditions of Contract
i) General Conditions of Contract
j) Employer’s requirements
k) Any other documents forming part of the tender documents

5.4.7.3 Mode of Submission of Tenders:

Tender shall be submitted in three SEALED envelopes.

Envelope -1 shall contain Earnest Money Deposit, letter of undertaking & bank draft towards cost of tender document (if downloaded from the website)

Envelope -2 shall contain technical bid and shall comprise of :

Duly filled-in Original copies of EMPLOYER’s Bid documents and Formats prescribed for eligibility, Technical and financial
qualifications and experience, deployment details of technical manpower and equipment etc., activity-wise works execution plans and quality management, drawings and documents sought along with relevant certificates, testimonials, registrations, declarations and any other related information asked for to be submitted with the bid including addendum/ corrigendum (if any.

Envelope – 3 shall contain financial bid comprising of original price schedule document (in case of LSTK/EPC tenders) or Bill of quantities document (in case of item rate/ percentage rate tenders) duly filled and duly signed and stamped.

Each of these sealed envelopes shall be super-scribed in capital letters – Envelope No., title of project, full name and address of the bidder and contents of the envelope.

These THREE envelopes shall be submitted in another sealed cover envelope, super-scribing the tender No…….., name of the work, due date of submission and name and address of the bidder on the cover envelope.

Tender as aforesaid must be submitted as specified in ITB of tender documents at the date, time and address mentioned in the Notice Inviting Tender.

The bidder has the option of sending the tender by registered post/courier or by submitting the tender in person, so as to reach by the date and time indicated in the NIT. Tenders received after the stipulated date and after the stipulated time will not be accepted and summarily rejected.

5.4.7.4 Receipt of Tenders:

The following methods shall be the recognized methods for receipt of tender

- Tenders received by post / courier service
- Tenders received by hand
- Tenders received through tender box.

A locked tender box will be provided at the notified location. Alternatively, a room shall be assigned where all the incoming tenders shall be kept under lock and key when the tenders are bulky in nature. All incoming tenders received by mail i.e. by Regd. Post/speed post/by courier or by hand after recording date, time and receiver's signature on cover shall be deposited in the
box/room. A notice on the notice board indicating the exact location and the name(s) of officer(s) authorized by the Employer/Consultant to receive the offer (if submitted by hand) has to be displayed near the entrance or reception area of the place where tenders are to be submitted. This is to avoid confusion and provide transparency in the tendering process. Bulky tenders which cannot be dropped in the tender box shall be accepted by an officer so nominated / authorized. While taking deliveries of such bulky tenders, the officer who receives the tender will have to sign on the cover duly indicating the date and time of receiving the tender. Such bulky tenders are to be kept in tender room under lock and key. The necessary records are to be maintained in the tender issue/receipt register (refer clause 5.4.8.3).

5.4.7.5 Non Receipt of Tenders or No Response for NIT:

The Tenders where there is no response for NIT or no Receipt of Tender Bids inspite of issuing NIT through all the permissible Media of Information and Communication be treated as No Response for NIT. Suppose a similar result is experienced over one more successive release of NIT, EMPLOYER shall have to restructure / Re-estimate the project before releasing another advertisement. This matter will also be brought to the notice of the Board of Directors. A committee of officers from Engg. & Finance Department may be formed promptly to go into techno-commercial-financial issues which may have caused this ‘No Response’. The committee may also enquire with the purchasers of the Bid Documents the reason for not participating in the bidding. Then suitable measures can be adopted by EMPLOYER on the basis of recommendation of the committee to appropriately recast the tender enquiry (NIT). If the ‘No Response’ continues even for the re-casted NIT, it would not be in the interest of EMPLOYER to pursue such Project in general and in view of its Financial Unviability in particular and appropriate decision may be taken by the EMPLOYER Board to drop/ Abandon such project.

5.4.8 Opening of Tenders:

As a rule, bids to be opened in the presence of bidders/ authorized representatives of the bidders. Unauthorized representatives (or representatives of firms who have not submitted the bid) shall not be allowed to be present during bid opening.

5.4.8.1 The Tender opening shall be performed by a Tender Opening Committee (TOC) consisting of_________________________. Opening of technical and financial bids are to be done by the
same Tender Opening Committee. In case of Major tenders, Competent Authority may add technical & finance experts as deemed suitable keeping in mind complexity of the project. The minutes of the Tender opening shall be finalized and agreed on the same date of the bid opening by the committee members as far as practicable. The TOC recommendations shall be submitted to the competent authority for approval immediately after finance vetting. The primary functions of the TOC will be as under:

- To observe compliance of all procedure related to Bid opening.
- To scrutinize all the important parameters in the Technical offers received in conjunction with the vetted technical comparative statement/appraisal.
- To give recommendations regarding opening of Envelope no. 3 (price/financial bids) after freezing pre-qualifications & technical evaluation.
- To evaluate the priced offers and give recommendations to the competent authority for awarding of work/negotiations if required

Under circumstances where a particular TOC member is to be replaced or substituted, it is mandatory to take approval of the competent authority. If more members are required to be associated, their services may be co-opted at the time of discussion/evaluating tenders upon due authorization of competent Authority.

5.4.8.2 The TOC shall check up the bona-fide of the representatives (i.e. Letter of Authority) of the Contractor’s firms to satisfy that they are the authorized representatives of the quoting bidders. Signatures of the authorized representatives of the firms present during tender opening shall be obtained in the "tender issue/receipt register".

5.4.8.3 On the due date and time of opening, the tender box/room shall be opened in presence of TOC members and Bidders present and then, the sealed cover Envelope shall be opened containing THREE sealed envelopes numbered 1, 2 and 3. TOC shall first open envelope marked “Envelope-1” to ensure that requirements of furnishing of EMD, Letter of Authority and price of the tender documents etc. placed in Envelope-1 are verified with respect to stipulations made in NIT and ITB. The technical offers in Envelope ‘2’ of the bidders whose offers meet the requirement of contents in Envelope ‘1’ as specified in NIT shall then be opened by the TOC.
5.4.8.4 After Evaluating & freezing the technical aspects of the submitted & opened Bids/Tenders, the Price Bid (Contained in Envelope-3) of technically acceptable Tenders shall be opened on a later date in the presence of the Bidders who may like to be present. The time, date and venue for opening of the Price Bid shall be intimated to the Bidders by fax, letter & notifying on EMPLOYER’s Website in due course. During price bid opening, the price and the offer conditions if any shall be read out to the authorized representatives of bidders present.

5.4.8.5 The following information upon opening of the Price bid ( Envelope -3) shall be given to the bidders present during the opening:

   a. Names of all the bidders whose price bid have been opened
   b. Prices, and other price break-up elements
   c. Tender deviation / bidder’s conditions (if any) indicated in the price schedule.

5.4.8.6 A representative from a firm can represent only one firm while witnessing the tender opening. In no circumstances a single person will be allowed to represent more than one firm.

5.4.8.7 At the time of tender opening, each page of the original covering letter/document shall be signed by the tender opening committee (TOC) with date. Insertions, Over-writings or corrections shall also be initialed with date. Number of corrections / overwriting / insertions shall be mentioned on each page of the covering letter / document. In case of no corrections / overwriting / insertions, they are to be recorded as NIL.

5.4.8.8 The receipt and opening of tenders shall be maintained by the TOC in tender Issue-Receipt register. The tender Issue-Receipt register after entry of required data shall need to be signed by the bidders/ their Authorized Representative who are present and the members of TOC. Before opening of Tenders, TOC shall check the status of covers, seal etc., and discrepancy if any shall be noted thereon.

5.4.8.9 The tenders received shall be serially numbered as 1/X, 2/X ......X/X (the denominator indicating the total no. of tenders received and the numerator shall indicate the specific tender serial number)
5.4.8.10 Wherever basic price or rebate/discount, etc. are indicated only in figures and there is any over writing, such figures shall be mentioned in words and duly signed by the TOC. Any columns left blank by the bidders in their quotation shall be crossed out by the tender opening committee and duly signed. All the envelopes shall also be signed and kept in record.

5.4.8.11 The quoted rates in the tenders shall be noted down in the Tender Issue/Receipt Register by the TOC, where number of items are less or options are few. In cases where the number of items are more or where there are options / other factors like taxes and duties, freight and insurance are involved, only consolidated / total (basic cost) as indicated by bidders in their offer shall be indicated in the Tender receipt/ opening Register.

5.5 Tender Scrutiny and Award of Bids/Offer:

5.5.1 Processing and Evaluation of Bids:

The tenders shall be decided in line with Government Guidelines including that of CVC issued from time to time.

5.5.1.1 The following shall be kept in view during scrutiny/evaluation of tender offers duly opened by TOC.

The prices of bidders whose offer is technically suitable and acceptable shall only be opened. The financial bid of other tenderers whose technical bids are not qualified, shall not be opened under any circumstances and the Envelopes containing their financial bids shall be kept unopened in record.

5.5.1.2.1 Procedure in Scrutiny of Rates / Amount in the Item and Percentage Rate Tenders:

If on checks there are differences between the rates given by the contractor in words and figures or in amount worked out by him, the following procedure shall be followed:

5.5.1.2.2 When there is a difference between the rates in figures and in words, the rates which correspond to the amounts worked out by the contractor, shall be taken as correct.
5.5.1.2.3 When the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words, then the rate quoted by the contractor in words shall be taken as correct.

5.5.1.2.4 When the rate quoted by the Contractor in figures and in words tallies but the amount is not worked out correctly, the rates quoted by the contractor shall be taken as correct and not the amount.

5.5.1.2.5 In the case of percentage Rate Tender, the contractors are required to quote their rates both in amount as well as in the percentage below/above the rates entered in the Schedule. In such cases in the event of arithmetical error committed in working out the amount by the contractor, the tendered percentage and not the amount should be taken into account.

5.5.1.3 Absurdly High Rate (AHR) / Absurdly Low Rate (ALR) / Freak Rate Items:

**AHR/ALR Items:** The item rates quoted which vary more than 25% as compared to the estimated rates shall be identified & discussed by TOC with the L-1 Bidder, and if the bidder does not agree to reconsider his offer of AHR/ALR Items following negotiations, these items will be kept under serious watch during execution of work. During execution, the Engineer as well as the Nodal Officer may allow AHR ± 5% quantities stipulated in the agreement.

**Freak Rate Items:** Rates quoted which are more than 100% higher/lower than the estimated rate, shall be considered as freak rate items and shall be identified by the TOC.

The Engineer as well as the Nodal officer shall keep a strict watch over these AHR/ALR/ freak rate items during execution of the work for possible deletion/decrease of the quantity of such items.

5.5.1.4 Technical Evaluation:

Efforts shall be made to bring all the offers at par technically after conducting technical discussions / or seeking
clarification/documents etc., through correspondence before opening of the price bids. For this purpose, the pre-qualified parties shall be asked to withdraw the deviations and submit revised offers if any, after agreeing to the NIT conditions. In cases where parties still insist for technical deviations vis-a-vis NIT conditions which are not in line with the tender documents, offers shall be evaluated on the basis of loading factors indicated, if any in the tender documents. No loading on technical deviations is permissible in case the loading criteria on such technical deviation is not specified in the tender document. The recommendations of TOC, if any, shall then be approved by competent authority after scrutiny and vetting by Technical Advisory Committee (TAC), which shall then be intimated accordingly to all the bidders duly giving them an opportunity to submit revised price bids, if any, to promote transparency.

5.5.1.5 Comparative Statement of Price Bids:

After completion of the techno-commercial scrutiny, the price bids shall be opened and evaluated. The comparative statement shall indicate the item-wise prices, rebates (if any), taxes, duties, packing and forwarding charges, freight & insurance, etc., as applicable for all the accepted bidders. The factors and the method of their application which have been prescribed in the tender documents will be used while working the overall price in the comparative statement. If any additional factor has emerged during technical clarifications meetings, to be adopted for evaluation of the tenders, then in that case an opportunity shall be given to all the bidders to confirm such an additional factor to be considered for evaluation of tenders.

The evaluated prices worked out in the comparative statement for different bidders will be ranked as L1, L2, L3 .........., L1 being the lowest. The estimated price as per the estimate and its percentage variation from the total quoted price worked out as per comparative statement for each bidder will also be recorded in the comparative statement.

5.5.1.6 Analysis / Justification of Rates:

The rates quoted by the lowest bidder (L-1 bidder) for entire scope of work shall be compared with the total estimated rates. Further, the item rates quoted by L-1 bidder shall also be compared with the item wise estimated rates and an attempt shall be made to negotiate the AHR/high freak rates of items with the L-1 bidder in an effort to bring down the quoted rates of such AHR/freak rate items to the lowest tendered rates for that item in the received
offers of the tender compiled in the comparative statement as well as the estimated rates of such item(s).

5.5.1.7 Acceptance of Tenders at market rates with allowable variations.

It is not enough to accept the lowest tender. The tendered rates should also be reasonable considering the market condition and other factors pertaining to particular works. Variations up to plus 5% in amount over the amount worked out at prevalent market rates may be ignored. In case of greater emergency, variation up to plus 10% might be allowed, but in no case, rate higher than 10% should be accepted. The adoption of the following method for assessing the reasonable amount may be followed as per the procedure approved by the Board of Directors, which shall be reviewed by them from time to time and also with due regard to specific nature and factors of difficulties related to work(s) to be awarded.

The reasonable rate of the item will be arrived in case of any changes in rates of key materials like cement, steel, coarse & fine aggregate, and Bitumen as follows:

Reasonable Rate = Rate of item in latest CEA’s SOR + A2

Where A2 will be arrived by adding difference in rates existing in the market and the corresponding item rate in CEA’s SOR.

5.5.1.8 Negotiations by Tender Negotiation Committee:

The EMPLOYER shall have a Committee which is constituted to hold discussions with the lowest bidder in the opening of a tender. This shall be only in cases where the amount quoted is found to be more then the Reasonable Estimated Cost of the Project and when certain clarifications are required from the bidder. The composition of the Negotiation Committee is as follows:-

(a)
(b)
(c)
(d)

In course of discussion between the committee and the bidder, whenever the bidder willingly admits to give a rebate / discount over
his quoted rate; then the bidder is expected to convey his renewed offer or clarifications through letters. All such offers and clarifications conveyed by the bidder through letters are collected as records and later on they shall form part and parcel of the Agreement of Contract between EMPLOYER and the Bidder.

In the tendering process the Committee shall hold discussions with the Lowest Bidder only, when it is observed that the Lowest Quoted Bid (L1) is more than the Estimated Cost of Bid/Tender. Eventually, in cases when it is observed by the Consultant that the Comparative Statement and Evaluation Report on the Financial Bids, there are Abnormally High Rates (AHR) quoted by L1 Bidder for any of the items, then in such cases attempts shall be made by the Committee through discussions for justification and remedy.

5.5.2 Award of Contract:

5.5.2.1 After approval of Bid of the successful bidder by the competent authority, the successful bidder will be formally notified of the award by the order prior to expiration of validity period. The letter called “WORK ORDER / LETTER OF ACCEPTANCE” will state the sum (contract price) that the Employer will pay to the contractor in consideration of the execution/completion of works by the contractor subject to furnishing of a performance security by stipulated date (period stated in the ITB). The letter of Intent/Work order will be sent to the contractor by FAX/Telex duly confirmed by Registered Letter.

5.5.2.2 Also, a formal contract agreement duly signed between the Employer and the successful bidder (Contractor) will be entered into, incorporating all documents which will constitute the contract.

CHAPTER – III

6.0 POST AWARD MONITORING OF CONTRACT & EXECUTION OF WORKS:
6.1 Post Award Changes Of Contracts:

6.1.1 After conclusion of the contract, any relaxation in the contract terms/specifications shall be severely discouraged. However in exceptional cases where the modification/amendment are considered absolutely essential, the same shall be allowed only after taking into account the financial implications.
There shall not be any alteration in the specified scope of work without prior approval of the competent authority in respect of works already awarded. Similarly no additional/extra items beyond those specified in the work order shall normally be got executed against the already awarded works without prior approval of the Competent authority.

6.1.2 As per the Terms & Conditions of the Contract, the Contractors are entitled for payment of work actually done at site for the quantities laid down in BOQ. And for additional works involving items defined below as Extra/ Substituted and deviated items beyond those specified in the work order already awarded, the same may be put up with the Technical Advisory Committee and the decision and proposal of the TAC would be the final after taking due approval of the Board of Directors.

(i) “Extra items of Works” are items that are completely new, and are in addition to the items contained in the contract.
(ii) “Substituted Items” are items that are taken up with partial modification or in lieu of items of Works in the contract.
(iii) “Deviated items of Works” means deviation in quantities of items, i.e. where there is increase or decrease in the quantities of items of work in the agreement.

6.1.2.1 Ordinary running payments shall be made monthly as per terms of contract, but payment may not be made if the amount the running bill is less than half the average monthly value of contract (i.e. contract value divided by stipulated period of completion in months)

6.1.3 It is laid down in the Contract that variation permitted should be ± 25% in quantity of each individual item, and ± 10% of the total contract price. Within 14 days of the date of instruction for executing varied work, extra work or substitution or deviated work, and before the commencement of such work, notice shall be given either (a) by the contractor to the employer of his intention to claim extra payment or a varied rate or price, or (b) by the employer to the contractor of his intention to vary a rate or price.

6.1.4 For items not existing in the Bill of Quantities or substitutions to items in the Bill of Quantities, rates payable should be as specified in the tender clause, otherwise it should be determined by methods given below and in the order given below:

(i) Rates and prices in Contract, if applicable;
(ii) Rates and prices in the Schedule of Rates applicable to the Contract ± tendered percentage, where appropriate;
(iii) Market rates of materials and labor, plus 10% for overheads and Profits of contractor;
(iv) Escalation to be paid as admissible.

6.1.5 PAYMENTS TO BE DONE FOR EXTRA ITEMS, SUBSTITUED ITEMS AND DEVIATED ITEMS

6.1.5.1 EXTRA ITEMS

Extra items of work are items which are completely new and in addition to the items in contract. If it is not possible to completely avoid extra items during execution of works, the Consultants shall order extra items. Such extra items should be ordered only with prior approval of the Managing Director. The contract agreement provides the method for fixation of rates for extra items. The contractor shall be paid at 75% of the rates if the rates are derived based on relevant Schedule of Rates (SOR) or from the quoted rates, and at 50% of the rates if the rates are derived based on the market rates with the approval of the Managing Director, pending recommendations of the TAC and the approval of the Board. And if the rates are based on relevant SOR or from the quoted rates or derived based on market rates with the approval of the Managing Director and after the recommendations of the TAC then 90% of the rates derived are applicable, pending the approval of the Board.

6.1.5.2 SUBSTITUED ITEMS

Substituted items are items, which are taken up in lieu of those already provided in the contract. Depending on the exigency of work, the Consultants are to order substituted items in some cases. The substituted items should be ordered only with the prior approval of the Managing Director. The contract agreement provides the method for fixation of rates for substituted items. The contractor shall be paid at 75% of the rates if the rates are derived based on relevant Schedule of Rates (SOR) or from the quoted rates, and at 50% of the rates if the rates are derived based on the market rates with the approval of the Managing Director, pending recommendations of the TAC and the approval of the Board. And if the rates are based on relevant SOR or from the quoted rates or derived based on market rates with the approval of the Managing Director and after the recommendations of the TAC then 90% of the rates derived are applicable, pending the approval of the Board.

6.1.5.3 DEVIATED ITEMS

When there is increase or decrease in quantities of items of work in the contract agreement, then those items shall be called deviated items. If during the execution, the quantities of various items are
bound to deviate to a certain extent from the quantities specified in the contract agreement, as it may not be practically possible to prepare an estimate cent percent correct. Irrespective of the agreement rates, whether non AHR or AHR (Abnormally High Rates) the Contractor shall be paid at 100% of the agreement rates with the approval of the Managing Direction, pending recommendations of the TAC and the approval of the Board then the payment shall be made upto 50% excess in each item and overall amount of the work should not exceed the contract price (tendered amount). The Contractor shall be paid 100% of the agreement rates with the approval of the Managing Director and the recommendations of the TAC pending the approval of the Board then the payment shall be made upto 90% excess in each item and overall amount of the work done should not exceed the contract price (tendered amount).

6.1.6 Escalation clause has been provided as one of the core condition of the contract (refer clause 5.3.1). This shall be applicable in contracts where the stipulated period for completion is more than 18 months (CPWD in its Works Manual-2007 has provided this stipulation for granting escalation for contracts where completion schedule is more than 18 months). This clause provides for variation in contract amount due to variations in price of Cement, Steel & other key materials, POL and/or wages of labour required for execution of work. Such escalation payment shall be applicable for work during the stipulated period of the contract including the justified period extended as laid down in “Clause _______”.

In addition, any increase/ decrease in cost caused as a direct result of coming into force of any fresh law or statutory rule or order, the Contractor may seek claim for such escalation in accordance with statutory changes, provided such increase or decrease becomes operative with in the stipulated date of completion. Increase in cost in such cases shall be allowed in all contracts.

Prior approval of the Board of Directors shall have to be obtained to make payments to the Contractors based on recommendation of the Technical Advisory Committee and a formal change order shall be issued to the Contractor covering amendments related to Cost and Time(if any).

6.1.7 Rescinding of Contract:

To make the contract equitable, an option for Rescinding of Contract should be adopted. If the progress of the contractor is not satisfactory or if there has been any serious breach of terms and conditions of the contract, the contract can be rescinded and the contractor may be
asked to vacate the site. The formal notice to the contractor may be issued by the Managing Director after obtaining the approval of the Board of Directors. (Refer cl. ______________).

6.2 Construction Progress Monitoring

The Engineer shall review the progress of work each month with all the concerned disciplines of the contractor. The factors affecting the progress shall be identified and discussed and remedial measures taken, wherever required. Detailed minutes of these meetings shall be issued. For Major & Mega projects, in addition to the monthly review, the EMPLOYER or Employer shall, in a similar manner, specifically review in detail the progress of the work just before the stages of 1/8th completion, 3/8th completion, 3/4th completion and also about a month before completion of the stipulated contract period. These physical milestones should be specified in the NIT and the detailed review may be carried out on the dates specified for such milestones.

6.2.1 Measurement Book

The measurement book is the basis of all accounts of quantities of works done by Contractors. It should be so written that the transactions are readily traceable. The Consultant shall therefore ensure that the measurement books are well maintained, carefully and accurately as these may have to be produced as evidence in a Court of law, if and when required. The signature of the Contractor or his authorized representative should be obtained in the measurement books and also level books. In case of leveling operations and earth work, measurements are required to be recorded in level books at the site / field. The Consultant shall obtain the contractor’s signature for levels taken initially and the final levels on completion of the relevant item(s) of work. All levels and measurements are recorded by writing in the level and measurement books. Based on the data from level and measurement book, the Consultant may transfer the readings in the formats of computers (like Excel) in order to assess the quantities, based on recorded levels and measurements.

6.2.2 Level Book Records done on Total Station – When the Software and Computer compatible instruments of measurements and surveying like Total Station are used to record the initial and final level of any item. The measurements/records done by the Representative or Engineer / Surveyor of Contractor and Consultant should be cross checked and certified by the Nodal Officer (Assistant Manager)
of EMPLOYER. The records entered in the memory card of the Total Station, should be downloaded on to a Computer Data File and the print out of the records are to be generated. The print out of the records should be signed by the Representative of the Contractor, Consultant and Nodal Officer of EMPLOYER in charge of the project. This computerized print out bearing the initial records and final records which are authenticated with the signatures of all the persons mentioned above becomes the valid Official Measurement Document to be used for the purpose of deriving the genuine quantities. This document can also be produced as evidence in the Court of Law as and when required.

6.3 Information System for Project Progress Monitoring:

6.3.1 Designing of Information Systems

The success of timely implementation of projects depends on the availability of essential information at appropriate time to appropriate authority. Normally, the information needed at different levels would depend on the hierarchical structure of Employer. In EMPLOYER, there are three distinct levels, viz., the top corporate level i.e. BOD/MD’s level, executive management level i.e. the CGM/GMs level and the functional/operating management level i.e. Nodal officer. The information needs of all these three levels are not the same. Therefore, the information system has to be designed in such a way that the functional needs of all these three levels are adequately taken care of.

In a project, the information reports are basically used for project Time & Cost monitoring and control with the idea to ensure that the projects are executed as per schedule and within estimated cost. For most of the Power projects in the Country, the social cost of delay can be of a very high order and, therefore, the need for timely completion of the projects is of paramount importance.

6.3.2 Project Implementation/Monitoring System

The project information/monitoring system has the following objectives:

- Record and report relevant information and the status of various components of the project in such a manner as to bring the most critical activities directly to the attention of concerned authorities at appropriate functional level.
- Highlight deviations from the plan, if any, in respect of every component of the project and also to indicate the effects of such deviations on the overall status and completion of the project as a whole.
- Form the basis of revision of project schedule wherever necessary.
- To identify and report on critical areas which are relevant to different levels of management and to highlight the corrective action that needs to be taken.
- To sift the information and report on an exception basis. In other words, emphasis is concentrated on those activities that are not going according to plan.
- To provide a basis for prompt decision making by taking formal guidance of Technical Advisory Committee (TAC).
- To provide a basis for formulating future policy and plans/budgets/schedules. This shall be done by Consultant by preparing a draft Works Close Out Report which shall be commented by nodal Officer and reviewed by TAC. Such analysis and recommendations should be duly considered while revising the Works Manual.

6.3.3 In designing project information and monitoring system, the following have to be spelt out clearly for PMC to comply:

- The objective of each format or report in brief
- The distribution chart
- The periodicity of the reports
- The timing of the reports
- The sources from which information are to be gathered in preparation of reports.

6.4 Cost and Expenditure Reporting

It may be appreciated that the purpose of accurate and detailed cost reporting is to provide early warning of dangerous trends, giving sufficient time for corrective action. Corrective action will consist of vigorous progress control and meeting of contractual commitments by Employer, PMC and Contractor. Cost and expenditure reporting can be done in a standard format as under:

- Original approved estimate
- Authorized changes through change order
- Current control estimate: It is the sum total of original approved estimate and authorized changes
- Current forecast: It is the sum total of commitments made as on the date of report and the estimated cost of the balance items yet to be committed
- Overall variance: This will show the over/under runs in the anticipated completion cost of the project as compared to the provisions made in the approved cost estimate.
- Commitments: Planned/Actuals/Earned
- Balance to go: The estimated cost of the balance commitments to be made shall be shown here.
- Expenditure to date: The actual payments made upto the date of status report shall be indicated under this column.

Project Cost Reports should be generated at least once in a quarter. The objective of the report is to give an early indication of cost overrun to the CGM/GM/Nodal Officer for taking timely action.

6.5 Supplementary Agreement in special cases

In certain special cases where it is not desirable to keep the complete Contract open for certain minor items/ equipments, installation/execution/commissioning of which is not immediately possible on account of certain pre-requisites which are not the responsibility of the contractor, the main contract may be finalized and the residual work may be got done through the SAME contractor by execution of supplementary agreement by taking into the guidelines of draft laid in Appendix-26 of CPWD Works Manual - 2007, provided the proposed foreclosure of the contract is approved by the Board of Directors duly appraised and recommended by TAC. The bill in relation to the work already done by the contractor against the Original agreement should be provisionally finalized by calling the final bill as “PROVISIONAL FINAL”. As per condition of supplementary agreement, the final bill relating to the entire work under the two agreements i.e. original and supplementary agreement shall be prepared after completion of the entire work, calling it as “FINAL BILL”.

7.0 QUALITY ASSURANCE OF WORKS:

7.1 Need of Quality Assurance:

Quality could be defined as “the totality of features and characteristics of a product or service that bear on its ability to satisfy a given need”, (BS 4778). It is essential for the PMC and The Nodal Officer to inculcate a feeling in every member of the PMC and the Contractor involved in project implementation that quality is the responsibility of everyone and it embraces all activities and functions related to the project.
Quality can be achieved only by:

- Working in a systematic well disciplined manner, and
- Adhering to formalized procedures which are designed to eliminate the occurrence of deficiencies.

The application of quality assurance concepts aims that all activities and functions are carried out in a systematic manner, so that they are right first time. This will obviously promote efficiency, improve productivity and reduce costs.

7.2 Quality Appraisal System

7.2.1 Quality Manual

EMPLOYER shall soon have a Quality Manual which shall set out the general quality policies, procedures and practices of EMPLOYER. It may not contain detailed procedures, which could be made available at their point of use by PMC. Quality Manual sets out the corporations intentions which would typically include, as a minimum,

- Policy statement
- Authority and responsibilities
- Organization
- Procedure outlines
- List of procedures

A Quality Manual is the Document which provides a prospective client an insight of Employer’s approach to quality.

7.2.2 Quality Procedures:

Quality procedure is a documented set of activities serving to implement the quality systems of EMPLOYER. The real intentions of quality confirmed and achieved during the design, procurement, site construction and commissioning, consists of:

Procedures: The documents which detail the purpose and scope of activities and specify how they are to be properly carried out

Documentation: Derived from recording the results of tests or activities

Certification: Resulting from documentation; this states that an item or service conforms to requirements.
Project quality requirements should be established by the employer/consultant and imposed upon main contractors who will each, in turn, develop a Quality plan in accordance with their scope of work.

The quality procedures must cover all activities and functions of a project and how it is to be carried out properly. These procedures could be prepared only by personnel intimately familiar with the particular activity. If the staff in the quality assurance department are not conversant with the activities, they should not be called upon to write the procedures.

7.3 Quality Assurance (QA) In Projects:

The concept of Q.A. could be depicted as an umbrella for protection against problems. Within the umbrella, are the various Q.A. standards which assist in establishing quality programmes. Each of these five elements beneath the umbrella needs procedures to cover all of their activities and functions. These are:

- Design QA
- Procurement and Vendor QA
- Site Material QA
- Construction QA
- Commissioning QA

Each of these is discussed in the following paragraphs.

7.3.1 Design QA:

The design has to be right before the specification can be framed for placement of order on the manufacturer/supplier. It is, therefore, desirable to develop a Q.A. design control plan which meets the needs of the contractual scope of work. The most important design controls are:

7.3.1.1 Contract Review:

Work scope, specifications, design criteria, regulatory requirements, etc., are available and clearly understood by all concerned.

7.3.1.2 Document Preparation:

Proper Q.A. standards for document identification, approval and distribution should be framed.
7.3.1.3 Engineering Discipline Check:

Design check is carried out to verify the content and accuracy of a document originating from a single engineering discipline. The checking engineer should not be the same person who carried out the original work.

7.3.1.4 Inter-discipline Check:

Checks not only the accuracy and contents of a document, but also assures compatibility between all the design disciplines (Civil, Structural, Architect, Electrical, Mechanical etc.) involved.

7.3.1.5 Change Control:

Q.A. standards generally treat this activity lightly. Many of the project problems arise through the lack of change control, with changes being made to a design without reference to the original design source. All changes must be documented and they must be subjected to consideration and review in the same systematic manner as the original documents.

7.3.1.6 External Design Review:

These reviews amount to a detailed design audit, verifying such items as design adequacy, adherence to contract and the account taken of studies. The timings of these reviews should be specified in the project schedule so that they should not come as surprise to anyone.

7.3.1.7 Audit & Corrective Action:

The function of design control is to ensure that the eventual design meets the requirements of the project and the regulatory agencies.

7.3.2 Procurement and Suppliers/ Vendors QA:

The activities considered being the most significant in controlling procurement of Items/Equipment and their Suppliers/vendors are:

7.3.2.1 Inspection & Test Plan:

It will identify all inspection check points relevant to the criticality of the equipment. It will also identify requirements for non-destructive testing, acceptance testing, certification and documentation. It is
basically a schedule of inspection points which the design engineer would expect the potential supplier to include in his own controls. It will also identify mandatory hold points, beyond which the supplier cannot proceed unless cleared by the consultant.

7.3.2.2 Supplier/ Vendor Assessment:

Make sure whether the intended supplier/ Vendor have an effective quality programme which operates well in practice with full management support?

7.3.2.3 Pre-Award Verification:

Engineer will verify the supplier’s intended compliance with the intended ordering and will also take into account quality programme deficiencies observed when the supplier/ vendor was assessed.

7.3.2.4 Post Award Meeting:

Among the scheduled dates proposed in the tender documents and firmed up in the issued control should be the date by which the supplier is expected to present the Employer/Engineer with his quality plan. An audit programme should be worked out together with inspection hold points, certification and other documentation requirements, and the test programme.

Quality control activity should be reviewed with the supplier who should be made responsible for the quality of the material and or services which he has sub-contracted to sub-vendors.

7.3.3 Site Materials QA:

The Resident Engineer at site must ensure that there are satisfactory arrangements for the following:

- Examination of the material upon receipt to check quantities, identities and to detect any damage caused during transit. Periodic inspection during storage to detect any sign of deterioration; to check on any out-dating risk where storage time exceeds recommended shelf-life, to ensure the maintenance deterioration material.
- Compliance with any contractual requirement for re-inspection
- Appropriate identification and safeguarding of material to prevent un-authorized use or improper disposal. Procedures should exist which define the manner in which any
shortages, damage or other factors rendering the material unfit for use are reported to the Nodal Officer.

7.3.4 Quality Control of Installation

The Quality of special processes for construction cannot usually be verified by subsequent inspection and testing of the process material. Among the processes that can be classified as special are: concrete mixing, welding, casting, heat treatment, etc. It will, therefore, be necessary to establish full conformance by evidence obtained during the process. This is achievable by:

Establishing documented procedures to ensure that such special processes have been carried out under controlled conditions by qualified personnel using calibrated equipment in accordance with applicable codes, specifications, standards, regulatory requirements, etc.

Maintaining current records of qualified personnel, equipment, processes, etc., in accordance with the requirements of the applicable codes and standards; and defining the necessary qualifications of personnel, equipment, processes, etc. not covered by existing codes or standards or when contractual clauses define stricter requirements than those already established.

Of the various aspects of site activities to be quality controlled, the most significant is the quality control of the site welding. There has to be detailed preparation for this, with the drawing up of the welding procedures, the testing and certification of the welders, the non-destructive testing of the work as it is done in accordance with the relevant specifications. All these require meticulous supervision.

7.3.5 Commissioning QA:

The supporting documentation for all the activities is the most significant item for avoiding any delays at the commission stage. The methods for determining documentation/certification requirement should be established at the project startup. The documentation which causes most problems is that related to testing and inspection of materials. It is considered of great importance to identify which material requires certification and then to verify that such certification is made available at the right time and in the correct form. Verification can be undertaken by the
Quality Assurance is defined as all activities and functions concerned with the attainment of quality. What a quality assurance scheme should give, if well implemented and totally supported, is confidence to the Engineer and the Nodal Officer that all activities and functions are right first time. This confidence can be achieved only by the cooperation of all concerned. This co-operation, together with communication, must inevitably lead to capability. The quality Assurance can be summed up, therefore, by four actions - communication plus cooperation leading to capability which results in confidence that the FITNESS FOR PURPOSE has been achieved in the most efficient manner.

7.4 Acceptance of sub-standard work

In general, sub-standard works should not be allowed to occur, as they reflect poorly on the professional competence of the field staff and adversely affect the image of the organization. Acceptance of work below specifications and resulting payment at reduced rates for such defective and deficient works should be resorted to only for those items where it is structurally impossible to get the work re-done after obtaining the clearance from TAC and thereafter approval from the Board of Directors for acceptance of the sub standard works. The Engineer (Consultant) should obtain letter of consent from the contractor for acceptance of Payment terms at reduced rates approved by the Board. The needful guidelines may be followed in this regard as per Section-30 of CPWD Works Manual 2007.

8.0 DISPUTE RESOLUTION MECHANISM:

8.1 Dispute Redressal System:

If any dispute or difference of any kind what-so-ever arises in connection with or arising out of a Contract or the execution of Works or maintenance of the Works there under, whether before its commencement or during the progress of Works or after the termination, abandonment or breach of the Contract, it shall, in the first instance, be referred for settlement to the competent authority, described along with their powers in the Contract, above the rank of the Nodal Officer. The competent authority shall, within a period of forty five days after being requested in writing by the Contractor to do so, convey his decision to the Contractor. Such decision
in respect of every matter so referred shall, subject to review as hereinafter provided, be final and binding upon the Contractor. In case the Works is already in progress, the Contractor shall proceed with the execution of the Works, including maintenance thereof, pending receipt of the decision of the competent authority as aforesaid, with all due diligence.

8.2 Disagreement Between the Parties to the Contract

If there is any disagreement by the Contractor upon such decision of the competent authority, the matter in dispute shall in the first place be submitted to conciliation. The Procedure outlined in the Arbitration and Conciliation Act, 1996 shall be followed (also refer Clause 8.3).

8.3 Conciliation

a) The Conciliator shall be appointed jointly by EMPLOYER and the Contractor to resolve the dispute.

b) The Conciliator may be picked up from empanelled techno-legal experts of any Institutional Arbitral Agency such as Construction Industry Arbitration Council (CIAC) which is a body formed by CIDC (Construction Industry Development Council).

c) The Contractor and the EMPLOYER will be entitled to present their case in writing to the conciliator in writing duly supported by documents. If so requested by either party, the Conciliator may allow one opportunity to the Contractor and EMPLOYER for oral arguments for a specified period.

d) The conciliator shall give a decision in writing within 28 days of receipt of a notification of a dispute. When it appears to the Conciliator that there exists elements of a settlement which may be acceptable to the parties, he shall submit them to parties for their observation and agreement. He may reformulate the terms of a possible settlement in the light of their observations, if any.

e) If the parties reach agreement of the dispute, they may draw up and sign a written settlement agreement. They may request the Conciliator to draw up or assist them in drawing up the settlement agreement.
f) The settlement agreement shall have the same status and effect as if it is an arbitral award on agreed terms similar to the substance of the dispute rendered by an arbitral tribunal under section 30 of The Arbitration and Conciliation Act, 1996.

g) The conciliator shall be paid at the rates specified in the Contract together with reimbursable expenses of the types specified in the Contract and the cost shall be equally shared between EMPLOYER and the Contractor, whatever decision is reached by the Conciliator.

h) If a settlement does not appear possible, the Conciliator shall communicate his decision in writing about the dispute after consultation with the parties, and shall also give a written declaration that further efforts at Conciliation are no longer justified and the Conciliation Proceedings are terminated.

j) When the Conciliation Proceedings have become infructuous or have been terminated, the party, which initiated the Conciliation, shall refer the matter of dispute for review by forwarding an appeal to the Dispute Review Board as hereinafter provided in case of contracts valuing up to Rs. One Hundred crores (Minor Works), however in case of Contracts valuing above Rs. One hundred crores, the matter of Dispute shall be referred for Arbitration. The reference to Dispute Review Board or the Arbitration, as the case may be, shall be made preferably within 28 days of the termination of the Conciliation Proceedings.

Replacement of Conciliator.

k) Should the Conciliator resign or die, or should EMPLOYER and the Contractor agree that the Conciliator is not fulfilling his functions in accordance with the provisions of the Contract, a new Conciliator shall be appointed by the Appointing Authorities designated in the Contract within 14 days of receipt of such request.

8.4 DISPUTE REVIEW BOARD

The composition of the Dispute Review Board (DRB) will be:

(i) One official member, Chairman of the Dispute Review Board, not below the rank of additional secretary to the State government;
(ii) One official member from EMPLOYER not below the rank of General Manager;

And

(iii) One non-official member who will be technical expert of GM’s level selected by the Contractor from a panel of three persons given to him by the chairman of DRB or CIAC.

8.4.1 The Contractor and the Employer will be entitled to present their case in writing duly supported by documents. If so requested, the Dispute Review Board may allow one opportunity to the Contractor and the Employer for oral arguments for a specified period. The decision of the Dispute Review Board will be binding on the Employer and the Contractor in respect of disputes and it will also be binding on the Employer for payment of claims up to five percent of the initial contract price. The Contractor can accept and receive payment after signing as “in full and Final settlement of all claims”. Accepted and deemed accepted Recommendations shall be final and binding on the parties and there will be no further arbitration for the settlement of the dispute between the parties.

8.4.2 Any dispute on which the Board has not issued a Recommendation within 42 days of its final hearing on the dispute may be referred in writing by either party to arbitration in accordance with this Clause, by written notice to the other party with copies to the Dispute Review Board and to the Nodal Officer. Such notice shall state that it is being made pursuant to this Clause and shall establish the entitlement of the party to commence arbitration provided that no arbitration may be commenced until such notice is given. Such reference shall be made within 14 days of the day on which said period of 42 days expired, failing which reference of any recommendation(s) previously rejected or not accepted shall be deemed accepted despite such previous rejection or non-acceptance and shall be final and binding upon the parties.

8.4.3 Conciliation Proceedings having become infructuous in matter related to Disputes on Contract valuing above Rs. One hundred crores or upon having been terminated, the party, which initiated the Conciliation, shall refer the disputes for Arbitration. The reference to Arbitration should be made preferably within 28 days of the
8.5 Arbitration.

Any dispute in respect of contracts where party is dissatisfied by the Conciliator’s decision and delayed decision of Dispute Review Board, shall be decided by arbitration as set forth below:

(i) A dispute with Contractor shall be finally settled by arbitration in accordance with the Indian Arbitration and Conciliation Act, 1996, or any statutory amendment thereof. The matter shall be referred for Institutional Arbitration to Construction Industry Arbitration Council (CIAC) and the Arbitral Tribunal shall be constituted as per the rules of CIAC.

(ii) For Contracts costing upto Rs. 100 crores, a Sole Arbitrator should be appointed. For Contracts costing over Rs. One hundred crores, a Committee of Arbitrators should be appointed composed of one Arbitrator to be nominated by the Contractor, one to be nominated by EMPLOYER and the third Arbitrator, who will act as a Chairman but not as umpire, to be chosen jointly by the two nominees. These Arbitrators may be picked up from the empanelled techno-legal experts of CIAC. The decision of majority of Arbitrators shall be final and binding on both parties.

(iii) Neither party shall be limited in the proceedings before such arbitrators to the evidence or arguments already put before the Competent Authority or the Conciliator or the Dispute Review Board, as the case may be, for the purpose of obtaining said recommendations/decision. No such recommendations/decision shall disqualify the Competent Authority or his nominee or any of the members of the Board, as the case may be, from being called as a witness and giving evidence before the arbitrators or any matter whatsoever relevant to the dispute.

(iv) The reference to arbitration shall proceed notwithstanding that the works shall not then be or be alleged to be complete, provided always that the obligations of the Employer, his Nodal Officer/
Engineer and the Contractor shall not be altered by reason of the arbitration being conducted during the progress of the works. Neither party shall be entitled to suspend the works to which the dispute relates, and payment to the Contractor shall be continued to be made as provided in the contract.

(v) Arbitration proceedings shall be held at ……………………………., and the language of the arbitration proceedings and that of all documents and communications between the parties shall be ‘English’.

(vi) The Arbitration shall be conducted by the experts from the panel of CIAC.

(vii) All arbitration awards shall be in writing and shall state the reasons for the award.

8.6 Settlement of Disputes between EMPLOYER and The Consultant:

In case of disputes between the EMPLOYER and the Consultant the resolution of the dispute will be done as per the following:

Any dispute between the Parties as to matters arising pursuant to the Consultancy Contract which cannot be settled within Forty five (45) days by the Competent Authority after receipt of Consultant’s request for an amicable settlement, shall be settled through approaching Dispute Review Board (DRB) and the decision of DRB shall be final and binding on both Parties.

9.0 HANDING OVER OF WORKS TO CLIENT:

9.1 Planning For Handing Over:

The total scale of efforts involved in handing over a project after completion to the Client is substantial and may take many months and therefore, it should be adequately catered for in the schedule of the project.
9.2 Walk Down Checks:

Preparatory to commencement of Handing over operations, a “Walk Down” check may be carried out in the following areas to eliminate potential safety hazards:

- Areas of work left out if any in the project completion
- Adequacy of lighting arrangements
- Cleanliness of the area of operations
- Safety of approaches to working areas at essential locations

A check list should be prepared based on the logistics of the Operational systems at site indicating:

- Safety provisions
- Basic infrastructure and temporary arrangements required for preparatory activities before Handing over.

9.3 Preparatory Activities:

An illustrative list of preparatory activities is outlined below:

- Checking of works as per drawings
- Physical verification of process lines
- Starting of Utilities (electricity, water, Drainage/Sewerage, Storm water drainage etc.)
- Flushing, cleaning and testing of lines including leak checking
- Electrical systems check
- Calibration & loop checking of the instruments
- Overload Testing and Performance testing of rotary equipments

9.3.1 Checking of work as per drawings:

Each and every component of the project should be checked with respect to general arrangement drawings. All the deviations should be listed out and given to the contractor for rectification. After all the checks, a certificate may be issued by the Resident Engineer.

9.3.2 Final Physical Verification

After Contractor reports compliance, Physical verification may be undertaken by a joint team of Engineers of EMPLOYER and Client.
Any deviations in the executed work with respect to approved drawings should be recorded and given to contractor for rectification. The same team shall again inspect the site after due compliance by all concerned.

9.4 Statutory Clearances

Before Handing over, the Resident Engineer should also ensure that all applicable approvals/NOCs have been taken from the concerned Government agencies, such as:

- Approval from Electrical Inspectorate for electrical installation
- Approval from Factory Inspectorate. It is generally given by the State Industries Department
- IBR approval for steam generating equipment/boiler, if any. This permission is required under Indian Boiler Regulation Act and is also given by the State Industries Department
- Inspectorate of explosives
- State pollution control board

9.5 Commissioning :

In Cases of execution of project of complex nature where lot of mechanical and electrical equipments are installed for plant operation, in order to ensure the successful commissioning programme and subsequent running of the plant to the required performance standards, it is necessary that the following essentials are taken care of:

9.5.1 Operating Manual:

This is normally prepared by the Equipment Manufacturer/Licensor and must be available at least half a year before the start-up.

9.5.2 Maintenance Manual:

A typical Maintenance Manual, compiled discipline wise (i.e. Mechanical/Electrical equipment, rotary equipment, Instruments, Laboratory, Work Shop etc.) contains:

- Purchase specifications, vendor reference
- Equipment catalogues with drawing, parts list, instructions for start-up/shut-down/over-hauling/lubrication etc.
- Performance curves, test curves for rotary equipment
- Vessels/Exchanger drawings with design data, Piping list etc.
  with design conditions, test conditions, insulation thickness etc.

9.5.3 Other Manuals:

- Statutory codes and practices
- Safety Manual with work permits & work procedures
- Fire Fighting Manual Including Disaster Plan

9.5.4 Other Requirements:

A well laid out main store/Unit stores with easy access to spares, consumables required during re-commissioning / commissioning and appropriate shop facilities for emergency repairs, Log sheets etc. for documentation.

9.5.5 Safety Integrity Check:

Such a check is generally carried out by Expert or Proof Consultant as soon as the construction activity is completed. The basic idea behind this check is to ensure that the safety systems are in conformity with safety philosophy adopted for the plant and that all safety devices work in proper sequence for overall safety of the plant, personnel and environment.

9.5.6 Safety Audit:

Generally a preliminary safety audit is carried out when the plant is about 80% complete. This is followed by detailed audit when the plant is a few weeks away from the startup.

9.5.7 Commissioning and Start Up:

9.5.7.1 Resources required for Commissioning:

The commissioning activities of the plant commence after successful completion of the pre-commissioning of various sub systems. Preparation for the startup includes the following activities:
Deployment of operation and maintenance staff for the plant. Each staff should know his duties precisely
- Setting up of quality control laboratory
- Availability of various chemicals, lubricants, etc
- Availability of operating and maintenance manuals
- Availability of vendors, service-engineers and commissioning experts from foreign collaborators, if any
- Preparation of check list based on the logistics of the commissioning sequence

9.5.7.2 Pre-Operational Expenses
Pre-operational expenses are the startup and commissioning expenses in the operations area of project development prior to producing a product. These may amount to some 2% of the capital cost estimate, and sometimes much more. Pre-operational expenses are going to be incurred sometime a year before the startup.

Pre-Operational expenses mainly comprise of:
- Training expenses of operating and maintenance personnel
- Salaries and wages for supervision during startup
- Minimum raw material required during the startup period, including an allowance for spoilage or for off grade material, before the plant is considered operational.
- Miscellaneous materials and supplies.
- Expenses on utilities.
- Interest on loan during construction period.
- Expenses relating to legal documentation etc.
- Other financial charges.

Then, there are items such as the initial filling of lubricating and hydraulic oils, all required in some volume before the plant can be started up. In view of their relatively short life, such items should also form part of pre-operational expenses and should be catered for.

9.5.7.3 Startup:

Some of the major activities included in commissioning and startup of the trial run are:
- Run-in tests on Turbines, Generators, compressors, blowers and pumps with normal fluid;
- Cleaning and charging of lubricants in various systems;
9.5.7.4 Coordination and Control: All activities should be planned according to the commissioning schedule. The commissioning should indicate the activities, their sequences and other restrictions or special requirements, if any.

9.6 Guarantee Test and Acceptance

The guarantee test of plant should be conducted after sustained load test as laid down by Proof/Expert Consultant. The guarantee test run is carried out for proving the following performance tests, as laid down in the contract:

- Power Generating capacity of the plant;
- Works cost: consumption of raw materials and utilities per KW of POWER GENERATION;
- Quantity and quality of effluent (liquid, gaseous, etc.) from the plant;
- Adequacy of common facilities, etc.

The details of procedures to be followed for conducting the performance test should be developed by the consultant and have the approval of the Employer. The following should generally be included:

- Duration (No. of Hours) of continuous running for calculation of works cost, etc.
- Record should be maintained of the performance test in separate log sheets/log books and other agreed forms. These should be made available before the start of the run.
- Acceptance criteria

The plant has not only to be brought up to full Generating Capacity, but it has also to be kept running at peak on-stream efficiency.

9.7 Fixing the Date of Handing Over to Client:

9.7.1 Fixing The Date Of Handing Over:
In any project having a long period of construction, selection of a cut-off date based on the date when the project is officially recognized as being ready for handing over to client has to be specific. This is necessary to decide the treatment of expenses incurred during trial runs and guarantee Tests performance.

9.7.2 Completion Report and Handing Over:

When the work has been completely executed, the Client should be informed about the completion of the same and the formal handing over should be arranged in writing. Reasonable advance information of completion of the works should be given to the concerned Client to enable him to make arrangement for taking over. If there is delay or lack of seriousness on the part of the Client to take over the work, The Engineer/Employer will notify to the Client’s Ministry in writing that the works has been completed. Such formal notification shall constitute the handing over of the work to Client for whom the work was carried out. However, various records / registers shall be maintained as per Annexure -

9.7.3 Handing Over of Documents:

At the time of vacating the site after handing over the project to the client’s officer-in-charge, the Engineer shall ensure handing over of all records including bill documents, registers, sanction files, tender files, Dispute/Arbitration files, Audit Files or any other records to the Nodal Officer of EMPLOYER.

9.8 Record Keeping:

Records Keeping Cell of EMPLOYER:

Record Keeping Cell shall facilitate proper stacking of records pertaining to the completed works. The records should be preserved in such a manner that the same can be retrieved whenever required.

In order to manage the record keeping room, a qualified professional like Assistant Librarian / Record Keeper shall be deployed by the Management.

9.9 Unsuccessful Bids:
All records related to unsuccessful bids may be kept for minimum of 3 years unless / otherwise required for further period which may be approved by the Board of Directors.

9.10 Decision Making in abnormal circumstances:

In case of any abnormal situation not defined/not known/not covered in this manual, then in all such cases the Managing Director shall consider related issues and submit recommendations for the approval of the Board of Directors.

10.0 FINANCIAL MANAGEMENT OF WORKS:

10.1 Functions of Finance and Accounts Department:

The functions of the Finance and Accounts Department will be as follows:-

1. To maintain proper books of accounts to suit the Mercantile Accounting System – Loans given to Government Departments/ Corporations, Loans taken from Financial Institutions/ Banks Cash Books, Bank Books, Journals, Ledgers, Interest Registers, etc.
2. To attend to the preparation of annual budget, broken down quarter-wise in terms of allotment of different types of income and expenditure and send quarterly reports to the Finance Department and to attend to the preparation of projected Balance Sheet and periodical Bank Reconciliation.
3. To ensure validity and correctness of the receipts and payments with the help of the supporting papers.
4. To scrutinize the disbursement notes cum vouchers and arrange payments as per the instructions given therein.
5. To calculate interest and send notices periodically to the parties on installments and interest due.
6. To attend to preparation and finalization of Profit and Loss Account and Balance Sheet.
7. To attend to government, Statutory and Internal Auditors and to submit their comments and observations and follow up.
8. To prepare and analyze various financial statements, of EMPLOYER for the purpose of valuation and monitoring.
9. To furnish periodic information to the Board of Directors on outstanding and over dues.
10. To prepare and file Statutory returns with the appropriate authorities under Income Tax Act, Companies Act etc. and
appear before them in consultation with the Tax Consultant
as and when required.

11. To prepare Cash Flow statements, invest temporary excess funds in short term deposits or propose its use in any manner that contributes to the maximization of EMPLOYER’s income.

12. To process, issue sanction orders and to disburse short term as well as term loans, after obtaining the required documents and the necessary approvals from the Board of Directors.

13. To ensure effective organization, maintenance and utilization of the management information system namely:
   i) To collect, store, maintain and retrieve up to date information on all aspects of the Corporation’s operations.
   ii) To analyze and process the information continuously and bring up status and progress reports periodically to the Top Management.
   iii) To process financial indicators like Sanctions, Disbursements, Recovery, outstanding, etc. for Sector-wise, amount-wise, age-wise classifications and submit the same periodically, as desired, to the Management. To co-ordinate and organize the information as required by the Government from time to time for various purposes like Planning, Preparation of different reports, etc.
   iv) To provide/collect information on Corporate matters to/from other government Departments/Corporations and other Institutions of our interest.
   v) To render the various management services required from time to time.

14. To undertake any other work which may be connected with the collection, maintenance and supply of the various statistics which may be required by the Corporation.

15. To monitor Bank guarantees accepted from Contractors against EMD, Mobilization Advance, Performance Security or against retention money so as to ensure that Engineering Department take timely action against the same.

16. To raise funds of the Corporation to meet with the continuing demand for the credit facilities from existing as well as new financial Institutions/Banks.

17. To constantly strive for tapping new resources for raising the funds.

18. To keep close liaison with the government authorities for enhancing the equity base and to plan availing of refinance
facility in a manner that the excess funds available will be profitably deployed.

19. To raise resources through market borrowings like Government Bond Issue and through public Deposits.

20. Any other related work which may be entrusted by the Corporation.

21. Coding System - There should be a separate code for each item of expenditure and revenue.

### 10.2 Books of Accounts and Registers:

10.2.1 The Corporation maintains the following books of accounts:

   i) Cash Books
   ii) General Ledger
   iii) Journal

10.2.2 The Term Loans given and taken Ledger should be maintained in the format as mentioned as per proforma schedule No. In addition to the above books of accounts the following Register should also be maintained:

   a) Fixed Assets Register
   b) Miscellaneous Advance Register
   c) Fixed Deport Register
   d) Revenue Stamps Register (FDRs)
   e) Advertisement Register
   f) TDS (Contractors, Consultants, Rent, Advertisement, Interest on Securities).

10.2.3 In addition to the above books of accounts and Registers, the following books of accounts are also to be maintained:

   1) Term Loans Given Ledger
   2) Term Loans Taken Ledger
   3) Short Term Loan/Bridge Loan Ledger
   4) Legal Charges Ledger

### 10.3 Accounting System:

The accounts of the Corporation shall be maintained in mercantile system basis of accounting. The accounting year shall be from 1st April to 31st March of the next year.

10.3.1 Debits – To be raised

The Accounts Department should raise debit notes/notices regularly, say half yearly/quarterly, as the case may be towards interest and any other recoverable expenses. Similarly, debit notes
should also be raised for the legal charges. These debit notes should be entered in the respective registers and postings should be done from them to the party’s account in the “Term Loan” and the respective income accounts in the ‘General Ledger’.

10.3.2 Raising of resources:
Raising of Resources by way of loans/overdrafts and obtaining bank guarantees, etc. form the banks and raising of resources form the financial institutions including bonds, debentures, loans for projects etc will be looked after by the Finance Department. The same will be also responsible for raising equity from the Government.

10.3.3 Statements to be supplied:
In order to have a proper knowledge about the cash generation, the Accounts Department will provide the following information every Monday, regarding actual funds position as on the last Saturday, in the following form (weekly):

   i) Amount in Current Accounts
      Rs……………………………..

   j) Amount in Overdraft Accounts
      Rs……………………………..

A copy of these weekly statements will have to be furnished to the MD/Chairman by the Accounts department.

10.3.4 Payments - How to be made - Delegation of Powers:-
Various sections, Division and departments have been formed under EMPLOYER. All the bills received related to project execution should be examined/ scrutinized by the Engineering Department and after doing so and keeping proper records the bills will be submitted through the respective Head of Department to the Accounts Department with the certificates to whether the bill can be allowed to be passed or otherwise. The Accounts Department will make the scrutiny of the bills in the light of the supporting papers, i.e. sanction letter / administrative and financial approval of the MD/ Chairman/ approval of Board of Directors, etc. shall draw the cheque and voucher and the concerned Department / Division/ Section shall make the payment to the concerned parties by forwarding the cheque along with a letter issued to the party.

Once the MD/ Chairman / board of directors have given the necessary administrative approval, the file should go back to Accounts where the voucher is prepared and the cheque drawn for payment. Once the authorized signatories sign on the voucher and
cheque than the same shall be done by the Accounts Department for the payment to the concerned party.

10.4 Delegation of Power:

The following are the power of the various levels of the organization:

Financial Powers delegated to EMPLOYER’s officers:-

1. Managing Director  upto  Rs. ________
2. Chief General Manager  upto Rs. ________
3. General Manager  upto  Rs. ________

10.5 Expenditure Accounting Heads:

A. CAPITAL EXPENDITURE
1. Project Development Expenditure
2. Office Premise / Building / Maintenance Expenses
3. Investments
4. Term Loan Disbursement
5. Payment of Loan Principal Amount
6. Miscellaneous Expenses

B. REVENUE EXPENDITURE
1. Salary & Wages
2. DA / ADA/ TA etc.
3. Office Rent
4. Traveling / Conveyance Expenditure
5. Hiring of Vehicles
6. Advertisement Expenditure
7. Printing & Stationery
8. Professional Fees
9. Hotel Accommodation
10. Diesel & Petrol expenses
11. Consultancy Fees
12. Training Expenses
13. Postage / Telegraph / Courier Licenses & Fees
14. Newspaper, Books & Periodicals
15. Telephone Expenses
16. Staff Welfare Expenses
17. Leave Travel Concession (LTC) Expenses
18. Medical Reimbursement Expenses
19. Performance Allowance / Bonus
20. Repairs & Maintenance - Vehicle
21. Repairs & Maintenance - Computers
22. Insurance
23. Membership Fees & Subscription
24. Legal Fees
25. Loan Processing Fees
26. Payment of Interest
27. Payment of Scrutiny Fees
28. Payment of Guarantee Fees
29. Audit Fees
30. Directors Sitting Fees
31. Board Meeting Expenses
32. AGM Expenses
33. TAC / Review Meeting Expenses
34. Internal Audit Fees
35. ROC Fees
36. Income Tax Expenses

10.6 Office tours- How to be dealt with:-

10.7 TDS issues- how to be dealt with
10.8 Six Monthly Profit & Loss Account:-

The Accounts department will prepare and submit to the Board a provisional six monthly Profit & Loss Account.

10.9 Cash Transactions:-

10.10 Accounts Department to act as pre-audit department:-

1. Each and every disbursement of funds or orders passed, the Accounts department shall see that such disbursement or order is within the powers of the respective competent authority to whom the Board might have delegated the powers.
2. If no such powers are enjoyed by any competent authority, approval of the Board is to be obtained.
3. Each and every employee of the Accounts Departments shall be made personally responsible for observance of this procedure.

10.11 Internal Audit:-

1. There will be daily internal audit of the transactions taken place in the Corporation. Internal Audit shall be conducted by the Internal Auditor appointed by the Corporation.
2. The Internal Auditor shall submit a monthly report indicating the checks/inspections if any done and a certificate that 100% checks have been done of all vouchers sanctions payments receipts etc.
3. The monthly reports of the Internal Auditor will be submitted to the General Manager (Finance) who after obtaining the views of the concerned Heads on department will submit the replies to the Management, with proposal if any for information, consideration and decision, if any, within the next month after the submission of the report by the Internal Auditor.
4. In case of any decision on the report the orders regarding the same shall be issued by the MD/General Manager (Finance)
5. The General Manager (Finance) shall be responsible for the non compliance of the para 1 to 3 above under Internal audit. The concerned head of department wherever is the case, shall submit the comments within 3 days form the date of receipt of the Audit report failing which it will be recorded in the respective performance report of the officer.
10.12 **Statutory Audit and Government Audit**:-

1. The subject meter of these two audits shall be coordinated by the Accounts department.
2. Any information requested by the auditor should be submitted by the concerned department, failing which it will reflect in the performance of the concerned Head of Department.

10.13 **Monitoring of Bank Guarantees**:-

In the course of the tendering process, EMPLOYER has to take Bank guarantees as Security from the Contractors either towards Earnest Money Deposit (EMD) or the payment of Mobilization advance to the Contractor or as Performance Security towards the works. In case the Security is towards the payment of Mobilization advance, then an interest free mobilization advance shall be given to the Contractor. However, the guidelines available in the latest CPWD Manual shall prevail and be overriding. Such interest free mobilization advance amounting to a maximum of 5% of the original contract sum shall be paid to the Contractor against an irrevocable Bank Guarantee' from any nationalized. Such Bank Guarantee should be encashable at its ______ Branch only, subject to the bank being one which has been approved by the Corporation. Such approval should have been taken by the said Contractor in writing and prior to such Bank Guarantee being issued by the Bank.

Such a Guarantee for EMD/Mobilization/performance Security shall be in the Standard format as specified. These guarantees are taken for specific period and once the period expires then the Bank Guarantee gets automatically expired. This standard format would ensure that the bank guarantee does not expire without it being renewed or released or discharged. The Accounts department shall issue a letter to the concerned Contractor (at least a month in advance of the date of expiry of the said Bank guarantee), intimating to him that the bank guarantee is due to expire. The contractor shall renew the said Bank Guarantee at least 15 days prior to its expiry. The entire amount of the bank guarantee shall be adjusted from his next bill. In case the entire amount cannot be adjusted in his next bill, then the Accounts Department encashes the Bank Guarantee irrespective of the amount required to be adjusted.

In all other circumstances, the mobilization advance shall be recovered at rate of 6% of the certified interim payments(s).
10.14 **Monthly Reports:**- May be prepared to monitor the exact date when the bank guarantee expires. This would enable the bank guarantee to either released or be renewed well in advance of the date of expiry. Though the responsibility of circulating the date does not lie on the Accounts Department, it is imperative that these Bank Guarantees be monitored regularly in order to ensure that a particular Bank Guarantee does not expire on the due date without any action being taken.

10.15 **Consultant’s Payments:**- the fees to the Consultant would have to be based on the work order issued to the Consultant. Cost would be defined as the project, the tendered value and finally revised to the actual cost of the works done. Hence it is absolutely essential that the fees be reviewed from time to time and a control be kept at the time of making payment to the Consultant. The fees paid to the Consultant shall not exceed the total value of financial progress of the work. Financial progress means the amount of the Contractors bill disbursed. The Consultants for a particular projects have been appointed and need to be paid their fees. Not more than then one Consultant bill for a particular project shall be processed for payment in a month. The format of Disbursement Note for payment to Consultant is enclosed at Annexure_____.

10.16 **Contractors Payments:**-

A contractor’s bill may be processed for payment by Accounts only if the following documents are available along with the Disbursement Note (Copy attached at Annexure) and are valid at the time of preparing the Disbursement Note and also at the time of payment.

1. Contractor Bill duly signed by the contractor and by the concerned Nodal Officer, duly signed and certified by the concerned Consultant,.
3. Labour License, duly updated, if required,
4. Insurance Policy, duly updated, if required.

10.17 **Management Information Systems:**-

10.17.1 **Statements to be submitted by Accounts department**

The statement formats are prescribed for being submitted by the Accounts department. Monthly/quarterly/yearly. These statements
are to be submitted a week after the concerned month/quarter/year is over, by the concerned department.

10.17.2 Progress Report to the Board:-

The Management Information Systems (MIS) division will submit the quarterly progress of the activities of the Corporation to the Board. Such report should be ready within 15 days of the end of the quarter.

11.0 HUMAN RESOURCE MANAGEMENT AT EMPLOYER:

11.1 Functions of HR Department:

The Human Resources Department’s main functions are recruiting and training the employees, ensuring they are high performers in dealing with EMPLOYER’s activities effectively and maintaining peace, decorum, discipline & cordial working environment in the office premises. HR function is related to transformation of manpower resources to achieve best performance at EMPLOYER which consists of following activities:

- Attracting & retaining talent
- Building people’s capability in the organization by imparting training & development of staff
- To ensure that the policies & procedures including employment conditions are implemented & complied with
- To develop, implement & communicate local policies as required
- Maintain an understanding of the organizational structure of the Corporation & of the specific functions of the Administration
- Acquaint staff with an overview of this structure, so that they can develop an appreciation of the interdependency between the various functions
- Acts as a facilitator for any change brought in the organization and ensures that the staff is kept well informed of the same
- To monitor that the Supervisor/Manger implement's mechanism to enable staff to have inputs into proposed changes, monitor change & provide constructive feedback to facilitate adjustment to change
- To ensure that proper leave records are maintained of all the staff of the Corporation

HR department is responsible in carrying out an yearly assessment of the staff of the Corporation by having a task of filling the Annual Confidential Report. This helps in identifying the strengths & weaknesses of the staff as well as knowing his needs as an asset of the organization. The HRD in EMPLOYER has the responsibility
of maintaining proper records for work performance & follow different rules like leave, attendance systems, PF, staff conduct, discipline etc. It is also has to deal with matters regarding disciplinary cases, related to unskilled labour, processing of salaries, reimbursement of medical bills, relieving of employees & other industrial relation matters.

11.2 Organizational Set Up of EMPLOYER:

The Current organization chart of EMPLOYER is placed below.

12.0 REVIEW / AMENDMENT OF WORKS MANUAL:

Necessary Amendments/Additions to the WORKS MANUAL-2008 can be done from time to time with the approval of BOD proposed through Managing Director. Any Deviations from the WORKS MANUAL-2008 required during concept to completion stage of any works will require reference by Managing Director for approval.

The Works Manual shall be reviewed every three years by a committee appointed by CEA and CIDC personnel if felt necessary considering the dynamic situation, feedback on the implementation of WORKS MANUAL and taking into account various guidelines issued by CVC from time to time.

APPENDICES -

APPENDIX – OTHER DEFINITIONS
APPENDIX – CORE CONDITIONS AND IMPORTANT CONDITIONS
APPENDIX – TO BE SPECIFIED IN THE TENDER
APPENDIX – FORMATS OF MOU, AGREEMENTS AND POLICY GUIDELINES
APPENDIX – STANDARD PROFORMAE TO BE USED IN TENDER DOCUMENTS