

## 1.1 Introduction, Brief Description and Scope of work/supply

### 1.1.1 Introduction

Central Warehousing Corporation (CWC / Client / Owner), a Central Public Sector Undertaking is providing logistics support to the agricultural sector. CWC is developing food grain storage infrastructure facilities for FCI (Food Corporation of India) in NABHA, District Patiala, Punjab. The Project involves creating infrastructure for storage of 50,000 MT Food grains. CWC will own and maintain the facility for 30 years and subsequently will be handed over to FCI. CWC is intended to create state of the art facility for storage of food grain.

FEED is prepared by EIL based on the feasibility report prepared by CWC's Project costing and Financial Feasibility consultant M/s SREI. The LSTK bidder shall do the residual Basic Engineering and further detailed engineering based on Scope of work covered in the FEED document, Procurement of material, Inspection, expediting, Construction, Pre-commissioning & Commissioning and shall be responsible for extending full support in terms of manpower and all material during defect liability period of one year. Defect liability period will be reckoned from the date of handing over of plant after commissioning. During the defect liability period, the LSTK contractor shall repair / replace any foundation, structural work or any component or complete equipment at no cost to client.

Intent of this document is to broadly summarize the scope of work / services however CONTRACTOR shall refer the detailed scope of work / services defined elsewhere in the 'Bidding Document' which shall be complied by the CONTRACTOR.

### 1.1.2 BRIEF SCOPE OF WORK:

Bidder shall execute the work on Lump Sum Turnkey Basis (LSTK). The scope of work shall include project management, residual plant design, detailed engineering, procurement, fabrication, inspection, expediting, transportation of all the equipments/ materials to work site, storage, assembly, erection, installation, construction and testing of all above mentioned facilities, including statutory approvals, and to achieve mechanical completion, pre-commissioning, commissioning, performance guarantee test run (PGTR) and handing over of all the facilities to Client including supply of mandatory/ recommended spares for 3 years, tools & tackles in line with the scope and specifications covered in the bidding document for LSTK Contractor.

In general, LSTK Package will have the following major / sub systems, as defined elsewhere:

- Receiving & Pre Storage facility
- Vehicle unloading facility
- Grain Quality monitoring system including supply of laboratory equipments and instruments
- Dust extraction
- Weed Control / Fumigation facility including supply of Phosphine generator
- Temperature control / monitoring system
- Ventilation / air circulation & aeration system
- Pre Storage / Receiving Silo
- Main Storage Silo facility
- Food grain dispatch system

- Plant control system
  - Bulk Handling Facility
  - Railway siding works including approval from railway authorities
  - Electrical Works
  - All Civil work related with the above facilities such as foundation for silos, floors inside silos Bucket elevators, unloading and weighing system for Railways foundations for supply system for conveyors, tunnels below silos & conveyors etc. as per the design requirement. Area in between & around silos will also developed either by way RCC or paver blocks as per the designs.
- Providing and laying LT and HT cable in silos complex and allied services like sub-station, PLC rooms, weighbridge cabin
- Security Equipment including CCTV to be capable to store footage for a period one month.
  - Additional Work in LSTK Contractor's Scope
    - a. LSTK contractor to own and maintain in continuous satisfactory use of all existing facilities like Roads, right of way or utilities there on. Any suitable temporary or permanent diversion required or any shifting of electric lines, water pipes, Telephone cables including all formal interaction with respective authorities is LSTK contractor's scope
    - b. Tree cutting, if any within the silo's site will be EPCC scope, however necessary approval is by CWC.
    - c. LSTK contractor shall provide and maintain necessary office furniture including for 4 No. PMC personnel (Office Table, Chairs, filing cabinet), fans, minimum 1.5 T window type Air Conditioners, Drinking water facility. After completion of project the same will be handed over to SLTK contractor.
    - d. Construction water and construction power shall be arranged by LSTK contractor at his own cost.
    - e. LSTK contractor shall arrange Drinking water and sanitary facilities for labour and his staff.

### Services

The entire LSTK Package shall be designed to be accommodated within the plot area as identified in the bidding document; CONTRACTOR shall confirm the adequacy of the area earmarked for the plant.

CONTRACTOR shall ensure that all the aspects of erection, construction, operation & maintenance, safety, statutory guide lines etc. are taken care of while finalizing the Equipment Layout.

**Broadly CONTRACTOR's scope, in general, shall include but not limited to the following. (For detailed scope refer elsewhere in the bidding document)**

- a) Design, Engineering, Procurement and Execution as per LSTK Scope of work.
- b) Services by CONTRACTOR

#### **b) Services by LSTK CONTRACTOR**

**(For detailed scope /services refer elsewhere in the bidding document)**

- Residual Basic Engineering
- Engineering for procurement
- Detailed Engineering
- Preparation of all MTOs (Material Take off) and MRs / PR (Material Requisition / Purchase Requisition), as required
- Ordering of all equipments and materials
- Preparation of Documentation and obtaining OWNER/ CONSULTANT & LICENSOR approvals for the same
- Designing and construction of plant keeping requirements of safety, ease in operation, maintenance viz walkway, platforms ladders, interconnection platforms etc.
- Overall Project Management and progress reporting to OWNER/CONSULTANT
- Expediting suppliers and sub vendors
- Procurement
- Manufacture, fabrication and assembly at site
- Inspection and testing including third party Inspection
- Documents preparation, Coordination and statutory approval from government/non government bodies/agencies
- Dispatch and transportation of equipments, consumables, construction aids and other material to site.
- Establishment of site office complete with all facilities and communication network, as required
- Storage, loading, unloading, security and handling at site
- Construction at site including fabrication, erection and installation of the complete LSTK Package
- Ensuring Health, safety and Environment as per specification.
- Insulation, if applicable with cladding and painting
- Engineering for interfacing all inputs and outputs
- Mechanical Completion, Supply of consumables and spares during start up, pre-commissioning and commissioning upto defect liability period.
- Preparation and submission of start up and operating & maintenance manuals (Soft and Hard copy)
- Handing over the plant to the owner

- Successful Performance guarantee testing
- Supply of Mandatory and Recommended list of 3 - years spares (which will be reckoned after expiry of one year defect liability period).
- Post commissioning services, that is, during the defect liability period, supply of solvent / lubricants / chemicals etc. as required and First Fill consumables.
- Supply of all test reports /certificates
- Providing as built drawings /documents/ Vender doc/ Close out reports (Soft and Hard Copy).
- Training of the Clients Engineering and Operating Personnel
- For details pertaining to surface preparation & painting refer Document No. A951 – 000 – 79 – 41 – PLS – 01.

### 1.1.3 OUT OF SCOPE

NIL (No Free Issue Material (FIM), to contractor).

## 1.0 SCOPE OF WORK (PREAMBLE)

This part of the Bidding Document covers the complete Technical Requirements and scope under this Contract for Design, Engineering, procurement, Supply, Fabrication, Construction, Inspection, Expediting, Testing, Pre-Commissioning, Commissioning, Performance Guarantee Test Run and repairing / replacement and maintenance services during defect liability period and ~~Annual Maintenance Contract period (AMC) to be carried out by the CONTRACTOR~~. These are supplementary to those covered in Basic Engineering Design Package of the bidding document.

## 2.0 Specifications

- 2.1 Included in the Bid document are a series of specifications for various disciplines. These specifications shall be used by the contractor for design of EQUIPMENT/PACKAGES AND THE FACILITIES. Contractor documents shall be reviewed by the OWNER/Consultant as described elsewhere.
- 2.2 The precedence of governing specifications for Engineering, procurement, supply and construction shall be as follows:
  - Indian Statutory Codes, Standards and regulations.
  - Process Package (comprising Equipment Data Sheet / Flow Diagrams, PFD's etc)
  - OWNER / PMC specifications
  - International codes
- 2.3 In case of any conflict between Process package requirements / OWNER/Consultant's specifications and code requirements, the most stringent requirement of these shall govern and the decision of OWNER/Consultant in the resolution of the conflict shall be final.
- 2.4 Latest edition of applicable codes/Standards/Statutory Regulations referred to in the Bid Document shall correspond to the edition as on the date of issue of bid.

## 3.0 Statutory Requirements

The CONTRACTOR during detailed engineering and construction shall take into account and comply with various local statutory requirements, standards and codes, as applicable including but not be limited to the following:

1. Factories Act
2. Tariff Advisory Committee (TAC) Guidelines (for Insurance purposes)
3. Indian Railway Authority
4. Indian Electricity Act
5. Indian Electricity Rules
6. Central Electrical Authority (CEA)
7. Director- General, Factory Advice Service and Labour Institute, Bombay
8. Ministry of surface transport.
9. Department of Water Resources, Punjab
10. Stipulations stated in Environmental clearance granted by Ministry of Environment and Forest, Govt. of India.
11. Liquid Effluent Discharge as per Minimal National Standards for Liquid effluents and air emissions confirming to Pollution Control Board Standards.
12. Stipulations of Environmental authorities of the State of Punjab.
13. Other legislations relating to Environmental protection such as (but not limited to) :
  - Hazardous wastes (Management and Handling) Rules 1989.
  - Water (prevention and control of pollution) Act, 1974.

- Water (Prevention and Control of Pollution) Act, 1977.  
Air (Prevention and Control of Pollution) Act, 1977.  
Environment (Protection) Act, 1986.  
Forest (Conservation) Act, 1980.  
14. State Pollution Control Board regulations.

#### 4.0 General

- 4.1 CONTRACTOR shall furnish Final Documentation and "As Built" drawings as detailed in section A-4 of the Bid Document.

Any additional review/ inspection (at site or vendor's shop) / field services/ assistance will be carried out on reimbursable basis, expenses of which shall be borne by the CONTRACTOR.

The above does not relieve CONTRACTOR from compliance with tender / FEED requirements and specifications. Any deviation from the proposed design by Contractor must be approved by Owner / PMC.

### 3.1 PROJECT PROCEDURES

#### 3.1.1 GENERAL

CONTRACTOR shall prepare and submit to OWNER/ CONSULTANT upon the dates stated hereafter, drafts of the various sections of the PROJECT PROCEDURE. The Project Procedure shall comprise planning, organisation and control and other documents necessary for the efficient co-ordination of the work.

#### 3.1.2 CONTENTS OF THE PROJECT PROCEDURES

The PROJECT PROCEDURES shall include, but not be limited to, the following items which shall be submitted for approval upon or before the dates stated.

##### 14 Days after EFFECTIVE DATE

- Execution Methodology – identifying sub contracting wherever planned.
- CONTRACTOR'S Organisation Chart and resumes of key personnel forming part of the Organisation procedure.
- Documents distribution chart forming part of the communication procedure.
- Documentation control procedure
- Level 1 schedule, overall bar chart and "S" curves forming part of the Planning and Progress Control Procedure.
- Quality Assurance Manual and Quality assurance Plan specific to this Contract forming part of the QA/QC Procedure.

##### 21 Days after EFFECTIVE DATE

- Name of agencies proposed for sub contracting different works along with required back-up details.
- Remaining sections of the Organisation Procedure
- Remaining sections of the Communications Procedure
- Meetings Procedure
- Reporting procedure including examples of:-
  - Daily Log Book
  - Weekly Report
  - Monthly Report
- Engineering Procedure
- Procurement and subcontracting procedure including examples of:-
  - Control Register
  - Purchase order
  - Layout drawings of warehouses and open storage areas at worksite.
  - Packing, Marking procedure
  - Shipping procedure
  - Warehousing & storage procedure
- Fabrication Procedure
- Inspection, Expediting Monitoring Procedure
- Pre-Commissioning and commissioning Procedure
- Remaining sections of the QA/QC Procedure including

- Quality Control and inspection plan
- QA Audit Schedule
- Safety manual
- Cost Control and invoicing Procedure including examples of:
  - Contract Analysis Worksheet
  - Expenditure and Progress curves
  - Cash flow schedule
  - Cumulative Cash flow curve
  - Invoice Register
  - Invoice
  - Change Order/Deviation Permit

3.1.3 Within twenty-one days of the receipt of each such section, the OWNER/CONSULTANT will respond with any comments. Within fourteen (14) days of receipt of the OWNER/CONSULTANT comments, CONTRACTOR shall revise and reissue the project Procedure for approval upon which it shall be put into effect.

3.1.4 The names and addresses of approved subcontractors shall be included in the PROJECT PROCEDURES upon approval by OWNER/CONSULTANT



## 1.0 ORGANISATION

### 1.1 OWNER'S/ CONSULTANT ORGANISATION

- 1.1.1 OWNER shall forward to CONTRACTOR(S) an organisation Chart showing OWNER/ CONSULTANT organisation relevant to the contract, for inclusion in the Project procedures. Updated organisation chart shall be submitted immediately following any revision.
- 1.1.2 OWNER/CONSULTANT shall appoint their representative who shall administer and co-ordinate OWNER'S / CONSULTANT obligation during the course of the contract including the issuance of instruction, order and certificate.

### 1.2 CONTRACTOR'S ORGANISATION

- 1.2.1 CONTRACTOR shall prepare and submit the document as stated in item 1.2 of section A-3.1 for approval. CONTRACTOR shall provide detailed structure of its project team, the personnel for each functions (i.e. Civil, mechanical, electrical etc), showing the positions, names and locations which it intends for the execution of the work. The structure of the team could vary in its terms of numbers/field of expertise/location of work for different phases of the work. An organisation chart of the overall project structure shall be provided and a separate organisation chart showing Home Office structure and any other organisation that may assist the CONTRACTOR'S for the execution of the project. Organisation chart shall indicate names, key personnel/show their line of responsibility & reporting positions. CONTRACTOR'S ORGANISATION Chart shall be updated as and when there are changes in CONTRACTOR'S personnel. Any changes in such personnel shall be notified in writing to OWNER/CONSULTANT for approval prior to the change.
- 1.2.2 Since, project involves multi disciplinary work, group leader from each discipline must present in contractor's design/registered office and site office to head the respective project group. This is for expeditious decision making to execute project on fast track mode.
- 1.2.3 CONTRACTOR shall upon effective date, or in no event later than 5 days after effective date, appoint a representative who shall have full authority to act on behalf of CONTRACTOR in receiving instructions and in the administration of the contract.

CONTRACTOR shall notify OWNER/ CONSULTANT in writing, of any proposed change of CONTRACTOR'S REPRESENTATIVE ten days prior to the effective date of such proposed changes. Such proposed change shall be subject to approval by OWNER/CONSULTANT.

- 1.2.4 CONTRACTOR shall upon OWNER/ CONSULTANT request furnish all information concerning CONTRACTOR, his sub-contractors and their representative assigned personnel and agents as may be required for submission to any applicable governmental agency, authority or regulatory body.

## 1.0 COMMUNICATION

### 1.1 GENERAL

This correspondence procedure shall be applied to all communication among OWNER/CONSULTANT and CONTRACTOR.

### 1.2 CORRESPONDENCE REQUIREMENT

- This procedure is prepared for the general system of correspondence among related parties involved in execution of Food Grain Storage Silo Project at Nabha.
- Correspondence on technical matters like clarification on technical specifications, drawing/documents reviewed etc. shall be between CONSULTANT (HO) and CONTRACTOR with copies to OWNER (HO & SITE).
- All correspondence on contractual/commercial related issues shall be between OWNER & CONTRACTOR and copy to CONSULTANT (HO).
- Correspondence on construction related matters shall be between CONSULTANT (SITE) AND CONTRACTOR with copies to CONSULTANT (HO), OWNER (HO & SITE).

### 1.3 TYPE OF CORRESPONDENCE

Correspondence may be classified as follows:

#### 1.3.1 Letter

A letter will be issued to other party to represent party's intention of proposal, approval, acceptance, objection, conditioning or other commitments. The contents entered into the form of the official letter shall be deemed as definite decision or intention which may affect or correspond to the contractual situation.

Letter message shall be sent by mail first (scan copy) in parallel to Original dispatch to addressed party. Each letter shall be limited to one subject in principle.

#### 1.3.2 E-mail communication

E-mail address of all responsible persons authorised to correspond for this project should be available with all the parties for effective and fastest mode of communication.

#### 1.3.3 Transmittals

Documents/drawings shall be sent with a transmittal, listing all the documents covered under the transmittal in duplicate. The list of document shall include document title, document number, revision number, number of sheets, type of document, purpose such as for Review / information etc.

Acknowledgement copy of the transmittal shall be signed by addressee returned to the originator as an acknowledgement of receipts of documents. Preferably one hard copy and one soft copy will be provided.

### 1.3.4 Minutes of Meeting

Minutes of meeting shall be issued for confirmation of discussion made in all official meetings.

Minutes of meetings between OWNER/CONSULTANT and CONTRACTOR shall be prepared by CONTRACTOR on same day of the meeting. After review & signature of OWNER/CONSULTANT, CONTRACTOR shall issue the minutes. Project Manager of each party is responsible for distribution of the minutes of meeting. In case Contractor's failure to issue minutes of meeting on same day, PMC/OWNER shall issue record notes of discussion and all record notes of discussions are binding to Contractor without deviations and further discussions.

### 1.3.5 FTP SERVER

~~For transfer of soft copies of transmittals, Manuals, Bulky documents etc. a Project Dedicated FTP server shall be used. Approved drawing/documents comment sheet shall be uploaded on FTP by concerned.~~

~~Contractor will generate dedicated paths for communication between OWNER and PMC. User IDs and Passwords shall be provided to respective Project Managers. FTP Server space & validity shall be up to completion of commissioning and handing over of the project to OWNER. No documents shall be deleted/withdrawn from FTP server without consent of OWNER/PMC.~~

## 1.4 LETTER HEADING & NUMBERING SYSTEM

All correspondence shall be issued under a specific subject heading which shall have contract number and title as follows:

FGSSP:

PROJECT NO. : A951

All correspondence shall bear a unique identification reference number to maintain a uniform system for the entire project with CONTRACTORS which is made up as follows:

A609/FGSSP/EH-CH / E or L / xxxx

(1) (2) (3) (4) (5)

Abbreviation under the numbers explained as below

1. Job No. A609
2. Food Grain Storage Silo Project LSTK PACKAGE
3. From - To (See NOTE- B)
4. Type of correspondence (See NOTE-A)
5. Serial number of the E-mail or Letter

### NOTE-A

L LETTER

1

## DT DOCUMENT TRANSMITTAL

E E-MAIL

### NOTE-B

CWCH	OWNER HEAD OFFICE
CWCO	OWNER SITE OFFICE
EH	CONSULTANT HEAD OFFICE
ES	CONSULTANT SITE OFFICE
CH	CONTRACTOR HEAD OFFICE
CS	CONTRACTOR SITE OFFICE

For Example Letter from CONTRACTOR HEAD OFFICE to OWNER HEAD OFFICE

A609/FGSSP/CH-CWCH / L / xxxx

(1) (2) (3) (4) (5)

Abbreviations under the numbers explained as above.

### CONTRACTORS:

All letters from CONTRACTORS office shall follow and use the prefixes as given above with their own numbering system.

## 1.5 DOCUMENTS REGISTER

OWNER/CONSULTANT and CONTRACTOR'S representative shall keep an up to date register of correspondence received from the other party in order to check that all documentation has been properly received. The register should also cross reference incoming replies in order that an open items listing of unanswered correspondence can be developed and jointly reviewed & confirmed on a monthly basis.

## 1.6 RELATIONS WITH AUTHORITIES/CERTIFYING AGENCIES ETC.

All contacts with the Authorities, Certifying Agencies etc. shall be organised by the CONTRACTOR in cooperation with OWNER. Scheduling of meetings with such bodies shall be arranged by the CONTRACTOR in cooperation with OWNER, and CONTRACTOR shall give written notice to OWNER at least two weeks in advance of the required meeting date. Minutes shall be prepared and distributed according to OWNER'S instruction.

1.7 All draft press release, information hand outs and photographs for publication relating to the contract shall be submitted for review and approval of OWNER prior to release.

1.8 TELEPHONE CONVERSATIONS-FILE NOTES significant points raised in telephone conversations with OWNER, OWNER REPRESENTATIVE/CONSULTANT or their parties shall be recorded by CONTRACTOR on a standard form. Each form shall be issued to the telephonic parties, OWNER/CONSULTANT and Project File within two (2) working days. The standard form shall contain a listing of the main points discussed and any agreed actions.

Only the standard form shall constitute any formal record of the telephone conversation. The standard forms shall be consecutively numbered and shall be acknowledged where agreed by OWNER returning one (1) signed copy of the form within one (1) working day.

### 1.9 COMMUNICATION WITH OWNER'S OTHER CONTRACTORS

Communication with OWNER'S other CONTRACTOR'S shall generally be via OWNER. OWNER may choose to hold worksite coordination meetings either regularly or irregularly to discuss any points requiring cooperation. CONTRACTOR will be required to host and chair such meetings.

The requirements detailed above are complimentary to the obligations of the CONTRACTOR for scheduling and coordination of all interfaces.

### 1.10 ALTERATIONS:

Change in address(es) and changes/additions to the list of Authorized representatives of either party shall be promptly intimated by written notice to the other party.

### 1.11 NOTES

- (a) PMC & OWNER Project Managers are sole point of contact with contractor for all activities of the Project. Therefore, all correspondence with PMC and OWNER from Contractor shall be directly done with/by Project Manager or by his authorized representative. Copies of the relevant correspondence shall be appropriately marked to the concerned parties as applicable.
- (b) All important technical and commercial correspondence must be CC marked to OWNER'S PROJECT INCHARGE and PROJECT INCHARGE of EIL.
- (c) Each mail/letter shall preferably deal with one subject and the subject matter shall be described in brief.
- (d) The Purpose of Letter/E-mail viz. information/ record/ approval shall be clearly mentioned.
- (e) All outgoing letters/fax etc. shall be on letter head, so that company identity is properly maintained.
- (f) Depending upon the extent facility available, all communications as far as possible shall be carried out through the electronic media.
- (g) All telephone message/ verbal confirmations shall be regularized by letter/e-mail by respective Project Manager.
- (h) All Minutes of Meetings shall be recorded on standard format and shall be signed on the same day by representative of the concerned organizations.
- (i) Cancelled number of correspondence shall not be reissued. The sender must notify the receiver of any cancelled number.
- (j) For letters, E-mails, Faxes, Technical/Commercial queries, a reply shall be made within 10 working day of receipt.
- (k) The addressee shall be responsible for the internal distribution of correspondence and documentation within their own organization.

## 1.0 CO-ORDINATION

### 1.1 PURPOSE

- i) This procedure has been prepared with the objective of defining systematic and orderly administrative relationship among the related parties.
- ii) This procedure stipulates execution of administrative relationship amongst the various parties.
- iii) This procedure may be modified by mutual agreement among the parties concerned to cater to changed requirements or for the convenience of the various parties.

### 1.2 SCOPE

This document contains the detailed procedure for the following:

- Address of parties involved.
- Communications and general correspondence.
- Coordination meetings.
- Deliverables and approvals.
- Documentation.

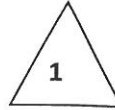
### 1.3 ADDRESS OF PARTIES AND THEIR REPRESENTATIVES

Address of parties and their representatives involved with the PROJECT are to be as follows:

#### A. OWNER

##### i) Home Office Address

**Mr S K Sharma (Chief Engineer)**  
E-Mail id – [enggdivision@gmail.com](mailto:enggdivision@gmail.com).  
Mobile No. 09958809831,  
Telephone No. – 011 – 26515177 and  
Fax No. 011 – 26515177.  
M/s Central Warehousing Corporation  
4/1, Siri Institutional Area,  
August Kranti Marg, Hauz Khas,  
New Delhi-110 016



##### ii) Site Office Address

**Mr Harmanpreet Singh, Mr S S Cheema (Mobile No. 09417017015)**  
Warehouse Manager,  
E-Mail id – [cwhnbhbd1@gmail.com](mailto:cwhnbhbd1@gmail.com).  
Mobile No. 09417017015 and  
Tele fax no. 01765 - 223103.  
CWC (Base Depot) Nabha (Punjab) – 147 201,  
India.



## B. CONSULTANT

### i) Home Office Address

Engineers India Ltd.  
Sector 16  
Gurgaon – 122001 (Haryana)  
Project Manager's Name- Raju Chutani  
Project Manager's E-mail raju.chutani@eil.co.indo-  
Project Manager's Telephone Number (Landline) 0124 3803506, Mobile: +91 9818737915

### ii) Site Office Address- To be informed

Resident Construction Manager's (RCM) Name -do-  
Address -do-  
E-mail -do-  
Facsimile Number (FAX) -do-  
Telephone Number -do-

## C. CONTRACTOR

### i) Home Office Address- To be filled in by CONTRACTOR

Representative's Name & Designation-do-  
E-mail -do-  
Facsimile Number (FAX) -do-  
Telephone Number -do-

### ii) Site Office Address - To be filled in by CONTRACTOR

Representative's Name & Designation-do-  
E-mail -do-  
Facsimile Number (FAX) -do-  
Telephone Number -do-

## 1.4 COMMUNICATION AND GENERAL CORRESPONDENCE

- i. Project Manager of Consultant is the sole contact with Owner as well other parties for all activities of the Project. Therefore all correspondence between EIL and Owner/other parties shall be directly done with/by Project Manager or by his authorised representative. With parties, namely vendors and contractors, the correspondence is done by others under intimation to Project Manager as per functional responsibilities. However, depending upon the exigencies of the situation, Project Manager can directly correspond with these outside parties also. Copies of the relevant correspondence shall be appropriately marked to the concerned parties as applicable.
- ii. For signatory purpose of communication, Project Manager would authorize the Project Coordinator to sign the letters. Project Manager will correspond for important issues to contract, schedules etc. as deemed necessary.
- iii. Contractor shall submit for Owner's/Consultant review/approval, in kick off meeting a procedure for coordination and communication between the Contractor and the Owner/Consultant to ensure a proper flow of information. Such a procedure shall define:

Project organisation:

- Contractor organisation chart with Owner interfaces.

- Work locations.

Communication:

- Abbreviations.
- Owner/Consultant and contractor representatives.
- Owner/Consultant and contractor addresses.
- Correspondence with others.
- Transmittal notes.
- Means of transmission.
- Document distribution chart identifying nature of documents, originators and addresses, number of copies required.
- Tracking, scheduling and management of documents methodology.

The Contractor will inform Owner about the system or software proposed for document management. However the system should be such so as to be compatible with OWNER/CONSULTANT system for smooth flow of communication.

### 1.5 PROJECT COORDINATION MEETINGS

Consultant or Owner may take lead to organise the Project Coordination and/or progress review meeting between OWNER/CONSULTANT and Contractor for the purpose of the smooth project execution. Agenda, place and time of the meetings shall be communicated in advance and agreed to between the parties. Clause 1.1 of this document may be referred to in this respect.

### 1.6 DRAWINGS/DOCUMENTS TO BE REVIEWED BY OWNER/CONSULTANT

Contractor shall prepare and submit Drawings/documents for review/approval by OWNER/CONSULTANT and the details of the same are brought out under other SECTION titled DOCUMENTS.



## 1.0 PROCUREMENT AND SUB-CONTRACTING-GENERAL

- The costs of all equipment, bulk materials and services as well as all packing costs, insurance, import and export permits, shipping and transportation costs, handling costs, port charges, duties and taxes imposed on locally available and or locally assembled equipment and material import licenses, permits, customs clearances and costs of all kinds associated with the procurement of equipment, materials and services shall be the responsibility of CONTRACTOR.
- Within twenty one (21) days following effective date, CONTRACTOR shall submit his proposed Procurement Procedure relating to the bidding, evaluation, purchasing, expediting, inspection and traffic of materials and equipment to be incorporated in the work and covering but not limited to, the activities described herein for approval and incorporation in the Project Procedure.
- CONTRACTOR shall follow its regular purchasing practices and procedures except as the requirement of the contract, including this section, require modification to such practices and procedures. Procurement Plan – CONTRACTOR shall prepare and submit to OWNER/CONSULTANT a Procurement Plan which outlines organization, methodologies and procedure to be implemented by CONTRACTOR for carrying out all procurement and related activities required by the contract. The plan shall include a sample of each standard form to be used for such activities.
- CONTRACTOR shall prepare and issue Procurement and Material status Report on a monthly basis, incorporating critical data and information from each detailed purchasing report. The exact format and content of this summary report shall be subject to approval.
- OWNER/CONSULTANT reserves the right, on a case by case basis and upon notice to CONTRACTOR, to deviate the review procedure specified herein.
- OWNER/CONSULTANT reserves the right to attend any CONTRACTOR meetings with CONTRACTOR'S/Sub contractor's or vendors. CONTRACTOR shall give OWNER/CONSULTANT sufficient notice to allow OWNER/CONSULTANT to attend such meeting. Upon OWNER's request at any stage of design, fabrication or installation, CONTRACTOR shall organize and attend meetings with sub contractors or vendors.
- Within one month of the effective date, CONTRACTOR shall produce a list of items to be imported with their estimated value. Each month, or at any other time OWNER/CONSULTANT requires, this list shall be updated with latest quantities and estimated actual or forecast costs.

## 2.0 PURCHASE ORDERS

### General

All Purchase Orders shall be strictly administered in accordance with the CONTRACT and the Project Procedures. The Purchase Order format shall be submitted for approval.

Purchase orders shall include, when appropriate, a statement that the Material concerned is subject to the requirement of applicable law or statutory regulation and shall include the relevant procedure to be followed by the vendor.

Purchase Orders shall include, when appropriate, a statement that the Material concerned is subject to inspection by CONTRACTOR, Third Party and OWNER/CONSULTANT and that CONTRACTOR and OWNER/CONSULTANT shall have access to the vendor's works during all stage of manufacturing and testing.

CONTRACTOR shall give close consideration to the need for standardization to restrict the number of types and sizes of items in the complex in order to simplify maintenance and reduce spare requirements.

CONTRACTOR shall specify the same oil and grease for all equipment lubrication to the extent possible.

CONTRACTOR shall ensure that all required documentation for final importation of Materials and Work to the facilities is prepared and submitted to OWNER/CONSULTANT or the appropriate authority in a timely manner prior to the intended date of importation.

Purchase Orders shall include, when appropriate, a statement that vendors shall ensure the availability of spare parts in accordance with the provision of Technical specification/Contract.

CONTRACTOR shall ensure that vendors furnish for review and for final documentation, all drawings, bills of materials, manuals, certificates and other information necessary to define the equipment and the performance of the equipment as required by contract.

This information shall be incorporated, where relevant, in the equipment dossiers, and the current status of receipt of such information shall be given in the Materials Status Reports.

Report immediately to OWNER/CONSULTANT all change which will affect material quality and recommend any necessary corrective actions to be taken. Ensure that vendors/sub contractors are aware of procedure and rules regarding taxes and duties applicable for goods/equipment supplied/WORK executed and furnish proper documentation to OWNER as per the applicable rules and regulations.

The purchase order placed by CONTRACTOR shall include, but not limited to the following:

- Project name and location.
- OWNER Name.
- OWNER approved specifications, drawings, data sheets, etc (Purchase specification).
- Quality Programme requirements.
- Vendor data submittal requirements.
- Terms and conditions of purchase.
- Inspection Requirement including Third Party & OWNER /CONSULTANT.
- Tagging, packing and shipping instruction.
- Storage Instruction.
- Agreed delivery date.
- Warranty/guarantee terms.
- Guarantee period required.
- Provision for training.
- Reference to QA requirements, Indicative Quality Plan.
- After sales services location.
- Name of manufacture(s) etc.

In addition, the purchase order shall include requirement for vendor to provide

- Production/delivery schedule.
- Spare Parts Interchangeability Report (SPIR) FORM.
- Equipment record cards/Data Folder – Item wise.
- Operating/maintenance manuals.
- Spares list with unit rates.

### 3.0 REQUISITIONS AND REQUESTS FOR QUOTATIONS

3.1 CONTRACTOR and its sub contractors shall prepare all requisitions and requests for Quotation for all equipment, materials and subcontracts in accordance with the project specifications and procurement schedule.

Specific categories of equipment, material and subcontract Requisitions and Requests for Quotation shall be issued to OWNER/CONSULTANT for review as specified in the contract document.

3.2 Requisitions and Requests for Quotation shall cover requirements for items including

- Scope of work, including transportation and installation.
- Rates for services, such as Commissioning services, vendor/manufacturer representative services, priced recommendations for two years operation and maintenance spare parts.
- Equipment and ancillary system particular specifications, data sheets and drawings, battery limits of the supply.

- Design basis, environmental conditions and applicable general specifications.

- 
- Delivery schedule and milestones, including shop tests;
  - Schedules, sub-orders, fabrication, shop testing, packing, transportation, and delivery to CONTRACTOR;
  - Vendor Documentation Requirement Schedule as per requirements of the CONTRACT, including
    - List and address of sub vendors.
    - Final documents.
    - Calculations.
    - Logic diagrams, one line diagrams, P&ID's.
    - Quality Assurance/Quality Control/Inspections.
    - Welding procedures and welder qualification records.
    - Test procedures and reports.
    - NDT test procedures and reports.
    - List of equipment to be certified.
    - All applicable certificates.
    - Long term preservation procedures.
    - Handling, transportation and installation and instructions.
    - Mechanical completion, commissioning and start-up procedures.
    - Operating and maintenance instructions.
    - Spare parts requirements.
    - Spare part recommendations for commissioning and start up and two years operation and maintenance.
    - Special tools and handling device requirements.
    - Deviation permit duly approved by owner/Owner Representative.
    - Vendor installation, Commissioning and start-up assistance.
    - Purchase order or subcontract contractual terms and conditions.
    - Equipment lifetime spares pricing and availability undertaking requirement.

#### 4.0 OWNER/CONSULTANT REVIEW OF PURCHASE ORDER

CONTRACTOR shall forward Purchase Order together with attached documentation, without pricing details, to OWNER/CONSULTANT for information.

All subsequent changes to purchase order particularly Purchase Requisition following review of the original, shall be subject to prior approval. Where requisitions specify a particular make or brand of equipment to be used followed by the statement "or purchaser approved equal", any such "equal" proposed by the suppliers shall be submitted for owner's Approval.

In the case of complex Purchase Orders with several amendments, a consolidated amendment, cancelling and replacing the original Purchase Order and its various amendments shall be prepared by CONTRACTOR.

#### 5.0 LIST OF VENDORS

- 5.1 List of approved vendors and other stipulation on vendor list are included in contract document. Contractor is required to strictly adhere to these requirements.
- 5.2 OWNER may, at its discretion, delete any vendor or subcontractor from the list of approved vendors and subcontractors at any time during the performance of the work.
- 5.3 Bid Evaluation and vendor or subcontractor selection.

CONTRACTOR shall perform its bid evaluations as follows:

After receipt of bids, CONTRACTOR shall review and check the bids for conformity with technical, contractual terms and conditions and Project requirements. CONTRACTOR shall then prepare its Unpriced preliminary bid evaluation summary of all technical, contractual and Project requirements indicating CONTRACTOR's recommended short list of bidders with reasons for such recommendation.

CONTRACTOR shall then carry out its complete Priced evaluations of the short list bidders.

#### 6.0 PURCHASE ORDER CONTROL REGISTER

CONTRACTOR shall establish and maintain a Purchase Order Control Register. This Register shall include all Purchase orders issued for all items of material and equipment to be incorporated in the work. CONTRACTOR shall be capable of generating reports from the Register for Indian and imported items separately.

The Purchase Order Control Register shall show for each Purchase Order and for each item the following information.

- Purchase order number.
- Material Requisition/Purchase Requisition number.
- Date of invitation of Bid.

- Date of Bid Receipt.
- Bid Opening Date.
- Date of unpriced final bid evaluation to OWNER.
- Date of Purchase Order.
- Date of Order Confirmation.
- Name/Address of vendor.
- Brief Description of materials and equipment purchased, together with specific identification reference.
- Expected shop delivery date.
- Expected delivery at worksite.
- Shipping details.
- Latest purchase order amendment No.
- Expediting details.
- Status of Purchase order.
- Inspection Status.

This Register shall be updated and issued monthly in hard copy, together with two (2) monthly updated diskette copies of the Register to OWNER/ CONSULTANT.

#### 7.0 INSPECTION AND MONITORING

Inspection and monitoring requirement along with inspection methodology shall be as detailed in bidding document.

#### 8.0 TRAFFIC

CONTRACTOR shall organize and co-ordinate the traffic of all materials and equipment and maintain records of latest status.

Prior to transportation to worksite of any and all parts or components of the facilities, by sea, special means or any other mode of transportation, CONTRACTOR shall obtain all necessary approvals from marine or insurance surveyors or any other statutory body with respect to the means and procedures to be used during packing, weighing, load out, seafastening, transportation, off-loading and the like.

Regardless of such approvals, CONTRACTOR shall be solely responsible for the adequacy of preparation for the packing, weighing, load out, seafastening, transportation, off loading and the like to any and all parts or components of the facilities to worksite in accordance with the requirements of the agreement.

At all stages of the work, CONTRACTOR shall ensure the proper identification of all bulk material equipment and supplies. CONTRACTOR shall provide OWNER with all applicable certificates and documentation upon delivery of such items at worksite.

Bulk material equipment and supplies shall be properly packed and secured so as to satisfactorily reach their destination.

Packing cases, boxes, tins, wrappings and other packaging materials supplied by CONTRACTOR shall be non returnable.

CONTRACTOR shall on a timely basis dispatch and deliver any and all bulk material equipment and supplies to the locations required for the performance of the work and maintenance of the contract master schedule.

CONTRACTOR shall be responsible for the selection of the means of transportation of all bulk material equipment and supplies.

CONTRACTOR shall arrange and carry out its responsibility and supervision of the transportation of all bulk material equipment and supplies from the point of fabrication to worksite.

CONTRACTOR undertakes to properly store and maintains any and all bulk material equipment and supplies in accordance with the agreement and the best professional practices and shall protect such bulk material equipment and supplies against weather hazards, water, humidity, sand, fire, theft, vandalism and the like.

CONTRACTOR shall at all times use every means to prevent any damage or loss whatsoever to bulk material equipment and supplies.

All purchase items shall be properly boxed and shipped to worksite to meet the Project Schedule. CONTRACTOR shall expedite all forwarding of bulk material equipment and supplies.

CONTRACTOR shall be responsible for organizing and co-coordinating packing, marking and transportation of equipment and materials to the worksite such work shall include.

- Preparing of packing, marking, shipping and documentation specifications.
- Inspection of packing, marking, loading and Off loading.
- Developing plans and procedures for freight forwarding, handling and customs clearance of equipment and materials to ensure that all materials arrives at the worksite on time.
- Organizing and ensuring of off loading and ground transportation of equipment and material to the worksite.
- Preparing maintaining and issuing a monthly shipping progress report and monthly shipping forecast in a format reviewed by OWNER.
- Arranging for the importation of all materials and equipment, for receiving and off loading at worksite, and for obtaining all necessary licenses, insurance certificates and any other required documents and
- Arranging for the use of harbor facilities in India for the off loading of all required equipment and materials.

CONTRACTOR shall provide all shipping documents which OWNER may require related to CONTRACTOR's shipments.

CONTRACTOR shall be responsible for all customs handling and payment of customs dues and port dues and shall maintain a register of customs entry references for the material received at site.

## 9.0 RECEIVING, INSPECTION AND STORAGE OF MATERIALS AT SITE

CONTRACTOR shall be responsible for receiving, handling, storage and safekeeping of all materials and equipment required for performance of the work.

CONTRACTOR's procedures shall include provisions for storage and protection of material and equipment, including detailed drawings of warehouses and open storage areas.

CONTRACTOR shall comply with vendor's recommendations regarding storage and protection of items.

CONTRACTOR shall comply with statutory regulations for storage of material.

CONTRACTOR field supervision staff shall supervise and coordinate material arrival at site, inspect it to check the compliance with the purchase orders and related specifications classify, store, maintain and finally release them to the sub contractors at the proper time of installation.

Field Warehousing procedure foresees the following duties and functions :

- a) Receive the materials which arrive at job site and issue the "Daily Material Receipt report".
- b) Check adherence in quantity and in characteristics of each item with the indications specified in the relative packing list or bill.
- c) Control that no damage has occurred during transportation.
- d) After inspection, store materials arrived in a good condition and in accordance with the purchase order issuing the "Jobsite Receipt Report".
- e) Periodically control materials, parts, components and equipment to be installed, in order to guarantee proper maintenance during storage, and to minimize the risk of damage during withdrawal and handling.

This shall include:

- Procedures for segregation of items which are not in conformance with requirements in order to prevent their inadvertent use or installation until non-conformance is resolved (i.e. repaired, rejected, etc.).
  - Instructions for appropriate preservation to avoid damage, deterioration or loss;
  - Quality control approval for withdrawal and handling methods for particular equipment and materials.
- f) Prepare and keep up to date a complete file of "Record Card" for materials received or delivered to sub contractors.



- g) Deliver to sub contractors the materials to be erected upon presentation of the "Delivery Voucher" signed by CONTRACTOR's supervisors.
- h) Issue the "Irregular Material Supply Report" for those materials which might arrive not in accordance with the purchase order and/or damaged. In case of damaged material, the damage will be declared to the carrier which will be requested to sign the "Irregular Material Supply Report" that will constitute a qualified proof for the attribution of the responsibilities and for application with the insurance Company. The same procedure will be followed for non compliance on quantities delivered (in excess or missing).
- i) Issue final reports on surplus material status existing in the warehouse at the end of works.  
In accordance with the criteria outlined above, CONTRACTOR to prepare & finalize forms to be used in performing the field warehousing activity.
- Daily Material Receipt Report.
  - Jobsite Receipt Report.
  - Irregular Material supply Report.
  - Record Card.
  - Delivery Voucher.

Final forms and detailed Procedures shall be agreed upon between the OWNER and the CONTRACTOR before the starting of the field construction activities.

## 10.0 LOCATION OF MATERIALS AND EQUIPMENT

CONTRACTOR shall maintain records of movement of all materials and equipment.

## 11.0 IMPORTED MATERIALS AND EQUIPMENT

CONTRACTOR shall ensure compliance with documentation procedures, regulations and maintenance of records in accordance with Indian Tax Excise, Customs and Import Laws. CONTRACTOR is required to establish and maintain a proper system equipped with personnel having expertise in tax, excise, customs and import regulations.

CONTRACTOR shall be responsible for obtaining the complete detailed importation procedures from appropriate Customs Authorities and for clearing Customs for the importation, exportation and re-exportation of any CONTRACTOR items and construction equipment. All procedure and formalities for Tax benefit to client shall obtained by Contractor on CWC name, if required.

CONTRACTOR shall request customs inspection with sufficient advance notice to ensure no disruption in the contract master schedule. CONTRACTOR shall assist customs authorities in such inspection and shall transmit any necessary documentation to Customs Authorities.

---

As necessary, CONTRACTOR shall ensure co-ordination and shall work with Customs Authorities and any vendor or sub contractors in order to implement the importation procedures in the most efficient manner.

## 1.0 CONTRACT CLOSING

### 1.1 GENERAL

- 1.1.1 CONTRACTOR after completing the works in all respects as specified elsewhere in the PACKAGE is required to complete the following activities but not limited to the same for closing of the contract.
- 1.1.2 Payment against CONTRACTOR'S Final Bill shall be released upon the satisfactory completion of activities pertaining to closing of the contract.

### 1.2 REQUIREMENT FOR CONTRACT CLOSING

The CONTRACTOR shall be required to submit the following documents but not Limited to the same on completion of works along with the final bill:

- i. Certificate for successful completion
- ii. Certificate of submission of certified As-built documents.
- iii. Site clearing as per Contract.
- iv. Handing over of spares
- v. Supply and acceptance of special tools and tackles.
- vi. Submission of Operating / Maintenance Manuals.
- vii. Submission of any balance documents to the OWNER for claiming Tax Benefits, as applicable.
- viii. Requisite approvals from Statutory Authorities and Government bodies.
- ix. No dues certificate from Statutory Authorities and Government bodies.
- x. Settlement of all extra claims with OWNER/CONSULTANT, if any.
- xi. No claims certificate.
- xii. Contractor Demobilization checklist as per Attachment - I.
- xiii. Completion of Contract closeout checklist as per clause 1.2.1.
- xiv. Detailed contract closeout report.
- xv. Any other documents to be submitted as specified elsewhere in the contract.
- xvi. No liability certificate: Self – certification from the CONTRACTOR that no payment is balance to their subcontractors and suppliers on account of service rendered /materials supplied by them or provide list of balance payments due indicating reason for non-payment / time frame for payment.

#### 1.2.1 CHECKLIST FOR CONTRACT CLOSEOUT

The broad checklist is enclosed in the Attachment- II. However, CONTRACTOR to prepare his own exhaustive checklist including detailed procedure for contract closeout and get it reviewed by OWNER/CONSULTANT before implementation.

### 1.3 DOCUMENTATION

Documents as specified under clause no. 1.2 are to be submitted to OWNER/CONSULTANT along with the final bill.

### 1.4 TIME FRAME FOR CONTRACT CLOSURE

The CONTRACTOR shall be required to submit all the documents within **Six (6) Months** of Contract Completion to OWNER/ CONSULTANT for **CONTRACT CLOSING**. CONTRACTOR shall take care of the following while preparing the schedule:

- Documents related to statutory authorities approvals and QC Documents shall be submitted at least one (1) month before Mechanical completion.
- Other documents for such activities, which are completed before Mechanical Completion, shall be submitted within one (1) month of Mechanical Completion.
- Balance documents such as Mechanical Completion certificate, Performance Guarantee Test certificate, As Built documents, No Claims certificate, etc. excluding Final Completion certificate are to be submitted within one (1) month after completion of the Performance Guarantee Test.

**ATTACHMENT – I: CONTRACTOR DEMOBILIZATION CHECKLIST**

DATE \_\_\_\_\_

PROJECT \_\_\_\_\_ OWNER \_\_\_\_\_

NAME OF CONTRACTOR \_\_\_\_\_

CONSULTANT \_\_\_\_\_

CONTRACT NO. \_\_\_\_\_

DESCRIPTION OF ACTIVITY	SIGNATURE WITH COMPLETION DATE		
	CONTRACTOR	CONSULTANT	OWNER
Removal of temporary facilities – site office, temporary water/ power etc.			
Clearance of site viz. debris construction material, tools & tackles, equipment, etc.			
Reconciliation of entry passes for men / materials.			

**ATTACHMENT-II: CHECKLIST FOR CONTRACT CLOSING**

DATE \_\_\_\_\_

PROJECT \_\_\_\_\_

OWNER \_\_\_\_\_

NAME OF CONTRACTOR \_\_\_\_\_

CONSULTANT \_\_\_\_\_

CONTRACT NO. \_\_\_\_\_

DESCRIPTION OF ACTIVITY	SIGNATURE WITH COMPLETION DATE		
	CONTRACTOR	CONSULTANT	OWNER
Final Completion Certificate issued.			
All Deficiencies corrected.			
All types of special tools & tackles delivered.			
Handing over of spares			
As built drawings including Drawing-Index received.			
Operation & Maintenance Manuals received.			
QC documents submission completed.			
Submission of Statutory/ Govt..Bodies approval completed.			
Final Documents submission completed.			
No outstanding claims.			
Back charges /Recoveries Accepted.			
Validity of Performance BGs checked and found acceptable.			
All safety incidences resolved.			
Demobilization checklist approved.			

## 1.0 INTRODUCTION

To ensure timely completion of the EPC contract, Contractor shall establish and maintain an effective Planning, Scheduling, Monitoring and Control system, including mobilization of required number of professionally qualified and experienced Planning Engineers for design office and construction site. The system shall be capable of accurate and timely prediction of trend, evolution of adequate preventive actions for likely slippages, and formulation of suitable catch-up schedule for delays, if any, that have occurred.

Schedules, reports and documents to be prepared and submitted by the EPC contractor for review of Client/ Project Management Consultant (PMC) at various stages and details of meetings to be held are described here.

## 2.0 DEFINITIONS

### Work Breakdown Structure (WBS)

Work Breakdown Structure is a diagram that depicts various units in a project and each unit is detailed with work items/equipment and major workloads.

### Design Office

Where Residual Basic Engineering, Detailed Engineering, Procurement activities for the contract are performed by EPC contractor.

### Functions

Function means basic components of the projects e.g. Residual Basic Engineering, Detailed Engineering, Ordering, Manufacturing & Delivery, Construction And Commissioning. Each function is divided into various disciplines. In case of Engineering, various disciplines are Architecture, Civil, Structure, Piping etc.

## 3.0 DOCUMENTS ALONG WITH BID

The EPC bidder shall submit following documents along with the bid:

- a) Proposed Overall Project Schedule in network form showing all the details unit wise.
- b) Write up on proposed Project Planning, Scheduling, Monitoring and Control system (in line with requirement of this Procedure).
- c) Organizational set up for Planning, Scheduling, Monitoring & Control at EPC Contractor's Design Office and Site Office.
- d) Progress Measurement System with details such as Weightages, Milestones, frequency etc.
- e) Project Execution Methodology.
- f) Function wise Resource Deployment Schedule (HO & Site manpower and construction equipment).
- g) Softwares to be used for Planning and for Material Control at site.
- h) Statement confirming compliance to the "Planning, Scheduling, Monitoring and Control System" requirements

#### 4.0 AFTER AWARD OF WORK

##### LOOK AHEAD SCHEDULE

The EPC Contractor shall prepare and submit a detailed 60 days Look Ahead Schedule. Look Ahead Schedule covers all initial activities (Front end activities) including Basic/ Residual Basic Engineering, Detailed Engineering, Procurement and Construction pertaining to first 60 days of the project duration.

It is derived from the scope and schedule agreed as per contract. It forms the basis of project execution and monitoring till Overall Project Schedule is finalised. Look Ahead Schedule is submitted within 2 week from Award of Contract or at the time of kick-off meeting whichever is earlier. The schedule shall be reviewed in the kick-off meeting.

#### 4.1 KICK OFF MEETING

A Kick Off Meeting shall be organised **within two weeks of award** of contract. The meeting shall be attended by Client's and PMC's representatives. During the meeting, the following with respect to Planning, Scheduling, Monitoring and Control system shall be discussed and finalized:

1. Planning deliverables required for Project Monitoring and Control.
2. Work Breakdown Structure depicting Quantitative scope/ workload functionwise.
3. Overall Project Bar Chart schedule clearly showing completion targets of applicable units and utilities/ offsite *along with major/ critical milestones*, and various levels of proposed Project Scheduling (Level 1,2,3 etc. ).
4. Look Ahead Schedule.
5. Procedure for Project Planning, Scheduling, Monitoring & Control system including all reporting formats.
6. Progress Measurement System and Unit, Function, Discipline, and Deliverable wise weightage breakdown (refer Attachment V for indicative weightage).
7. List of major engineering deliverables with indicative schedule for submission.
8. List of unit wise milestones to be included in the network, in addition to milestones specified in the Contract, if any (the number of milestones shall be at least 2 to 3 per unit per month).
9. List of critical/ long delivery equipment and materials for which fortnightly expediting report to be issued by the EPC Contractor.
10. Procedure for Bulk material control.
11. Cut off dates, distribution list with number of copies and Project calendar indicating submission of various planning documents and revisions.
12. Any other document as required.

#### 4.2 PROGRESS MEASUREMENT SYSTEM

~~The EPC Contractor shall submit during Kick Off Meeting, the detailed system of progress measurement of Residual Basic Engineering, Detailed Engineering, Ordering, Manufacturing & Delivery, Sub-contracting, Construction and Commissioning for review by Client/ PMC.~~

~~During the Kick Off meeting, Client/ PMC shall finalise weighted values to be used for the following:-~~

- ~~a) Unit wise within the contract, as applicable.~~
- ~~b) Function wise (for Residual Basic Engineering, Detailed Engineering etc.) within each unit.~~



~~c) Milestone weightage (for Residual Basic Engineering, Detailed Engineering etc.) for each type deliverable.~~

~~“Effort based weighted values” for the deliverable under Residual Basic Engineering, Detailed Engineering, Construction, Pre-Commissioning/Commissioning and miscellaneous activities (like As built, Training etc.) and “Cost based weighted values” for the deliverables under Ordering, Tendering, Sub Contracting & Manufacturing/ Delivery along with the basis of their derivation shall be submitted by EPC Contractor for review by Client/PMC, and the comments if any shall be incorporated by EPC Contractor and resubmit for approval.~~

~~Function level weightage shall be divided to discipline level and then to deliverable level/ milestone level as indicated in attachment V.~~

~~Progress figures at Unit/ Function/ Discipline level shall be summarized from deliverable level and indicated in the functional schedules.~~

## 5.0 PROJECT SCHEDULES

Following schedules shall be prepared and submitted by EPC contractor to Client/ PMC for approval:

- Overall Project Schedule
- Functional Schedule

### 5.1 OVERALL PROJECT SCHEDULE NETWORK (Summarised & Detailed)

The EPC Contractor shall submit **within four weeks of award** a network based detailed Overall Project Schedule (unit wise) on time scale, for all units in the contract and all functions of the work describing the project workload (refer Attachment - II). The schedule shall highlight interface activities in the scope of Client/ PMC and clearly reflect strategies and philosophy of execution. Major milestones for each unit shall be depicted at the beginning of the network. Milestones shall be chosen in such a ways that minimum 1 milestone to maximum 5 milestones are scheduled every month (Average 2 to 3 milestones per month). These milestones should have importance with respect to key areas/ activities of project execution covering all functions viz., engineering, procurement & construction. The project schedule shall be developed for contractual duration and or target duration decided with Client/ PMC. **Grace period, if any as per contract shall not be considered for schedule.** The schedule shall be reviewed by Client/ PMC and the comments if any shall be incorporated and the schedule shall be issued for implementation **within one week** from the receipt of comments. This schedule once approved by Client/ PMC shall not be revised **without** the prior written permission of Client/ PMC.

Overall Project Schedule (Summarised) will be prepared from Overall Project Schedule Network (Detailed) and will include all major/ critical activities & summarised activities at macro-level.

Overall Project Schedule Network (Detailed) shall be used for trend / detailed analysis whereas summarised Overall Project Schedule (Summarised) will be used to project status at a glance to higher management along with the Monthly Progress Report.

The Overall Schedule shall be updated on monthly basis and submitted along with Monthly Progress Report indicating base line schedule.

~~However, for finalisation of Overall Progress curves the EPC Contractor shall prepare and submit a Tentative Pre-commissioning/ Commissioning Schedule unit wise for Client/ PMC review within eight weeks of award.~~

## 5.5 CATCH-UP SCHEDULE

The EPC Contractor shall generate and submit catch-up schedule for completion of all balance activities without change in contractual completion date with detailed resource reinforcement as and when asked by Client/ PMC. The catch-up schedules shall be submitted to Client/ PMC for review. Accordingly the "S" curves for catch-up schedules shall be made and shown along with the original schedules and actual "S" curves.

During updation of overall project schedule, the catch-up schedules shall be shown in bar charts along with the original schedule.

## 6.0 UPDATION OF PROJECT SCHEDULES

The various schedules as described herein shall be updated for submission to Client/ PMC. Updation of the schedule is to determine the project trend, with the objective of taking preventive/ corrective action. The reflection of delayed/ anticipated completion by way of current trend does not in any manner absolve the EPC Contractor of his contractual obligations as per the contract.

### 6.1 OVERALL PROJECT SCHEDULE

#### 6.1.1 Overall Project Schedule Network (Detailed)

The schedule shall be updated on **monthly basis** and submitted in linked bar chart form in A4 size in soft form (native format) as a part of Monthly Progress Report. The updation shall be compared with the original schedule.

While updating, the following shall be considered:

- Actual date of start and completion for the activities.
- Contractual completion dates for vendors and sub-contractors/turnkey agencies, any change of duration due to offloading of vendors/sub-contractors/turnkey agencies to be reflected.
- Duration of activities not yet started shall remain the same as per the original schedule.
- Anticipated dates of activities in progress.
- Addition/ deletion of any activity if required or any change on job logic.
- Any change in drawing/material availability or change in activity duration.
- Any change in resource planning.
- Change in philosophy/strategy in execution of balance works, keeping in mind the actual status of the project.

#### 6.1.2 Overall Project Schedule Network (Summarised)

The schedule shall be as derived from the updated Overall Project Schedule Network (detailed) as above on monthly basis and submitted in linked bar chart form in A4 size with monthly progress report. The updation shall be compared with the original schedule. Format for updated schedule will be as per Attachment-III page 31 of 37.

## 6.2 — FUNCTIONAL SCHEDULES

The updated functional schedule trend and original schedule shall be shown together and submitted to client / PMC on ~~monthly basis~~, as part of Monthly Progress Report.

While updating, the following aspects shall be considered:

- ~~Actual dates of start and completion for the activities.~~
- ~~Actual work progress/ balance work~~
- ~~Contractual completion date for sub-contractors and vendor delivery not reflected earlier.~~
- ~~Any change in estimated activity durations~~
- ~~Material and drawing availability~~
- ~~Interfaces of one agency with other agencies~~
- ~~Various statutory reviews/ approval~~
- ~~Interfaces between unit & offsite/ utilities i.e. permanent power & water, waste disposal etc.~~
- ~~Any change in execution logic/philosophy and engagement of number of agencies/ sub-contractors and resource planning/ offloading if resorted to.~~

## 6.3 — OTHER SCHEDULES

The following schedules shall be updated on a ~~weekly basis~~ and submitted to Client/PMC before the ~~weekly review meeting~~ at site in bar chart format. The updated schedule trend shall be compared with original schedule.

- ~~Loopwise piping completion schedule~~
- ~~Systemwise completion schedule~~
- ~~Pre-commissioning/commissioning schedule~~

## 7.0 REVIEW MEETINGS

The EPC Contractor shall present project status, project highlights and action plan as applicable at various review meetings as described below. The presentation materials shall be submitted by EPC contractor to Client/ PMC at least two days before the date of the meeting for management level review meetings and Monthly/ Fortnightly review meetings.

### 7.1 Management Level Review Meeting

Level of participation : Senior management of client, PMC and EPC contractor.

Agenda frequency and venue : to be decided by Client/ PMC.

### 7.2 Monthly/ Fortnightly Review Meeting

Level of participation: Client, PMC and EPC Contractor

Agenda:

- 1) Status against various commitments made during the previous review meetings.
- 2) Monthly programme v/s Progress Status/ Statistics.
- 3) Project Completion Outlook.
- 4) Areas of concern with action plan.
- 5) Catch-up schedule.

Venue and timing of the meeting shall be decided by Client/ PMC. Frequency of Meeting (Monthly or Fortnightly) shall also be decided by Client/ PMC, based on criticality of the project status.

### 7.3 Weekly Review Meeting

#### 7.3.1 For EPC Design Office activities (interval of meeting shall be decided based on progress of work)

~~Note: This meeting may be changed to fortnightly meeting till completion of major Engineering issues.~~

~~Level of participation: Client, PMC & EPC Contractor~~

- ~~Agenda:~~
- ~~1) Weekly programme v/s progress status/Statistics for Residual Basic Engineering, Detailed Engineering, Ordering, Manufacturing & Delivery and Sub-contracting.~~
  - ~~2) Action taken for slippages.~~
  - ~~3) Programme for next week~~
  - ~~4) Status of various resources deployed Vs planned~~

#### 7.3.2 For Site Activities

~~Level of participation: Client, PMC & EPC Contractor~~

- ~~Agenda:~~
- ~~1) Work front availability~~
  - ~~2) Weekly programme v/s Achievement~~
  - ~~3) Resource mobilisation~~
  - ~~4) Reasons for shortfall~~
  - ~~5) Catch up Schedule~~
  - ~~6) Progress statistics~~
  - ~~7) Programme for next week.~~
  - ~~8) Status of resources deployed v/s planned.~~

~~Venue and timing of Weekly Review Meetings for shall be decided by Client/ PMC.~~

## 8.0 PROGRESS REPORTING

The EPC Contractor shall submit the following reports on regular basis for Client/ PMC's information/ review.

### 8.1 Monthly Progress Report

The report shall be submitted on monthly basis **within 5 calendar days from cut-off date** covering overall scenario of the project. A copy of the specified formats for the report is enclosed as Attachment – III.

### 8.2 Weekly Progress Report (Overall)

~~This report shall be prepared by EPC Contractor and issued on weekly basis to Client/ PMC within three days of the cut off date. The report shall include the following:~~

- ~~• Executive Summary~~
- ~~• Project highlights with dates of achievements.~~



- ~~Project exception (work programmed but not achieved with reasons for non-achievement) and work programmed for next week.~~
- ~~Critical areas.~~
- ~~Action taken/ to be taken for slippages.~~
- ~~Progress statistics.~~
- ~~Activities planned for next week.~~
- ~~Status of Outstanding Documents from Licensor/ PMC.~~

~~This shall cover both for EPC Contractor's Design Office activities and construction activities at site.~~

### 8.3 ~~Weekly Progress Report (Construction)~~

~~This report shall be prepared by EPC Contractor and submitted on weekly basis within 2 calendar days from cut off date. The report shall cover following items:~~

- ~~Progress statistics~~
- ~~Work item wise quantity completed against programme for the week including reasons for shortfall~~
- ~~Programme for next week~~
- ~~Front available~~
- ~~Constraints, if any.~~
- ~~Resources deployed against planned with reasons for shortfall in resource deployment~~
- ~~List of equipment/materials received at site during the week~~

### 8.4 ~~Daily Progress Report (Construction)~~

~~EPC Contractor shall submit (daily before noon), for status of previous working day a daily report including the following~~

- ~~Programme v/s Progress for the day~~
- ~~Programme for next day~~
- ~~Important achievements for the day~~
- ~~Materials/ Equipment receipt for the day.~~
- ~~Man power/ Machinery deployment report - Required v/s Deployed.~~

### 8.5 Expediting Report

EPC Contractor shall submit fortnightly expediting reports based on his representative's visit to vendor's work for orders where delivery of materials is critical to project completion. A list of such critical items/ vendors shall be specified by Client/ PMC during the kick off meeting or at a later date.

In addition to the above, Client/ PMC may request expediting report based on visit of EPC Contractor's representatives in case of orders which though not critical at the time of order placement become subsequently critical during project execution due to any reason.

### 9.0 BULK MATERIAL CONTROL

~~The EPC Contractor shall follow an integrated material control system for the project. The system shall be such that material identification in the design office, procurement and~~

NAME OF LSTK CONTRACT  
CONTRACTOR

MONTH & YEAR  
CLIENT  
PMC EIL  
PAGE 2 OF 37

PROJECT

## TABLE OF CONTENTS

<u>SECTION</u>	<u>DESCRIPTION</u>	<u>PAGE NO.</u>
I	INTRODUCTION	3
II	EXECUTIVE SUMMARY	4
III	DETAILED STATUS	5
IV	AREAS OF CONCERN WITH ACTION PLAN	6
V	PROGRESS STATISTICS	7
VI	MILESTONE STATUS	9
VII	PROBLEMS / HOLD-UPS	10
<b><u>ANNEXURES</u></b>		
I	<b><u>PROGRESS CURVES</u></b>	11
<b><u>II STATUS REPORTS</u></b>		
A	CHRONOLOGICAL ACHIEVEMENTS	12
B.1	SUMMARY STATUS OF ENGINEERING DRAWINGS	13
B.2	DRAWING / DOCUMENT RELEASE SCHEDULE (DCI)	14
B.3	MATERIAL CONTROL INDEX (MCI)	15
C	VENDOR/PACKAGE CONTRACTOR DRAWINGS AND DOCUMENTS STATUS	16
D.1	ORDERING STATUS (SUMMARY)	17
D.2	ORDERING STATUS (DETAILED)	18
E.1	EQUIPMENT DELIVERY STATUS (SUMMARY)	19
E.2	EQUIPMENT RECEIPT AND ERECTION STATUS (DETAILED)	20
E.3	BULK MATERIAL STATUS (SUMMARY)	21
E.4	MANUFACTURING / DELIVERY STATUS	22
F	SUB CONTRACTING STATUS	23
G1	UNITWISE STATUS OF CONSTRUCTION QUANTITIES RELEASED	24
G2	QUANTITATIVE MONTHLY CONSTRUCTION PROGRESS STATUS	25
H	STATUS OF CONSTRUCTION	26
I	LOOPWISE HYDROTESTING STATUS	27
J	SYSTEM HANDING OVER STATUS	28
K.1	UNITWISE DEPLOYMENT OF LSTK PERSONNEL AT CONSTRUCTION SITE	29
K.2	UNITWISE RESOURCE DEPLOYMENT STATUS - EQUIPMENT AND MACHINERY	30
L	UPDATED OVERALL PROJECT SCHEDULE	31
M	STATUTORY APPROVAL STATUS	32
N	INVOICING STATUS	33
O	STATUS OF WAIVER / DEVIATIONS	34
P	DELAY ANALYSIS	35-36
Q	PROJECT PHOTOGRAPHS	37
<b><u>III OTHER REPORTS</u></b>		
	OTHER REPORTS SUCH AS	
	- QUALITY REPORT	
	- HEALTH, SAFETY AND ENVIRONMENT REPORT	
	- COST REPORTS ETC. AS CALLED FOR IN THE OTHER SECTION OF THE BID PACKAGE.	

Clause E.3, F, G1, I, J, K.1 & K.2

REV 1

DISTRIBUTION

AS PER DISTRIBUTION LIST IN CONTRACT.

NAME OF LSTK CONTRACTOR

MONTH & YEAR

PROJECT

CLIENT

PMC : EIL

Page 2 of 37

I - INTRODUCTION

CLIENT :

PROJECT LOCATION :

PMC :

M/s. EIL, NEW DELHI

DESIGN CAPACITY :

UNIT

CAPACITY

LICENSOR

CONTRACT VALUE :

\_\_\_\_\_ Rs.(IN CRORES)

SCOPE OF WORK :

**PROJECT TARGET DATES (UNIT WISE)**

EFFECTIVE START DATE :

TARGET COMPLETION DATE :

CONTRACTUAL COMPLN DATE :

CONTRACTUAL COMMNG DATE  
(If Applicable) :

ANT. MECH COMPLN DATE :

ANT. COMMNG DATE  
(If Applicable) :

PROJECT DURATION :

\_\_\_\_\_ MONTHS

TIME ELAPSED :

\_\_\_\_\_ MONTHS

NAME OF LSTK CONTRACT  
CONTRACTOR

MONTH & YEAR  
CLIENT  
PMC : EIL  
~~Page 4 of 37~~

PROJECT

## II - EXECUTIVE SUMMARY

EXECUTIVE SUMMARY SHALL SERVE AS SYNOPSIS OF THE PROJECT. IT NEEDS TO FOCUS ON THE FOLLOWING :

- OVERALL SCHEDULE AND ACTUAL PROGRESS TO BE SPECIFIED (CUMULATIVE AND DURING THE MONTH)
- LIMIT IT TO ONE PAGE AS FAR AS POSSIBLE.
- MAJOR MILESTONES ACHIEVED DURING THE MONTH.
- CONTINGENCY/ CRASH ACTION PLAN FOR MOST CRITICAL AREAS, IF ANY, BEING FORMULATED / IMPLEMENTED.
- SIGNAL FOR THE AREAS LIKELY TO BECOME CRITICAL.
- ANY OTHER ISSUE NOT LISTED ABOVE.



NAME OF LSTK CONTRACT  
CONTRACTOR

MONTH & YEAR  
CLIENT  
PMC : EIL  
Page 5 of 87

PROJECT

**III - DETAILED STATUS**  
(UNITWISE / DISCIPLINEWISE)

**A. RESIDUAL BASIC ENGINEERING**

- ACTIVITIES COMPLETED DURING THE MONTH
- ACTIVITIES PLANNED FOR THE NEXT MONTH

**B. DETAILED ENGINEERING**

- ACTIVITIES COMPLETED DURING THE MONTH
- ACTIVITIES PLANNED FOR THE NEXT MONTH

**C. PROCUREMENT**

**i) ORDERING**

- ACTIVITIES COMPLETED DURING THE MONTH
- ACTIVITIES PLANNED FOR THE NEXT MONTH

**ii) MFG/DELIVERY**

- ACTIVITIES COMPLETED DURING THE MONTH
- ACTIVITIES PLANNED FOR THE NEXT MONTH

**D. SUB-CONTRACTING**

- ACTIVITIES COMPLETED DURING THE MONTH
- ACTIVITIES PLANNED FOR THE NEXT MONTH

**E. CONSTRUCTION /PRE-COMMISSIONING & COMMISSIONING**

- ACTIVITIES COMPLETED DURING THE MONTH
- ACTIVITIES PLANNED FOR THE NEXT MONTH

**F. PACKAGE SUB-CONTRACTOR STATUS**

**PACKAGE SUB-CONTRACTORWISE STATUS TO BE GIVEN  
FUNCTIONWISE AS APPLICABLE)**

**i) ENGINEERING**

**ii) ORDERING**

**iii) MANUFACTURING & DELIVERY**

**iv) CONSTRUCTION**

- ACTIVITIES COMPLETED DURING THE MONTH
- ACTIVITIES PLANNED FOR THE NEXT MONTH

NAME OF LSTK CONTRACT  
 CONTRACTOR  
 PROJECT

MONTH & YEAR  
 CLIENT  
 PMC: EIL  
~~DATE: 0-0-07~~

**IV - AREAS OF CONCERN WITH ACTION PLAN**

(UNITWISE / DISCIPLINEWISE)

SR. NO.	AREAS OF CONCERN	CONSTRAINTS	IMPACT ON SCHEDULE (IN MONTHS)	ACTION PLAN	ACTION BY	TARGET DATE
		<b>SAMPLE</b>				

**NOTE**

1. THIS SHALL CONTAIN ONLY CRITICAL ITEMS/ISSUES WHICH ARE DIRECTLY AFFECTING THE PROJECT SCHEDULE
  2. OTHER ITEMS CAN BE PLACED IN PROBLEMS & HOLD UPS CHAPTER.
- TARGET DATES SHALL BE FURNISHED WITH ACTION PLAN.

NAME OF LSTK CONTRACT  
 CONTRACTOR  
 PROJECT

MONTH & YEAR  
 CLIENT  
 PMC : EIL  
 PAGE 7 OF 37

**V - PROGRESS STATISTICS**

**A OVERALL PROJECT PROGRESS**

DESCRIPTION	WTD % AGE		DURING THE MONTH		CUMULATIVE	
	COMPLEX		SCHEDULE	ACTUAL	SCHEDULE	ACTUAL
RESIDUAL BASIC ENGINEERING						
DETAILED ENGINEERING						
ORDERING						
MANUFACTURING/DELIVERY						
SUB-CONTRACTING						
CONSTRUCTION						
COMMISSIONING						
OVERALL PROGRESS - PHYSICAL	Σ A=100%					

**B. PROCESS UNIT (UNITWISE)**

**B.1 UNIT NAME**

DESCRIPTION	WTD % AGE		DURING THE MONTH		CUMULATIVE	
	COMPLEX	UNIT	SCHEDULE	ACTUAL	SCHEDULE	ACTUAL
RESIDUAL BASIC ENGINEERING						
DETAILED ENGINEERING						
ORDERING						
MANUFACTURING/DELIVERY						
SUB-CONTRACTING						
CONSTRUCTION						
COMMISSIONING						
PHYSICAL PROGRESS UNIT- A1	A1 %	100				

**B.2 UNIT NAME**

**B.3 UNIT NAME**

**B.4 UTILITIES /OFFSITES**

DESCRIPTION	WTD % AGE		DURING THE MONTH		CUMULATIVE	
	COMPLEX	UNIT	SCHEDULE	ACTUAL	SCHEDULE	ACTUAL
RESIDUAL BASIC ENGINEERING						
DETAILED ENGINEERING						
ORDERING						
MANUFACTURING/DELIVERY						
SUB-CONTRACTING						
CONSTRUCTION #						
COMMISSIONING						
PHYSICAL PROGRESS UTILITIES /OFFSITES	A4 %	100				

NAME OF LSTK CONTRACT  
 CONTRACTOR  
 PROJECT

MONTH & YEAR  
 CLIENT  
 PMC : EIL  
 PAGE 6 OF 57

**C. SUB CONTRACTED PACKAGES (PROCESS UNIT, UTILITIES & OFFSITES)**

**C.1 PACKAGE - 1**

DESCRIPTION	WTD %AGE		DURING THE MONTH		CUMULATIVE	
	w.r.t U/OFF	UNIT	SCHEDULE	ACTUAL	SCHEDULE	ACTUAL
RESIDUAL BASIC ENGINEERING						
DETAILED ENGINEERING						
ORDERING						
MANUFACTURING & DELIVERY						
CONSTRUCTION						
COMMISSIONING						
PHYSICAL PROGRESS RWTP	X1	100				

**C.2 PACKAGE - 2**

**C.3 PACKAGE - 3**

**D. MAJOR REASONS FOR SHORTFALL**

**NOTE:**

1. WHEREIN THE GAP BETWEEN SCHEDULE & ACTUAL %AGE PROGRESS IS MORE THAN 5% , EXPLANATION FOR THE BACK LOG/GAP REQUIRED TO BE FURNISHED IN THIS SHEET.
2. ALL COMPONENTS OF THE PROJECT IN LSTK CONTRACTOR'S SCOPE AS PER THE CONTRACT, SHOULD BE REPORTED IN IN THE PROGRESS STATISTICS.
3. UNIT WISE ALL SUBCONTRACTED PACKAGES TO BE REPORTED UNDER SUBHEADING "SUB CONTRACTED PACKAGE".
4. # CONSTRUCTION INCLUDES %AGE PROGRESS OF SUB-CONTRACTED PACKAGES IF ANY IN THE RESPECTIVE UNIT / OFFSITES & UTILITIES AS DETAILED IN THE ANNEXURE TO CONSTRUCTION PROGRESS.



NAME OF LSTK CONTRACT  
 CONTRACTOR  
 PROJECT

MONTH & YEAR  
 CLIENT  
 PMC : EIL  
 PAGE TO

**VII - PROBLEMS / HOLD-UPS**

(UNIT WISE / DISCIPLINE WISE)

SR. NO.	PROBLEM / HOLD-UPS	ACTION PLAN	ACTION BY	TARGET DATE
1				
2				
3	<b>SAMPLE</b>			
4				
5				

NOTE : ONLY POINTS WHICH AFFECT THE PROGRESS BUT MAY NOT HAVE THE IMPACT ON THE PROJECT SCHEDULE SHALL BE LISTED HERE.

NAME OF LSTK CONTRACT  
CONTRACTOR  
PROJECT

MONTH & YEAR  
CLIENT  
PMC : EIL  
~~PAGE 12 OF 37~~

ANNEXURE - II (A)

### CHRONOLOGICAL ACHIEVEMENTS

S. NO.	DESCRIPTION OF KEY MILESTONES.	SCH. DATE	ACTUAL DATE OF OCCURRENCE
1.	GENERAL		
2.	UNITWISE (AS APPLICABLE)		
2.1	RESIDUAL BASIC ENGINEERING		
2.2	DETAILED ENGINEERING		
2.3	ORDERING		
2.4	MANUFACTURING & DELIVERY		
2.5	SUB-CONTRACTING		
2.6	CONSTRUCTION		
2.7	SUB-CONTRACTED PACKAGES		
2.8	PRECOMMISSIONING		
2.9	COMMISSIONING		

**SAMPLE**

**NOTE : MECHANICAL COMPLETION & COMMISSIONING DATES SHALL ALSO BE RECORDED.**

NAME OF LSTK CONTRACT  
 CONTRACTOR  
 PROJECT

MONTH & YEAR  
 CLIENT :  
 PMC : EIL  
 PAGE 13 OF 17

**SUMMARY STATUS OF ENGINEERING DRAWINGS**  
 (SUMMARY LEVEL & UNIT WISE SEPARATELY)

ANNEXURE -II (B.1)

DISCIPLINE	TOTAL DRAWINGS NOS.	DRAWINGS RELEASED (NOS.)			REVIEW STATUS (NOS.)			INFO. STATUS (NOS.)			SUBMISSION PROGM. FOR NEXT MONTH			REMARKS
		DURING THE MONTH		CUMULATIVE	TOTAL DRGS. FOR REVIEW	CODE 1	CODE 2	CODE 3	TOTAL DRGS. FOR INFO	REVIEWED	FRESH	CODE 3		
		SCH.	ACT.										SCH	
ARCHITECTURAL														
GENERAL CIVIL														
STRUCTURAL														
PIPING														
ELECTRICAL														
INSTRUMENTATION														
<b>TOTAL</b>														

**SAMPLE**



NAME OF LSTK CONTRACT  
CONTRACTOR

MONTH & YEAR  
CLIENT  
PMC : EIL

PROJECT

Page 14 of 37

**DRAWINGS / DOCUMENTS RELEASE SCH. (DCI)**

(UNITWISE / DISCIPLINEWISE)

ANNEXURE - II(B.2)

STATUS AS OF : DD/MM/YYYY

PROJECT NAME

DRG. NO.	REV. NO.	CAT.	DRAWING / DOCUMENT TITLE	USE CODE	WTD. VALUE	SCH. A/F	MILESTONES			% PROG.	WTD. PROG.	REV. CODE	REMARKS
							DRAFT COMPL. *	CHECK COMPL. *	IST SUBM. *				
DISCIPLINE : PROCESS													
						SCH.							
						A/F							
						SCH.							
						A/F							
						SCH.							
						A/F							
						SCH.							
						A/F							
						SCH.							
						A/F							
						SCH.							
						A/F							
						SCH.							
						A/F							

SAMPLE

LEGEND

CATEGORY (CAT.): I: INFORMATION R: REVIEW A: APPROVAL  
S: STUDY A: STATUTORY / CLIENT REVIEW  
USE CODE :- P: PURCHASE C: CONSTRUCTION  
T: TENDERING L: CALCULATION

- NOTE :
1. INDICATE A/F (ACTUAL / FORECAST) AS APPLICABLE WITH THE DATES.
  2. \* PERCENTAGE FOR AGREED MILESTONES AS PER PROGRESS MEASUREMENT METHODOLOGY.
  3. THIS INCLUDES PROCESS / BASIC ENGG. DELIVERABLES.

NAME OF LSTK CONTRACT :  
 CONTRACTOR :  
 PROJECT :

MONTH & YEAR  
 CLIENT  
 PMC : EIL  
 PAGE NO. OF 7

MCI: MATERIAL CONTROL INDEX (UNIT WISE / DISCIPLINE WISE)

ANNEXURE : II (B.3)

S. NO	DRAWING/DOCUMENT NUMBER	DRAWING / DOCUMENT DESCRIPTION	CATERGORY (A/R/I)	WTD VALUE	ISSUE OF MR	PREPARE TBA	PREP OF PR	APPROVAL OF PR / 1ST REVIEW OF VENDOR DRGS	APPROVAL OF VENDOR DRGS/DOCS	WEIGHTED PROGRESS	REMARKS / REASONS FOR DELAY	STATUS AS ON: DD/MM/YY	
												20%	30%
<b>&lt;DISCIPLINE&gt;</b>													
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
		TOTAL											

PLEASE REFER ANNEXURE : II (C)

LEGEND: CATEGORY (CAT.): I: INFORMATION R: REVIEW A: APPROVAL  
 S: STUDY A: STATUTORY / CLIENT REVIEW  
 USE CODE :- P: PURCHASE C: CONSTRUCTION  
 T: TENDERING L: CALCULATION

NOTE: 1. INDICATE A/F (ACTUAL / FORECAST) AS APPLICABLE WITH THE DATES.  
 2. \* PERCENTAGE FOR AGREED MILESTONES AS PER PROGRESS MEASUREMENT METHODOLOGY.  
 3. THIS INCLUDES PROCESS / BASIC ENGG. DELIVERABLES.