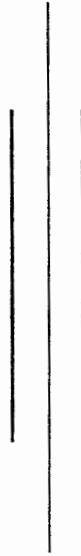




WORKS MANUAL

First Edition - 2004



Published by :

Hindustan Steelworks Construction Limited

(A Govt. of India Undertaking)

5/1, Commissariat Road, Kolkata -700 022

FOREWORD

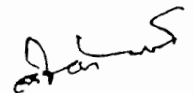
In the present economic scenario especially in the context of stiff competition, HSCL's responsibility to deliver projects in time with quality assurance has all the more increased. This is possible through true commitment. Transparency in various aspects of execution of projects is the need of the hour. To fulfill these aspects clear and defined practices and procedures was felt necessary. I am happy that the WORKS MANUAL has been brought out covering the various aspects of execution of projects. The Manual has exhaustive coverage and I am sure it will fulfill the requirement of present day works of executives in various disciplines.

I appreciate the efforts put in by various Heads of Departments, Heads of Projects, Director (Finance) and others in bringing out this comprehensive Works Manual.

It gives me immense pleasure and satisfaction in releasing the 1st Edition of the "Works Manual" which I am sure will serve as a useful Reference Book to all the employees.

Kolkata

April, 2004



(Dr. B. K. JHA)

Chairman-cum-Managing Director

PREFACE

HSCL was established in the year 1964 with the objective of **building** integrated Steel Plants at different locations in the country. **Beginning** modestly with the site levelling activity at Bokaro in 1965, **HSCL** has developed a comprehensive capability in construction **and** erection of Integrated Steel Plants. Besides Steel Plant works **the** company diversified its activities and took up challenging jobs **in the** Non-Steel Sector covering Heavy Industrial Projects, Power, **Coal**, Mining, Oil & Refineries, Dams & Barrages and also **Infrastructure** projects such as Railways, Airports, Townships & **Buildings**, Bridge, Roads etc.,

All these years, HSCL had a framework of procedures and **rules broadly** laid down through various circulars from time to time. **In the present** scenario especially in the context of stiff competition **a need** has been felt to amend the procedural instructions, complying with the need of the hour, in the form of a comprehensive document.


An attempt has been made to prepare HSCL Works Manual, which could meet the functional requirement of various roles being performed by HSCL. This Manual has covered various aspects for execution of Projects.,

The draft manual was circulated to Zonal/Unit Heads and their suggestions have been incorporated wherever it was felt necessary. I record my sincere thanks to all those involved in this venture.

All the officers and staff will please ensure that the provisions in this Manual are meticulously followed: Suggestions from esteemed readers for any improvement in the Works Manual are most welcome.

These are broad guidelines which should be used in true sprit. The guidelines should not be misused.

I am grateful to Dr. B.K.Jha, Chairman-cum-Managing Director, H.S.C.L. for his guidance and encouragement in bringing out this Manual.



(Parthasarathy, K.)

Director(Finance)

Kolkata

April, 2004

CHAPTER- I

OBJECTIVES AND FUNCTIONS

1. INTRODUCTION :

1.1 Hindustan Steelworks Construction Limited (HSCL) is a Public Sector Undertaking under the aegis of the Ministry of Steel, Government of India and was incorporated on 23rd June, 1964 under the Companies Act, 1956.

The Company starting its activities with the site levelling works of Bokaro Steel Plant grew up to be Captive Construction Company for integrated Steel Plants. Functioning as a leading construction company, it has diversified its activities during the last 40 years in executing construction works in the following areas.

- a) Industrial Utility and Multistoried Buildings
- b) Road Works
- c) Construction of Bridges, Approach Roads
- d) Public Health Engineering works
- e) Overhead and underground Reservoirs
- f) Ware Houses
- g) Hydraulic Structures like Dams, Barrages, Aqueducts Chimneys
- h) Heavy foundations. RCC Structures
- i) Structural Fabrication & Erection works
- j) Mechanical Erection works

1.2 Vision

These are

- a) Technology Base
- b) Quality Assurance
- c) Professionalism
- d) Image Building

- e) *Customer's Satisfaction*
- f) *Cost Consciousness*
- g) *Profitability*

1.3. Objectives

These are

- *to ensure growth commensurate with the industrial growth*
- *to improve profitability at operational level*
- *to increase market share in its field of specialisation*
- *to ensure transparency, economy, cost consciousness, efficiency, quality and timely completion of projects*

1.4 The success in operations of HSCL thus results from :

- *advance planning of men ,materials, execution methodology for the work expected to be bagged.*
- *successful tendering for job - either for construction or on Turnkey basis or for management of projects.*
- *selection and effective deployment of appropriate and reliable personnel on the jobs.*
- *making available the required quantities of materials for construction and machinery etc., in time and controlling their consumption to the optimum.*
- *eliminating or reducing time and cost overrun of the project by effective site management, covering inter-alia, achievement of quality in performance, deployment of adequate safety measures, timely realisation of dues, adherence to prescribed norms in rates and parameters of Memorandum of Understanding and avoidance of unnecessary expenditure.*
- *ensuring customer satisfaction in respect of quality and timely completion of work and avoidance of unnecessary disputes in respect of the projects.*

CHAPTER - II

AWARD OF WORKS

1.0 BACKGROUND

This chapter deals with steps to be followed in the field offices in managing the Contract, Agreement/Work orders. At present, with reduced man power when bulk of technical personnel has taken voluntary retirement, the system of Marketing for securing jobs has been decentralised and is presently being done by the respective Units/Zones of H.S.C.L. with requisite support services from corporate office. In the present economic scenario, especially where work has to be secured through tough competition, H.S.C.L. has to explore all avenues to find out the most economical execution methodology without sacrificing the quality and avoiding cost and time overrun. At the same time, the procedure followed is to be transparent.

Keeping in view the above, this volume of procedure has been formulated which needs to be meticulously followed for the purpose of award of work.

1.1 DEFINITION

- a) *“Unit(s)” shall mean the project site where the works are executed and “Unit Head” shall mean the executive who has been designated by the corporate office to function as head of the project site.*
- b) *“Zone(s)” shall mean the conglomeration of a number of units under one Zonal Head.*
- c) *The word “PRW/Contractor” shall mean an agency who has been awarded the work by HSCL for execution.*

- d) *The word “RE” shall mean the Resident Engineer who has been assigned to function as project in-charge of a unit / project.*
- e) *“DOP” shall mean the Delegation of Power to be exercised by the respective executives of HSCL at different levels.*

1.2 SELECTION OF AGENCIES

1.2.1 The various Unit/Zones of HSCL shall invite application for Pre-Qualification through Press Advertisements and through HSCL’s website asking resourceful agencies with sound financial capability and having adequate experience for execution of work in the following areas:

- *Industrial Utility and Multistoried Building*
- *Roads, Bridges Flyovers*
- *Public Health Engineering works. Overhead and Underground Reservoir*
- *Ware Houses*
- *Hydraulic Structures like Dams. Barrages, Aqueducts, Chimneys*
- *Heavy Foundations, R.C.C. Structures*
- *Structural Fabrication and Erection works*
- *Mechanical Erection Works*
- *Design and Consultancy services*

The Corporate Office has finalised an empanelment list earlier. The same can also be renovated if the parties performance were found to be alright and parties agree in writing, to continue with empanelment with HSCL.

1.2.2 The Pre-Qualification documents issued to the Agency shall be strictly as Circulated to the Units/Zones by H.O. marketing Department vide IOM No. GGM (EZ)/ 122-Mktg/ 2002/375 dtd.03-05-2002.

The Pre-qualification criteria should be as per circular No. CVO/6/2003/500 dt.26-02-03 (enclosed as Annexur-1)

1.2.3 Enlistment of Pre-qualified agencies shall be for the following disciplines of work

- a) Civil works*
- b) Structural works*
- c) Mechanical/Electrical work*
- d) Architects and Consulting Engineers*

The agencies short-listed in the various disciplines of work shall be categorized depending on their capacity to execute works. The list of agencies finalised at the Zonal /Unit level shall be sent to Corporate Office and the total list shall then be compiled and circulated by the Corporate Office to all Zones/Unit heads for their use.

1.2.4 The Pre-qualified list is to be reviewed every year (in January). For this purpose, all units would be sending a list to H.O. of Pre-qualified agencies working with them every December whose performance had been found bad, does no longer possess adequate equipment, manpower or financial resources, violates important condition of contract, persistently violates Labour Laws and registration clauses, fails to submit updated statutory documents like IT Clearance Certificate / S.T. Clearance Certificate / P.F. Code required or infiere a contractor or his partner or representatives have committed an offence in a court of law involving moral turpitude in relation to business or security consideration to State etc.

1.2.5 Sending of such reports, annually would be binding on units. If not at more frequent interval and on receipt of such reports, Corporate Office shall assess. whether concerned PRW/Contractor is to be demoted/removed from approved list & black listed as per merit of the cases and advise all units accordingly to keep their empanelled

ANNEXURE - I

HINDUSTAN STEELWORKS CONSTRUCTION LIMITED
P34/A, GARIAHAT ROAD (SOUTH)
KOLKATA - 700 031
(Vigilance Department)

No. CVO/ 6/ 2003/ 500

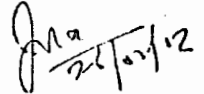
Date 26. 2. 2003

Confidential
Vigilance

TO
All Unit Heads / HSCL

Sub: Prequalification Criteria (PQ)

Attached herewith please find a copy of letter No. 12-02-1 CTE-6 dated 17.12.2002 received from CTE/ CVC for compliance



(J.L. DAS)

Chief Vigilance Officer

No. 12-02-1-CTE-6
Government of India
Central Vigilance Commission
(CTE' s Organisation)

Satarkata Bhavan,
Block A, GPO Complex,
INA, New Delhi - 110 023

Dated the 17th December 2002.

OFFICE MEMORANDUM

Subject: Prequalification criteria (PQ).

The Commission has received complaints regarding discriminatory prequalification criteria incorporated in the tender documents by various Deptts./Organisations. It has also been observed during intensive examination of various works/contracts by CTEO that the prequalification

criteria is either not clearly specified or made very stringent/very lax to restrict/facilitate the entry of bidders.

2. The prequalification criteria is a yardstick to allow or disallow the firms to participate in the bids. A vaguely defined PQ criteria results in stalling the process of finalizing the contract or award of the contract in a non-transparent manner. It has been noticed that organizations, at times pick up the PQ criteria from some similar work executed in the past, without appropriately amending the different parameters according to the requirements of the present work. Very often it is seen that only contractors known to the officials of the organization and the Architects are placed on the select list. This system gives considerable scope for malpractices, favouritism and corruption. It is, therefore, necessary to fix in advance the minimum qualification, experience and number of similar works of a minimum magnitude satisfactorily executed in terms of quality and period of execution.

3. Some of the common irregularities/lapses observed in this regard are highlighted as under:-

i) For a work with an estimated cost of Rs.15 crores to be completed in two years, the criteria for average turnover in the last 5 years was kept as Rs.15 crores although the amount of work to be executed in one year was only Rs. 7.5 crores. The above resulted in prequalification of a single firm.

ii) One organization for purchase of Computer Hardware kept the criteria for financial annual turnover of Rs.100 crores although the value of purchase was less than Rs.10 crores, resulting in disqualification of reputed computer firms.

iii) In one case of purchase of Computer Hardware, the prequalification criteria stipulated was that the firms should have made profit in the last two years and should possess ISO Certification. It resulted in disqualification of reputed vendors including a PSU.

iv) In a work for supply and installation of A.C. Plant, retendering was resorted to with diluted prequalification criteria without adequate justification, to favour selection of a particular firm.

v) An organization invited tenders for hiring of D.G. Sets with eligibility of having 3 years experience in supplying D.G. Sets. The cut off dates regarding work experience were not clearly indicated. The above resulted in qualification of firms which had conducted such business for 3 years, some 20 years back. On account of this vague condition, some firms that were currently not even in the business were also qualified.

vi) In many cases, "Similar works" is not clearly defined in the tender documents. In one such case, the supply and installation of A.C. ducting and the work of installation of false ceiling were combined together. Such works are normally not executed together as A.C. ducting work is normally executed as a part of A.C. work while false ceiling work is a part of civil construction or interior design works. Therefore, no firm can possibly qualify for such work with experience of similar work. The above resulted in qualification of A.C. Contractors without having any experience of false ceiling work although the major portion of the work constituted false ceiling work.

4. The above list is illustrative and not exhaustive. While framing the prequalification criteria, the end purpose of doing so should be kept in view. The purpose of any selection procedure is to attract the participation of reputed and capable firms with proper track records. The PQ conditions should be exhaustive, yet specific. The factors that may be kept in view while framing the PQ Criteria includes the scope and nature of work, experience of firms in the same field and financial soundness of firms.

5. The following points must be kept in view while fixing the eligibility criteria:-

A) For Civil/Electrical Works

i) Average Annual financial turnover during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the estimated cost.

ii) Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following:-

a. Three similar completed works costing not less than the amount equal to 40% of the estimated cost.

OR

b. Two similar completed works costing not less than the amount equal to 50% of the estimated cost.

OR

c. One similar completed work costing not less than the amount equal to 80% of the estimated cost..

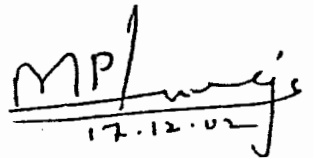
iii) Definition of "similar work" should be clearly defined.

In addition to above, the criteria regarding satisfactory performance of works, personnel, establishment, plant, equipment etc. may be incorporated according to the requirement of the Project.

B) For Store/Purchase Contracts

Prequalification/Post Qualification shall be based entirely upon the capability and resources of prospective bidders to perform the particular contract satisfactorily, taking into account their (i) experience and past performance on similar contracts for last 2 years (ii) capabilities with respect to personnel, equipment and manufacturing facilities (iii) financial standing through latest I.T.C.C., Annual Report (Balance Sheet and Profit & Loss Account) of last 3 years. The quantity, delivery and value requirement shall be kept in view, while fixing, the PQ criteria. No bidder should be denied prequalification/post qualification for reasons unrelated to its capability and resources to successfully perform the contract.

6. It is suggested that these instructions may be circulated amongst the concerned officials of your organization for guidance in fixing prequalification criteria. These instructions are also available on CVC's website, <http://cvc.nic.in>.



(M.P. Juneja)

Chief Technical Examiner

To

All CVOs of Ministries/Departments /PSUs/Banks/Insurance Companies/ Autonomous Organisations / Societies / UTs.

updated.

- 1.2.6 No work should be awarded to any party, who are not in the Pre-qualified list except in specific cases/condition as per clauses 3.7.3(b)

2.0 PRELIMINARY STEPS BEFORE AWARD OF WORK:

2.1 Before award of work, Unit should take into consideration the following

2.1.1 The mode of award of work to HSCL by Clients. This can be through following methods:

- (a) Open Tender on L I basis.
- (b) Limited Tender.
- (c) Single Tender basis.
- (d) On submission of offer on percentage basis.
- (e) On negotiation basis.
- (f) On cost plus basis.

The Contract condition may vary in different methodology of award of Work. Accordingly, terms & conditions for the work to be awarded to PRWs. /Contractors is to be formulated. which shall, in no case, be superior to the conditions stipulated by Clients.

2.1.2 In case there exists a possibility of HSCL being considered for award of work advance planning is to be made, action plan initiated and control estimate for executing the work needs to be prepared by the unit. The action plan should specify methodology to be adopted for execution of work. resources to be deployed - through agencies or departmentally, raw materials to be arranged - through agencies or departmentally, scope of work to be managed exclusively departmentally /through partly by agencies and partly departmentally and/fully through agencies.

Justification for the methodology to be adopted need to be provided briefly. explaining, as to how the proposed methodology would be the best suited, financially and administratively. This action plan has to be got approved by the Competent Authority.. The action plan / control estimate cash flow statements is to be sent to Corporate Office for scrutiny and approval.

2.1.3 The above action plan control estimate and cash flow statement. should be finalized and submitted for approval within a fortnight. Similarly. once submitted for approval. the Competent Authority should communicate approval (if necessary, duly modifying) within a week from the date of receipt of LOI from the client.

2.1.4 Once an unit freezes its action plan and submits control estimate alongwith cash flow statement maintaining envisaged margin, they can take approval from the competent authority through fast communication facility like Telephone, Fax, E-mail etc. However provision for necessary adjustment / amendment required if conditional approval is accorded, is to be kept.

2.1.5 Parallely, with preparation of control estimate / action plan, the unit should also make a broad estimate of work so that they possess a clear idea as to the reasonability of rate against execution of works as well as the flexibility they possess in the eventuality of deviation in item rates to maintain overall profitability.

2.1.6 Award of work to an agency can be fixed by any of the undermentioned procedures :

- (a) Through Pre-Tender / MOU Route*
- (b) Through Open Tender*
- (c) Through Short Tender*
- (d) Through Limited Tender*
- (e) Through Approved Rate Structure Basis*

(f) Through Percentage Basis

For better transparency and to get more competitive/responsible rate, mode of award on single tender basis shall be avoided. Only in special circumstances as explained at para 3.7 in Pg. 16 & 17 mode of single tender is to be adopted with the approval of competent authority.

The circumstances under which a particular methodology is to be followed is given below. However, this is to be taken only as an illustration and not as an exhaustive guideline.

3.0 THROUGH PRE-TENDER TIE-UP/MOU ROUTE :

- 3.1.1 *There may be certain high value tender requiring submission of EMD either by way of D.D or through BG's involving considerable B.G. Commission. working capital and the other resources which the company might find difficult to arrange because of its extremely critical financial position.*
- 3.1.2 *There may be package of works also of very specialized nature and the Company might not be having the requisite technical know-how even to price for such works, nor the in-house resources to meet the pre-qualification requirements.*
- 3.1.3 *In such cases, it might be necessary to have Pre-Tender tie-up with experienced and resourceful agencies for the specific jobs selected from amongst the empanelled/ Pre-Qualified agencies as also other worthy of consideration who may not be in the already empanelled/ Pre-qualified list but come forward for such tie-up after seeing insertion in the newspaper followed by details hosted in the Website. The criterion to be considered for selection of such agencies shall be as follows:*
- a) Constitution of the Company*
 - b) Credentials & suitability for the job in question*

- c) *Technical and financial resources supported by preceding 3 years Balance Sheet, Banker's Certificate relevant on given date etc.*
- d) *Commitment on the given date to ascertain as to whether the agency is over-booked or not with orders.*
- e) *Willingness to finance EMD requirements.*
- f) *Equipment holding / spareable for the job.*
- g) *Holding of latest IT and ST Clearance Certificates, PF Code and other documents as may be relevant.*

It would be necessary to have the other particulars re-submitted by the Prequalified empanelled agencies to review their status on the given date.

3.1.4 *The following steps are to be taken for selection of the agencies:*

On publication of the tender notification or on receiving indication of impending Tenders, open/ limited quotations shall be invited from the empanelled / prequalified agencies or willing agencies outside the empanelled/ prequalified list (who comes forward for association and completes the Standard Prequalification Documents) in two parts consisting of -

- 1) **Commercial Part:** *to include particulars as detailed above. The EMD of 0.5% of Tender value is to be adjusted with final EMD as per Tender.*
- 2) **Price part:** *Margin to HSCL as % for regular items, extra items and claim items is to be given.*

3.1.5 *On scrutiny of the Commercial parts and obtaining clarifications, if any, required from the parties, price parts of only the agencies satisfying the requirement of the job would be opened and the agency offering the best margin shall be selected for the Pre-tender tie-up and MOU*

concluded as per approved format subject to alterations based on the tender conditions and other requirements on case to case basis.

3. 1.6 *A Committee consisting of the Zonal Head, Head of the Zonal/ Unit Finance and Head of the Unit dealing with the tenders are to scrutinize the offers and to recommend the name of the agency for the Pre-tender tie-up for approval of D(F) & CMD.*

3. 1.7 *As far as possible , it would be worthwhile to explore the possibility not to pass on the entire job to such agency on back to back term and holding some part of the job which might be got executed by HSCL with its resources in part or full through smaller agencies which might fetch better margin. Thus, it would be necessary to judiciously forethink the methodology to be adopted for execution of work whether wholly through tie-up arrangement or with some part set aside for execution through smaller agencies with departmental inputs to the extent possible financially and administratively and to invite tenders for Pre-tender tie- up with respective responsibilities to be discharged clearly defined accordingly.*

3.2 Through Open Tender:

Open Tender is to be resorted to when work proposed to be awarded may not be of a very specific nature but involves heavy deployment of resources like equipment and materials. HSCL may not be in a position to provide such heavy inputs on the project on their own and a capable party both financially and technically, has to be selected to be deployed for the work at a most competitive rate. In such cases, the open tender process is to be resorted to.

Since elaborate system has been made by the Company to maintain empanelled/pre-qualified list of parties complete with their pre-qualification, financial capability

and all other details and these lists are prepared through open tender route, the open tender system would be rarely implemented by the Company and instead the other methodology is to be followed.

It is also clarified that if a tender is called after fixing the Pre-qualification criteria and allowing participation of all empanelled/ pre-qualified parties as per list, matching the pre-qualification, the said tender can be dealt at par with normal open tender and the delegation of power in such cases would be at par with Open Tender Clauses.

3.3 Through Short Tender Notice :

A situation may arise when HSCL is awarded by a particular client, a particular work, where Pre Tender / MOU route was not followed by the company. The award of work to HSCL may specify to start the work within a short time when time is not available to call Limited Tender in normal manner. Another situation may arise that the inputs to be deployed by HSCL at the tendering stage is not available or spareable and hence agencies are to be fixed, who will be capable of providing those specific inputs.

*Under such circumstances, short tender notice can be called from **atleast five prequalified/ empanelled parties**, who matches the pre-qualification criteria for such value of work specifically on the basis of their financial capability and equipment availability. Difference with the Limited Tender norms would be that spot quotations from five empanelled parties can be collected, comparison made and parties fixed on negotiation **basis with L1 only**. Suitable margin is to be kept as per provision of Delegation Of Power (D.O.P.)*

This specific route can also be followed if action plan has been specified accordingly with proper justification and approved by Competent Authority.

3.4 Through Limited Tender:

Limited Tenders are to be called if time available for fixing of agency and commencing the work is less than six weeks and at least five capable and empanelled/pre-qualified parties are available in the locality. However, it may first be ensured that such limited parties would respond against the said tender called and atleast three offers are received for comparison of rates before final award of work. To ascertain above, limited tender may be called from more than five parties. **In case unit is not having five capable parties same may be referred to HO for giving names of more Parties/decision.** While listing the above parties for calling limited tender, it may also be considered by the unit that the said parties are not already saturated with works to their corresponding limits of empanelment/ pre -qualification **and the same party should not be** considered repeatedly in L.T. All Empanelled /Pre-Qualified parties should be given an opportunity in rotation.

3.5 Through Approved Rate Structure Basis:

On award of work, the unit can finalize and prepare a rate structure itemwise. This analysis is to be made based on following norms.

- 1) CPWD Schedule of Rates
- 2) Approved Schedule of Rates in any Government Agency like PWD, State Electricity Board, Roads and Irrigation or like Agencies
- 3) From existing approved. schedule of rates of major units, the base of which was from an approved schedule of rates

The norms laid down in delegation of power has to be followed strictly regarding Approving Authority and formation of committees. The condition stipulated vide various circulars and vide DOP of maintaining a clear margin of not less than 5°% after charging the indirect

expenses (**i.e. Overhead & Supervision**) has to be maintained before a rate structure evaluated by an unit is approved. Once an approved rate structure is made, work can be awarded to any empanelled / pre-qualified party without calling tender on their willingness to take up the work at approved rate and condition. **The unconditional willingness to take up the work is to be obtained in writing & officially recorded.**

3.6 Through Percentage basis :

The tender can be called with furnishing the schedule of rate against BOQ item wise and asking the tenderer to quote for percentage above or below the rate specified. The schedule of rate specified should be on estimated rate item wise either as per any approved rate schedule or on an estimated basis.

There may be cases where estimated rate against an item cannot be evaluated in absence of a data. In such cases, the estimated rate can be made keeping predetermined margin for the Company on the rate awarded to HSCL. The percentage tender should be called only in case where there is no time to prepare rate analysis or where approved rate structure basis cannot be made applicable. The concerned unit should record their justification while seeking approval from their competent authority for calling percentage tender. To be in a convenient position to bargain with agencies the rate analysis of major items constituting the bulk of the work value should be prepared as a "Back-up" paper.

3.7 Through Single Tender Basis:

3.7.1 Normally, this system is to be avoided. However, in specific cases the unit may not have any option left with them under following conditions:

- a) If the terms and conditions of clients is specific on engagement of a party who is their only approved Vendor

- b) *Where a party has been engaged for a particular work and further works in the same area inter-link closely with the work already awarded and awarding the work to other agency is likely to jeopardise either the progress of work or quality of the work or there is overall performance guarantee on that work.*

In all such cases, the reasonability of the rate is to be worked out and certified before approval and awarding the works.

- 3.7.2 *Where work is awarded by the client on an emergent basis and the work is to be commenced immediately without wastage of time and reasonable margin is available with the Company.*

As already indicated, this course of action is to be avoided in case time available for fixing agency is atleast 2 weeks. In such cases, a spot limited tender can be called and case finalised within 15 days time.

- 3.7.3 a) *No other methodology are to be adopted for award of works except as given below in Clause (b) In case it is felt that adopting any other methodology would be beneficial to the Company, prior written approval should be obtained from Corporate Office providing reasons and justifications.*

4.0 TENDERS :

The primary duty of an Unit / Engineer is to obtain the best value possible for the money spent and within the workability pattern of the Company and the tender system, in one form or another, is the most effective method in keeping down rates.

The following preliminary steps are to be taken before tender notices are issued :

- 4.1.1 *The unit should thoroughly study the contract, specifically the terms & conditions.*

- 4.1.2 As per action plan, if the works are to be segregated in convenient packages to ensure strict supervision, control and monitoring more easier commensurate to such packages, specific pre-qualification criteria is to be fixed. Simultaneously, bill of quantities, package wise, is also to be fixed.
- 4.1.3 As already mentioned the Unit/Engineer should evaluate a workable rate, which can be compared later with the rate quoted by an agency. **Wherever work has been awarded by Client on tender basis, HSCL's estimates for awarding the work to Agencies is to be considered as HSCL's rate with Client less mark up considered by HSCL at the time of quoting rates :**
- 4.1.4 A consolidated terms and conditions, package wise (or same for all the works as is convenient) is to be framed based on HSCL's "General Conditions of Contract" as well as 'Special Conditions of Contract' commensurate to specific terms and conditions of Client and site conditions.
- 4 1.5 The tender notice should specifically contain:
- (i) The place and time when the tender documents with necessary plans etc., if necessary, can be seen.
 - (ii) Place and time from where blank tender forms can be obtained and amount, if any, to be paid for such form and documents.
 - iii) The place where, the date on which and the time when the tenders are to be submitted and opened.
 - (iv) If the tender is called in 2 bid system (Techno Commercial Bid and Price Bid), the methodology of submission of the same should be clearly spelt out. Normally, 2 bid system tender should be followed where specific terms and conditions are incorporated in NIT.
 - (v) Besides, above, BOQ terms & conditions, pre-qualification criteria with documents, instructions to tenderers, general

specification, time schedule, list of materials to be arranged by department or arranged by the party and list of equipment to be arranged by department or by the agency should be incorporated in tender notice.

- (vi) The invitation to tenderers and instruction to tenderers should, generally, embody either directly or by reference, the important clauses of tender documents. Tender documents should state the amount of Earnest Money to accompany the tender and the nature of security deposit, if any, required in case of an accepted tender. The earnest money to be deposited should ordinarily be one percent of the value of estimated cost of work and in the event of an agency failing to undertake the contract or furnish required security, within appointed time, this earnest money will be forfeited to the Company.
- (vii) The unit head however, may waive the deposit of EMD by such working parties, whose bills have been passed but not paid due to paucity of funds. However, such amount shall be withheld by intimating Accounts Department and record is maintained till the tender is finalised. In such cases, a written consent for such recovery should be accompanied with the tender form duly approved by the unit head before submission of tender.
- (viii) The right should, invariably be reserved to reject any or all tenders received without assigning any reason and this must be clearly mentioned in tender documents.
- (ix) No tender should be accepted without EMD except in the case mentioned at Sl. No. (vii) above

4.1.6 The whole document should be scrutinized and vetted by the competent Finance representative before tender notice is issued.

The unit / engineer should invariably, maintain following registers :

- (i) A register is to be maintained containing issue of tender

papers to various parties with name and address of the parties and signature of authorised receiver of the party. If sent by post/ courier/ other means, copies/ reference of authenticated documents should be kept through which receipt by the parties can be established. For wide circulation tender notice may be published in newspapers hosted in HSCL's web site, modus operandi of which shall be as follows :

(a) For estimated value of work of Rs 50 lakhs to Rs 100 lakhs.

Publication to be done in one local newspaper and matter hosted in web site having wide circulation.

(b) For estimated value of work of Rs 100 lakhs to 500 lakhs Publication to be done in one English newspaper (State) and one local newspaper, both papers having wide circulation and also matter hosted in HSCL's website.

(c) For estimated value of work of Rs 500 lakhs and above. Publication to be done in three newspapers having wide circulation as follows:

(i) National English Daily

(ii) State English Daily

(iii) Local Daily

(iv) The matter also is to be hosted in HSCL's web site.

(ii) A register is to be maintained detailing tenders received, date opened, name of participants present and their signature with date, time and place of tender opening.

4.1.7 No interest free advance, of any kind, is to be provided in the Terms and Conditions of NIT. In case the client stipulates to provide mobilisation advance, either interest free or interest bearing, similar advances can be released to the agencies, subject to condition that the interest on

such mobilisation advance payable to the agency shall bear interest @ 1% more than that payable to the client provided the interest is less than or equal to prevailing market interest as per RBI. Subject to providing B.G. covering the value of such advance as also reimbursement of the cost of B.G. charges for B.G. issued to client for the same value.

4.2 **OPENING OF TENDER:**

Opening of tender shall be done by a team consisting~, of a representative from Technical and Finance side **and concerned Site Engineers and in presence of tenderer/their authorised representative who chose to be present in such opening for which advance intimation be given.** Tenderer's/ Authorised representatives signature should be recorded in register. Then the same shall be put forward to the Tender committee. The rank of officers to form the Tender Committee will depend on value of work tendered for and as per DOP.

The Committee members shall put their remarks against any drawback/ deviation noticed by them in any tender and jointly sign each page of the tender schedule and against tender deviation noticed in the tenders.

4.2.1. When tenders are called in 2 bid system only the envelope containing the 'Techno - Commercial' part should be opened by the committee and read out before the representatives of tenderers present.

Thereafter, the tender committee should meet (without calling the parties) and consider the conditions given by all tenderers by making a comparative statement and formulate the department/committee stand on the same.

Thereafter, a letter should be addressed to all the parties, intimating department's stand so formulated and asking them to withdraw all other conditions and, if felt necessary,

ask them to submit revised rates, without any condition, within a specified date and time. Thus all the participants would be given equal chance to bring the terms & conditions at par by either clarifying the issue or withdrawing non-matching conditions.

On receipt of such confirmation from agencies, the tender committee should evaluate, finalise and select the agencies, whose price parts are to be opened and agencies, whose price parts are not to be opened. The tender committee shall make a record note of such acceptance/rejection with proper justification and accordingly intimate the acceptable tenderers the date, time and venue of the price opening.

The price part, thereafter, shall be opened in the presence of tenderers or their authorized representatives, who chose to be present.

4.2.2 After opening price part, the comparative statement shall be prepared, showing the following:

- (i) Quoted rates and amount against each item, itemwise.
- (ii) Financial Implication of the conditions quoted by the party.
- (iii) Total value of tender inclusive of (i) and (ii) above, giving partywise comparison
- (iv) Estimated rates and amounts itemwise.

This statement is to be signed by an Engineer, co-opted by the committee and vetted by Finance

After vetting, the committee shall deliberate on the comparative statement along with tenders and record its recommendations for acceptance of the Competent Authority. **Arbitrary low rate (ALR) and Arbitrary high rate (AHR) should be identified and there should be proper control in operating such rate to avoid undue advantage to agency.**

4.2.3 Only the lowest tender should be accepted. If necessary, competent authority may direct a further negotiation with the lowest party to bring down rates. In case it is found

that acceptance of offer of L 1 party would not be in the interest of the Company for valid reasons. which should be recorded, the tender may be cancelled and re-tendering resorted to.

- 4.2. + The authority competent to deal with Open/Limited tenders will consider tender for a work as valid if more than one response against tender is received for the same. But if only one tender is received and if it is decided to accept it, it should be treated as single offer to be dealt with as per DOP. Reasons for accepting the single offer are also to be recorded.

5 LETTER OF INTENT :

As soon as the tender is accepted, a 'Letter of Intent' is to be issued to the successful tenderer, asking him to execute the contract after depositing security money. The letter should make it clear that the rates and conditions are as per their tender and / or subsequent negotiations and mutual acceptance. In the later case, those variations in rates and / or conditions should be specified. The letter should call on the contractor to deposit security money and execute an agreement within a fixed period. It will be advisable to issue the LOI in duplicate requesting the contractor to return the duplicate copy duly signed, as token of acceptance to take up the work as per LOI.

5.1 CONTRACT AGREEMENT :

As far as possible, before the tenderer is allowed to commence the work, he should sign the contract in prescribed agreement form. The tender documents, the LOI and such other letters as are relevant to the award, will constitute part of the agreement- In case this is not possible and practical, all possible steps should be taken to get. the contract signed by the successtul tenderer as early as possible. However, under no circumstances, the signing of contract in agreement form should be beyond 33% of

the scheduled tenure of the contract or completion of work to the extent of 10% of value of the contract, whichever is earlier.

5.2 EXTENSION OF TIME OF CONTRACT :

The agency /party shall fully and finally complete the whole work comprised in the contract (with such alterations and modifications and materials as may be directed during construction) by the date indicated in the contract.

However if the alterations / modifications have been ordered, which in the opinion of authority accepting the contract, materially increase the magnitude of the work, then corresponding additions to the contracted time for completion shall be made, as shall appear to the authority as reasonable in the circumstances.

The contractor is responsible for asking in writing for such extension of time as he may consider necessary, as soon as such cause arises (alongwith his no-claim certificate) and, in any case, before the expiry of original date fixed in the contract.

In case the authority, who had accepted the contract, opines that the completion of the contract is delayed due to any cause beyond the control of the agency / party, he may, subsequent to receipt of application of the contractor in writing, allow such further time of completion, as he thinks reasonable.

Requests for extension of time by the contractor should be dealt with expeditiously.

Due care should be taken to ensure that the reasons given by the contractor, while seeking extension of completion time, are not admitted without proper examination. The letter granting extension should not be capable of being construed as admitting these reasons. As far as possible,

the contractor should be asked to qualify the delay due to each hindrance, which can be scrutinised, while considering the case by Engineers.

Remarks, on the application of extension of time by the contractor, can be called from site offices, but under no circumstances comments or notings should be allowed on the application of the contractor, as in the case of disputes with the contractor, such notings / comments may put the sanctioning authority in an embarrassing position.

In case of delay in arriving at decision on time extension, the contractor may be allowed to proceed with the work, to avoid delay in progress. In such case, a prompt reply should be sent to the contractor to proceed with the work without prejudice to the considerations of the penalties prescribed in the contract for delay in progress.

In granting extension, it may be considered necessary to stipulate that the extension given is without prejudice to levy of penalties prescribed in the contract, unless the issue is examined and the decision taken with sanction of competent authority not to levy the prescribed penalties.

While granting, extension of time, Client's view may have to be obtained as also variance, if any, with the general condition of contract, which will have to be checked.

While communicating the sanction of the extension to the contractor, it may be clearly mentioned that he should be bound to complete the work within the period so extended and that all terms and conditions of the original contract will also be operative during the extended period.

Extension of time, as a rule may be sanctioned by the authority, who let out the work. However, if the value of the contract exceeds the limit prescribed in the DOP, due to increase in quantum of work, the sanction for the extension of time for such contract is to be accorded by

the authority competent to **sanction the total revised value** for the said contract.

If the work is not completed within the original time or such extended time as may be granted without penalty, the contractor may be considered as having failed and this would attract the penalty clauses in the relevant contract.

5.3 WORK ORDERS - SYSTEM :

All cases of works awarded without tender (as per Clause 5.3) shall be executed through Work Orders. The works which are awarded following tendering procedure may also be executed through work orders **less than Rs. 5 lakhs** if these works are not of specific technical field as per DOP.

The value of work orders thus issued should not exceed the provision under delegations of powers given to the officers at various levels as per DOP.

Work orders should define the exact location of the job to avoid duplication of the job as well as measurements, unwarranted claims and correct compilation of the paid quantities and its comparison with the quantities billed with clients. It should also clearly indicate if the rates are with or without materials, equipment, tools and tackles etc.

The detail record work - order wise are to be maintained by units to monitor the proper execution and finalization of work orders.

CHAPTER - III

INITIAL TASKS OF THE RE/UNIT HEAD FOR OPENING NEW UNIT

- 1.0** *With Decentralisation of Marketing activities, the Unit/Zone submits tender for new work with support services from H.O. Marketing department. On finalisation and issue of LOI, RE/ Project-Incharge is nominated and posted at work site. Other supporting Engineer and staff are, then, posted gradually. Sometimes, an Engineer is posted as RE. as a stop-gap measure, to commence the unit set up and work-set-up till unit head is nominated and posted permanently. Consequently, there remains an adhoc-ness since inception of the unit and it lingers for a long time. It is true that the system gradually gets streamlined when administratively competent Engineers are posted. But the irregularities / adhocism in vogue in the said unit cannot be eliminated fully considering the above, besides the parallel remedial measures, it is necessary that a guideline is framed for RE/Unit Heads emphasizing the initial steps that should be taken to streamline the working of a new unit from the Day - 1 itself. With a view of achieving above the following guidelines are framed.*
- 1.0.1.1** *Unit/ Zonal Head should prepare a detailed Action Plan and Control Estimate based on their assumptions during preparation of tender. Their action plan should contain detail scope of work; special terms & conditions, if any; modality of execution - through agency, through agency / PRW, through agency / PRW/ Departmental etc.; inputs considered; sources, quantities and cost of new materials sources; types and numbers of equipment; manpower; office / or store establishment etc. the tentative work schedule matching to completion time schedule preferably in a Bar - Chart form should be available.*
- 1.0.2** *The RE / Unit Head nominated would be handed over the*

copy of LOI / terms & conditions / details specification and like documents pertaining to the project. He would also be given the action plan and control estimate as made by zonal office.

1.0.3 *RE should have a broad study of the contract, understand the main implication such as nature of work, quantities, main raw materials required, other sources required, time schedule etc.*

1.0.4 *Based on the above action plan made by the Zone/ Unit should be studied, RE would make his own opinion and decision as to whether if the action plan is to be followed or fresh and different action plan need to be followed based on his study on the following :*

- a) *Study of local conditions like availability of raw materials and their cost, availability of water, power, labour, agencies enabling works required like office/ stores / housing etc.*
- b) *Study of ongoing work of other parties nearby, methodology adopted by them and if the same methodology would be commercially viable or different methodology need to be evolved.*
- c) *Availability of land and other infrastructural facilities.*
- d) *Fund availability and possible fund generation in steps.*
- e) *Supervisory staff required for the project to monitor works related to Engineering, Finance, Stores, Purchase and above all, Planning. This should also be within the permissible limits of overheads.*
- f) *The cost involved in mobilizing resources and arrangements for making them ready for works. Similarly, necessity of procurement of raw materials phase wise with fund requirement.*
- g) *The cost involved in setting up infrastructure like*

office, store- shed. storage area, approach roads, transit camp/housing as well as facilities providing water and electricity.

- 1.0.5 After preliminary assessment of above, the action plan is to be modified/ freshly made, matching the project cost. Subsequently, the control estimate is also to be made on total project and cash-flow statement showing periodic receipt/ expenditure /surplus /shortfall (preferably monthly basis) should be made.*
- 1.0.6 This action plan and control estimate is to be sent to Competent Authority for approval and pending approval, further action, as per action plan for executing the work need be initiated.*
- 1.0.7 To complete above initial spadework in establishing the office, the RE should requisition and should be provided with atleast following assistance:*
- a) One Engineer to assist him in liaisoning with clients / consultants and concentrate on site work including_ establishment of infrastructure.*
 - b) One Engineer to assist him in planning including locality survey on inputs as well as preparation of action plan and control estimate.*
 - c) An Accounts representative for financial guidance, since inception, as the action plan, control estimate and cash flow statements are to be made with this assistance.*
 - d) One Stenographer / typist for regular work. RE may ask for more first-line-assistants, based on project requirement, if so required.*
- 2.0.0 After preparation of action plan and control estimate and sending them to CA for approval, RE should concentrate on next set of activities, together with his first line assistants, as follows:*

2.0.1 *A note should be processed for enabling and infrastructure works, for approval of Competent Authority, with detail justification, full estimate and clarification, if the expenditure is to be incurred at a time or phase wise. It also need to be certified if the expenditure is within the control estimate and if Capital Budget provision is being made.*

2.02 *A list of equipment required for the project, phase wise, should be made and action taken , with the approval of the competent authority to effect transfer of such equipment. While processing above note. RE should clarify that arrangement for utilising these equipment by i) suitable planning of man power for operation & maintenance ii) by setting a side fund. phase wise for repair and maintenance and iii) arrangement for regular remittance of possession charge to HO w.e.f fourth month. from commissioning; these equipment or one month from deployment of these equipment for work (which ever is earlier) has been ensured by him.*

In case such required equipment are not available/ spareable from other units. RE should either i) take clearance from the CA for procurement action after raising necessary MPRs and clarifying if required funds shall be provided by him in lump sum or in instalments or ii) if no action need be taken and unit would themselves arrange for alternatives.

2.0.3 *Action plan clarifies the methodology planned by RE for fixing agencies and award of works which should be one of the standard accepted methods of HSCL.*

Accordingly, NIT documents, bifurcation of work, issue of tender, preparation of 'Approved Rate Structure' etc. should be initiated as per HSCL's norm.

2.0.4 *The Corporate Personnel Department/ Zone Incharge should be informed about phased requirement of man*

power including Executives/ Staff/ Workers enabling them to plan accordingly and issuance of transfer orders phase wise, as required by the unit.

2.0.5 Analyse bought-out/raw materials and segregate them in broadly two categories i) which have to be procured locally only and ii) which can be procured from outside supplier.

Items like boulder, sand, aggregate, bricks etc may fall in first category.

Items like cement, steel, paints, finishing items of wood, steel, aluminium, marble/mosaic, pipes, sanitary fittings etc may fall in second category.

After analysing the above, procurement action may be initiated.

2.0.6 Wherever required for quality work or as per specification of contract, the unit may have to establish:

- a) Quality Assurance Department.
- b) Survey Teams.

This aspect needs to be checked and if required, man power equipments and tools & tackles may be evaluated and arranged locally or through HO.

2.0.7 Following financial aspects are also to be looked into concurrently:

- a) Opening Bank Account: - In this case guideline vide Circular No. 231 /Accounts/98 dated 7th April 1988 may be followed after identifying nearest SBI Nationalised Bank / Scheduled Bank.
- b) Obtaining working Capital: - If contract provides for mobilization advance / other advances, arrangement may be taken on priority, which can be utilised as working capital.

- 3.0.0** *After completing the above the next set of activities should be as follows*
- 3.0.1 *Fix agency for work -follow HSCL's guideline as mentioned at earlier Chapter.*
- 3.0.2 *Define various departments of the units, decentralise functions and deploy staff at proper places for starting full-fledged work (organisation chart)*
- 3 0.3 *Ensure proper arrangements for receipt of equipment and stores and safe custody of these. Parallel arrangement for commissioning of equipment are also to be streamlined.*
- 3 0.4 *Organize constant liaisons with clients on drawing, decision, other detail for opening front one after another; matching completion time schedule.*
- 3.0.5 *Commence execution.*

CHAPTER-IV

EXECUTION OF WORKS AND PAYMENTS TO CONTRACTORS/PRWs

The proper supervision of execution of work is one of the most skillful task and may need all innovative measures by Engineer-Incharge to accomplish proper execution successfully. The performance of an organisation mostly depends on performance in proper supervision of works with principal objective of

- a) Timely execution of a contract.*
- b) Strict adherence to quality and specification of a work.*
- c) Proper analysis of sequence of work, ordering, arranging and placement of raw material at site, proper storage, proper usage - i.e. in proper proportion and minimizing wastage, proper deployment of skilled. / unskilled labour at site with care that the deployment strength is neither inadequate nor surplus etc.*
- d) Periodical measurement of work monitoring progress against target and implementing preventive measures to stop slippages or clear backlog, timely billing etc and lastly,*
- e) Maintaining records on issue and consumption of materials, labour report, hindrance records, payment release and other relevant issue, which may have a bearing on performance of contract at future date. While achieving above, parallel specific care need be taken that*
 - (i) No undue advantage beyond contractual provisions are provided like issue of material, issue of equipment, allowing change in specification or sacrifice in quality, non-maintenance of statutory clauses etc.*
 - (ii) In case of deviation by a party from above, a suitable adjustment in their due payments has to be made by the Engineer, with the approval of Competent Authority, if such changes become unavoidable.*

A few salient guidelines, to be followed by all Engineers, while execution of work, are given below

- (i) A work is to be started only after a LOI or work order is issued.

In extreme cases, work can be allowed to be started by an agency provided prior written approval of Competent Authority is obtained or such written instruction is available for starting the work from Competent Authority.

*In case an agency is allowed to start the work before issue of work order, the proposal for the same has to be processed within 7-10 days and WO / LOI issued before any sort of payment, (even adhoc or advance) are released to the party against work order. **R.A bills can be paid for work done based on Work order/LOI till agreement is concluded.***

- (ii) On the day, a contractor/agency start the work, a file should be opened - in line with Circular No. CVO/6/95/713 dated 19.07.95 and salient feature of the contract are recorded. Thereafter, the major relevant issues are to be maintained in the said register.
- (iii) It may be necessary that some work is started on priority due to urgency, pending approval from the Competent Authority, who is available away from unit (like from Corporate Office and elsewhere) or from Board Of Directors, (if the value of work crosses specified limit) Under such circumstances, it would be obligatory for the unit to initiate suitable note for post-facto approval from designated Competent Authority within 10 days of starting the work.
- (iv) The Engineer should take care that the works or the area of works where the agency is deployed is clearly demarcated so that exclusivity on the measurement of work done by agency is never in doubt. Under no circumstances, the execution of one work should be entrusted to two agencies or agency department and like.
- (v) The inputs to be provided by the agency, should be

expressed in the contract / WO. The Engineer should take specific care on the quantity and quality of items brought at site by the agency and also see that the same matches the predetermined specification. Failing this, immediate corrective measures need to be taken.

- (vi) Under no circumstances, there should be a deviation in quality or specification aspects of a contract.*

In case, under special circumstances and with approval from Competent Authority/Client /Consultants, any deviation on quality and specification is made the same should be reflected in corresponding price adjustment in the bill of the contractor and in his due payments, without fail.

- (vii) Regular meeting / inter-action should be held with PRW/ Contractor to monitor progress against target and corrective measures taken, in writing, if required.*

- (viii) A site order book should be maintained where the following should be kept recorded*

- a) All deviations from sanctioned drawings.*
- b) All deviations in specifications.*
- c) Classification of soil and lead / lift of earth.*
- d) Working hours of departmental equipment deployed, free or hire charges recoverable.*
- e) Loss of material due to any cause/reason.*
- f) Damage to works, already done due to force majeure cause or other reason with details.*
- g) Complain Records*

- ix) A hindrance register should be maintained where records would be maintained for delays caused due to clients or for reasons beyond HSCL/Agency's control. There may be delay in handing over site, delay in issuance of drawings/materials, delay in giving clearance/release of holds, power failures, water supply failures and like*

issues, which need be recorded.

- x) A register is also to be kept on daily/weekly output of work on broad categories of items.

A monthly progress of all works, under major heads, to be made and submitted to the appropriate authority for onward transmission to HO, with reason for shortfall, if any, their effects on overall schedule and remedial action taken.

- xi) Issue of material to the contractor should be only as per contractual provision and to be issued phase wise depending on consumption pattern of the agency. Under no circumstances, excess materials are to be issued.

A monthly statement of materials issued and consumption made should be invariably submitted with each RA Bill of the agency.

MAS Register is to be maintained at sites. For Cement, Steel and others like costly materials daily issue/ consumption statement is to be maintained.

- xii) If under compelling circumstances, any material is issued to the agency, beyond contractual provision, prior approval of competent authority is to be taken and material can be issued only on cost recoverable basis @ book value + 20% or (b) present landing cost + stores O.H, modus operandi of which is to be decided.

- xiii) Similarly issue of departmental equipment should be clearly as per terms and conditions of contract. If any equipment is issued to the agency, beyond contractual provision, prior approval of competent authority is to be taken and hire charges as per HSCL's norms should be recovered, in full, from immediate next monthly RA Bill / any payment due to the party.

- xiv) Payments of all works done by an agency are to be made on the basis of measurements recorded in Measurement Books.(MB)

The measurement books should be considered as very important records. All pages of the MB should be machine numbered and all MB,s of an unit should be serially numbered. These books are to be arranged by Unit Heads and issued to Offices/Engineers after obtaining receipts in a MB- Issue Register.

The measurement books, thus issued. shall be under custody of concerned Department/Engineer and they / he shall remain accountable for the same. An MB movement register shall be maintained by them to record present locale of the MB. Books no longer in use should be returned immediately, even though not completely written up, to the issuing department. All MB's are to be maintained **as permanent record** and any misplacement of the same should be viewed seriously.

- xv) Each set of measurement should commence with entries stating:
- a) Full name of work as given in contract/WO.
 - b) Situation of work.
 - c) Name of agency/contractor.
 - d) Number and date of agreement of WO.
 - e) Date of commencement of work.
 - f) Date of completion.
 - g) Date of measurement.

At the end of measurements dated signature and designation of the person who recorded the measurements should be made.

- xvi) The pages of the measurement book should, on no account, be torn out nor should any entry be effected or erased so as to be illegible. If a mistake is made, it should be corrected by erasing out the incorrect words or figures and by rewriting the correct words or figures and correction, should be initiated.
- xvii) The entries in a measurement book should be made in ink and should be recorded continuously. No blank page should be left nor any page be torn out. Any page left

blank should be cancelled out, the cancellation being attested. Similarly when any measurement is cancelled, the cancellation should be supported by dated initial of the officer ordering the cancellation or by reference to the official order quoted there on. In all cases reasons for cancellation should be recorded.

xviii) Detailed measurements are not required to be recorded in case of work done under lump sum contracts. Final payment in such cases may be made on the certificate made in the measurement book and the bill to the effect that the work has been completed according to the drawings and specification

Intermediate payments are similarly made under a certificate as follows:

“This is to certify that the value of work done is not less than — % of conformity with contract agreement and that, with the exception of authorised additions and alterations, it has been done according to prescribed drawings and specifications.”

xix) Measurements entered in a measurement book invariably be signed by the contractor or his authorised agent in token of his acceptance. Similarly all bills must also be signed by the contractor, in token of his acceptance.

xx) Before processing an agency's Bill, concerned Engineer must satisfy himself as to the correctness of the quantities billed for, the rates and recoveries on account of materials and equipment issued to the contractor by HSCL.

xxvi) As soon as the bill of an agency is prepared, the billed quantities of various items of work giving reference number of bill, name of work and agency should be sent to the department responsible for billing on clients. This would enable the said department to co-relate the quantities executed by various agencies vis-a-vis those billed on the client.

xxvii) Advance to contractor are, as a rule, prohibited. Every

endeavour should be made to maintain a system under which no payments are made except for work actually billed.

Exceptions are, however, permitted in exigencies of work but only with full justification and with prior approval of competent authority, within limits. **This advance payment must be entered in MB's and Register and must be recovered from next R.A Bill.**

xxiii) a) It should be made an invariable rule to have all contract documents completed and signed as quickly as possible, preferably before a contractor is allowed to commence the work.

It is true that in exceptional cases, this may not be always possible. However, it has to be fully ensured that such contract / agreements are positively entered into before 33% of completion period is elapsed or 10% of the contract value is completed, whichever is earlier.

b) If there is any likelihood of a dispute with a contractor all documents, measurements, letters etc having bearing on the case should be at once collected and locked up and the keys kept in the custody of the officer responsible for the case.

c) In the case of a dispute with a contractor, all correspondences with him should commence with the headlines "Without Prejudice". This will safeguard the Company, should the correspondence be produced later in a Court of Law.

xxiv) The claims on clients and of contractor are to be settled quickly as they arise. A register may be maintained to monitor claims and keep a close watch on disposing them in time.

xxv) Final bills of the contractors and work orders should be started immediately on physical completion of work.

Efforts should be made to pass the final bills within 6 months in case of Contractors (Agreements) and 3 months

