

LIST OF ABBREVIATION USED

Abbreviation	Description
MPT	Mormugao Port Trust
Ch	Chairman
Dy.Ch	Dy. Chairman
HOD	Heads of Department
Deptt.	Department
Engg.	Engineering
CE	Chief Engineer
Dy.CE	Dy. Chief Engineer
SE	Superintending Engineer
EE	Executive Engineer
AEE	Assistant Executive Engineer
AE	Assistant Engineer
EO	Establishment Officer
O.S.	Office Superintendent
Rly.	Railway
FA&CAO	Financial Adviser & Chief Accounts Officer
DC	Dy. Conservator
TM	Traffic Manager
CMO	Chief Medical Officer
P&MS	Planning & Management Services
CME	Chief Mechanical Engineer
GOG	Government of Goa
GSRB	Goa State Rehabilitation Board
MPDA	Mormugao Port Development Authority
GCZMA	Goa Coastal Zone Management Authority
GSPCB	Goa State Pollution Control Board
MMC	Mormugao Municipal Council
MOS	Ministry of Shipping
HLMD	Headland Maintenance Division
HRMD	Harbour Maintenance Division

FCI	Food Corporation of India
CPWD	Central Public Works Department
IOC	Indian Oil Corporation
IMC	Indian Molasses Company
CTE	Chief Technical Examiner
ISO	International Organization for Standardization

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ISPS COMPLIANT PORT

PREFACE

The Manual of Instructions of the Engineering (Civil) Department has been compiled on the basis of the Major Port Act, 1963, various Board Resolutions, Instructions issued in the past, Existing procedures, GFR 2005, CVC guidelines, CPWD Manual 2007 and the Ports customary practice hitherto being followed. Manual deals with the entire gamut of works procedures including budget and contracts. With the growth of the Port and its trade, has grown its administrative machinery. In order to have a proper co-ordination amongst the various departments of the Port and various sections of the Engineering (Civil) Department in particular, an attempt has been made to lay down instructions in as many details as possible. It should however be realised that there are physical limitations to the details that can be incorporated in the Manual of this kind. It is expected that the Engineers and Staff for whose guidance and benefits the Manual has been compiled, will comply with it, in its true spirit, and do not limit their own initiative and with due consciousness to the letter of the Law.

This manual can be reviewed constantly and updated from time to time, if any modifications are required based on any circulars from any of Central Government Departments, the amendment can be issued. Suggestions for qualitative improvement of this compilation and rectification of errors will be greatly accepted.

I am indebted to Shri P. Mara Pandiyan, Chairman, MPT and Shri Biplav Kumar, Dy. Chairman, MPT for their guidance from time to time. I am also indebted to retired Chief Engineers of Mumbai Port Trust, Shri. Venkatachalm of Indian Maritime University and my present colleagues, Heads of Departments, and members of staff who have helped me in compilation of the Manual.

(A.J.Lokhande)

CHIEF ENGINEER

1st January, 2012



P. Mara Pandiyan, IAS
Chairman
MORMUGAO PORT TRUST

FOREWORD

Ever since I joined the Port sector, it has been actively engaging my attention about the necessity of preparing a Port Administrative Manual of all the seven departments, to streamline the procedures and practices to ensure transparency and accountability. I had several rounds of discussions with Dy. Chairman and the Heads of Departments over the last five months to decide on the contents of the Manual. Discussions and deliberations have led us to bring out independent manual for each department based on existing rules and regulations, orders of the Ministry of Shipping and CVC guidelines. Having made the first draft, a marathon session was held to read out the voluminous draft manual to correct and go for printing.

Meticulous care has been taken to prepare this manual to include all the procedures. But, this being the first of its kind, it is likely that certain things could have escaped our notice. After all, nothing is too perfect to be followed for ever. As time passes, new suggestions and directions of the Government will be incorporated.

I had never expected that seven voluminous Port Administrative Manual would see the light of the day in a short span of five months' time, but for the active cooperation of Mr. Biplav Kumar, IRTS, Mr. Suresh Shirwadkar, Mr. A.J. Lokhande, Mr. K.C. Kuncheria, Mr. N. Vaiyapuri, Mr. Rajendra P. Paibir, Dr. D.P. Kudalkar, and Capt. Paramjeet Singh. I appreciate all those officers and staff who extended unstinted co-operation in bringing out this Manual.

With my due approval, the Manual is presented to Mormugao Port Trust for implementation to enable transparency in Port administration on this 1st day of the New Year 2012.

(P. Mara Pandiyan, I.A.S)
Chairman
Mormugao Port Trust

Chapter - I

1. Introduction

Mormugao Port

The Port of Mormugao is situated on the West Coast of India in the latitude 15° 25' N and longitude and 73° 47' E at the mouth of the river Zuari, between Mumbai and New Mangalore Ports. The British Company known as the West of India Portuguese Guaranteed Railway Company (WIPGR Co.) which came into being as a sequel to the Lisbon treaty signed between the then Portuguese and British Governments in 1873, was responsible for starting the construction of the Port and the connected Railway. The single line railway crosses the Western Ghat is also connected to the National Road Network by the National Highway No. 17, passing through Goa connecting Mumbai and Bangalore at Belgaum. Dabolim airport, about 8 km from the Port provides air-link to the Port, daily flights being operated by several Airlines to Mumbai, Delhi, Bangalore and all parts of the world. The Port is also served by inland waterway system provided by rivers Mandovi and Zuari, which are interconnected by the Cumbarjua Canal. The hinterland and general layout is enclosed at Annexure – I.

1.1 Brief History

The history of the Port of Mormugao is intimately connected with the history of the Goa region. It is, therefore, the hinterland of the Port, the trade and traffic and the developments. Progressive expansion has been carried out in response to the growing needs of trade and this in turn has kept generating a larger volume of traffic in successive years over the century.

The territory of Goa has its own maritime traditions. Endowed with hospitable terrain and climate, a natural harbor at Mormugao backed by an excellent inland waterways system, and having been a commercial trading centre from time immemorial, Goa has always been looked upon as a prized possession by the neighboring rulers and has thus been a target of attack from time to time. Its fortune fluctuated with the rise and fall of successive dynasties and empires.

'Old Goa' situated on the bank of River Mandovi was a flourishing trade centre of the East even before the Portuguese came to India. Adil Shah of Bijapur Dynasty was defeated by Albuquerque in 1510 and this part of India came under foreign rule. The Portuguese

developed this trading centre further and Goa reached the zenith of its prosperity and enjoyed a flourishing trade (1573 – 1600) due in no small measure to the beautiful natural harbor at Mormugao and the inland waterways system capable of taking the cargo to and from the foot of the Sayadris.

From the time the Portuguese occupied Goa, they had to face attacks from the neighboring rulers, specially the Marathas. Then in the beginning of the 17th century, the Dutch and the British appeared on the Indian scene. The Dutch fleets blockaded Goa in 1603 and again in 1635 but were unable to conquer it. In 1635, Goa was ravaged by an epidemic. Attacked at different times by the Marathas, the Dutch and the British, Goa lost most of its trade with other countries. However, with the passing time, Goa was able to re-establish most of the trade links and also establish trade links with new areas like Brazil and Mozambique.

The British and the Portuguese Governments entered into a treaty of Lisbon in 1878, for the purpose of having a union of commercial interests between India and Goa, so that as far as trade was concerned, the Port should provide adequate accommodation for all the hinterland trade of the Southern Maharashtra, and other districts of India, and for all such commercial purposes should function in exactly the same manner as an Indian Port or Port of transit.

Towards the middle of 19th century, the British introduced the railway system in India and their trade flourished . Portuguese India, was however denied the benefits of these boom. The unilateral withdraw of British Govt. of the trade privileges enjoyed by Portuguese in Surat, dealt a staggering blow to the already ailing economy of Portuguese India . Consequently, in order to give much need boost to their economy a Portuguese Govt. entered into treaty with British Govt. in 1878, allowing Portuguese India a freedom to flourish by established trade links by entering with neighboring British India.

Western India

Portuguese Guaranteed Railway Company (WIPGR) was established which was responsible for building the Port of Mormugao and the railway connecting it with the frontier of British India at a distance of 82 Km. The work started in 1882 and in 1888 the railway line was commissioned .

The construction of breakwater, berths 1 &2 were completed 1888

and the Port started functioning. However, much before the work of beak water was completed, the ship 'S.S. Westborn' with 7.5 mtr. Draft sailed into Mormugao and berthed at new quay on 15th April 1885.

Following India's independence in 1947, Portugal came increasing pressure to cede Goa, with Goa-Diu-Daman. A crisis was reached in 1955 which laid to the suspension of diplomatic relations between Portugal and India. Finally Goa was liberated on December 1961 and Portuguese India, by constitutional amendment was incorporated into the Indian union.

1.2 Development of Traffic

It was in early 1950s that a total change occurred in the character of Mormugao Port. The circumstances were (a) revival of steel industry in Japan under the Japanese Reconstruction Programme (b) the existence of bountiful iron ore reserves within a short distance of 60 kms from Mormugao Port and (c) economics of inland water transport provided by the perennial rivers of Zuari and Mandovi with navigable lengths extending to about 40 Kms and both converging on the Port. Thus, the Port of Mormugao which, for over half a century, had handled very limited quantities of cargo catering mainly to the consumption needs of the residents of Goa, soon developed into the busy export harbor that it is today (with an annual traffic of over 50 million tonnes), the leading iron ore loading Port in the country which also ranks among the first ten iron ore loading Ports in the world.

1.3 Progress After 1961

Immediately after the Port Administration was taken over in 1961 by the Government of India. The Indian Port Act 1908 was extended to Union territory of Goa w.e.f. 26th January 1963. The Port was declared the 7th Major Port of India under the clause 8 of Section 3 of said Act by a notification issued by the govt. of India on the 2nd Dec' 1963.

On the 1st July 1964 a major Port Act 1963 was extended to the Port of Mormugao and Board of trustees was constituted under the said Act. The Board consisted of the representatives of the Central Government, local bodies and the trade and labour interests connected with the working of the Port.

M/s. Rendel, Palmer & Tritton submitted their report regarding the development of the Port of Mormugao in February, 1965.

Intensive soil investigations were carried out in 1964-65 at the Port of Mormugao. Available data on winds, waves, currents, rain, tides, cyclones, temperatures, salinity, silt, etc. was analysed and fresh data was collected wherever required. Tide gauges, long period wave recorder, etc. were installed for collecting the data. Radio active tracer studies were also conducted to study the bed material movements. Bed samples were collected at different locations. Float observations were also taken at different state of tides. River discharges and the silt load brought in by them were also measured and analysed. Most of the data was analysed at Central Water and Power Research Station (CWPRS), Khadakwasla, Pune.

Two models were established at CWPRS, Pune for studying the aspects of wave effects and siltation, etc. One was a wave model (Scale 1/180 H, 1/120 V) and the other was a tidal model (1/350 H, 1/50 V). These models have been maintained till data for conducting studies when new schemes are taken up.

Thereafter, M/s. Howe (India) Pvt. Ltd., New Delhi, a subsidiary of M/s. Howe International of Canada were engaged as consultants for development of the Port as far as facilities for efficient and economical handling of iron ore, which was the main commodity handled at this Port, was concerned, as without such facilities the iron ore trade through this Port would not stand in the international market. The work on iron ore handling facilities was commenced in 1970 and completed in 1978. Meanwhile, oil berth was also completed in 1976. The commissioning of the oil berth (No. 8) and ore berth (No. 9) shifted the oil and ore handling from berth Nos. 3, 4 and 5 and midstream, thereby leaving berth Nos. 3, 4 and 5 for handling general cargo and other liquid cargo like molasses.

The construction of a multipurpose general cargo berth No. 10 was started in January, 1982. The berth was commissioned in November, 1984. The Berth No.11 was commissioned in 1989.

The latest development scheme of construction of 3 mooring dolphins completed in 2004. The construction of berth no.5 & 6 on BOT basis in year 2005. Additional 3 mooring dolphins completed in 2009. Conversion of old mole into cruise berth and Construction of non-cargo berth along breakwater in 2011. Extension of oil berth in 2011. Construction of 2nd coal terminal at berth no.7 on PPP basis by M/s Adani in 2012.

1.4 Present Port of Mormugao

1.4.1 Port limit

The Port limits of Mormugao are shown in the drawing enclosed in the Annexure. A subsidiary Port to the Port of Mormugao is situated at Betul about 40 kms. to the south at the mouth of river Sal. Betul is open sea Port with available water depth of 18mtrs. Towards the western extremity of the Port limit.

As per the gazette of India Part II, Section 3, Subsection (i) Notification No.F7-PG (8).63, dtd. 30th November, 1963)

MORMUGAO AREA

ON THE NORTH – From a point on the coast in the parallel of latitude 15° 27'30" N due West along the same parallel to a point in longitude 73°42'30"E

ON THE WEST –From the position in latitude 15°27'30"N and longitude 73°42'30"E in South East direction to a position in latitude 15°20'N longitude 73°44'30"E

ON THE SOUTH – From the position in latitude 15°20'N longitude 73°44'30"E due East along the parallel of latitude 15°20'N to a point where this parallel meets the coast.

ON THE EAST –All the waters of the river Zuari West of the Agacaim – Cortalim Ferry (excluding the ferry and the landing stages).

BETUL AREA

ON THE NORTH – From a point on the coast in the parallel of latitude

15°12' N due West to where the parallel meets the ten fathom line.

ON THE WEST – The ten fathom line

ON THE SOUTH – From a point on the coast in the parallel of latitude 15°5'N due West to where the parallel meets the ten fathom line.

1.4.2 Hydrographic Chart Of Harbor Data

Indian Naval hydrographic chart No.214, 2020 and 2022 and admiralty chart No.744 cover the Mormugao harbour at its approaches.

Entrance to the Harbor - Vessels enters the harbor from the west

South West. The entrance is between Roca Mormugao and the breakwater to the south of the entrance channel. As one proceeds up and enters the estuary, the Port structure are seen in the foreground on the Goa hills on the other side of the estuary lies Dona Paula and city of Panaji. The northern section of water front extends from Roca Mormugao and runs north west further inside estuary. The anchorages for ships are provided along this stretch . The main commercial Port facilitates are sited on southern most water front and extend it towards from and near the breakwater of Vasco-bay. The approaches of harbor are marked and lighted by buoys.

1.4.3 Bench Mark

The standard bench mark is engraved on a stone set in concrete relate to Chart Datum which is 15.82 ft. (4.82 m) in masonry about 2 ½ ft. (0.76 m) below the ground level and about 9 ft. (2.74 m) west of the embrasure of the Old Fort at Mormugao.

1.4.4 Geology

An intensive sub-soil investigation programme was carried out in 1964-65 at the Port of Mormugao. Subsequently, some more bore holes were also taken from time to time, during construction of ore, oil and cargo berths and general cargo berth No. 10.

The depth of the bore holes varied from approx. from -12 m to - 55 m.

From the data collected from the bore holes, it can be seen that the whole area is covered with soft silty clay from sea bed level to a depth of about 3 to 5 m. Below this layer there are layers of sand and gravel. Below this, in some areas a stiff clay layer is also encountered. Sometimes, the clay layer is found underlying hard laterite rock. Hard rock is found below the weathered rock. In some cases the weathered rock layer is found to be absent. The hard rock is found over all the area underlying different layers. The depth of the rock below the datum in the western side of the Port is about 18 m increasing suddenly to 42 m at some places on the eastern side.

The rock type generally consists of highly metamorphosed sedimentary deposits. At the Port area, the rock is covered by thick laterite formations ; sometimes upto 30 m. Outcrops of some dykes are also seen within the harbor area.

The sudden change in rock levels on western and eastern side is attributed to faults that might have occurred in the area long back.

The basic type of formations and deposits in the area may be grouped as under :-

- (a) Soft grey clay
- (b) Mottled brown and light grey silty clay
- (c) Stiff grey or bluish
- (d) Grey Sand
- (e) Brown Sand
- (f) Laterite gravels, pebbles, boulders, etc.
- (g) Mixed deposits of quartritic gravel, pebbles and sand
- (h) Weathered rock
- (i) Hard rock

The composition of a particular stratum varies to some extent across the site, but there is a general similarity in its properties.

1.5 **MARINE STRUCTURES AND BACK UP FACILITIES**

Typical layout and cross-sections of the Marine Structures at the Port of Mormugao are shown in the figures attached at the end of this paper.

Brief salient features are indicated below :-

Berths: There are seven Quay Berths, one deep-draughted oil berth, one specialised Mechanical Ore Handling Berth and one Multipurpose General Cargo.

Berth No.	Length (Meters)	LOA permissible (meters)	Depth at LLWS* (meters)	Type of cargo handled
1, 2	185	91.43	4.3 -5.5	General
3	134	137.00	7.0	General
4	139	152.50	8.2	General
5	160	152.50	8.2	General

6	223	198.00	8.2	Ore (MOHP) 1000 TPH, Liquid bulk Ore (MOHP) 8000 TPH, General Cargo Multipurpose General Cargo Berth
7	100	100.00	3.7	
8	245	200.00	13.1	
9	222(357)**	305.00	13.1	
10	250	200.00	11.0	
11	300	250	12.5	General cargo
12	340	275	14.1	MD1,MD2, MD3,MD4
13	360	300	14.1	MD5,MD6

* Deeper draughts are available and utilized, depending on tide and weather conditions. ** Length between extreme mooring dolphins.

1.5.1 General Cargo handling equipment

There is one Reach Stacker of 40 tonnes, 6 Forklift Truck of 3 tonnes and one forklift Truck of 5 tonnes, 82 nos. of Plug points of suitable capacity to cater to the reefer containers of 440V capacity and 2 Nos. locomotive of 1400 HP capacity.

1.5.2 Storage facility for General Cargo

Covered Storage owned by the Port is 7 Nos. of plots/sheds of 27082 M², storage capacity is 51483 tonnes. Covered storage owned by others :FCI/CWC of 4 sheds of area 14480 M², of storage capacity 22216 tonnes. Open storage for containers of 16000 M² of 48000 tonnes storage capacity and open storage capacity for other cargo of area 309389 M² 688167 tonnes storage capacity. The total open storage capacity is area 325389 M² and 7,36,167 tonnes.

1.5.3 Ore loading facilities in stream through transhippers and Floating Crane

5 Nos. privately owned transhippers, each with an average loading capacity of about 15,000 TPD, are operated for uptooping, in mid stream, large size one carriers that are initially loaded by MOHP are Berth No.9 to the permissible draft and also loading of large carriers. A privately owned floating crane with an average loading capacity of 1000 TPD is also operated for loading in mid stream.

1.5.4 Bulk Liquid Discharging Facilities

Specialised facilities are available at berth No.8 for handling petroleum products and other liquid cargo like phosphoric acid, caustic soda, ammonia, molasses etc. Phosphoric acid handling facilities are also provided at general cargo berth Nos.10 and 11.

1.5.5 Pilotage

Pilotage is compulsory and is available all 24 hours during the fair season but is restricted to daylight hours during the monsoons.

1.5.6 Mechanical Ore Handling Plant (MOHP) at berth No.9

There are 8 barge unloaders of 750 TPH each, one continuous Barge unloader of 1250 TPH, 3 stackers of 3250 TPH each, 2 reclaimers of 4000 TPH each, 2 Shiploaders of 4000 TPH each. There is a stackyard having area of 80000 mts. Sq. approx. with storage capacity of 10 lakh tones and Assessed annual capacity as 11.5 MT.

Chapter II

Chief Engineer's Department

Section I : Scope and Functions

1. Introduction

Section 35 (1) of the M.P.T. Act 1963 states that the Board may execute such works within or without the limits of the Port and provide such appliances as it may deem necessary or expedient.

Section 35 (2) enumerates a long list of works or appliances which come within the purview of Section 35 (1). The list is only illustrative and not exhaustive.

Further Section 36(1) provides for the Board to undertake to carry out on behalf of any person any works or services or any class of works or services on such terms and conditions as may be agreed upon between the Board and the person concerned. These works are called M.T. Account works and the procedure for the same is described in Chapter IV.

The function of the Engg. Dept. (Civil) emanates from the provisions of the above Clauses of the M.P.T. Act 1963.

2. Functions of Engineering Department (Civil)

2.1 The Engg. Dept. (Civil) is therefore required to assist the Chairman, Dy. Chairman and the Board in the conception, design and execution of all the Civil Engg. works required for the Mormugao Port Trust, within or without the Port limits. In respect of project works or any other work involving a combination of Civil and Mechanical/Electrical/Marine Engg. Work, the C.E. acts as the Chief Technical Authority and processes the proposals after obtaining proposals from the Chief Mechanical Engineer concerning his portion.

2.2 The cost of capital assets in charge of Engg. Dept. (Civil) on historical cost basis is about Rs. 495 Crores approximately. The cost of same on replacement cost basis is approximately above Rs. 5000 Crores. The Engg. Dept. (Civil) is required to maintain these assets in thorough repairs and in workable condition.

2.3 The Engg. Dept. (Civil) is called upon to give professional advice on technical matters to the Dy. Chairman, Chairman and the Board and other Heads of Departments relating to their operational and management duties.

2.4 The Engg. Dept. (Civil) is called upon to execute works for outside parties called Miscellaneous Tradesman Account works or deposit works at the direction of the Chairman of the Board.

2.5 All investigations for studying the harbor regime, siltation studies, tidal record and allied matters are also attended to by the Department. Removal of wrecks from the harbor, salvage and underwater work also comes within the purview of department's functions.

2.6 Construction and maintenance of Port Trust railway lines, stations, yards and all other allied works connected to construction and maintenance of permanent way are looked after by the Engg. Dept. (Civil).

Section II

1. Structure and Organization of the Engg. Dept. (Civil)

1.1. Chief Engineer is the head of the Engg. Dept. (Civil) and is responsible to Chairman, Dy. Chairman and Board for the various administration of the Department and to carry out the functions allotted to the Department as enumerated in Section I earlier.

1.2. Branches, Divisions and Sections: The Engg. Dept. (Civil) is divided into primary units called branches. Each branch is responsible for particular class of works which are executed by the Department. The Officer In-Charge of the branch is the administrative head of the branch and is referred to as Branch Officer. There are 3 main branches in the Department.

- i) Maintenance works branch
- ii) Project and construction works branch
- iii) Drawing and Design, Land and Estate, Railway

Each branch is headed by Superintending Engineer.

The Dy. Chief Engineer acts in the capacity of Branch Officer for the purpose of Railway Engineering division, Estate and design ; the maintenance and construction works in the MOHP, general cargo berths and harbour and the Establishment and Accounts in the main Administrative office.

2 Divisions

2.1 A Branch consists of field establishments known as divisions. These are formed on geographical basis or on the basis of different and distinct nature of the work handled in a branch. The Officers In Charge of division are referred to as a Divisional Engineers. They are headed by Executive Engineers. There are following divisions, under maintenance works branch.

- (a) Headland maintenance division.
- (b) Vasco and Baina maintenance division.
- (c) MOHP and harbour maintenance works division,

These divisions are headed by Executive Engineers.

- 2.2 Project and construction branch has three divisions.
- (a) Planning and Coordination
 - (b) Project Construction Works – I
 - (c) Project Construction Works – II

These divisions are headed by the Executive Engineer

(a) Planning and Coordination: Deals with preparation of proposals, cost estimates, obtaining sanctions, preparing and inviting tenders and award of contract. The other two divisions are essentially field divisions to look after the execution of project works. There is no distinct line of demarcation geographically, here but the work load is as far as possible equally divided between these three divisions.

(b) The divisions are headed by Executive Engineers in Project I, II and III respectively. There are also temporary divisions created for specific project works.

Following divisions which are directly under the charge of Dy. Chief Engineer, these are:

- (a) Railway Engineering Division
- (b) Design and Drawing
- (c) ISO Cell
- (d) Land and Estate

3. Sections

The division is further divided into sections, each section serving as basic or primary unit for the execution of the works. The sections are either formed on the basis of geographical limits as in the case of maintenance works branch or on the basis of number of works being executed under the charge of Sectional Officer, as in the case of Project construction branch or for doing specific works as in the case of lease and estate and similar sections. The Officer In Charge of the sections are called as Asst. Executive Engineer/Asst. Engineers.

4. Chief Engineer's Administrative Office:

The entire Administrative works of CE's Department is carried out from CE's administrative office which is situated in the Maint. Administrative Building of the Port Trust at Sada. The office is headed

by the Establishment Officer and Asst. Engineer(Accounts) who are responsible to the Divisional Executive Engineers, Dy. Chief Engineer and Chief Engineer. The main functions of this officer as under ;

- (i) To deal with all matters connected with the administration of the department such as establishment, budget and accounts.
- (ii) To deal with recruitment, transfers, promotion and other service matters of clerical and Class – IV.
- (iii) It works as a branch office to deal with accounts matters related to works in the Maintenance Works Branch and Railway Engineering Division and Project Construction.

There are two section in the Administrative office;

- i) Establishment
- ii) Accounts

The Establishment Office is In-Charge of the Establishment Section and looks after all establishment matters including matters connected with recruitment. The Assistant Engineer (Accounts) is In-Charge of the Accounts and looks after all accounts, works bills, stores and other miscellaneous matters.

5. Sub-Offices

The maintenance works branch and project construction branch have their own field officer or sectional officer where primary office works pertaining to execution of the work and or repairs/maintenance engineering operations etc. i.e. accountal of labour and material, time keeping work of staff etc., is carried out. Officers in charge of the division are the heads of respective divisional offices or sub-sections. They attend these divisional offices or sub-offices in the morning for dealing with office work pertaining to execution of works, in addition to organizing and supervising of the works in their charge. The project section and construction section have only work Chowkeys and no Establishment Office as such. The routine primary office work pertaining to execution of work of the section is in the main administrative office. The Section officers of Sections/Section-in-Charge attend their sections in the morning for organizing and supervising the work and in the afternoon, on such days as directed,

they attend the CE's administrative office for assisting their divisional/branch offices i.e. the Executive Engineer and the Superintending Engineer.

Although branches are primarily administrative units of the department they do not have any independent officer as such. The entire administrative work is centralized in the department's administrative office. The administrative work pertaining to establishment matters of all the branches/divisions/sections is carried out through the administrative office under the charge of the Establishment Officer.

6. Scope of Work

The maintenance works branch is an administrative unit of CE's Department the Superintending Engineer is in charge of the same. The branch is responsible for all repairs, maintenance, renewals and replacement of all the shore civil engineering works. It is also responsible for carrying out small capital works, new minor works and other connected works, as directed by the CE. There is no clear cut line of demarcation for allotment of capital works between the maintenance works branch and the project and construction branch. These branches are also responsible for repairs and maintenance of civil engineering aspects of the navigational aids such as, the light houses within the Port limits. Also the maintenance of Quarters, Gardens, Recreational grounds are within the jurisdiction of this division. The maintenance works branch is divided into three divisions i.e.

- (a) Headland Maintenance Division
- (b) Vasco/Baina area Maintenance Division and
- (c) Harbour Maintenance Division.

The divisions have been done on geographical basis.

6.1 Headland Maintenance Division (HLMD)

This division covers plots and establishments (properties) situated at Headland-Sada i.e. from Signal Station, Seaview road, Japanese garden, MPT Hospital, Type A, B, C, D Residential quarters, Bharat Lines and Upper Jetty areas. This Division-in-Charge is Executive Engineer who is directly in charge of executing works in his division and responsible to the Superintending Engineer. The Executive Engineer is also the Controlling Officer for controlling the

expenditure incurred in his division. The indenting officer for acquisition and stocking of stores required for use on works in the maintenance division is AEE/AE. There is a regular stores section where primary accounts of stores held by the division are maintained by the Jr. Engineer. The Headland maintenance division is divided into sub-sections under the charge of Asst. Executive Engineer each, such as, Water Supply section, Quarter Maintenance section, CHLD quarters, Hospital, Guest House, Vasco - Baina Section, etc. This section covers the areas at Vasco and Baina i.e. the MPT Football ground, Mormugao Port Institute, CME's Workshop, Residential Colony at Baina, Ware Houses and Shed in MM's Complex and Water Sumps.

The Asst. Executive Engineers are assisted by one or two Jr. Engineers in each sections. The Headland maintenance division has divisional offices, stores, water supply at Headland-Sada near the Shopping Complex where maintenance of accounts for works, etc., stores, time keeping works and routine establishment matters of the staff attached to the divisions are carried out. Although this division forms an independent unit of establishment matters like recruitment, promotions etc., is dealt in the administrative office, the permanent service sheets of all Class III & IV artisans' staff are maintained in the administrative office. The Executive Engineer is assisted by the Asst. Executive Engineer, Asst. Engineer and Jr. Engineers. The latter is required to exercise qualitative and quantitative control and check on the execution of all the works and to introduce internal concurrent and continuous technical audit. The functions including getting ready the plans and designs from the design office, scrutinizing the drawings from the operational utility end and economic point of view etc., preparation and preliminary and detailed estimates thereof, or vetting preliminary and detailed estimates prepared by the section officers, preparing and vetting draft reports on works for obtaining expenditure sanction of the CE/Dy. Chairman/Chairman/Board. He is also required to formulate budget proposal, vet and compile progress reports for all works, examine deviations and check measurements of contract works which have been recorded by the section officer. He will also deal with such other works as assigned to him by the Superintending Engineer and Dy. CE from time to time. AXEN/AEN in charge of sections other than Water supply section, is required to carry out all the work except repairs and maintenance of water mains and water distribution system within the area of his section. He is assisted in his work by a JE, Sub-Overseer, Mate and Maistry. He is

also required to prepare estimates and tenders for works to be carried out under their charge and executing the same.

6.2 Harbour Maintenance Division (HRMD)

This division covers the properties from the road leading to Chowgule's Office and gate No. 1 in the West to the gate No. 9 in the East and also includes breakwaters, lighthouse, jetties, berths, sheds, warehouses, temporary fishing jetty, lease structures, road, water supply, within the operational area, etc. for maintenance purposes.

The HRMD is in charge of executive engineer who is the officer directly in the executive charge of the works in his division and is responsible to Suptd. Engineer (Maintenance Works). The EE is also the controlling officer for controlling the expenditure incurred in his division. The indenting officer for execution and stocking of stores required for use on works in the Harbour Division is the Asst. Executive Engineer/Asst. Engineer. There is a regular store section where primary accounts of store held by the division are maintained.

The Harbour Division is divided into two sections under the charges of an Asst. Executive Engineer each.

- i) MOHP Section
- ii) General Cargo berths (GCB)

To look after the water supply in the inter operational area. One Jr. Engineer is posted who is reporting to AEE(Water Supply), Headland Maintenance Division. These above sections have a divisional office, stores, workshops at CME's old office and Port users building near gate No.9. The maintenance of accounts for works and routine establishment matters of the staff attached to the division are carried out.

The Executive Engineer is assisted by AEE's and the JE's . The latter is required to exercise a qualitative and quantitative control and check on the execution of all works and to introduce internal concurrent and continuous technical audit. His functions include getting ready the plans and design form the drawing office, scrutinizing the drawing office from the operational, utilitarian and economic point etc. , preparation of preliminary and detailed

estimates prepared by the AEE's and JE's, preparing and vetting draft reports on works for obtaining expenditure sanction of the Dy.Chairamn/Chairman/Board. He is also required to formulate budget proposal, vet and compile progress reports for all maintenance contract works which have been recorded by the sectional officers. He will also deal with such other works as may be assign to him by Supdt. Engineer (Maintenance)

6.3 Project Construction Branch

The Project Construction Branch is mainly concerned with Planning, Costing and execution of schemes for construction of Berths and Jetties, Quarters, Offices, Service buildings, Transit Sheds, Warehouses, Welfare centers, Sub-Stations, Under-ground and Overhead tanks, reclamation, etc. This branch carried out all the above types of works throughout the MPT estate. In addition to the above, the branch also performs the following functions:

- i) Maintaining statistical information on the Port planning aspects/storage areas, transit sheds, quarters, statistical information about traffic handled by the Port.
- ii) Correspondence with Institutes like, CWPRS, Indian Standards Institutions regarding Draft Specifications and National Building Organizations regarding the use of different new products and construction materials.
- iii) Identify training requirements of the Officers and Staff.
- iv) Sending various statistical reports and review reports regarding planning works, capital works to Ministry of Shipping and Central Vigilance Commission.

There are three divisions in the Project Construction Branch and each division is headed by an Executive Engineer and designated as Executive Engineer (Panning & Coordination), Executive Engineer (Project-I) and Executive Engineer (Project-II). The division of work between them is on the basis of administrative convenience.

7. Sections

The Project Construction Branch does not have a well defined section but AEEs/AEs assists the divisional Engineers in the execution of various works in their charge. The AEEs/AEs are assigned a number of specific work as directed by SE. The number of AEEs in the division may vary according to the total number of works which are in execution at any one time in different sections. The AEE/AE may be assigned one or more works depending on their location, cost and complexity. The AEE/AE attached to the site normally attend to their work whole time unless they are called to the office by the divisional officer to look after specific duties. For the purpose of site supervision of the work, the AEEs are assisted by site supervisory staff comprising of Jr. Engineers, Engineering Assistants, Maistry and Mate. The Project Construction branch is broadly to offer assistance from the administrative office and the Asst. Engineer (Accounts) in discharge of their functions i.e. execution of works and other duties such as, collecting information regarding material requirements from MM's department, preparing of Budget Estimates, preparation of Progress Reports on works which are being executed in the project division.

8. Design and Drawing Office

The Design and Drawing office is a division which is under direct supervision of the Dy. CE. The design office is headed by the Executive Engineer and he is assisted in his work by Asst. Engineer (Design) and Jr. Engineer (Design) and an Architect. They are further assisted by a number of Draftsman and Estimators. The broad functions of the Drawing and Design office are as under:

- i) To prepare architectural drawings of all the work which are executed by the Civil Engineering Maintenance Branch and Project Construction Branch.
- ii) To prepare structural details and designs for different works mentioned above.
- iii) To prepare and maintain Estate plans.

- iv) To obtain approval of statutory bodies whenever required to the drawings and designs prepared by it.
- v) Occasional field visits for collecting information for preparations of designs and also to visit works to satisfy that the same is being carried out according to the designs.
- vi) To maintain record of drawings and bore hole log books.
- vii) Plotting and printing of drawings for the entire CE's Department.
- viii) Maintain references of Library books, technical magazines and reports.
- ix) To advise the Chief Engineer/Dy. Chief Engineer and other branch officers in matters of architectural and structural designs. The design office forms an administrative unit of the department and the Dy. Chief Engineer is the branch officer. He carries out administrative works with the help of the clerical staff attached to CE's centralized administrative office.

9. Railway Engineering Division

The Railway Engineering Division is an isolated division of the Department and in-charge of the Executive Engineer. The Dy. Chief Engineer acts as the Branch Officer for this division and Executive Engineer is directly responsible to him. The Railway Engineering Division is responsible for construction and maintenance of permanent way including siding, platform, station building, levels crossing, sentry cabins, signaling and interlocking arrangements, culverts, storm water drains, buildings, railway gates, yards, water column, foot over bridges, etc. within the permanent way limits including yards, lines and stations. In addition, certain specific construction works are assigned to this division by the Chief Engineer. Division is also responsible for the surveys required in connection with the layout and the construction of permanent way and preparation of the drawing of the same. The Railway Engineering Division has Section office at V2 Shed Baina, where they maintain stores.

The Railway Engineering Division is however not required to carry out the maintenance of quarters, playground, gardens, under the railway limits which is carried by the maintenance works branch.

The Executive Engineer Railway, is the controlling officer for controlling expenditure incurred in his division. He is the Indenting Officer for acquisition and stocking of stores required for use of work in his charge. The Dy. CE is the countersigning of this purpose. The EE is assisted by AEE he carries similar duties as the EE in other divisions of maintenance branch.

10. Executive Engineer (Planning & Coordination)

Improvement of the existing facilities to optimize the utility of addition and alteration to develop new and better ones is continuous process for all progressive Ports of the world. Large scale investment are involved which if not done utmost care and expeditious would involve avoidable wasteful expenditure. A business plan is developed for the future planning of the Port. The Planning Division has to update the plan to meet the changing environment and to evolve and to process the scheme within and / or outside the frame work of the master plan/business plan of the Port. The work of monitoring the Plan /Non-Plan projects is also under the control of this division.

The specific function of the Planning and Coordination are as under;

- (i) Preliminary investigations, surveys and feasibility studies for evolution of different projects.
- (ii) Processing data for planning and designing the facilities proposed to be developed.
- (iii) Preparation of feasibility reports, projects reports and block estimates.
- (iv) When the project has progressed further, preparation of detailed designs and drawings.
- (v) Preparation of detailed estimates and processing the same for appropriate sanctions.
- (vi) Preparation of tender documents, invitation of tender documents and scrutiny of tenders when received.

- (vii) Dealing with all matters relevant to appointment of Consulting Engineers and liaison with them on behalf of the Board.
- (viii) All matters connected with model studies concerning the projects as also loaning of the Mormugao Port model to Government bodies for their study.

There are three Asst. Executive Engineers and two Junior Engineers. Sometimes division supervise execution of the scheme designed and processed by them. Besides,

- i) Preparation of monthly progress reports.
- ii) Preparation of quarterly progress reports.
- iii) Reviewing the progress on the works periodically, monitoring the same with the help of network technique.
- iv) Informing concerned branch officers regarding the upto date project status and corrective actions necessary.

11. Chief Engineer's Administrative Office

The entire administrative work of the department is carried out at the main Administrative Office which situated in the main building of the Port Trust Admn. Office. The office is headed by Establishment Officer, who is responsible to the Divisional Executive Engineers/SE, Dy. CE and CE. The main functions of this office are as under:-

- i) To deal with all matters connected with the administration of the department such as establishment, budget and accounts.
- ii) To deal with recruitment, transfers, promotion and other service matters of clerical and Class IV staff.
- iii) To deal with all accounts matters related to works in Maintenance Works branch, Project works, Railway Engineering works, etc.

There are two sections in the admn. Office i.e.

- i) Establishment
- ii) Accounts

The Establishment Officer (E.O.) is in charge of Establishment Section and looks after all establishment matters including matters connected with recruitment. The Asst. Engineers (Accounts) is in-charge of Accounts and looks after all accounts, budgets, invitation of tenders, award of works and settlement of interim and final bills of contract works of all the branches.

Each section is headed by an Office Supdt., who perform the specific function allotted to them. They assist the controlling E.O./Asst. Engineer in charge of these functions and are responsible to him. The scope of work of these sections is described in the following paras:-

11.1 Establishment Section

The main functions of the Establishment Section are as under:-

- i) It deals with all establishment matters pertaining to:-
 - a) All Officers in the Engg. (Civil) Department including the Officers of the Estate Section.
 - b) All the Class III & IV staff of Engg.(Civil) Department.

Comprises the following:-

- i) Recruitment, promotion of all Officers is being done by Gen. Admn. Department. Earned Leave and acting arrangement of all Civil Engineering Officers, Outdoor Class III & Class IV staff and their recruitment, promotion, acting arrangement.
- ii) Maintenance of service sheets of the staff mentioned at (a) & (b) above.
- iii) Final settlement of Provident Fund, Gratuity and pension claims.
- iv) All matters pertaining to discipline of Class III & IV staff under the Chief Engineer.
- v) Preparation of pay sheets including tuition fees, scholarship, conveyance advance, etc. of all the staff including Officers.
- vi) Grant of advances, leave travel concessions of all staff mentioned in (a) & (b) above.

- vii) Record and verification of grant of casual leave of Officers of Civil Engineering department and staff attached to Admn. Office.
- viii) Preparation of Schedule of Staff of Civil Engineering department.
- ix) Preparation of budget estimates of Establishment Section.
- x) It deals with matters connected with complaints from labour unions regarding working under the control of Chief Engineer.
- xi) Miscellaneous matters related to Court matters related to the staff of Civil Engineering department.
- xii) Submission of periodical returns, information on staff matters regarding vigilance, quarters, medical norms, confidential reports pertaining to the Establishment Section.
- xiii) Settlement of miscellaneous bills regarding hiring of vehicles, purchase of stationery, direct purchase through imprest and maintenance of imprest account, etc.
- xiv) Procurement and distribution of stationery, indenting and issuing uniform/clothing to the staff attached to Civil Engineering department.
- xv) Attending to theft reports and other miscellaneous works.
- xvi) Attend to works pertaining to motor vehicles attached to Civil Engineering Department.
- xvii) Maintenance of inventory register of dead stock items.
- xviii) Receiving letters from outside parties, other departments and sections and registering them in the Inward Register.
- xix) Endorsing the letters to the respective officers and sections,
- xx) Despatch of outward letters.
- xxi) Preparing vouchers of amount spent from imprest for postage and maintenance of postage account.
- xxii) Recording and filing office correspondence and putting up the correspondence to the Officer whenever desired.
- xxiii) Supervision of works of Peons and their postings.

The detailed arrangement showing exercise of powers in respect of Establishment matter in Engineering Civil Department is given in Annexures.

The Section is headed by an Office Supdt., who is directly responsible to the Establishment Officer. He is assisted in his work by Head Clerk, Sel. Grade. Clerk, Sr. Clerks, Clerks and Stenographer.

In addition to the above staff attached to the Civil Engineering Department, there is a pool of Stenographers, who work in the office and attend to Officers whenever they are called for dictation. They also attend to typing work. These Stenographers work under the senior most Stenographer, who is responsible to the Establishment Officer for administrative convenience. There are two posts of Personal Assistants who works directly under Chief Engineer. These posts are promotional posts for the post of Personal Secretary.

11.2 Accounts Section

The main functions of the Accounts section are as under:-

- i) Preparation of budget and coordination of budget of all budget centres under Engg. (Civil) Department.
- ii) Budgetary controlling in respect of Civil department as a whole and maintenance works branch and project and construction works and other divisions, etc. in particular.
- iii) Settlement of bills in respect of :
 - (a) Miscellaneous bills for advertisement, etc. of all the divisions attached to Civil Engineering department.
 - (b) Bills for the contract works, supply of materials in all the braches which are required to be signed by Executive Engineer/Supdtg. Engineer/Dy. CE/CE.
- iv) Processing of tenders, estimates for all the branches of CE's department.

The Section is headed of an Office Supdt. Who is directly responsible to the Asst. Engineer (Accounts). For the purpose of settlements of interim and final bills, estimates and tenders of maintenance works, project works, he assists the concerned Executive Engineer/Supdtg. Engineer. He is assisted by Head Clerk, Sel. Grade Clerk, Sr. Clerks and Clerks.

Section-III

Duties and Responsibilities

1. Introduction

1.1 There are following positions in the hierarchy of technical officer cadre of Engineering Department Civil.

- i) Chief Engineer
- ii) Dy. Chief Engineer
- iii) Branch Officer-(SE)
- iv) Divisional Engineer -(EE)
- v) Sectional Officer-(AEE/AE)

In the following paras, duties and responsibilities attached to the various positions are given on general lines. However, separate annexure - A gives details of duties and responsibilities branch-wise which is enclosed at the end of the Section -III.

1.2 As regards the Class-III employees, and skilled, semi skilled and un-skilled employees the duties and responsibilities are given in Annexure-B & C respectively .

1.3 The duties and responsibility mentioned above given in the annexure are illustrative and not exhaustive and are to be read in the context of broad functions which are required to be performed by the branch, division or section.

2. Chief Engineer

The CE is responsible to the Dy. Chairman, Chairman, and Board for the efficient administration of his dept. and is also their principal professional advisor. He exercised technical and supervisory control over all the officers, staff working the dept. He is required to discharge the functions of his department in accordance with the policies laid down by the Board. He will exercised discretion in matters where he has been delegated powers to take decision and shall take full responsibility for the decisions taken.

3. Dy. Chief Engineer

He is the principal assistant to the Chief Engineer in the discharge of his functions and in that context he will exercise general control and co-ordinate the working of various branches/divisions working under the CE. He will carry out or ensure compliance with the instructions issued by the CE. He will also exercise general control over the functioning of the department administrative office and seek CE's guidance and instructions only when absolutely necessary. He will submit only such papers to the CE (i) which requires his, Dy. Chairman/Chairman/Board's specific sanction under the MPT Act. and (ii) which involve the exercise of discretionary powers or which involves a decision on matters of policy or principles etc.

4. Branch Officer – (Supdt. Engineer)

The Branch Officer is the in-charge of the branch which forms and administrative unit of the dept. for carrying out specific functions. He is responsible to the CE and Dy.CE and assist them in the formulation of policy matters and thereafter guiding and enforcing the execution of decision given by the CE and Dy.CE .

The SE must submit papers to the CE through Dy.CE on all matters pertaining to policy or principle and whenever statutory approval /sanction of the CE/Dy. Chairman/Chairman/Board is required. In other matters he should take his own decisions and be answerable to him. He should ensure close and effective monitoring and programming of works under his control. He is authorized to correspond direct with any of the local authorities i.e MMC, MPDA, State Govt. Railways, GSRB, GCZMA etc.

5. Divisional Engineer(EE)

The divisional Eng. is in charge of division which is the executive unit of the dept. He is responsible to the Branch Officer (SE in case of maintenance works and project construction branches and Dy. CE for railway Engg. Divisions, lease division and design and drawing) for the execution and management of works and or programme of repairs maintenance within the division. In case of contract works he will be responsible to ensure Quality Control, compliance to various work tests, compliance to other terms and conditions of contract and

evaluation of proper time schedule for work. He should correspond with contractor directly. Where works are carried out departmentally the divisional officer has the added responsibility of organizing the departmental resources, like labour, plant and equipment, tools and appliances of the required type as also the management of stores and establishment matters in connection with the Class-III & IV artesian class employees. He is also the controlling officer for budget centres and has the responsibility of compliance and submission of budget for his division and effecting budgetary control over the expenditure.

6. AEEs/AEs

He is the primary element in the executive unit of the Engineering Department. He assist the Executive Engineers in the discharge of latter's/functions. He is responsible for carrying out periodical inspection of assets to formulate programme for repairs and maintenance when working in maintenance divisions. He is also responsible for the maintenance of discipline among class III & IV staff working in the section. They ensure that budget proposals are formulated and submitted with relevant data. They also ensure that all the formalities and expenditure sanction and execution of works are complied with. They exercise qualitative and quantitative control on works under execution in the division. In the performance of the above duties, they have control over the Jr. Engineers.

Duties and Responsibilities of Officers:

I Dy. Chief Engineer

- (i) He shall function under the Chief Engineer and shall exercise supervision, coordination and control in the matter of Executive Administration of the following branches/divisions of the department.
Maintenance branches of General Cargo Berth, Baina Section, Railway Section, Harbour Section, MOHP Section, Water Supply at Port Operational Areas, Design & Drawing Division, Estate Division, Railway Engineering, etc.
- (ii) ISO Implementation and all the issues related to Environment and Pollution Control Measures and Court Matters.
- (iii) He shall assist the Chief Engineer in all matters relating to administration, establishment, preparation of budget for all Revenue & Capital Works executed by the branches/divisions under him and obtain his decision on the matter of special technical nature as well as those involving Policy of the department.
- (iv) All other matters, which are routine and are in accordance with the rules and regulations shall be dealt with him directly.
- (v) He shall be responsible for transfer and posting of Class IV and Class III supervisory staff under his divisions.
- (vi) He shall check and control the Imprest Account of the Chief Engineer's Office every month.
- (vii) All proposals and recommendations for the acceptance of tenders and other works, excess execution of quantities in a tender, extras and substituted items in a tender and grant of extension of time shall be scrutinized by him before they are forwarded to the Chief Engineer for his approval.
- (viii) He shall exercise his powers in acceptance of work and certification of interim bills of the Contractors within his competence.
- (ix) He shall carry about such other duties as may be assigned to him by the Chief Engineer from time to time.

II Supdt. Engineer (Project)

- (i) He shall be In-Charge of the planning and Major development projects and construction works. He shall exercise, supervision, co-ordination and control in the matter of executive administration of above branches through the

Executive Engineer (Planning & Coordination), Executive Engineer (Projects).

- (ii) He shall give general guidance to the above Executive Engineers working under him in regard to the planning and processing and monitoring of various Port developments schemes.
- (iii) He shall deal with all correspondence in connection with "Right to Information Act".
- (iv) His duties involve preparation of technical feasibility reports for the schemes, financial appraisal of various schemes project reports and submission of monthly & quarterly, progress reports to the Ministry, estimates, tenders, etc. including planning and executing field investigations, sub-soil exploration.
- (v) He shall assist the Chief Engineer in scrutinizing various proposals received from the Central/State Government, or other Private Organisations so far as they pertain to MPT and also in the work of various Committees appointed by the Central / State Government.
- (vi) In addition he scrutinises proposal contemplated by Central / State governments and other organisations from time to time concerning sites in and around the Harbour with a view to studying its effect on Harbour regime and guarding the interests of Port Trust in consultation with CWPRS, Pune.
- (vii) All proposals and recommendations for the acceptance of tenders and other works, excess execution of quantities in a tender, extras and substituted items in a tender and grant of extension of time shall be scrutinised by him before they are forwarded to the Chief Engineer for his approval.
- (viii) He shall exercise his powers in acceptance of work and certification of interim bills of the Contractors within his competence.
- (ix) He shall represent the Port Trust on the Committees / Sub-Committees as per the Chief Engineer's directives.
- (x) He shall carry about such other duties as may be assigned to him by the Chief Engineer from time to time.

III Supdt. Engineer (Maintenance Works)

- (i) He shall be Administrative head of the maintenance branch and shall function directly under the Dy. Chief Engineer and shall be responsible for exercising, supervision, co-ordination and control of works in his branch. SE (MW) have the following division under him.
 - (a) Headland Maintenance Division
 - (b) Harbour Maintenance Division
 - (c) Vasco Baina and Railway Maintenance Division

- (ii) He shall give general guidance to the above Executive Engineers working under him in regard to the maintenance of the building, structures and other facilities in his branch.
- (iii) He shall deal with all correspondence in connection with "Right to Information Act" in his branch.
- (iv) He shall submit all the necessary details for the preparation of the draft budget for the works executed in his division.
- (v) He shall be authorized to correspondence on behalf of Chief Engineer in all matters pertaining the tender accepted by the Chief Engineer/Dy. Chairman/Chairman/Board directly with the exception that Chief Engineer's approval shall be obtained by him through Dy. Chief Engineer) in such matters like grant of extension, excess in quantity, extra substituted items, and deviation from the contract. He shall refer to the Dy. Chief Engineer in all matters of special technical nature and those involving policy of the department for decision. All matters which are routine and are in accordance with rules and conditions of the contract, he shall deal with them.
- (vi) He shall exercise his powers in acceptance of work and certification of interim bills of the Contractors within his competence.
- (vii) He shall represent the Port Trust on the Committees / Sub-Committees as per the Chief Engineer's directives.
- (viii) He shall carry about such other duties as may be assigned to him by the Chief Engineer from time to time.

IV Executive Engineer (Headland Maintenance Division)

1. (i) He shall be In-Charge of the Maintenance Division at Headland and shall function directly under Dy. Chief Engineer - II and shall be responsible for exercising supervision and control of the works executed by his division. The Executive Engineer (Headland) shall have the following divisions / Assistant Engineers under him:
 - (a) Assistant Engineer (Water Supply)
 - (b) Assistant Engineer ('A', 'B' & 'C' type quarters, CISF barracks & Hospital Complex)
 - (c) Assistant Engineer (Administrative Complex)
 - (d) Assistant Engineer ('D' type quarters & schools)
 - (e) Assistant Engineer (Vasco & Baina)
- (ii) He shall submit all the necessary details for preparation of draft budget for the works to be executed in the above divisions through Dy. Chief Engineer - II to the Chief Engineer and obtain his approval to the same and process it for necessary sanction.

(iii) He shall be authorised to correspond on behalf of the Chief Engineer in all the matters pertaining to tenders accepted by the Chief Engineer / Dy. Chairman / Chairman directly with the exception that Chief Engineer's approval shall be obtained by him (through Dy. Chief Engineer -II) in such matters like grant of extension, excess in quantities, extras and substituted items and deviation from the contract. He shall refer to the Dy. Chief Engineer all matters of special technical nature and those involving policy of the department for decision.

All matters which are routine and are in accordance with the rules and conditions of the contract, he shall deal with it.

2.(i) The executive duties in respect of work shall comprise of the following:-

- (a) Based on inspection of assets, formulation of proposal and obtaining expenditure sanction thereto.
- (b) Verification of detailed drawings prepared in the design office from the point of economic, functional aspect requirements of users and preparation and scrutiny of tenders, when necessary.
- (c) Guiding Sectional Officers in organising and supervising the work in case of contract works, general supervision, overall quality control, formulation of conditions of contract, shall be looked after by him.
- (d) Compilation and submission of draft budget estimates, revised budget estimates, demands for supplier grants, reappropriation and administrative grants, and administration of accounts/imprest placed at his disposal.

(ii) The managerial duties shall cover-

- a) Acquisition, stocking, issue and accountal of stores.
- b) Maintenance and placement to the FA&CAO all primary accounts of all transactions.
- c) He shall process the water charges bills of PWD and also forward to the Secretary/FA&CAO water charges to be recovered from the leases.
- d) He will look after the Port Trust assets in the landed areas at Headland including quarters, hospitals, schools, all the contractors outside the Port boundary wall including Upper Jetty, Sewage Treatment Plant, water supply network.

- e) He shall act as the department's local representative for the area in his charge.
- (iii) He shall be required to scrutinise lease matters in the areas under his jurisdiction referred to the department.
- (iv) He shall be responsible for the distribution and supply of water in the areas under his jurisdiction and also sanitation and scavenging in the division, which is under his control.
- (v) He shall be required to carry out such other duties as may be assigned by the Dy. Chief Engineer – II and Chief Engineer.

V Executive Engineer (Planning & Co-ordination)

- (i) He shall be overall in-charge of the Planning Division of the department and is responsible to Supdt. Engineer (Project)
- (ii) He is responsible for conceptual plans of new development schemes and processing specific schemes, which are included in the budget.
- (iii) His duties involve preparation and scrutiny of techno-feasibility report for schemes, financial appraisal scheme and submission of monthly/quarterly progress reports of these schemes to the Ministry, budget reports, estimates, tenders, etc. including planning and executing field investigation, sub-soil exploration, etc.
- (iv) He is authorised to correspond directly with any of the local authorities like MMC, MPDA, Coastal Zone Management Authority as well as Ministry of Shipping.
- (v) He will coordinate to arrange training programmes for Engg. (Civil) department.
- (vi) All proposals and recommendations for acceptance of tenders, and other works, excess execution of quantities in a tender, extras and substituted items in a tender, grant of extension of time shall be prepared and scrutinised by him before they are forwarded to Dy. Chief Engineer/Chief Engineer for his approval.
- (vii) He is required to look after the budget of the division and will attend to the day to day correspondence of various schemes.
- (viii) He will undertake the field work for preliminary investigation, field survey and collection of information from different sources.

- (ix) He is responsible for collection of data and follow-up action for all the works required in connection with the Plan Review meetings with the Chairman for various Plan & Non-Plan works.
- (x) He is required to prepare periodical progress reports of specific projects and process them for submitting the same to the Ministry in such forms as desired by the Ministry.
- (xi) He will assist Supdt. Engineer (Project)/Dy. CE/CE for creation of data and information in regard to preparation of Annual Plan and Annual Report of the Port activities as also performance budget for plan works so far as Engg. (Civil) department is concerned.

VI Executive Engineer (Design & Drawing)

- (i) He will be In-charge of the Design and Drawing Division, which deals with the preparation of drawing pertaining to normal Civil Engineering works on existing Port Trust assets and is responsible for administrative control of his division.
- (ii) He has to work in collaboration with the other Executive Engineers in charge of Maintenance, Construction and Project works. For proper coordination, the drawings are required to be routed through the User department through Dy. Chief Engineer for Chief Engineer's approval.
- (iii) In his capacity he will prepare conceptual plans, layout, etc, of the proposed schemes and Engineers in the field will process them for necessary sanction. He is primarily responsible for preparation of alternate layout drawing, structural drawing and such other details required for feasibility study and on receipt of approval to the scheme for preparation of such further drawings for conceptual detail, structural details, foundations, etc. as also any revision to them, which are necessary for preparation of detailed estimates and for execution of works.
- (iv) Although the primary responsibility for preparation of drawing of all the design engineering, the engineers on the field, executive side are also required to share the responsibility to check-up the drawings from conceptual aspect, feasibility and economic point of view and also to suggest improvements to Executive Engineer(Design & Drawings) based on their practical experience and knowledge of engineering.
- (v) He will be required to prepare structural designs of structures designed in the Design Division. He will also prepare alternative structural schemes and discuss the

same with Dy. Chief Engineer before preparing further details.

- (vi) He will be associated with preliminary investigation required for formation of new schemes. The investigation may include field survey, topographic survey, soil and sub-strata survey. The work of field investigation shall be the responsibility of field Engineers under whom the scheme is being executed or planned.
- (vii) He has to prepare proposals and obtain approval of the statutory bodies like MMC, MPDA to the drawings and designs of the work proposed by him as and when required.
- (viii) He shall also be responsible for preparation of detailed estimates and tender documents.. However, his assistance may be called by the concerned divisional officer in drafting Special Clauses and Specifications for the tender to suit the particular design adopted and also during the supervision of the work in progress from time to time.
- (ix) He shall be the custodian of all records such as drawing, plans, maps, photographs, pictures, books and periodicals, etc. which are prepared/procured or purchased by the Chief Engineer's department. For this purpose he will be assisted by a Record Keeper.
- (x) He shall correspond with other departments of MPT and/or outsiders directly on matters not involving policy matters. On matters involving the policy, such correspondence shall be authorised by the Dy. Chief Engineer/Chief Engineer prior to the despatch of the letter.
- (xi) He shall be responsible for maintenance of discipline and efficiency among the staff working in the division.
- (xii) He shall obtain Chief Engineer's signature on all drawings which will form official record. No drawing shall be put up for Chief Engineer's signature unless the same is initialled by Executive Engineer (Design & Drawing) / Dy. Chief Engineer – I/II in token of it being checked by them for its accuracy, sufficiency and structural stability.
- (xiii) He shall take necessary action for sanction for the purchase of technical books and periodicals for the reference of Technical Library under his control and keep them in his safe custody thereafter.
- (xiv) He shall be responsible for proper up-keep and maintenance of department computers, tools, office equipment, machinery, under his control.
- (xv) He will scrutinise requirement of consumable and non-consumable items, spares, etc. for the Design office.

- (xvi) He will guide the Asst. Executive Engineers, Junior Engineers in the preparation of detailed analysis and Draftsmen in the preparation of drawings.

VII Executive Engineer (Harbour Maintenance Division)

1.(i) He shall be In-Charge of the Civil Maintenance and Construction Works in the operational areas of MOHP, General Cargo Berth, Railways and Harbour and shall function directly under Supdt. Engineer (HRMD) and shall be responsible for exercising supervision and control of the works executed by his division. The Executive Engineer (MOHP) shall have the following Sectional Officers under him:

- (a) Assistant Executive Engineer (MOHP)
- (b) Assistant Engineer (MOHP Tracks & Railways)
- (c) Assistant Engineer / Assistant Executive Engineer (General Cargo Berth)

(ii) He shall submit all the necessary details for preparation of draft budget for the works to be executed in the above divisions through SE/Dy. CE to the Chief Engineer and obtain his approval to the same and process it for necessary sanction.

(iii) He shall be authorised to correspond on behalf of the Chief Engineer in all the matters pertaining to tenders accepted by the Chief Engineer/Dy. Chairman/Chairman directly with the exception that Chief Engineer's approval shall be obtained by him (through SE/Dy. CE) in such matters like grant of extension, excess in quantities, extras and substituted items and deviation from the contract. He shall refer to the SE/Dy. CE all matters of special technical nature and those involving policy of the department for decision.

All matters which are routine and are in accordance with the rules and conditions of the contract, he shall deal with it.

2.(i) The executive duties in respect of work shall comprise of the following:

- (a) Based on inspection of assets, formulation of proposal and obtaining expenditure sanction thereto.
- (b) Verification of detailed drawings prepared in the

design office from the point of economic, functional aspect requirements of users and preparation and scrutiny of tenders, when necessary.

(c) Guiding Sectional Officers in organising and supervising the work in case of contract works, general supervision, overall qualitative and quantitative control, formulation of conditions of contract, shall be looked after by him.

(d) Compilation and submission of draft budget estimates, revised budget estimates, demands for supplier grants, reappropriation and administrative grants, and administration of accounts/imprest placed at his disposal.

(ii) The managerial duties shall cover-

a) Acquisition, stocking, issue and account of stores.

b) Maintenance and placement to the FA&CAO all primary accounts of all transactions.

c) He shall process the water charges bills of PWD and also forward to the Secretary/FA&CAO water charges to be recovered from the leases.

d) He will look after the landed Port Trust assets i.e. Mooring Dolphins, Lighthouse and Breakwater as well as properties leased to the private parties.

e) He shall act as the department's local representative for the area in his charge.

(iii) He shall be required to carry out such other duties as may be assigned to him by the Dy. Chief Engineer and Chief Engineer from time to time.

VIII Executive Engineer (Construction)

(i) He shall be In-charge of the Construction Division of the department, which deals with the execution of Capital works, Non-Plan works including major projects and will be responsible to Supdt. Engineer (Project).

(ii) He will carry out qualitative and quantitative check of the execution of works (day to day execution and supervision of works) is the responsibility of the Asst. Engineer/Assistant Executive Engineer.

- (iii) In his capacity he will assist Supdt. Engineer /Dy. Chief Engineer / Chief Engineer for the conceptual planning of works, feasibility studies in collaboration with Executive Engineer (D&D), evaluate various alternatives to select acceptable economic solutions. He is associated with preliminary investigation of schemes and undertake all the necessary field work.
- (iv) He will prepare detailed estimate for schemes included in the budget and process the same for sanction.
- (v) He will prepare tenders, invite competitive bids, scrutinise the same and process the same for acceptance.
- (vi) He shall be overall In-Charge of execution of work and is responsible for its timely completion with special attention to overall quality control, formulation of conditions of contract and all such other matters as directed by Dy. Chief Engineer / Chief Engineer.
- (vii) He is responsible for preparation of budget for the works under his control.
- (vi) He is required to co-ordinate with the CME's department in the execution of works at all stages, whether the work involves some work to be executed by the latter department.
- (vii) He shall correspond with other departments of MPT and/or outsiders directly on matters not involving policy matters. On matters involving policy, such correspondence will be authorised by the Chief Engineer prior to the dispatch of the letter.
- (viii) He shall be responsible for maintaining discipline and efficiency among the staff working in his division.
- (ix) He is responsible for enforcement of Conditions of Contract and all such other matters as directed by Dy. Chief Engineer / Chief Engineer.
- (x) He shall control, coordinate and guide Asst. Engineers / Asst. Executive Engineers / Junior Engineers working under him in the execution of work.
- (xi) He shall check the estimates and draft tenders prepared by the Asst. Engineers / Asst. Executive Engineers as to their sufficiency. He shall also scrutinise the drawings being submitted along with estimates and tenders and suggest improvements for execution and maintenance point of view.
- (xii) He shall exercise his powers of acceptance of works and certification of interim bills of the Contractor within his competence.

IX Executive Engineer (Project)

- (i) He will be In-charge of the Project - I Division, which deals with major Capital works and will be responsible to SE (Project).
- (ii) He will carry out qualitative and quantitative check of the execution of works (day to day execution and supervision of works) is the responsibility of the Asst. Engineer/Assistant Executive Engineer.
- (iii) In his capacity he will assist Dy. Chief Engineer / Chief Engineer for the conceptual planning of works, feasibility studies in collaboration with Executive Engineer (D&D), evaluate various alternatives to select acceptable economic solutions. He is associated with preliminary investigation of schemes and undertake all the necessary field work.
- (iv) He will prepare detailed estimate for schemes included in the budget and process the same for sanction.
- (v) He will prepare tenders, invite competitive bids, scrutinise the same and process the same for acceptance.
- (vi) He shall be overall In-Charge of execution of work and is responsible for its timely completion with special attention to overall quality control, formulation of conditions of contract and all such other matters as directed by Dy. Chief Engineer / Chief Engineer.
- (vii) He is responsible for preparation of budget for the works under his control.
- (viii) He shall be responsible for maintenance of discipline and efficiency among the staff working in the division.
- (ix) He is responsible for enforcement of Conditions of Contract and all such other matters as directed by Dy. Chief Engineer / Chief Engineer.
- (x) He shall control, coordinate and guide Asst. Engineers / Asst. Executive Engineers / Junior Engineers working under him in the execution of work.
- (xi) He shall check the estimates and draft tenders prepared by the Asst. Engineers / Asst. Executive Engineers as to their sufficiency. He shall also scrutinise the drawings being submitted along with estimates and tenders and suggest improvements for execution and maintenance point of view.
- (xii) He shall exercise his powers of acceptance of works and certification of interim bills of the Contractor within his competence.

X Executive Engineer (Railways & Roads)

He shall be In-Charge of the Railways & roads inside Port operational area starting from Gate no.1 to MPT Workshop, Baina and his duties and responsibilities will be similar to those other divisional

Maintenance Engineers of MOHP but related to work in Railway Engineering Division. He will work directly under SE (HRMD). In addition he will carry out duties as enumerated below:

- (i) He shall carry out periodical inspection of infringement of standard dimensions on the MPT railway and sidings.
- (ii) He shall attend to railway accidents and submit necessary report thereto.
- (iii) He shall also attend to the disputes arising from accidents.
- (iv) He shall carry out general supervision over the railway maintenance work and construction works in the division.
- (v) He shall directly deal with South Central Railway in all matters connected with inter-locking, installation of signals including matters of stores.
- (vi) He shall also deal directly with the other Maintenance Division of Engg. (Civil) Department and other MPT departments like Traffic, Railway Manager, Materials Manager, Chief Mechanical Engineer on routine matters.
- (vii) He shall be responsible for the submission of Weekly, Fortnightly, Monthly, Quarterly and Yearly Inspection Reports to the Chief Engineer, Traffic Manager and Additional Commissioner of Railways (Safety).
- (viii) He shall be required to carry out such other duties as may be assigned to him by the SE /Dy. CE/Chief Engineer from time to time.

XI Asst. Executive Engineer/Asst. Engineer (Harbour Maintenance Division/Headland Maintenance Division)

- (i) He functions under the divisional engineer and responsible for the organization and execution of the work under his charge.
- (ii) He is required to carried out periodic inspection of the Port Trust assets, in his charge, and formulate and execute programme for normal maintenance, special repairs and renewal and replacement. He will submit the details for formulating budget estimates, revised estimates, etc.
- (iii) He is required to collect information to feed the design office in preparation of drawings and design.
- (iv) He will prepare rough estimates and detail estimates for obtaining necessary sanction for executing the works.
- (v) He will prepare the draft tender and assist the Executive Engineer /Suptd. Engineer in invitation, scrutiny and award of tender.
- (vi) Where the work is executed departmentally, it is his responsibility to organize the labour, provide tools and appliances and arrange for the stores.
- (vii) He will supervise all the contract work under his charge, exercise full quality control and be responsible for timely

- completion. He shall keep all necessary records of contract works and record measurement works as per standing instructions.
- (viii) Any deviation from contract conditions, he shall seek orders from the Divisional Engineer.
 - (ix) He will be responsible for distribution of work among the departmental labour for repairs and maintenance, muster them and allocate the expenditure under proper heads.
 - (x) He will work out annual requirement of stores for the section and account for the stores consumed by him on works in his section.
 - (xi) He will carry out such other duties as may be directed by CE/Dy. CE/SE/SE (Maint)/EE.

XII Asst. Executive Engineer/Asst. Engineer (Project Construction)

- (i) Their duties are similar to those of AEE/AE in the Maintenance works division excepting that they will be normally required whole time supervision of the work at the site of the work when they are posted on the construction works.
- (ii) They shall prepare detailed statement for the draft tender for works.
- (iii) They will supervise the works allotted to them and have full control over the quality of the work and specifications. They will take the measurement of the work done by the contractor and scrutinize the bills.
- (iv) When a work is being done departmentally, they will organize materials, tools and equipments, transport, etc. and control labour.
- (v) He will carry out such other duties as may be directed by CE/Dy. CE/SE/SE (Maint)/EE.

XIII Asst. Executive Engineer/Asst. Engineer (Design)

- (i) He shall be responsible for preparing full structural and analysis and designs of structures designed in the design division under the control of Executive Engineer (D&D).
- (ii) He shall guide the Draftsman in the preparation of the drawings.
- (iii) He shall check the drawings for their accuracy and their clarity.

- (iv) He shall visit the official concerned for discussion, site of proposed works and works in progress to acquaint himself with the site and the works as frequently as found necessary.
- (v) He shall prepare the estimates and assist EE in preparation of tenders invitation of tenders, scrutiny and award of works.
- (v) He will carry out such other duties as may be directed by CE/Dy. CE/SE/SE (Maint)/EE.

XIV Personal Assistant

- i) To monitor the minutes of the meetings as required.
- ii) To maintain personal files.
- iii) To attend confidential correspondence and maintain of CRs of Class III & IV.
- iv) To carry out the instruction day-to-day working.
- v) To draft and send short replies, reminders, etc. and dispose of papers to various parties.
- vi) To sort out urgent / immediate papers and put up and take orders.
- vii) To keep the diaries of various programme of meetings.
- viii) To receive all office correspondence submitted for signature, orders, etc. and dispose of after signed.
- ix) To receive personal email and dispatch.
- x) To attend any other personal requirement in general in discharge of official duties.

Thus as Personal Assistant, the incumbent has no doubt to attend the variety of duties, distinct of those of Stenographers and generally attending the requirement of the Chief Engineer's pertaining to office works. In view of the responsibility devolved on the head of the department during strikes, etc. the PA should attend duty as they have confidence of HOD and have been appointed on this understanding and should be exempted.

XV Establishment Officer

- (i) He shall work under the Dy. Chief Engineer and assist him in coordinating and control of the Chief Engineer's Administrative Office.

- (ii) He shall be responsible for the efficiency and discipline in the Chief Engineer's office.
- (iii) He shall guide the Sections-in-charge, Office Supdt./Head Clerk, in the discharge of their duties.
- (iv) Matters of advising CE/Dy. CE/Branch Officers on matters relating to accounts, establishment and staff members.
- (v) It will be his/her responsibility to see that all periodical returns are forwarded to the authority concerned on due dates.

XVI Asst. Estate Manager Gr. I

Immediate supervisory officer in charge of Estate Section, entrusted with duties and responsibilities in following estate matters:

1. He will work in consultation with Executive Engineer (Estate).
2. He will be responsible for Allotment and inspection of residential staff quarters of Port. As per the entitlement of the employees check the waiting list prepared by AEM Gr. II and Estate superintendent, Estate inspector(Q) and put for approval of competent authority. Circulate the waiting list and allot the quarters in confirmation with the same. Monitoring and review the quarter position. Check the overstay cases and Initiate action for vacating the quarters in terms of regulations.
3. Allotment of Port land, office premises to Port users and other parties on Lease/Licence basis and preparation of Lease Deeds/Licence Agreements for allotment of land/shops/offices (accommodation etc.) Monitoring and review the lease/license status. Prepare the documentation for approval in case of litigation and check if any encroachments in the land/premises. Liasoning with legal cell for the cases in which action is initiated. He shall ensure the follow up action on the Court orders.
4. Handling eviction/recovery cases under Public Premises (Eviction of unauthorised occupants) Act, 1971. Submit the quarterly report of the status of Eviction proceedings to CE.
5. Survey of Port land whenever required for allotment ,review of encroachment and other purposes. Liasoning with state Govt. officials/agency for demarcation of the land.

6. In case of encroachments make complaints to police and statutory authorities. Submit the Encroachment Report quarterly for the information of CE, Dy. Chairman and Chairman.
7. Secure the port premises by deploying available watchman. Submit the quarterly statement for review of thefts and other incidents to CE including actions taken.
8. He will look after all the establishment matters of Estate section.
9. Attending any other work assigned by Ex. Engr(E)/Dy.CE/ CE
10. Receiving the application under RTI and preparing reply along with the information required for CPIO/CE for compiling the same.

XVII Asst. Estate Manager Gr. II:

He is Officer in-charge of Estate Section entrusted with following duties and responsibilities shall work in consultation with Asst. Estate Manager Gr. I and EE (Estate)

- i) He will be responsible for allotment and inspection of residential staff quarters of Port. He will verify the waiting list for allotment of all type of residential units as per the regulations. Prepare recommendations for allotment of vacant Quarters from time to time as per the waiting list/regulations.
- ii) He will inspect the quarters along with the respective AE/AEE (quarter maintenance). He will maintain the record of the quarter maintenance with the help Estate Inspector(Q) and report to CE quarterly regarding vacant quarters. He shall be responsible for timely allotment of vacant quarters. He will intimate the Electricity payment for the vacant quarters so that same is timely paid.
- iii) He will inspect the quarters periodically once in a fortnight to detect the overstay cases and take timely action to vacate the same. He will liaise with other departments and finance for recovery of over stay cases.
- iv) He will prepare tender for allotment of vacant premises (shops) in consultation with (AEMI) and complete all the procedural formalities till allotment.
- v) He will be in charge for arranging security for the port premises through Department watchmen or otherwise..
- vi) Attending any other work assigned by AEM-I/EE(E)/Dy.CE/ CE

XVIII Asst. Secretary

Immediate Officer in-charge of Estate Section entrusted with following duties and responsibilities shall work in consultation with Asst. Estate Manager Gr. I and Ex. Engr (Estate)

- (i) He shall Keep record of Lease/ license agreement to monitor the outstanding dues of lessee/licensee of the premises allotted. Sending notices to defaulters after obtaining latest position of dues from CDC. Taking further action in case of non settlement of dues. Preparation of quarterly review statement for CE's Perusal.
- (ii) He shall Monitor lease/license position in respect of the premises/land /water area , for the period allotted. Keeping track of expiry of the period of lease /licence and Communicating the party in advance about expiry of lease/license before expiry of lease/license and sending notice of vacation if required. Following the action for vacating the premises. Preparation of quarterly review statement to CE.
- (iii) He shall Monitor the application placed/to be placed before Estate Officer, under P.P. Act,1971 in consultation with the Asst. Estate Manager. Provide all the necessary details to legal cell to process the cases expeditiously, and submit the quarterly report to CE.
- (iv) Overstay in the Port quarters.
Monitoring the cases of overstay in the Port quarters and issuing them the notices/final notices under clause 130 MPT act 1963.failing which to place application before E.O under P.P.Act, 1971 for eviction from Port quarter. Intimate the Finance department regarding their recoveries/dues for timely recovery. Preparation of quarterly review statement for CE's Perusal.
- (v) He shall inspect the Port Trust Estate regularly to ensure that there is no encroachment of the Port land or premises. He shall initiate action for vacating the unauthorized encroachment physically with the help of Demolition Squad. For the demolition squad he shall take required assistance from CISF, AEN/AXEN Vasco, GCB, HL, MOHP for logistic and labor requirement directly.

vi) He shall maintain a record required under RTI Act. Preparing monthly report and quarterly /annual report in the prescribed format in consultation with the AEM-I.

Duties And Responsibilities Of Class III Staff

I Office Superintendent (Works & Accounts)

- (i) To receive draft tenders/quotation from EE get them typed by giving Tender Quotation number by entering the same in the Register.
- (ii) On receipt of corrected draft give the selling date, closing date and tender/quotation opening date as per the convenience and get the corrections done and fair typed the tender/quotation.
- (iii) Get the tender/ quotation cyclostyled and bound in sets and keep them ready for sale before due date of sale.
- (iv) Prepare Tender Notice, get the same translated in Hindi, get the same typed. Obtain approval of the concerned EE's , DY.CE. CE and CE and send the same to AS(PR) for advertisement on the local papers.
- (v) Preparation of monthly challan and monthly returns of EPF
- (vi) After opening the quotation/ tender get the comparative statement done and verify the same.
- (vii) Prepare notice for extension of Tender Opening date after obtaining approval of the concerned EE. When there is no response to the tender/ quotation.
- (viii) Verify Completion/Maintenance Certificates and other papers prepared by the dealing hands.
- (ix) Verify the draft work order to placed on the party of plan and non plan work . After getting approval from EE get the fair typed and put up for signature.
- (x) Check and verify the bills processed for payment of plan and non-plan works.
- (xi) Attend the instruction given by EEs and AE (Accounts) from time to time.
- (xii) Put up notes and other correspondence as per instructions of AE (Accounts).

II Head Clerk (Works & Accounts)

Looking after the duties of Plan/Non Plan work

- i) Opening of Quotation/Tenders on due dates.
- ii) Handling over the opened Tenders/Quotation to the dealing hands along with the estimates and approval for preparing Comparative Statement.
- iii) Maintenance of Bill Register and distribution of bills and issue of work order after TAC.
- iv) Checking of bills pertaining to capital works and other correspondence.
- v) Verify Registration and Renewal of new Contractors.
- vi) Arranging Tea/Coffee at the time of opening the tenders/quotation and process the bill towards the above arrangement.
- vii) Maintain, Tender Register, Tender Sale, Contractors Registration Register, Quotation Register etc.
- viii) After Tender/Quotation opening/Prepare docketed/Tender register and obtain signature of EE, Dy. CE and CE on the Tender Register.
- ix) Supervision of the work of subordinate staff.
- x) Processing proposal for extending the Bonds towards Earnest Money Deposit.
- xi) Maintain the Agreement Register.
- xii) After Tenders/Quotations opening, notes to be put up if any for extension of tender /quotation.

III Accountant

- i) Maintenance of Bill Register & distribution of bills to the dealing hand.
- ii) To issue of Work Order after TAC.

- iii) To prepare the comparative Statements of tender and quotations after opening of tenders/quotations. To mark the paper received for issue of work orders and bills to the dealing hands.
- iv) To prepare the work order drafts of revenue works, verify the same and forward to AE (Accounts) for obtaining approval of concerned EE/Dy.CE.
- v) Get the bills processed, check the calculations with M.B. Book and calculation of amount proposed for payment i.e. part or final.
- vi) Maintain the Bills Register, Bills processed for payment register.
- vii) To put up the statement of pending bills by 1st of every month.
- viii) To verify all the works done by maintenance staff and to forward them to AE (Accounts).
- ix) All the correspondence i.e. proposal, to issue work order, maintenance certificate, completion certificate, L.D. B.G., Cash Receipts (which come from Cash Section) etc. to be marked to the dealing hand of the Maintenance Section.

IV Sel. Gr. Clerk

A.O. Bldg. (inside and outside) including HRD, TPC and Sulabh Bills.

- i) To prepare Comparative Statement after tender/ Quotation opening and put up to Accountant for checking and onward approval.
- ii) To maintain various bill registers including EMD register.
- iii) Open new work file and file the concern papers in the file.
- iv) To prepare draft work order after receipt of approval.
- v) Get the Work Order typed after draft is approved. Connect necessary papers to the Work Order after taking Xerox copies and put up to Accountant for checking.
- vi) Preparing of Purchase Order in SAP.

- vii) To ensure that Security Deposit is furnished by the Contractor within 28 days of the receipt of Work Order.
- viii) Prepare agreement papers, get the signatures of the contractor on the agreement alongwith the witnesses wherever necessary and forward the same.
- ix) Arithmetic check of the Measurement Books and the bills received for payment. Check all the necessary documents such as EPF, ESI and put up to Accountant for Verification pertaining to Revenue Works
- x) On receipt of Completion Report from the concerned EE, prepare draft Completion Certificate and put up for approval.
- xi) On receipt of Maintenance Report from the concerned EE, prepare draft Maintenance Certificate and put up for approval.
- xii) Issue letter to all the departments for getting No Dues Certificate before clearing off the final bill of the Contractor.
- xiii) Maintenance of File and Register regarding EMD.

V Sel. Gr. Clerk (Works)

- i) To look after the duties assigned by AE (Accounts) and OS (Works).
- ii) To prepare Comparative Statement after tender/ Quotation opening and put up to Accountant for checking and onward approval.
- iii) Refund the EMDs of unsuccessful tenderers/ quoters.
- iv) Open new work file and file the concern papers in the file.
- v) To prepare draft work order after receipt of approval from concern authority and put up for approval.
- vi) Obtain Sanction for award of work after submitting original approval to Accounts Department.
- vii) Get the Work Order typed after draft is approved. Connect necessary papers to the Work Order after taking Xerox copies and put up to Accountant for checking.

- viii) Preparing of Purchase Order in SAP.
- ix) To ensure that Security Deposit is furnished by the Contractor within 28 days of the receipt of Work Order.
- x) Prepare agreement papers, get the signatures of the contractor on the agreement along with the witnesses wherever necessary and forward the same.
- xi) Arithmetic check of Measurement Books and the bills received for payment. Check all the necessary documents such as EPF, ESI and put up to Accountant for Verification pertaining to Revenue Works
- xii) On receipt of Completion Report from the concerned EE, prepare draft Completion Certificate and put up for approval.
- xiii) On receipt of Maintenance Report from the concerned EE, prepare draft Maintenance Certificate and put up for approval.
- xiv) Prepare statement for transfer of Capital work to the asset ad forward the same to FA&CAO after obtaining approval.
- xv) Examine the requests received from contractors regarding registration of contractors/Renewal of Registration and put up note accordingly for approval.
- xvi) Prepare and put up letters to the Contractors regarding registration/up gradation.
- xvii) Maintain Contractors registration files accordingly to their Class.

VI SEL. GR. CLERK (Maintenance Works Branch)

- i) To prepare Comparative Statement after tender/ Quotation opening and put up to Accountant for checking and onward approval.
- ii) To maintain EMD register.
- iii) Open new work file and file the concern papers in the file.
- iv) To prepare draft work order after receipt of approval.

- v) Get the Work Order typed after draft is approved. Connect necessary papers to the Work Order after taking Xerox copies and put up to Accountant for checking.
- vi) Preparing of P.O. in SAP.
- vii) Observe that Security Deposit is furnished by the Contractor within 28 days of the receipt of Work Order. If not received sent reminder to the Contractor.
- viii) Prepare agreement papers, get the signatures of the contractor on the agreement alongwith the witnesses wherever necessary and forward the same.
- ix) To check the correctness of Measurement Book and the bills received for payment. Check all the necessary documents such as EPF, ESI and put up to Accountant for Verification pertaining to Revenue Works
- x) On receipt of Completion Report from the concerned EE, prepare draft Completion Certificate and put up for approval.
- xi) On receipt of Maintenance Report from the concerned EE, prepare draft Maintenance Certificate and put up for approval.
- xii) Issue letter to all the departments for getting No Dues Certificate before clearing off the final bill of the Contractor.
- xiii) Maintenance of File and Register regarding EMD.

VII Sr. Clerk

- i) Issue Sanctions to the Estimates and award of work after obtaining Xerox copies of the concerned approvals and estimates.
- ii) Check advertisement bills, get BCS, take Xerox copies of the advertised matter and prepare forwarding letter to Accounts Department for payment and submit to Head clerk for verification.
- iii) Preparing Purchase Order, Service Entry Sheets and Invoice in SAP.

- iv) Prepare monthly statement for obtaining Ratification of Chairman for the works executed by CE. Prepare note and put up for approval.
- v) Maintain records regarding work orders placed on the contractors and file monthly returns to ALC, Vasco.

VIII Sr. Clerk (Vasco Section)

- i) To look after the work assigned by Office Supdt. (Works).
- ii) To prepare Comparative Statement after tender/ Quotation opening and put up to Accountant for checking and onward approval.
- iii) To maintain the various bills/tenders/EMD registers.
- iv) Open new work file and file the concern papers in the file.
- v) To prepare draft work order after receipt of approval.
- vi) Get the Work Order typed after draft is approved. Connect necessary papers to the Work Order after taking Xerox copies and put up to Accountant for checking.
- vii) Preparing of P.O. in SAP.
- viii) Observe that Security Deposit is furnished by the Contractor within 28 days of the receipt of Work Order. If not received sent reminder to the Contractor.
- ix) Prepare agreement papers, get the signatures of the contractor on the agreement alongwith the witnesses wherever necessary and forward the same.
- x) To check the correctness of Measurement Book and the bills received for payment. Check all the necessary documents such as EPF, ESI and put up to Accountant for Verification pertaining to Revenue Works
- xi) On receipt of Completion Report from the concerned EE, prepare draft Completion Certificate and put up for approval.

- xii) On receipt of Maintenance Report from the concerned EE, prepare draft Maintenance Certificate and put up for approval.
- xiii) Issue letter to all the departments for getting No Dues Certificate before clearing off the final bill of the Contractor.
- xiv) Maintenance of File and Register regarding EMD.
- xv) Issuing of Budgetary Control Slips.

**IX Sr. Clerk
(MOHP, AC Works (Guest House, Officers Club, Sayantara Auditorium) & Bungalows**

- i) To prepare Comparative Statement after tender/ Quotation opening and put up to Accountant for checking and onward approval.
- ii) Refund the EMDs of unsuccessful tenderers/ quoters.
- iii) Encashment of EMDs .
- iv) Release of EMDs accordingly.
- v) Open new work file and file the concern papers in the file.
- vi) To prepare draft work order after receipt of approval.
- vii) Get the Work Order typed after draft is approved. Connect necessary papers to the Work Order after taking Xerox copies and put up to Accountant for checking.
- viii) Preparing of P.O. in SAP.
- ix) Observe that Security Deposit is furnished by the Contractor within 28 days of the receipt of Work Order. If not received sent reminder to the Contractor.
- x) Prepare agreement papers, get the signatures of the contractor on the agreement alongwith the witnesses wherever necessary and forward the same.
- xi) To check the correctness of Measurement Book and the bills received for payment. Check all the necessary

documents such as EPF, ESI and put up to Accountant for Verification pertaining to Revenue Works.

- xii) On receipt of Completion Report from the concerned XEN, prepare draft Completion Certificate and put up for approval.
- xiii) On receipt of Maintenance Report from the concerned XEN, prepare draft Maintenance Certificate and put up for approval.
- xiv) Issue letter to all the departments for getting No Dues Certificate before clearing off the final bill of the Contractor.
- xv) Maintenance of File and Register regarding EMD.

X Sr. Clerk
(AMC - Headland Section/ CHLD Section)

- i) To prepare Comparative Statement after tender/ Quotation opening and put up to Accountant for checking and onward approval.
- ii) Refund the EMDs of unsuccessful tenderers/ quoters.
- iii) Encashment of EMDs .
- iv) Release of EMDs accordingly.
- v) Open new work file and file the concern papers in the file.
- vi) To prepare draft work order after receipt of approval.
- vii) Get the Work Order typed after draft is approved. Connect necessary papers to the Work Order after taking Xerox copies and put up to Accountant for checking.
- viii) Preparing of P.O. and Contracts in SAP.
- ix) Observe that Security Deposit is furnished by the Contractor within 28 days of the receipt of Work Order. If not received sent reminder to the Contractor.

- x) Prepare agreement papers, get the signatures of the contractor on the agreement alongwith the witnesses wherever necessary and forward the same.
- xi) To check the correctness of Measurement Book and the bills received for payment. Check all the necessary documents such as EPF, ESI and put up to Accountant for Verification pertaining to Revenue Works
- xii) On receipt of Completion Report from the concerned XEN, prepare draft Completion Certificate and put up for approval.
- xiii) On receipt of Maintenance Report from the concerned XEN, prepare draft Maintenance Certificate and put up for approval.
- xiv) Issue letter to all the departments for getting No Dues Certificate before clearing off the final bill of the Contractor.
- xv) Maintenance of File and Register regarding EMD.

XI Clerks

- i) Typing of Tenders/ Quotations/ Tender Notice in English and Hindi/ Work Orders, Completion Certificates/ Maintenance Certificates/ Contractors Registration / Renewal Notes / Bills Covering Letters/ and any other correspondence given by O.S./Works from time to time.
- ii) Do the Correction in the Tender/Quotation. Take out fresh prints of the corrected pages and submit to O.S.

XIII Stenographers

- i) To take down dictations and transcribe.
- ii) To take down the minutes of the meeting.
- iii) To attend the telephone calls, when the executive is not in and when in convey the messages out.
- iv) To carry out the instruction day-to-day working.
- v) To draft and send short replies, reminders, etc. and dispose of papers to various parties.
- vi) To sort out the immediate papers and put up and take orders.

- vii) To receive personal email and dispatch. To receive all office correspondence submitted for signature, order, etc. and dispose of the same is signed by the Officer.
- viii) To attend any other personal requirement in general in discharge of official duties.

XIII Estate Supdt.

Estate Supdt. is the supervisory post. He shall coordinate and prepare all the work pertaining to the Estate Section in respect of the following duties and responsibilities entrusted to him:

- i) Documentation by maintaining land record of the port along with drawings ownership details etc.
- ii) Prepare documentation for eviction / recovery cases under Public Premises (Eviction of Unauthorised Occupants) Act,1971.
- iii) Allotment of quarters and other related matters in accordance with MPE (Allotment of Residences) Reg. 1987.
- iv) Inspection of Port premises, land and water areas and submission of report to CE/Dy. Chairman/Chairman.
- v) To examine in detail and process the proposals, tenders for leasing of land in accordance with the policy guidelines for land Management framed by Ministry from time to time.
- vi) Dealing documentation regarding litigation/ court matter due to allotment of Port land to Port users on lease/ licence basis.
- vii) Preparing lease deeds / licence agreements in connection with the allotment of land / shops / office/ accommodation etc and coordinating with legal cell and party for signing the same.
- viii) Any other matters related with Estate Section.
- ix) Overall supervision of activities of subordinate staff of Estate Section.

XIV Junior Engineer Gr. III

Jr. Engr. is the supervisory post. He shall coordinate and prepare all the work pertaining to the Estate Section in respect of the following duties and responsibilities entrusted to him.

- i) Prepare proposal for leasing areas in consultation with AEM(I) and Ex. Engr.
- ii) He shall prepare drawings and tender for leasing/ licensing the land /water area and premises of the Port.
- iii) He will prepare the proposals regarding improvement of landed Estate for improving the utility.
- iv) Assist in documenting the land records in MIS system.
- v) Prepare proposals regarding improvement of prime open spaces in residential area.
- vi) Overall supervision of activities of subordinate staff of Estate Section.
- vii) To examine in detail and process the proposals/Tenders for leasing of land in accordance with the policy guidelines for land Management framed by Ministry from time to time.
- viii) Any other work entrusted by, Asst. Estate manager and Asst. Secretary and Head Clerk

XV Junior Engineer/Engineering Assistant

- i) To assist the AEE /AE in organization, execution and supervision of repairs, maintenance jobs, departmental works and supervision over contract work, in preparation of estimates, draft tenders, etc. measurements of works, all types of land surveying and leveling works, routine clerical works like writing debit slips, requisitions, indents, challens, slips, gate passes, etc.
- ii) Maintaining records of stores, pursuing outstanding indent with MM Division, attending to requisition from other departments, inspection of material at stores, attending testing laboratory in connection with testing of materials.
- iii) To supervise the works, instruct the maistry, mates and other supervise staff with concerned sectional officers.
- iv) In charge of all the workmen in the section in the absence of sectional officer.
- v) Responsible for upkeep and maintenance of all gardens, lawns, trees and plants spread over in the areas under his jurisdictions.

- vi) Any other works assigned by the Sectional Officer or Divisional Engineer.

XVI Estate Inspector (Quarters)

Estate Inspector (Q) is a supervisory post in class III cadre. He has to supervise the work of allotment of quarters and other premises of the Port from time to time. The following duties and responsibilities are entrusted to him/her:

- i) Allotment of quarters and other matters related with the allotment of quarters in accordance with MPE (Allotment of Residences) Reg. 1987.
- ii) Handing / taking over the quarters and other Premises.
- iii) Inspection of Port quarters and premises whenever required.
- iv) To send letters to Civil Engg. Dept. and Mech. Engg. Dept. regarding repairs (Civil & Electrical) of quarters at the time of allotment and taking over of quarters and inspect quarters after repairs.
- v) To furnish information regarding quarters whenever required and handover / collect keys of quarters personally from the employee / person concerned.
- vi) Submission Quarterly statement for review of vacant quarters for CE,s perusal
- vii) To process the bills of electricity of the vacant quarters for payment and sending monthly statement of vacant quarters to Dept. personally.
- viii) Dealing with premises of old A.O. Bldg. and also furniture of old A.O. Bldg. and correspondence on this matter.
- ix) Dealing with allotment of quarters on out of turn basis.
- x) Dealing with correspondence regarding complaints received from occupants.
- xi) Handing / taking over premises other than quarters also.

XVII Estate Inspector (Estate):

Estate Inspector is a supervisory post in class III cadre. He / she has to look after the work of allotment of land, on lease basis to the

Port Users. To prevent encroachment on Port land and other matters related to land. The following are main duties of Estate Insp. :

- i) To deal with all matters relating to the land.
- ii) To look after the landed property of the Mormugao Port Trust and to be conversant with the extent and limit of the boundaries. Any changes should be brought to the notice of the Estate Officer.
- iii) To examine in detail and process the proposals for leasing of land in accordance with the policy guidelines for land management framed by the Ministry from time to time.
- iv) To deal with the queries raised by State Govt. and Municipalities.
- v) To deal with boundary disputes and cases related to lands in the City Survey Office.
- vi) To assist the Estate Supdt. in eviction / recovery cases under Public Premises (Eviction of Unauthorised Occupants) Act, 1971.
- vii) To keep liaison with Govt. Offices and Municipalities to intervene in cases of encroachments or to deal with official matters.
- viii) To discharge the duties assigned by the Estate Officer regarding all Estate matters in general as per the instructions given from time to time.

XVIII Head Clerk (Estate)

Head Clerk is a supervisory post in class III cadre. He / she has to look after the work of House Building Advances, Correspondence of shops and lease of Port land. The following are main duties of Head Clerk:

- i) Processing files of HBA under MPE (Grant of Advances for Building of Houses) Reg. 1973 and other related matters such as execution of mortgage/Reconveyance Deeds etc.
- ii) Dealing with the proposals and the correspondence related to allotments of shops at MRH / Headland in consultation with Estate Insp. (Land).
- iii) Dealing with the correspondence of lease of Port Land / premises to various parties on annual licence with the consultation of Estate Insp.

- iv) To attend to the correspondence marked by Estate Officer / Asst. Estate Officer / Estate Supdt.
- v) Processing the monthly bills of the private security guards posted on contract basis.
- vi) Renewal of annual leave and license agreements of shops and other office premises leased to the private parties.
- vii) Preparation of Board Note for renewal and allotment of land/premises
- viii) Issuing notices from time to time to the defaulting shop allottees and premises.

XIX Sr. Clerk-I (Estate)

- i) Scrutinizing the application / records and preparing of waiting lists of A, B, C & D Quarters, Bachelor Rooms and Dire need.
- ii) Registering of applications for allotment of Port residential accommodation in a separate register in the case of type 'A' quarters.
- iii) Issuing of orders for allotment of quarters under the supervision of Estate Insp. (Q).
- iv) Putting proposal for approval of exchange of quarters and issuing of Allotment orders.
- v) Maintaining the exchange register and quarter application register.
- vi) Clearance of electricity bills of vacant quarters.
- vii) Comparing of HBA Surety & Bond papers.
- viii) Maintaining the waiting list of all the type of quarters.
- ix) Any other work entrusted by Head Clerk, Estate Supdt., Asst. Estate manager and Asst. Secretary and Head Clerk

XX Sr. Clerk-II (Estate)

- i) To send No Dues Certificate of the employee who retires, expires resigns etc. to Accounts Dept. / Department concerned after verifying all the requisite records and any other recoveries of quarter.
- ii) To send advises of the allotment/ vacation of quarters to the concerned Dept. in order to commence / stop the recovery of rent.
- iii) Preparing waiting list for scooter / car garages. Allotment of scooter / car garages.

- iv) Maintaining the register for scooter / car garages.
- v) To furnish the required information in respect of quarters/garages.
- vi) To attend to the correspondence marked by Asst. Estate manager and Asst. Secretary and Headclerk
- vii) To maintain registers of allotment of all type of quarters in up to date condition.
- viii) Any other work entrusted by Head Clerk, Estate Supdt., Asst. Estate Manager and Asst. Secretary.

XXI Surveyor

- i) The surveyor shall assist in maintaining documentation in respect of land record of the Port such as Survy maps with respect to the correct shape and position of the land and with a complete description of the land and the existing structure on the Port land.
- ii) To prepare sites plan and maintain the land records, measurement of land, preparation of plans and calculation of the area required is the prime job.
- iii) The required plans for handing / taking over of the lands are to be prepared.
- iv) To survey and demarcate the area of Port before certain new construction or put to be started.
- v) To deal with boundary, disputes and cases regarding confirmation of property raised by the Inquiry Officer of the City Survey Office.
- vi) To assist the Estate Insp. for lands in pointing out encroachment and safe guarding the boundary of the Port limit.
- vii) Any other work entrusted by Estate Supdt., Asst. Estate manager and Asst. Secretary.

XXII Clerk – I (Estate)

Attending to all typing work of the Section, which includes all Notes, Office Orders, Lease Agreements, Mortgage Deeds, Cutting of Stencils and all others papers put up for typing by the Sr. Clerks, Surveyor, Head Clerk, Estate Inspectors, Estate Supdt., Asst. Estate Officer and Estate Officer.

- i) To do the filing of papers/documents of the Estate Section.

- ii) To register the inward correspondence of Estate Section.
- iii) To receive the tapal from the other departments pertaining to the Estate Section.
- iv) To distribute the correspondence marked by EO/AEO/ES/H.C./Estate Inspts.
- v) Any other work entrusted by Head Clerk, Estate Supdt., Asst. Estate manager and Asst. Secretary.
- vi) Finding/tracing out papers, files etc. due to the non-availability of Peon.

Besides the above, Clerk – I has to work on the computer and prepare statements and other documents to make it readily available as and when required by the Estate Officer.

XXIII Clerk-II

Attending to all typing work of the Section, which includes all Notes, Office Orders, Lease Agreements, Mortgage Deeds, Cutting of Stencils and all others papers put up for typing by the Sr. Clerks, Surveyor, Head Clerk, Estate Inspectors, Estate Supdt., Asst. Estate Officer and Estate Officer.

Besides the above, Clerk – II has to work on the computer and prepare statements and other documents to make it readily available as and when required by the Estate.

XXIV Draftsman

Attending to all Drawing work of the Section, which includes all site plans, reproducing Survey drawings, Tender Drawing and creating MIS documentation for area leased and other area for zoning. Besides this he shall work on the on the computer to create lad record of Port Properties and prepare statements and other documents to make it readily available as and when required by the Estate section.

Duties and Responsibilities of Skilled Semi-Skilled and Unskilled Employees

III Skilled

1. Carpenter

- (i) To carry out all skilled work pertaining to carpenter trade in the Civil Engineering practice with particular reference to structures in the Port such as repairs to door, windows, AC sheets, weld mesh, glass, particle boards , flooring, roofing and false ceiling etc.

2. Fitter

- (i) To carry out all skilled work pertaining to fitter's trade in the Civil Engineering practice with particular reference to structures in the Port such as all structural steel works, water supply pipelines, repairs to roof gutters drainage, repairs to various water supplies and sanitary installations, pipe fittings , regulation of water supply including working in the shift etc.
- (ii) To cutting, patching and repairs of steel works.

3. Welder

- (i) To operate gas and electrical welding, cutting plates and do welding, patching repairing ferrous and non-ferrous materials in all position of working.

4. Driver Motor car and lorries

- (i) Driving of motor lorries , car , jeep and tempos.
- (ii) To attend minor running repairs.
- (iii) To maintain record of mileage.

5. Painter

- (i) Painting letters on plant, machinery, Lorries, structures, furniture's articles boards etc.,
 - (ii) Mixing and blending of paints, painting and colour washing building including high structures like, light house, beacons masts etc.,
 - (iii) Preparing polish and polishing furniture
 - (iv) Supervision of contract painting work under the guidance of supervisory staff.
- (ii) To assist the painter, and carry out any other works assigned to him by Junior Engineer.

6. Fitter (Water Supply)

- (i) To carry out all skilled work pertaining to plumbing trade in civil engineering practice i.e installations such as all types of pipe fittings in addition to C.I. pipes and fittings in any situation including culverts, sanitary appliances with fittings and accessories, regulations of water supply including shift working.
- (ii) Threading, cutting and painting of pipes . Motor repairing , testing and recording.

7. Mainstry

- (i) To supervise work of construction, to assist the higher supervisory staff such as sub-overseer, JE's etc. in the organisation, execution and supervision of repairs, maintenance jobs and departmental works and generally in performance of the duties to supervise the work of labour and artisans and to guide them to departmental tools, plant and machinery to supervise execution of works by contract. In case of Mainstry (Painter) to assist of guide highly skilled/skilled painters in lettering number to dead stock items attached to various sections, to assist the guide highly skilled/skilled painters in painting and lettering name boards, number of godowns sheds, office and quarters and do check the work of erecting scaffolding for carrying our above jobs. The test the quality of

paints supplied by the MM in the divisional paint shops. To render assistance to higher supervisory staff and to supervise the various contract painting works.

To muster sweepers and scavengers and to supervise their work. To write overtime slips. To note the closing kilometer run of the motor lorries and jeeps. To assist the JE in preparing monthly quarterly used period statement, motor lorry daily slips and transfers in placing requisition distribution of stores materials to the workmen servicing of motor lorries R.T.O formalities Police Permit of motor Lorries, Supervision over the road repairs work, issuing slips for removal of debris by the contractors.

8. Sub Overseer

- (i) To assist the JE and or Asst. Ex. Engineer in organization, execution and supervision of repairs and maintenance jobs and departmental work, in preparation of estimates of simple nature by taking measurement, collecting data or taking out of elementary works, survey work involving use of elementary and simple methods including use of leveling instruments, routine clerical work such as writing debit slips , requisitions, challans, O.T slips gaco notes gate passes etc. To maintain records of stores purchase indents with the MM Division , attend to requisition from other department, work out and maintain cost summaries based on approximate estimate of costs of material and labour and plant used, testing laboratories in connection with testing materials, inspect the materials at stores or suppliers depot, supervise the work of repairs, maintenance and construction of civil engineering works, to distribute work to the staff under him and allocate work to the artisans.

II Semi Skilled

1. Asst. Carpenter

- (i) To carry out all semi skilled works pertaining to carpentry trade in the Civil Engineering practice with particular reference to the structures in the Port including use of other building material in co-junction with their works such as AC materials, weldmass,

glass, carpentry , laminated particle boards, repairs to door and windows etc.,

- (ii) To shuttering and shoring.
- (iii) To prepare simple furniture articles and simple repairs to the furniture's.
- (iv) To assist the carpenter. Any other works assigned by Sectional Officer.

2. Asst. Fitter

- (i) To carry out all semi skilled work pertaining to fitter's trade in the Civil Engineering practice with particular reference to structures in the Port such as all structural steel works, water supply pipelines, repairs to roof gutters drainage, repairs to various water supplies and sanitary installations, pipe fittings , regulation of water supply including working in the shift etc.,.
- (ii) Operation and maintenance and simple repairs of water main.
- (iii) To assist the Fitter and any other work assigned by him.
- (iv) Threading, cutting and jointing of pipes, meter reading and recording.

3. Asst. Masons

- (i) To carry out all semi skilled work pertaining to masons' trade in the Civil Engineering practice with particular reference to structures in the Port such as execution of all brick, stone machinery, road and payment works, plain and reinforce works, pointing and plastering in any situations.
- (ii) To break plain and reinforce concrete.
- (iii) To assist the Mason and any other work to him by Jr.Engineer.

4. Asst. Painter

- (i) To mix and blend paints , brushing and painting works.
- (ii) To assist the painter , and carry out any other works assigned to him by Junior Engineer.

5. Keyman

- (i) To inspect his entire railway tracks once a day on foot, tightening the loose bolts, driving in loose keys and spikes , clean and oil points , ensure safety of tracks and report any defects to his superiors.
- (ii) Operate correctly hand detonating signals, and to protect the line in and emergency.

III Unskilled

1. Khalasee – (Mazdoor)

- (i) To carry out all types of unskilled works pertaining to Civil Engineering trade and to assist Artisans in various operations. Any other works including cleaning of office premises, collection of refuse and transport to dustbins.
- (ii) To trim out branches of trees and to cut the trees.

2. Woman Khalasee

- (i) To carry out all types of unskilled works pertaining to Civil Engineering trade and to assist Artisans in various operations. Any other works including cleaning of office premises, collection of refuse and transport to dustbins.

3. Peon

- (i) To attend all office staff .
- (ii) To carry, muster files, papers , paysheets etc. opening and closing of the offices.
- (iii) To clean office rooms and furniture's.

4. Gangman

- (i) To pack , lift, align and gauge the railway tracks.
- (ii) To acquire correct knowledge of hand denoting signals for protecting signal line.
- (iii) To weed out grass on railway track and surrounding areas.
- (iv) To carry out materials under the instructions of Mate or Maistry .
- (v) To relay and lay new tracks.
- (vi) To ballast load and unload transport in trucks.
- (vii) To assist Artisans.

Section IV

Establishment and miscellaneous office procedures

1. Establishment

1.1 Establishment rules- Section 28 of the MPT Act empowers the port to make the resolutions not inconsistent with the Act. In regards to the service matters of the Board's employees. Whereas some new regulations have been framed by the MPT. These regulation have been enumerated below for the guidance of the officers and the staff of the department.

1.2 Leave – As regards grant of Casual Leave and Sanction of restricted holidays are concerned powers have been delegated as under:-

<u>Category</u>	<u>Sanctioning Authority</u>
Dy.Chief Engineer	Chief Engineer
SE's and all officers working in the railways , design , lease	Dy.CE
All officers and office Supt. In Maintenance division and project construction division.	Supdt. Engineer
All Class III & IV employees of working in maintenance division, project construction division offices and section	Executive Engineer
All the Class III &IV employees attached to the administrative office	Establishment Officer
Earned Leave	
Power of Earned Leave for Class-III & IV have been delegated to Dy.CE.	
Power for grant of Earned leave for the officers have been delegated to the Chief Engineer.	

1.3 Service sheets: The service sheets of officers are maintained by the FA&CAO. The establishment Officer of the CE's dept. maintains the service sheet of Class-III & IV staff.

1.4 Confidential Reports: The system of maintaining CR's of all employees is in practice. These confidential reports are maintained in two forms:

- i) Form-I is used for Class-III & IV staff
- ii) Form-II is used for the officers

A statement giving the particulars of officers and staff who are required to write-up the Confidential Reports on officers and Class-III staff which were hitherto referred to Schedule staff and officers who review the reports is given below:-

Section	Category of Staff	Reports to be Written by	Reports to be reviewed by
<u>Officers</u>			
CE's office	Dy.CE	CE	Dy.Chairman
	EO	Dy.CE	CE
	PA	CE	Dy.Chairman
Maintenance Branches	AEN	Dy.CE	CE
	SE	Dy.CE	CE
Design Office	EE	SE	Dy.CE
	AEE/AE	SE	DY.CE
	EE	Dy.CE	CE
Estate	AEE/AE	Dy.CE	CE
	EE	Dy.CE	CE
Railway Project Construction	AEM	Dy.CE	CE
	EE	Dy.CE	CE
Construction	EE	SE	CE
	AEE/AE	SE	CE

Class-III & IV staff

CE's Office	Clerical Staff/ Steno	EO	EE
Design Office	Draftsman/ Estimators	EE	Dy.CE
Maintenance Branches	All skilled & un-skilled Categories	EE	SE
Project Construction Branches	Maistry/mates	EE	SE
Estate	Watchmen's/ Hawaldars	EE	Dy.CE

The instruction on preparation and maintenance of Annual Confidential Reports are content in general Administration Department various circulars issued time to time.

Annexure - D

The following arrangement is for exercise of powers in respect of Establishment matter in Engineering Civil Department.

Sl. No	Matter	Existing Competent Authority for sanction Class III & IV	Proposed Competent Authority for Sanction	
			Employees Class III & IV	Officers
1.	Appointments, Initial posting, subsequent transfer - caste CFT. for recruitment - promotion against reserved quota, change in recorded date of birth, resignation and voluntary retirement.	Chief Engineer	Dy. Chief Engineer/ Supdt. Engineer	Chief Engineer
2.	Promotion & Posting after promotions (Incl - transfer in skilled grades)	Chief Engineer	Dy. Chief Engineer/ Supdt. Engineer	Chief Engineer
3.	Closing muster - condonation/Non-condonation of late attendance - No work No Pay	Chief Engineer	Dy. Chief Engineer/ Supdt. Engineer/Executive Engineer	Chief Engineer
4.	Allocation and measurement of employee's work & its acceptance.	Chief Engineer	Executive Engineer	Chief Engineer
5.	Annual Confidential Reports I) Reporting II) Review & Acceptance	Executive Engineer/Supdt. Engineer/ Dy. Chief Engineer Chief Engineer	Dy. Chief Engineer/ Supdt. Engineer Dy. Chief Engineer	Chief Engineer / Dy. Chief Engineer / Supdt. Engineer Dy. Chairman/ Chairman

6.	Mema in regard to breach of service conditions (Not amounting to penalty)	Chief Engineer	Dy. Chief Engineer / Supdt. Engineer / Executive Engineer	Chief Engineer
7.	Disciplinary proceedings & Imposition of penalty. I) Minor Penalties II) Major Penalties	Chief Engineer Chief Engineer	<u>Class III</u> – Chief Engineer <u>Class IV</u> – Supdt. Engineer/ Executive Engineer <u>Class III</u> – Chief Engineer <u>Class IV</u> – Supdt. Engineer/ Dy. Chief Engineer	Chairman Chairman
8.	Appeals against penalties I) Minor Penalties II) Major Penalties	Chief Engineer Chief Engineer	Chief Engineer Chief Engineer	Chairman Chairman

9.	<p>Service benefits</p> <p>I) Casual leave</p> <p>II) Half Pay leave</p> <p>III) Earned leave</p> <p>IV) Commuted leave</p> <p>V) Extra-ordinary leave</p> <p>VI) Spl. Disability leave</p> <p>VII) Spl. Casual leave</p> <p>VIII) Normal increments</p> <p>IX) Spl. Increments for family planning</p> <p>X) Hindi examination</p>	<p>Dy. Chief Engineer / Supdt. Engineer / Executive Engineer</p>	<p>Dy. Chief Engineer / Supdt. Engineer / Executive Engineer</p>	<p>Chief Engineer</p>
10.	<p>Paysheets</p> <p>T.A./D.A. Bills</p>	<p>Establishment Officer</p> <p>Chief Engineer</p>	<p>Supdt. Engineer / Executive Engineer</p> <p>Dy. Chief Engineer / Supdt. Engineer</p>	<p>Establishment Officer</p> <p>Chief Engineer</p>
11.	<p>Sponsoring for training programmes</p>	<p>Chief Engineer</p>	<p>Dy. Chief Engineer / Supdt. Engineer</p>	<p>Chief Engineer</p>
12.	<p>Regards for good work (upto limits specified from time to time)</p>	<p>Chief Engineer</p>	<p>Dy. Chief Engineer / Supdt. Engineer</p>	<p>Chief Engineer</p>

13.	Overtime	Chief Engineer	Dy. Chief Engineer / Supdt. Engineer / Executive Engineer	-
14.	Leave travel concession and advance	Chief Engineer	Dy. Chief Engineer / Supdt. Engineer	Chief Engineer
15.	Medical expenditure reimbursement	Chief Engineer	Dy. Chief Engineer / Supdt. Engineer	Chief Engineer
16.	Benefits under the C.C.F. I) Financial Assistance II) Holiday home reimbursement III) Cost of spectacles	Chief Engineer	Dy. Chief Engineer / Supdt. Engineer	Chief Engineer
17.	Advance from Provident Fund – For Marriage, Etc. I) Refundable II) Non-Refundable For Housing I) Refundable II) Non-Refundable			
18.	Vigilance Clearance	Chief Engineer	Dy. Chief Engineer / Supdt. Engineer	Chief Engineer
19.	Retirement benefits – Service certificate, etc.	Chief Engineer	Dy. Chief Engineer / Supdt. Engineer	Chief Engineer

2. Record and Filing System

2.1 All letters, notes, orders and communications issued and received on matters of official transactions are recorded and required to be preserved for future reference in connection with administrative needs. A system of collection, classification, weeding out progressively unimportant papers and preservation of important papers is an essential pre-requisite for the efficient functioning of an office. The papers are preserved in the files which are designated by file nos. are divided subject wise. For practical purposes records are classified according to its importance to enable un-important records is destroyed from time to time. Accordingly, records should be classified as under before being recorded in the file.

- 1)'A'-Class - Important correspondence to be preserved permanently .
- 2)'B' Class- Correspondence that can be destroyed after 10 years.
- 3)'C' Class- Correspondence that can be destroyed after 5 years.
- 4)'D' Class- Correspondence that can be destroyed after a year.

2.2 Every file on every subject (except case file and hand files) must have distinct compilations one for each of the classes of papers to be recorded in it , as detailed above and it is the duty of the Record Attendant and Establishment Officer and AE(Accounts) to classify the papers correctly before filing them in the appropriate class of compilation of a file.

2.3 The broad guidelines to be used for the classification of records are as under :

Classification of records

1. 'A' Class- Permanent Record- Correspondence in respect of major works, policy matters, Establishment matters, permanent directives, rules and regulations relating to works , establishment etc., and such other documents

which forms important correspondence to be preserved permanently.

2. 'B' Class – Temporary Records- Which can be disposed off after about 10 years . Such records includes omnibus sanctions , statement relating to budget estimates, allotment of quarters, bills regarding quarters and building etc.,
3. 'C' Class- Temporary Records which can be disposed off after 5 years. Such as correspondence in respect of minor repair works, acting arrangements, water charges other miscellaneous charges excluding contractors bills and other important correspondence.
4. 'D' class – Flimsy's , casual leaves , RH applications spare copies of imp. letters dispatch from office etc., . These records can be disposed off after six month to one years of time.

2.4 The record papers should be filed quickly and should not be left to lie with the staff unnecessarily. Attempt should be made to get the papers inserted in the file and put up for action. The office Supd. (Establishment) and Office. Supdt.(Work) in-charge of the record Section, they should write the classification in red on top of the paper when it comes for filing. In case of difficulty, he should seek guidance from the Establishment officer, AE (Accounts). In case of the works a case file will be open as soon as administrative approval to the proposal has been obtained and the work is included in the budget. The file will be close on the completion of the work or a tender being awarded for the work whichever is earlier. In case the work is executed by contract, separate tender file will be opened for each tender. The case file nos. should be restricted to calendar year. A note should be made on every such file indicating where earlier correspondence on a particular work has been filed. The file will be closed on completion of the work and completion report is forwarded to FA&CAO.

2.5 Guard file- A standing guard file is a file which contains the records of the principle and policy followed in the past, models of form used in putting up notes, draft replies, issue

of order, notifications, standing instructions issued by CE/Chairman/Board on the different issues etc., These guard files are to be maintained in addition to the copy of this manual. It will be responsibility of the Office Supdt. in the Administrative office to keep the guard files up to date. These information should be compiled subject wise and not in the chronological order of the receipt of the order. It should be possible to refer to the latest rulings, notifications, standing instructions on any subject together with previous instructions, notification rulings etc. A proper indexing subject wise, therefore, is the key to the maintenance of the guard file.

3. **Office Inspections**

In order to control the working of various offices attached to the branches, divisions. A programme of inspection of the officers has been drawn up. Accordingly, monthly, quarterly and annual inspection are to be carried out by the respective officers. The officers carrying out the inspections and the periodicity of the inspections are given as under:

Sr. No	Name of the Establishment	<u>Monthly</u> Name of the officer conducting the inspection Date of inspection	<u>Quarterly</u> Name of the officer conducting the inspection Date of inspection	<u>Annually</u> Name of the officer conducting the inspection Date of inspection
1	CE's Admin. office	Estt. Officer Up to 10 th of succeeding month	Dy. Chief Engineer Up to end of 2 nd week of April, July, Oct, Jan	Chief Engineer Upto to end of 3 rd week of Jan.
2	Headland and Harbour maintenance office	AEE Up to 10 th of succeeding month	EE Up to end of 2 nd week of April, July, Oct, Jan	SE Upto to end of 3 rd week of Jan.

3	Project and construction branch	EE Up to 10 th of succeeding month	SE Up to end of 2 nd week of April. July , Oct, Jan	CE Upto to end of 3 rd week of Jan.
4	Design office	EE Up to 10 th of succeeding month	Dy.CE Up to end of 2 nd week of April. July , Oct, Jan	CE Upto to end of 3 rd week of Jan.
5	Estate	EE Up to 10 th of succeeding month	Dy.CE Up to end of 2 nd week of April. July , Oct, Jan	CE Upto to end of 3 rd week of Jan.
6	Railway	EE Up to 10 th of succeeding month	Dy.CE Up to end of 2 nd week of April. July , Oct, Jan	CE Upto to end of 3 rd week of Jan.

The form of inspection i.e monthly, quarterly and annually are given in a separate annexures. After the inspections are carried out, a report is to be forwarded to the main admin. Office of CE's dept. for perusal. The monthly inspection reports are perused by Dy. CE, and returned to the individual officers. Quarterly inspection reports will be perused and filed in the CE's main adm. Office. The annual inspection report will be forwarded to Dy. Chairman for his information.

Monday books: Monday books are the weekly arrears statements of cases remaining pending in a section or with an officer. Normally no case should be held beyond the limit of 10 working days without the permission of the officers concerned. On every Monday, every officer should prepare an extract and submit to his sup. Officer in the form particulars of the papers pending with forth night ending preceding Saturday.

The superior officer concern should look into the Monday book ascertain the reasons for delay and suggest measures for

expediting disposal of the case. The superior officer shall submit the Monday book to the office incharge of the Branch.

The Branch officer should peruse the list of outstanding cases in detail and suggest measures for the expediting the project. The Branch officer shall every fourth Monday prepare a list of cases pending in the section with the officers under them for more than four weeks and submit it to the Dy.CE and CE for their information.

As regards the administrative office are concerned, the Office Supdt. should prepare similar Monday reports for the cases pending with them and submit the same to the Est. Officer, AE (Account), EE, SE and Dy.CE for their information.

The AO/Dy.CE should peruse all the list of outstanding cases in details and suggest measures for their expeditors disposal.

4. **Updating of Manual**

Three copies of the manual which will be issued to the following officers will be treated as master copies.

- i) Chief Engineer
- ii) Dy. Chief Engineer
- iii) Establishment Officer

Any correction amendment, additions, deletions etc., becoming necessary after this manual shall be made by the EO in the above copies . He shall arrange to circulate to other officers/offices, such corrections, amendments, additions, alternations etc., for their information and updating their copies.

Chapter-III

Accounts and Budget

Section –I -Accounts:

1 Introduction

The accounts are classified statements of the income accrued and the expenditure actual incurred during the specified period. A properly designed accounting systems aim's at reveling the financial objectives achieved during the period as also furnished the necessary information for a period for a budgetary control. The Accounts and the Budget are interlinked and interdependent process which reflects the activities of an organization in financial terms. In this chapter these process will be specified.

The Section 102(1) of the MPT Act 1963 (as amended) required the Board to maintain proper accounts. In such form as may be specified by Central Govt. in consultation with comptroller and auditor General of India. This system intends.

- i) To show income and expenditure duly classified.
- ii) To provide information for working out profit and loss and balance sheet incorporating therein assets and liabilities.
- iii) To facilitate budgetary control,
- iv) To aid costing.

The Engineering dept. are responsible for substantial part of revenue account expenditure and the whole of the Capital Account Expenditure of Port Trusts. This dept. therefore, have to accept responsibilities for the planning and control of expenditure in-accordance with overall management policy

2 Capital Account

Expenditure The capital expenditure is all expenditure incurred in acquiring fixed assets of a material and permanent character. However, not all such expenditure is charged to Capital Account. There are certain criteria which have been laid down for the purpose where expenditure is not charged to Capital Account i.e

- a) All new works or additions /alteration to the existing works or all new plant or new equipment or new craft or replacement of plant or equipment or craft, estimated to cost not more than Rs. 1,00,000/- should be charged to revenue. Expenditure on assets with an expected life of not more than five years should be charged to revenue irrespective of the amount of the cost.

Provided that incase, were the cost of work, plant or equipment or craft is not more than 1,00,000/- or expected life on individual work or plant or equipment or craft is not more than 5 years but it forms a part of a scheme having continuity of purpose, time and space and the cost of the scheme as whole exceeds Rs. 5 lakhs, the expenditure should be charged to Capital Account.

Provided further that, expenditure on maintains and repairs of assets except those incurred during construction stage, shall be chargeable to revenue irrespective of any limit. However, the expenditure incurred on repairs and maintenance during the construction should be charged to Capital Account.

- b) Purchase of land should be debitable to Capital Account irrespective of the amount of cost.
- c) Interest payable on the whole of Capital Expenditure incurred during the construction period should be charges to Capital Account, in respect of the schemes finance from loans specifically raised for the purpose.
- d) It should be noted that in respect of cases mentioned in para 1a above while the estimated value may be used to decide capital/revenue for sanction purposes, the final allocation should depend on the actual cost.

The capital account work s are categorized as 'plan' works or 'Non-plan' works , according to the guidelines of the Govt.,

- i) all schemes may add permanent assets (lasting more than 5 years in the form of building etc.,

and costing more than 10 lakhs are to be treated as 'plan' schemes.

- ii) Schemes which cost upto Rs.50 lakhs and are intended to maintain the efficiency of the part at the existing level are to be treated as 'non-plan' schemes if the expenditure thereon is financed from Port's own internal resources.

3. Authority for charging to Capital Account

Section 92(1) of the major ports act required that prior sanction of the Central Govt. shall be obtained for charging all expenditure to Capital Account. The provision to sub section (1) of the above clause permits Board to charge Capital expenditure not exceeding such limit as may be specified and subject to such conditions as may be imposed by the Central Govt. The Central Govt. vide their letter no.PR-17011/298-PG dtd. 24th Oct'2000. Central Govt., have fixed monetary limit of Rs.3 crores in case of Category-II Ports as Chairman's power to charge expenditure to Capital account in respect of plan and Non-plan works subject to following conditions:

- i) The work of the schemes should be one included in the five year plan or annual plan as approved by the govt. with allocation to the extent required during the year.
- ii) Necessary budget provision should be made available in the budget estimate of the year in which the work or scheme is proposed to be sanctioned or executed.
- iii) The work of the scheme should not form part of comprehensive project or scheme costing more than 50 crores. In the case of expenditure, on additions/modification /new investments and Rs.100 crores incase of replacement/renewal of assets.
- iv) The Port Trust Board should setup a standing committee headed by Chairman to consider and recommend proposal for Board's approval within their competence. FA&CAO , the concerned Chief Engineer and the head of the Project may be included as a members of these committee.

3.1. Capital property register

Capital property register is maintained by FA&CAO for all capital assets which are existent or newly acquired. All relevant information described in individual assets and cost of requisition is to be furnished which is filed in the register under the relevant head of Capital Account. Whenever an asset is used to be demolished or disposed off, prior sanction of the Chairman is to be obtained. Any loss or profit in the transaction over the depreciated value of the assets is respectively debited or credited to the revenue account. In case of loss sanction of the Chairman/Board /Govt. shall be obtained for the write off of loss as provided under Sec.96(1) of the Major Port Trusts Act. The above section authorised Board to sanction 'write off' of losses not exceeding Rs. 1.6 crore subject to maximum 16 crores for financial year and authorized Chairman Rs. 8,00,000/- in each case subject to an aggregate of Rs. 1.6 crore per financial year.

3.2. Capital Receipt or Income

The receipts from sale of land and sale of capital assets which have not reached the end of their life and Capital Account Receipts. Also there are proceeds of the loan raised from the Govt. or from other sources, grants if any received from Govt. for meeting capital expenditure, appropriation form the general reserve fund for execution of capital works, compensation received from acquisition of MPT property are capital account receipts . All other receipts are Revenue Account Receipt.

4. **Revenue or General Account**

4.1 Classification of Revenue account expenditure as operating , finance and miscellaneous – The Port Trust revenue expenditure is broadly classified as :

- i) Operating expenditure and
- ii) Finance and miscellaneous expenditure

Operating expenditure is that expenditure which is connected with the working of the departments of the Port Trust and which is under the specific control of the particular HOD. Finance and miscellaneous expenditure is that expenditure

which covers items such as bank charges, interest payable on loans, loans raised by Port Trust and on provident fund contributions, loss on sale redemption of investment, loss on disposal of capital assets, retirement gratuities, ex-gratia payments, annuity payments, pension payments etc. These items are not directly connected with the work of department. As such and, therefore, are not under the specific control of the Heads of the Port Trust Department.

- 4.2 Classification and codification of Revenue expenditure – Operating expenditure is by definition under the control of the HOD's. Some of the departments are divided on functional basis, into branches and divisions. The head of such department/branch or division has overall control over the expenditure incurred in his department/branch/division. The operating expenditure, therefore, is further classified on the basis of the smallest managerial unit of the department which is more directly concerned with the control of expenditure. This classification is called classification by budget centre. CE's department has got Budget Codes from 026 to 030 . Each budget code is identified by a 7 digit GL code nos.
- 4.3 At every budget code the operating expenditure is further classified in terms of type of expenditure. These types are further classified into about 38 major classes. Such as Salary and Wages general, Operational, R&M, O.T., Indent, Leave Encashment, Education, Materials, Miscellaneous expenditure, water charges, power charges and pollution control expenses and repairs and maintenance (civil) etc. The expenditure is further classified according to the activity for which it is incurred.
- 4.4 Revenue Income- Revenue income of the MPT is broadly classified into two groups.
- 1) Operating Income and
 - 2) Finance and miscellaneous income

Operating income

Operating income is that income which is connected with the working of the department of the Port Trust and which is accrued as a

payment for services rendered. Finance and miscellaneous income consists of such items as :

- 1) Interest earned on investment, fixed deposits, cash balances .
- 2) Profit on sale and redemption of investment
- 3) Profit on sale of capital assets i.e sale price-depreciated value of the assets.
- 4) Sale of unserviceable materials.
- 5) Sale of tender documents drawings etc. and recovered on account of supervisor, on overhead charges on works done for and on behalf of outside parties.
- 6) Hire charges on plant and machinery.
- 7) Forfeited deposits etc.,

4.5 Operating income is classified on the basis of the service from which it is derived and also on the basis of the department responsible for earning it. The CE's dept. has got a very few heads on account on which income is earned.

4.6 Liabilities and Assets

4.6.1 The accounting system is supposed to indicate at any one time the amounts which are due and payable by Port Trusts and amount which have been converted into assets. These are know liabilities and assets respectively.

4.6.2 Liabilities can be classified either as long term liability or current (short term) liabilities. Long term liabilities are those that are to be paid after long time exceeding generally at least a year. The amounts in the depreciation fund, sinking fund, and provident fund are all typical examples of long term liabilities. Current liabilities are those that must be paid in short time not exceeding generally year. The sums due to suppliers of stores or to contractors for work done unclaimed wedges income tax recoveries are typical example of short term or current liabilities.

4.6.3 Assets may similarly be classified either as long term assets or short terms or current assets. Long terms assets are those which cannot be used or converted into cash in a short time. Works, the expenditures on which it charged to Capital

accounts, are typical example of long terms assets. Current assets are usually defined as those that will be used up or converted into cash in a short time, generally not exceeding one year. Stores held in stock, the deposits lodged by the Port Trust with others are typical examples of current assets.

4.6.4 Stores, direct purchase- CE's dept is allowed to purchase directly certain item of stores. Some of which are cement, bricks, tiles held in the stock.

4.6.5 Miscellaneous claims recoverable- Any damaged done to Port assets as a matter of Policy is repaired by Engineering dept. only. The expenditure on such repairs are required to be debited to ad-hoc name-wise, work-wise account head under FA&CAO general ledger code. The recoveries except on account of supervision and overhead charges, higher of plant, sink age etc.,) are credited to the same account of head thus wiping off balance. The balance on these account reflects current assets, deposits if any which have been obtained to cover these expenditures may be shown under relevant liability account.

Section II Budget

1. Introduction

- 1.1 Budget is a classified statement of anticipated income and planned expenditure during the ensuing financial year, which begins on 1st April every year and ends on 31st March of next year. The statement essentially in the nature of estimate and therefore the term 'Budget' and 'Budget estimates' are used synonymously.
- 1.2 According to Sec. 98 of major Port trust Act it is necessary for the Board to approve on or before 31st day of January every year and estimate income and expenditure of the Board for the next financial year (BUDGET). In such form as the Central Govt. may specify. Sec.100 of the ibid provides that subject to any direction of the Govt. in this regard in any year, and unspent grand may be re-appropriated by the Board to meet the excess expenditure authorised in the said estimate, subject to proviso that such re-appropriation is not made from one major head of expenditure to another such head without the previous sanction of the Central Govt. It is , therefore, customary to review and revise 'budget estimates' of the current year and get the revision approved by the Board and Govt. together with the budget estimate for the ensuing financial year.
- 1.3 The approval of the budget is a process of successive iterations, until it is approved. All the dept., therefore, submit information concerning estimated income and proposed expenditure in a form based on the form and composition of the budget. What is ultimately submitted to the Board/Govt. for approval is the financial plan supported by physical plan in respect of only 'works'.

2. Composition of budget

Every dept. is required to furnish information concerning their dept. for the preparation of budget to the FA&CAO who gives timetable every year for the receipt of above information in his office. Executive Engineer(Planning & Coordination) and Accounts Sec of CE's

office should accordingly prepares time table for his division and other divisions preparing budgets.

The capital budget estimates are divided into two parts i.e.

- (i) Plan Schemes (continuous and new); and
- (ii) Non-Plan Schemes (continuous and new)

3. Revenue Operating expenditure

3.1 Revenue Operating expenditure budget is framed at every budget centre which is consolidated for the dept. concern and forwarded to the FA&CAO. The Engineers, directly in-charge of the budget centers are responsible for the preparation of revenue operating expenditure budget for the particular budget centre under their charge. The budgeting for each budget centre should be done according to types of expenditure specified under broad headings. The information required to be furnished is in respect of expenditure which have been incurred actually in the year previous to the current year, budget estimates corresponding to the same an information to enable revision of the budget estimate for the current year. Finally budget estimates for the next ensuing year are required to be provided.

The proforma for the Revenue Operating Expenditure budget requires in its last column to state remarks for variations. These remarks should state clearly the reasons for the variations between the budget of the current year and the revised budget estimate for the same, as also the difference between the budget of current year and that for the ensuing year.

3.2 Water charges

All the water required for consumption and supply to outsiders is received from the Public Works Dept. GOG. The cost of water is to be paid to PWD is included under this head. Although, recovery of charges for water supply to different parties is carried out by different dept., the expenditure is budgeted by CE's dept under the different budget centre.

Important instruction for providing funds in Budget

3.2.1 The following are the important instructions in regard to the provision of funds in the budget:

- i) The estimate should be prepared on the basis as expected to be actual spent during the ensuing year including arrears of the previous years,
- ii) For all fixed recoveries and fixed payment (other than establishment charges) , the sanction fixing the amount should be quoted ,
- iii) The estimate of varying changes like those on repairs, maintenance and operation should not be merely an arithmetical average of 3 years figures. Average is a guide but it should not be taken absolutely,
- iv) Fixed charges like salaries and wages, recurring expenditure like general expenditure should be reviewed from time to time. It should be borne in mind that such charges are not irrevocably fixed for all times.
- v) The variation of more than 10% between the budget and revised estimate for the current year as also between the revised estimate of the current and the budget estimate of the next should be explained either in the body of the estimate or in a separate memorandum.

3.2.2 Revised estimate should be prepared with great care after taking into consideration progress of expenditure during the year and only such commitments as are likely to materialized during the year. The revised estimate should be framed in the light of :

- i) The actual so far recorded in the current year,
- ii) The actual of the same period of the past and previous year,
- iii) The 12 months actual of the past and previous years ,
- iv) Orders already issued or contemplated or appropriations or re-appropriations or any sanction to expenditure.
- v) Any other relevant facts.

3.2.3 In case of expenditure on works whose completion by the end of current year is doubtful , token provisions should

be made in the budget estimate of the following year so that re-appropriation of savings, if any, from other sanction grant under the same measure head could be possible.

3.2.4 Re-appropriation of funds under Sec.100 of MPT Act.

- a. If additional funds are required during a year for an item in excess of amount provided for it in the approved budget estimates of that year, they are provided by re-appropriation. The powers of re-appropriation are vested in the Board and Govt. vide Sec.100 of the Major Port Trust Act.
- b. For the purposes of provision under sec.100 of Major Port Trust Act. The Board and the Central Govt. have approved following major head of the expenditure these are:
 - i) Entire Revenue operating expenditure of all Dept. of MPT individually constitutes major heads of expenditure.
 - ii) The entire provision for depreciation,
 - iii) The entire provision for finance and miscellaneous expenditure.
 - iv) Entire programme of capital work in progress.
 - v) Entire programme of new minor works in progress.
 - vi) Entire progress of renewal and replacements.

Within the frame work of a major head of expenditure mentioned above, and excess of expenditure under one item can be re-appropriated from saving of other items under the same major head of expenditure. The Chairman has been empowered to sanction such re-appropriation . All sanctions should be obtained through FA&CAO in usual proforma.

4. **Supplementary estimates**

- i) Expenditure during a year on an item not included in the draft budget estimated of the year is covered by Sec.99 of the Major Port trust Act. It provides that "The Board may, in the course of

any year for which an estimate(Budget) has been sanction by the Central Govt. cause one or more supplemental estimate for the residue of such year to be prepared and the provisions of Sec.98 shall be shall so far as may be applied to such estimate as if it were an original annual estimate”

Section –III

1. Control on expenditure

1. Meaning and scope for control over expenditure

The control of expenditure is to ensure that operations of the Port Trust is actually directed in accordance with the scheme of the budget estimate approved for that year. This, in turn, means ensuring that :

- i) The expenditure in a year is limited only to the item contains in the budget estimates approved for that year and that the expenditure on any item during a year a limited to the amount provided for it in the same,
- ii) The total expenditure under each major head of account is limited to the total expenditure mentioned against the same in the budget estimates approved for that year,
- iii) The overall expenditure of the Port Trust during a year is limited to the overall expenditure mentioned in the budget estimates approved for that year,
- iv) The levels of expenditure mentioned in budget estimates approved for year are infect reached during the year.

2. Review of Progress of expenditure

2.1 Budgetary decisions are taken on the assumption that expenditure will be incurred in the year upto the levels indicated in the budget. A wide difference between the budgeted and the actual expenditure will set to naught all the efforts of the budgeting and will upset budgetary decisions. It is , therefore, necessary to review progress of expenditure at fairly frequent intervals to ascertain whether the progress of expenditure at the end of each periodical review is such as to lead to the target expenditure for the year and if not , diagnose the reasons for short falls /excesses and to initiate corrective measure and to check up thereafter fairly frequent intervals the impact of such corrective measures on the progress of expenditure and so on.

2.2 This review of expenditure is carried out by the FA&CAO's Dept. in quarterly review in the form of Management Accounting Statements.

Section –IV

Accounts Procedure

1. Important Financial Rules

- 1.1 Receipts – Revenue is realized and collected as it falls due under the rules governing it. The concerned officers are responsible to ensure that all sums due to the Board are regularly and promptly assessed, realized and credited to the account of the Board. Except under the return orders of the Chairman, no officer shall issue an order which involves the grant of concession or privileges or of remissions of sums due to the Board.

This department is not concerned with the assessment and realization and dues, except as below:

Water supply to our tenants/lessees from our own water mains or from PWD main is arranged by us with knowledge of the Estate section & TM. We are only required to prepare monthly billing advices (monthly meter readings, etc.) and forward them to the FA&CAO for recovery from the tenants/lessees concerned. Similar is the case of the electricity supplied to the MPT tenants/lessees. Water is supplied to the MPT flotilla and tugs on receipt of requisition from DC's dept. We only prepare billing advices and forward to the FA&CAO for necessary recovery.

In respect of other miscellaneous services that may be called upon to render, we invariably ask the party to deposit an advance with the FA&CAO and then render the service, prepare a billing advice and forward it to the FA&CAO for adjustment against the deposit.

This dept. is concerned with the provision, repairs and maintenance and engineering operations of the Port facilities and it is for the remaining depts. to manage these facilities and make recoveries. We are not, and we should not place ourselves, in a position of effecting

recoveries, revenues, etc. and in those cases, where we have to render certain services to third parties, we should insist on an advance deposit to avoid difficulties in recovery.

1.2 Conditions government expenditure – Expenditure can only be incurred on a work or other projects.

- (i) If sanction, either special or general of the competent has been obtained authorizing the expenditure.
- (ii) If funds, to recover the charge during the year, have been provided and specifically committed by the competent authority. The funds are provided in the BE approved by the Board and sanctioned by the Govt. and are also obtained in the course of the year through sanction (of CE/Dy. Chairman/ Chairman/Board and/or Govt.) to supplementary estimates, re-appropriation etc.
- (iii) If the expenditure conforms to rules, regulations and orders issued by competent authority, as are detailed in the appropriate chapters of this manual.
- (iv) Provisional payments can be sanctioned or recommended only by the authority who is competent to sanction or recommend final payment. The only exception is payment of Interim bills.

1.3 Financial propriety while incurring expenditure – Every officer incurring expenditure shall be guided by high standards of financial propriety. Every officer also shall enforce financial order and strict economy at every stage and see that all relevant financial rules and regulations are observed by his own office and by subordinate officers. Amongst the principles on which the emphasis is generally laid are following:

- a) Every officer is expected to exercise the same vigilance in respect of expenditure incurred from Board's Funds, as a person of ordinary prudence would exercise in respect of expenditure of his own money.
- b) Expenditure should not be, prima facie more than what the occasion demands.

- c) No officer shall exercise his powers of sanctioning expenditure to pass an order which will be directly or indirectly to his own advantage.
- d) Expenditure should not be incurred for the benefit of a particular person or a section of the people unless :
 - (i) Claim for the amount could be enforced in the court of Law, or
 - (ii) Expenditure is in pursuance of recognized policy or custom.

1.4 Care in conveying sanction to expenditure:

- (i) All orders and commitments involving or recommending expenditure of definite amount or to a specific limit should express the amount of expenditure sanctioned or committed both in words and figures.
- (ii) Any corrections in the figures of estimate or expenditure committed or recommended to be committed should be initialed by the authority competent to sign the estimate or to commit or recommend the commitment of the expenditure.
- (iii) All letters, estimates etc., recommending expenditure or sanctioning or committing expenditure should be signed by the officer controlling in his own hand and should not be conveyed over cyclostyled signature. There is, however, no objection to the making out of extra copies of such papers or of forwarding endorsement copies of such papers under cyclostyled process.
- (iv) Since all disbursements are made by the FA&CAO copies of all correspondence involving financial commitments along with all the relevant papers shall be endorsed to the FA&CAO.

- 1.5 (i) Exercise by a superior officer of the powers of sanction of subordinate officers; it shall be within the competence of an authority to exercise financial powers delegated to another authority subordinate to it.

For example, the contractor's bills are required to be verified and certified by the Executive Engineer. In his absence, the verification and certification of bills by the SE will be perfectly permissible.

Chapter IV

Works

1. Definition And Categorization Of Different Types Of Works

1.1 Definitions: Work comprises of new constructions, whether of entirely new works or of additions and alterations to existing work and also all repairs to newly purchase or previously abandoned buildings for bringing them into use. Work also means purchase of plant and appliances, vessels, buildings and lands. If a portion of an existing structure other work is to be replaced or remodelled and the cost of the change represents a continuous increase in the value of property/asset, the item comes under the definition of work. Thus, works may be new works, additions and/or alterations, special repairs, contingent works, renewal and replacements and purchases of plants and appliances, vessels, buildings and land.

1.2 Section 35(1) of the Major Port Trust Act provides that Board may execute such works within or without the limits of the Port and provide such appliances as it may deem necessary or expedient.

Section 35(2) of the ibid gives a long list of works which are included in the meaning of the sub-section (1). The works mentioned in the list are by way of example and do not exclude such works as may be deemed necessary or expedient for Port operations.

1.3.1 The works are broadly classified as

- (a) Capital Account works
- (b) Revenue Account works
- (c) M.T Account Works (Deposit works)

Excepting the last type of works, the procedure for execution of the work is the same and will be described in the following paragraphs. Procedure for execution of M.T. Account Works is slightly different from that for the above work and is, therefore, described separately.

1.3.2 Capital Accounts Works are those which are charged to Capital Account and have been defined in para 3.1 of Chapter III, Section-1

1.3.3 The Revenue Accounts Works can be broadly divided under two categories :

- (i) New Minor Works and
- (ii) Renewal and Replacement works

New Minor works are new works which are by nature similar to Capital works but conforming to any of the following criteria:

- (a) The cost of work is less than Rs. 5 lakhs and the life expectancy is not more than 5 years.
- (b) The cost of work is less than Rs. 5 lakhs the life expectancy is more than 5 years.
- (c) The cost of work is more than Rs.5 lakhs the life expectancy is less than 5 years.

iii) Renewals and replacements works are works of additions and alterations and of repairs to structures and alterations and of repairs to structures, machines etc. They are further classified into two categories:

Normal repairs and maintenance which, inter-alia, include the following:

- (a) Ordinary repairs and maintenance
- (b) Painting
- (c) Up-keep, repairs, addition and alterations of Mormugao Port Model at Khadakwasla.

iv) Special repairs which, inter-alia, include the following:

- (a) Resurfacing of roads
- (b) Replacing G.I Sheets roofing by A.C. Sheets.
- (c) Major repairs to structures, Wharves, Jetties, etc.
- (d) Replacement of M.S. tanks over buildings by RCC tanks
- (e) Special restorative repairs to residential building and water proofing works.

1.4 Distribution of work amongst the various branches of the CE's Dept.

- i) The Project construction division created for specific development works shall handle all development works of creating new berths, jetties and other construction works.
- ii) The maintenance works branch shall handle all ordinary maintenance and repair works, renewal and replacement works, special repair works, new minor works and all other works chargeable to revenue account. They will also handle such capital works as may be directed by CE from time to time.
- iii) CE's orders should be obtained as to which branch should handle which work at the time of obtaining Administrative approval.
- (iv) The responsibility of a branch for construction work includes, inter-alia, demolition of the old structure standing on the side of the proposed work necessary to be done before the project construction work is taken up, and the demolition of old work/s which will become redundant after the completion of the project construction work.

1.5.1 There are two main stages in a work:

- (i) Administrative approval
- (ii) Expenditure sanction
 - (a) Sanction to detailed plans and estimates.
 - (b) Sanction to the agency for the execution of work.

1.5.2 No work should ordinarily commence or liability incurred in connection therewith until administrative approval has been obtained, a properly detailed drawing and detailed estimate has been sanctioned by the competent authority and the agency for execution of work and the matters allied thereto are sanctioned.

1.5.3 If in any case where on 'grounds' of urgency or emergency the CE requires to commence the work and

incur the liability in contravention of the above, he should obtain Chairman's written orders to do so.

1.5.4 The stages preparatory to the commencement of any work, viz. preparation of detailed drawings and estimates, preparations of tender documents, invitation and scrutiny and acceptance of tenders are time consuming. Any attempt to rush through these stages leads to bad estimations, frequent/significant alterations in the specifications and may sometimes lead to losses of money. It is, therefore, desirable that the work in the preparatory stages should be done with due care, foresight, imaginations and anticipations but without unnecessary delays.

1.5.5 In the case of certain works which have been properly included in the Budget Estimates, it is expedient to invite tenders in advance and submitting to the competent authority for sanction, both the tenders and the detailed estimates based on the recommended tender. Such a course of action should be taken only in cases where one is very sure of receiving expenditure sanction to the work, thus avoiding in fructuous expenditure sanction to the work, thus avoiding in fructuous expenditure on invitation of tenders, etc. Care should be taken to see that the competent authority finds sufficient time to consider the proposal in all its aspects and gives sanction in time before the validity of the tender expires.

2. Administrative Approval

2.1.1 The formal decision in principal to undertake a work for execution is the administrative approval and it is the duty of the dept. requiring the work to be obtained the requisite administrative approval. It is only after receipt of such administrative approval that funds are provided for the work in the budget estimates. The appropriate time for seeking administrative approval is, therefore, before the formulation of draft budget estimate of the ensuring year. There is no statutory provision in the Major Port Trusts Act, 1963 (as amended to date) detailing the

procedures and powers for according administrative approval to the works.

2.1.2 The following procedure has been laid down for the purpose of obtaining administrative approval:

The CE should prepare a list of the works proposed to be included in the budget of the ensuing year along with the full financial justifications for the same, and submit this list to the FA&CAO directly. The FA&CAO then discusses these proposals with the CE and forward these proposals to Chairman which Chairman approves in principal. After this, rough plans and estimates should be prepared (only) for works which are approved in principal by the Chairman. Similarly, the HOD should, in the first week of June every year discuss with the Chairman their proposals for works to be executed during the financial year. Proposals for such works only, as may be, approved of by the Chairman, should be forwarded by them to the FA & CAO and CE with full financial justification thereof so as to reach him before 30th June. If the CE has any comments on such works, he should communicate the same to the respective HODs and reconsideration of the work. Upon such reconsiderations, the CE should then prepare rough plans and estimates, only for such works as are finally agreed to in principal by the Chairman.

2.1.3 The block estimates are to be forwarded to the FA & CAO by the middle of August who in turn submits these, together with his comments, to the Chairman by the middle of September. The Chairman accords his specific administrative approval, where he deems fit.

2.1.4 FA&CAO forwards list of in principle approved works to the Secretary by the beginning of October for obtaining Board's administrative approval.

2.1.5 The above works when thus approved are included in the budget of the ensuing year and listed along with other works included in the Budget for previous years, appropriately, as Capital Works/Works, New Minor Works, etc.

2.2.6 Cropped up works are those which are proposed after the finalization of the Budget Estimates of the ensuing year. In the case of these works, the procedure as detailed in above paras is strictly not followed. The procedure of initially discussing the proposals with the Chairman may not be done but rough plans and estimates may be submitted to the Chairman through the FA & CAO and administrative approval requested for the work. On such administrative approval being accorded, supplementary estimates, if necessary, are forwarded to the Board/Government for its sanction and funds are provided at the time of revision of Budget Estimates. Again, even these steps in the procedure are slightly juxtaposed. After the Chairman accords the administrative approval, detailed plans and estimates, along with a comprehensive report are submitted to the Dy. Chairman/Chairman/Board for expenditure sanction and after such sanction supplementary estimates are forwarded to the Board/Government is necessary.

2.2.7 The forwardal of too many cropped up proposals should be avoided at all costs. The proposals which originate from the other Departments of the administration, are under discussion with the Chairman/Chief Engineer before the same are put up for administrative approval. The officer-In-charge of each budget centre should keep the CE's Accounts Section informed well in advance of such discussions. The CE's Accounts Section should keep the CE's Accounts Section informed well in advance of such discussions. The CE's Accounts Section should keep a note of such proposals, which are under discussions, with the other departments and as far as possible included such of them in the statements to be forwarded to the Board for their administrative approval.

2.2.8 The administrative approval is valid only for three years and if expenditure sanction is not obtained for the work before the expiry of three years period, the administrative approval lapses.

2.2.9 An order of priority in the execution of work to be indicated by the Chairman/Board at the time of accordingly administrative approval should be observed as far as possible.

3. Methods For Execution Of Works And Expenditure Sanction To Works

3.1.1 Works may be executed by one of the following methods or by combination of such methods of work :

(i) By employing departmental labour with or without the aid of annual petty works contract and procuring the materials through the MM Division and / or our annual tenders, and/or direct purchases.

(ii) By contract (item rate basis/lumpsum basis).

3.1.2 All works estimated to cost over Rs. 1,00,000/- should normally be left out on contract. If for any reason a work costing over Rs. 1,00,000/- is intended to be carried out departmentally, full justification of the mode of execution should be given while obtaining the sanction of the competent authority.

3.1.3 Works costing Rs. 10,000/- or less should not be let out on contract without adequate justification. This justification should comprise, inter-alia, information on the following points :

(i) Whether the existing strength of the departmental labour is likely to remain idle partially or fully if the work is let out on contract.

(ii) The estimated cost of work if it is done departmentally and if it is done on contract and which agency will be cheaper.

(iii) Any other compelling or overriding reason which necessitates the work to be carried out by letting it out on contract.

3.2.1 Section 93(1) of the Major Port Trusts Act requires that new works or appliance, the estimated cost of which

exceeds such amount as may be fixed by the Central Government in this behalf shall be commenced or provided by a Board until a plan and an estimate for such work or appliance has been submitted to and approved by the Board and in case the estimated cost of any such new work or appliance exceeds such amount as may from time to time be fixed by the Central Government in this behalf, the sanction of the Central Government to the plans and estimates shall be obtained before such work is commenced or appliance provided.

3.2.2 Section 94 of the Major Port Trusts Act provides that the Chairman may direct the execution of any work, the cost of which does not exceed such maximum limit as may be fixed by the Central Government in this behalf but in every such case, the Chairman shall as soon as possible make a report the Board of any such direction given by him.

3.2.3 Pursuant to this procedure of the Major Port Trusts Act, the FA & CAO is required to submit detailed budget estimates along with them a comprehensive report to the competent authority for consideration and sanction. These sanctions can only be accorded after the budget is finally approved by the Government. The Ministry's letter No. PR-17011/1/2005-PG dtd.24th August, 2005, shows the competent authority for sanction of the estimates.

No further sanction of the competent authority is required to be obtained where the actual expenditure incurred does not exceed by more than 10% of the estimated cost so sanctioned.

3.2.4 For all capital works, in addition to obtaining sanction of the competent authority to the detailed plans and estimates, requisite sanction has to be obtained for charging the expenditure to capital account under Section 92 of the Major Port Trusts Act.

3.2.5 For the purpose of approval and sanction, a group of works which forms a project should be considered as one work and necessity for obtaining sanction of the

competent authority should not be avoided by splitting the work in smaller components and by seeking instead the approval of the sub ordinate authority.

3.2.6 For all major project works detailed plans and estimates is required to be submitted to the competent authority for consideration and sanction of a work. The first step before seeking expenditure sanction is, therefore, to prepare detailed plans and to get them approved by the concerned statutory authorities viz. the Inspector of Factories, Environmental Approval from MoEF. The Inspector of Dock Safety, the Chief Inspector of Explosives etc. and then detailed estimates are worked out on the basis of such detailed plans.

3.2.7 Preparations of detailed plan: After the administrative approval is obtained for a work, detailed plans should be prepared. The plans which are required to be prepared for obtaining expenditure sanction should, inter-alia, conformed to the following guidelines:

- (i) They should indicate exact location of the work on an index or site plan to a suitable scale. All particulars necessary to set out the work at site, all relevant lines, levels and dimensions should invariably be indicated on the drawings. Brief description of materials intended to be incorporated in work should be shown to work out a comprehensive and detailed estimate for the work. The plans should also comply to the requirements of statutory authorities whose approval is necessary before commencing the work.
- (ii) For all works carried out departmentally and by the Maintenance Works Branch, the plans should show fullest structural details for preparation of estimates and tenders.
- (iii) In respect of major works executed by the construction branch or project wing, structural detailing is left out at the estimate stage, to be done later on at tender stage or asking the successful tender do it. In any case, there should be adequate

details available for framing of reasonable estimate for the tenderer to work out his bid.

- iv) In respect of plans for works of the nature of additions / alterations, dismantling etc., the entire works to be carried out should be carefully detailed in distinguishing colours. These drawings should not only serve the immediate purpose of framing an estimate but also provide a record for future guidance of what was done.
- v) The SE(Design & Drawings) should obtain the CE's , Dy.CE's signature on every drawing submitted alongwith the estimate, after initialing the drawings in token of a guarantee that they are structurally sound. Drawing signed thus shall become an official record. The drawing pertaining to permanent way works should be initialed by the E.E(Rly).
- vi) Although it is not necessary to submit detailed plans for obtaining sanction to works costing Rs. 50,000/- or less, it is important that detailed drawings are prepared for such works to enable preparation of accurate estimates and also later on serve as records of work done.

3.2.8 Preparation of detailed estimate: A detailed estimate should indicate reasonable accurate cost of the work to enable the sanctioning authority to make up its mind on the need to execute the work at that cost. It should also indicate the break-up of costs of the various components of the work to enable the work to be judged not as a whole but also in relation to its components. The Preparation of detailed estimates should generally confirm to the following guidelines:

- (i) It should be based on detailed and accurate data and detailed plans prepared for the work.
- (ii) The cost of antipollution measures to safeguard the environment should be treated as an integral cost of all projects and suitable provision should be for the same in the cost estimates.

- (iii) The whole of the work is divided into a number of components which by themselves represent as far as possible a class of work. For a composite work like that of construction of a residential building, this sub-division could be
- a) Site survey and sub-soil exploration
 - b) Foundations
 - c) Super structure
 - d) Water supply and sanitary fittings including drainage
 - e) Electrification
 - f) Compound walls and gates and
 - g) Service roads etc.
 - i) For each class of the above work, quantity should be taken out from the detailed plans and the site surveys. For the purpose of taking our quantities the whole work will be broken up into number of items, which should be in accordance with the M.P.T. Schedule of Rates or some recognized standard "IS No.1200 of 1964 (Revised) methods of Measuring Building Works" or other recognized and prevalent practices. The total quantity worked out for an item should be rounded off having due care regarding the unit of measurement and the rate that will be applicable for the item of work. Normally, the impact of rounding should not increase the quantity of item by more than 2%.
 - ii) An abstract is prepared giving the quantities and descriptions (including brief but salient specifications) and rates and accounts of the various items of work and totaling it up to give the cost of work for other components. Salient features of work such as plinth area, floor area etc., and the estimated cost of work per Sq.mtr. or per Cu. meter

etc., should invariably be indicated in the cover sheet.

- iii) A schedule of rates for each item of civil engineering shore works has been prepared and kept-up-to-date from time to time. The description of the items and rates adopted for estimating should generally agree with the description and rates mentioned in the schedule of rates. Unless otherwise mentioned, it is presumed that the estimate is based on the schedule of Rates. Therefore, if for any reason the schedule of rates is not considered sufficient to describe the particular item, then an independent rate for that item may be worked out and such analysis of work should invariably accompany the estimate. Where the estimate is based on an accepted tender or on the basis of a recommended tender, a clear mention of the same should be made thereon. (A reference of item from schedule of Rates or Tender should be mentioned in bracket below each item of a estimate)
The above schedule of rates however do not have rates for permanent way items. Estimates for these are carried out from first principles.
- iv) Lump sum provisions should not be generally made in the estimates. If the lump sum provision are inevitable, then they should be restricted to Rs. 1000/- and the break-up of the sum should invariably be stand in a statement accompanying the statement.
- v) The schedule of Rates is for shore works of the M.P.T estates. There is no schedule of Rates for works carried out at off shore marine works. For works to be carried at off shore, M.P.T schedule

of Rates may be used with a 50% surcharge over the rates.

- vi) For a portion of the work involves mechanical and /or electrical works, the estimate for the same should be obtained from the CME and incorporated in the entire estimate for the work being submitted for sanction.
- vii) The total of the various items in a sub-head in an abstract of the estimate should be rounded off to the nearest thousand, hundred or ten, depending upon the magnitude of the work.
- viii) On the top right hand corner of an abstract, a specific mention must be made if the rates are based on the contract rates or departmental rates. Components of works which are to be form those which are to be done by a contractor.
- ix) For all shore works 3% of the total estimated cost is to be provided by way of contingencies. For works to be carried out under water, contingencies are allowed at 10% of the cost of the estimate, this percentage provision for contingencies should be calculated on the total of the detailed cost rounded off to the nearest at Rs. 10/- or Rs. 100/- as the case may be, and after the addition of the contingencies, the addition figure should once again be rounded off, nearest of Rs. 100/- or Rs. 10/- as the case may be.

NOTE: The contingencies are not meant to provide a cushion for variation in rates or quantities of item of works provided in the estimate but for the items of works, which remain unforeseen at the time of framing the

estimate and crop up during the execution of work.

- x) For all capital works 7% cost of the work is to be added as supervision and overhead charges. After the addition of this 7% the total figure should once again be rounded off to the nearest Rs. 1000/-, 100/- or 10/- as the case may be. The above, however is not applicable to revenue works and in the case of items like plants and machinery, vessels etc.,, which are purchased readymade or made to order and do not require any supervision by the CE's staff during the manufacture or construction . The estimates is prepared are required to be signed by the Supdt. Engineer/Dy. Chief Engineer on the cover sheet and also on the last page of the abstract note, as a guarantee that they are framed on accurate and reliable data.
- xi) All detailed estimates (Abstracts) submitted to the Dy.Ch/Ch/Board for sanction should be serially numbered annually commencing from 1st April each year and should be numbered as follows:
Estimate No. _____ of _____
The serial number should be given by the Executive Engineer of the respective Divisions who should maintain a compilation of all estimates submitted for sanction.

3.2.9 In every section of every branch of the CE's office shall be kept a book called "Estimate Book". These will be numbered and bound to AEE's by Divisional/branch office. In this book the section officer shall write down the title of the work at the top, give a reference to the originators (viz. budgeted work proposed by the Engg. Dept. or

proposed by other departments or cropped up work etc.) and give reference to the drawing number etc. the actual details of taking out of the quantities with supporting sketches, arithmetical calculations etc. shall be written down and done systematically and neatly. The working of rough estimate done for obtaining administrative approval should also be written down in this book and should later on be connected with the detailed estimate. A concise index of all estimates should be written down. These estimates and the estimate books form a part of office records.

3.3.1 For obtaining sanction, the detailed estimate and plans are required to be submitted along with a comprehensive report on the work. This report should inter-alia cover the following points:

- i) Brief history of the proposal giving the particulars relating to the initiation of the reason leading up to the proposal detailed justification for the work including a reference to the previous correspondence ,documents "i.e administrative approval, an amount of rough estimated cost submitted at the time of seeking administrative approval" wherever necessary.
- ii) Design/Scope- A board description of the proposal with reference to specification, drawings etc., wherever necessary.
- iii) Cost of the detailed estimate exclusive of 7% supervision and overhead charges and also inclusive of the same if applicable should be indicated.
- iv) Rates- If there are deviations from the schedule of rates basis for such deviations should be shown.
- v) Method- The method proposed for carrying out the work whether on contract or departmental or partially by contract and partially departmentally should be stated and specific approval obtained wherever necessary.
- vi) Funds –Availability of the funds in the budget for appropriation for the work and the adequacy or

otherwise of the same and the method of getting additional funds if required should be indicated.

- vii) For cropped up works the head of account under which funds are required to be provided for in the budget Estimates should be indicated.
- viii) In respect of work costing over Rs.1,00,000/- a bar chart is required to be furnished indicating salient components of the work and probable dates of completion of these and the work.
- ix) Scarce materials- A list and quantities of scarce materials required for the work and arrangements made for procuring the same should be given.
- x) In respect of capital work which are justified on the basis of returns, calculations showing the returns and the basis for the same should be given where it is a new service and a scale of charges is to evolved or whether the old scale of charges is to be modified, all relevant particulars to work out the scale of charges should be furnished.

The above points are not to be considered as exhaustive but only indicative. But any other points of importance must be mentioned so as to enable the Sanctioning Authority to take a decision in the matter.

3.3.2 If the work is mooted by another department, the detailed plans and estimates are forwarded to the competent authority through that department and the FA&CAO for obtaining the requisite sanction.

4. **Execution of Works**

4.1.1 Normally all major plan works should be completed within 5 years of sanction being accorded, failing which full reasons for their non-completion should be submitted to the Chairman.

4.1.2 The authority accorded by a sanction to an estimate, on all occasions, may be looked upon as strictly limited by the precise objects for which the estimate was intended to provide. Accordingly, any anticipated or actual savings, on a sanctioned estimate for definite work should not,

without special authority be applied to carry out the additional work not contemplated in the original project or fairly contingent on its actual execution.

Any development of the project through necessary while work is in progress, which is not fairly contingent on the proper execution of the work as first sanction, should be covered by a supplementary estimate. This later estimate may only be supplemental to the original estimate for the work.

4.2 Revised estimates- No revision of estimates is necessary so long as the excess of expenditure over the sanctioned estimate does not exceed more than 10% of the amount sanctioned and that the entire expenditure including the excess expenditure does not exceed the amount upto which the original sanctioning authority is empowered to accord sanction to an original estimate. A revised estimate should be submitted for sanction as soon an excess is foreseen.

4.3.1 Except in case of emergency ,no works are to be carried out at the berths, jetties, wharf or either on roads, railway tracks, buildings or plants, which will in any way affect the working of the traffic without first consulting the Traffic Manager concerned as to the most convenient time for taking the works in hand. The working of the Port Traffic must not be interfered with more than necessary and officers concerned while carrying out the works will be held personally responsible for not consulting the Traffic Manager before hand.

4.3.2 The general rule is that adequate notice should always be given to the user of the premises and/or the administrative authority in charge of the premises where the work is intended to be carried out.

An advance notice is to be given to the Collector of Custom through the Traffic Manager of our intention for carrying out any work in the office /department which is likely to affect his working.

- 4.4 before commencement of any work requiring excavation below the ground level, it should be ascertained that no electric cable, telephone cable, underground services drainage pipes, water mines etc., are likely to come in the way of such excavations. The excavations work will have to be carried out carefully and wherever such underground services are met with they should be properly supported during the time they remain exposed. Care should be taken to see that the trenches are back – filled properly without any damage to the underground services should be obtained during the execution of the work.
- 4.5 For structures which are vacated prior to their demolition, it should be ensured that these are not encroached upon by unauthorized person before the work of demolition is completed. Similarly, for all new quarters which are under construction care should be taken to prevent any encroachment of the same by unauthorized person until the same are handed over to the Assistant Estate Manager or other concerned department.
- 4.6 Co-ordination with the CME's office in the matter of electrification of building constructions:-
- 4.6.1 Close liaison must be maintained between the concerned officers of the CME's Department responsible for the electrification of building constructions so as to complete the whole of the building almost simultaneously with the completion of civil works.
- 4.6.2 Before commencement of the work on the building, detailed drawing should be obtained from the concerned officers to the CME to show their installations and mark clearly the positions and sizes of holes or chases, which should be left to accommodate their fittings. During the progress of the work, the officers of the CME's department should be requested to visit the work at regular period to check up that the holes and chases are of proper sizes and are in appropriate positions.

4.6.3 The tenders for the electrification work are normally to be invited by the CME will in time taking into account the likely period of completion of his work and the time required in the preliminaries. However on certain works a combined tender for civil and electrical works can be invited by mutual consent of the CE and CME. The condition of contract should invariably contain a condition requiring the contractor to work in close co-ordination with the civil engineering contractor.

4.6.4 The tenders for the lift should be invited well in time, preferably, simultaneously with the building super-structure work so as to time the completion of the work along with the other civil electrical work.

5. Network Plan (Bar Chart) For Execution of Works

5.1 A network plan should be prepared for a major work. The progress of the work should be closely observed and corrective measures taken so as to achieve the planned target date of completion. The network plan should inter-alia, include the work of other agencies like the CME for electrical works, Dy. Director (EDP) for computers cable, etc. It will be the responsibility of the officer-in-charges and the Divisional Engineer to see that the works progress in accordance with the network plant and that timely co-ordination between agencies is achieved. The Branch Officer should closely monitor the progress of works.

5.2 On completion of the work, the officer supervising the same should return one copy each of the drawing for the work to the Executive Engineer(D&D) for record of "as executed" drawings. These drawings should indicate all the changes which have been made during the execution. A certificate in the attached form should accompany the above drawing.

Specimen form

TITLE _____

I hereby certify that the above work was carried out in accordance with the drawing No. _____ with the exception of

_____ which are noted in red on the accompanying drawing/s .
The work was completed on _____.

Date: _____

Signature: _____

Designation: EXECUTIVE ENGINEER

6. Progress Reports on Works

6.1 The CE's Dept. will compile progress reports of all work in its exclusive charges or in respect of which it is a responsibility for a major portion of expenditure.

6.2 i) Every project executive in charge of schemes, both plan and non-plan will report on every Monday to the Monitoring Officers nominated by the Chief Engineer

ii) Without waiting for the actual payment for the work performed, the Executive Engineer will calculate the financial equivalent of the physical progress of the scheme achieved on accrual basis. The actual financial position will be worked out at the end of the financial year.

iii) The Executive Engineer of Planning, Co-ordination and Monitoring group will meet every week as per previous arrangement to review the progress of major works.

iv) The Director (P&MS) will prepare all the required statement for submission to the Board or to the Governments as the case may be, on the basis of the weekly reports on the progress of plan/non-plan schemes intimated to the dept.

6.2 The following additional points should be borne in mind in the compilation and submission of various progress Reports to the Ministry.

- i) Title of the work as printed in the Budget estimates should be give.
- ii) The scheduled date of completion should normally be the completion period stipulated by the contractor with such extensions as have been granted by the sanctioning authority.
- iii) Works which have been physically completed and in respect of which accounts have been finalized should be excluded from future progress reports. The Executive Engineer (Planning & Coordination), shall be responsible for collecting information in regard to the schemes included in the 5 years plans for progress Report 'M1', 'Q1' and 'Q2' from all sections and forwarding the same to the Secretary, MoS. The Assistant Engineer (P&C) will be responsible for collecting reports from all sections in regard to the monthly, quarterly progress Reports and forwarding the same to the Secretary, MoS.

7. **Completion Reports**

7.1. When the work has been physically completed, a report to that effect should be made to the Divisional Engineer so that he could then examine the accounts and to arrange to have them closed and prepare completion report for onward transmission to the FA & CAO. In case of capital works and new minor works, a report for physical completion of the work so as to enable him to charge depreciation on capital work and transfer of expenditure on new minor works to their respective head of account. Whereas the physical completion report of capital works and new minor works is required to be sent individually for every work, physical completion of other revenue works should be intimated by the Divisional Engineer every quarter next to the quarter in which the work has been completed.

7.1.2. When these completion reports are received, from the Divisions, the Office Superintendent, Accounts, should forward the original copy and to the FA & CAO, MPT.

7.1.3. Individual Divisions should submit every quarter completion reports, in triplicate, into proforma statements to the CE's

office. The Office Superintendent, Accounts, in the CE's office should consolidate the reports in two bunches-one for capital works and the other for revenue works. He should then forward the original copy to FA & CAO, MPT.

7.1.4. The completion report for a quarter must reach the office of the CE within 7 days of the end of the quarter.

8. Maintenance Of Property Registers

Property Books are need to be maintained by each division so as to indicate at a glance all the relevant particulars of assets together with all the particulars of works done on it. All the Officers should make appropriate to entries in the property book, in respect of works done on the asset. The entry should contain the information about the following items.

- a. Title of the work done along with brief description of principal features of the work and principal dimensions of the work. If it is a new work of statistical information, viz. floor area, cubic contents, nature of construction etc. should be given.
- b. Drawing No. of the work.
- c. Sanction under which the work has been carried out.
- d. The estimate or the actual cost of the work whichever is available.
- e. The agency through which the work was done viz. departmentally or by contract. In the latter case, the name of the contractor and tender number should also be indicated.
- f. Date of completion of the work.
- g. CE's office file in which the papers regarding the work have been filed.

The AEE In-charge of the work should make these entries and put them upto the Divisional Engineer for verification and initials, who should in turn put them upto the Superintending Engineer for final verification and initials. It will be the responsibility of the divisional engineer and of the CE to ensure that appropriate entries are made in the property book.

9. M.T. Account works/deposit works

9.1. Section 36(1) of the MPT Act provides that Board may undertake to carry out on behalf of any person any works or services or any class of works or services on such terms and conditions as may be agreed upon between the Board and the person concerned.

Works which are carried out by Port Trust for and on behalf of public bodies, persons, etc. are called miscellaneous Tradesman Account works. The expenditure on these works as a rule is met from the funds made available by the party for whom the works are being executed.

9.2.1 Before a work, is agreed to be carried out on behalf of any outside party, a deposit should be obtained covering the cost of providing the work including contingencies and appropriate supervision and overhead charges. A no time the cost of work should be allowed to exceed the amount of deposit.

9.2.2 The scale of supervision charges prescribed for execution of work for outside parties is as under :

- i) For MMC- 7.5%
- ii) For Users of MOHP -7.5 %
- iii) For Railways 12.5%
- iv) For contractors, owners of salvaged goods, outside parties 12.5%

9.2.3 Requisite sanction for carrying out the M.T Account work is to be obtained after the deposit for the cost of works has been lodged with this Port Trust.

9.3.1 In respect of all M.T Account works, in addition to the actual cost of the labour and material, following charges will also be levied.

- a) Workshop Overheads : 50% of the labour charges of the labour of M.P.T workshop and employed on the work.
- b) Provident Fund dues : 8.33% of all normal labour charges (excluding the overtime charges and workshop overheads)
- c) Stores Supervision Charges: 7.5%.

- d) Engineering supervision & overhead charges: 7.5%
- e) Hire charges for plant: At the rates stipulated in the Schedule of Rates for hire of M.P.T plant and such other rates as may be decided from time to time.

9.3.2 The Sectional Engineer should furnish the full particulars to the Divisional Engineer in the prescribed proforma given in Annexures. The Divisional Engineer should compile all the information regarding the expenditure incurred on the work and prepare a bill in the form shown in Annexures and submit the same to branch officer in duplicate. The Dy.CE then advises the FA&CAO regarding adjustment of the deposit and instructs the FA&CAO for the refund and recovery of the balance amount to/from the party as the case may be.

10. **Miscellaneous Note on Works**

- 10.1.1 Painting and colour washing works are items of repairs and maintenance. For which necessary budget provision is made in the budget. These are carried out as a matter of course in the normal maintenance of structures. The periodicity of application of finishes has been determined by the order of the Chief Engineer. The present orders in force are summarized in table given in Annexure.
- 10.1.2 A painting book is to be maintained in every section which should record the various structures in the section and the reasonably accurate quantities of different finishes required for each of these. A record of the last dates of painting and colour washing should be maintained in the book. It should be indicate whether the work was carried out departmentally or by contract. In the case of latter the contract amount should be recorded.
- 10.1.3 No articles of dead stock, tools and appliances required for official use should be made at work without obtaining prior approval of the Head of the Department concerned. All such articles, howsoever insignificant they may be must be made on a proper work order and all the relative details viz. drawings, specifications, material used and labour employed together with the cost should be properly maintained. Heads of Departments while according their approval to such orders

will place a certificate on record to the effect that they are satisfied that the making of the articles as proposed would be cheaper than buying them from the market through the Materials Management Division, and that no such article or any to her suitable substitute is surplus to requirement by any other work or section or is available with the MM Dept. for supply. The articles so made should be brought on the Dead Stock list or any other appropriate register as the case may be.

10.1.4 Estimates from first principles should be based on the ruling man-hour ratio for cost of labour and on the ratio of recent supply of materials. The estimate should also be provide for hire of plant and machinery, if required. Provision for contingencies and supervision and overhead charges should be made as per rules.

10.1.5 Certain miscellaneous petty works including annual maintenance works are required to be carried out throughout the financial year, as and when required, and anywhere within the MPT estates. When the departmental labour and/or material cannot be spared for such work due to its occupation or normal maintenance works, then such petty works are carried out through yearly contract. For this purpose 'Annual Petty Works Tender' are invite.

The execution of the various items of work in the annual maintenance contract will be ordered out by the concerned Sectional Officer against specific work orders after in principle of approval of the Chief Engineer at such places and in such quantities as are actually required by him and the contractor shall execute the items of works in accordance with these orders within the time prescribed in each individual order.

11.1 Master Plan

The Master Plan is a broad based plan of schemes and activities proposed normally covering a period of 10-15 years. The Master Plan for the Port is prepared by experts in Port Planning either in house or by external agencies through Indian Ports Association (IPA). The Master Plan is based on the following:

- Traffic Projection of the Port,

- Trends in Traffic,
- Planning Commission Reports,
- Forecast of cargo to be handled given by various agencies/government and other users,
- Economic development of the hinterland.

11.2 Formulation of Plan Scheme

Based on the reports as stated in para 2.1.1 and other projections of connected agencies, an appraisal team of the Ministry scrutinizes the various requirements of the Ports. After detailed discussion, the list of Schemes to be included under Plan is finalised and forwarded to the Planning Commission. The Planning Commission after taking into consideration of all other factors at National level approves the Schemes that are to be included in National Five Year Plans and recommend allocation of funds depending on funds available. The Master Plan prepared is a broad guideline with which schemes are formulated and annual plans are drawn out. The various building and other marine structures requirements are finalized and is forwarded to Board for Approval. After obtaining the Approval of the Board, the same is sent to Ministry of Shipping for Approval. The Government and the Planning Commission will examine and accord and intimate the approved Schemes to the Port. Generally all the Port projects are self supported i.e funds from Ports internal resources and not supported through government. But still budget allocation approval is required from the Ministry.

11.3 Annual Plan (for Plan Schemes)

Once the approval for Plan Schemes is communicated to the Port, the Port shall prepare Annual Plan based on the phasing of the expenditure furnished to the Government. Only Schemes already approved by Planning Commission shall be included in the Annual Plan. Any deviation has to be approved by Planning Commission through Ministry of Shipping.

11.4 Preliminary Estimate

- (1) Preliminary estimate is to be prepared on the basis of plinth area or length of road or length of wharf or breakwater etc. worked out on the rate per unit

area/length/number, or such other method adopted for ready and rough calculation, so as to give an idea of the approximate cost involved in the proposal.

- (2) The preliminary estimate shall be prepared on the basis of the preliminary drawings prepared and shall appropriately indicate in the history sheet the items that are included or excluded in the estimate. Part estimate that may not result in total completion of the work/ project should be avoided as far as possible. Once preliminary estimate is prepared and the value of the project is known it shall be decided whether the project shall be under taken by the Port itself or through Public Private Participation. Now as per Government policy all the major projects shall be under taken through PPP mode only.

11.5 Public Private Participation

If in principle decision is taken to execute the project through Public Private Partnership the guidelines issued from time to time by government on Public Private Participation will be applicable . For the guidelines the following web sites shall be referred Ministry of Finance, Department of expenditure, planning commission and Ministry of Shipping.

11.6 Preliminary data and drawings

- (1) Whenever decision is taken to execute the work by the Port the same should be passed on to the concerned planning division for preparation of preliminary drawings. The planning division shall also obtain the survey plan and site particulars and other site data from the concerned Executive Engineer in the relevant proforma.
- (2) He shall consult the representatives of all the concerned disciplines for incorporating their requirements in the preliminary plans.
- (3) He shall thereafter prepare preliminary plans and brief specifications according to the requirements for the work, and obtain the approval of the client department for the

same. The preliminary drawings should indicate sufficient details for preparation of preliminary estimate.

- (4) He shall then forward these approved plans and brief specifications to the concerned Executive Engineer, Civil and Electrical, for preparation of the preliminary estimate.

11.7 Preliminary survey, etc

- (1) Where any preliminary survey, site/soil investigation, preparation of project reports including appointment of consultant and/or other essential preliminary steps connected with the schemes, is needed to be done before the preliminary estimate for the requisitioned work can be finalised, a separate estimate for such purpose(s) may be prepared.
- (2) Where, however, such works are required to be carried out before the receipt of administrative approval but with necessary budget provision.

11.8 Provision for contingencies and its utilization

- (1) In addition to the provision for all expenditure which can be foreseen for a work, a provision of contingency shall be kept as follows:
 - (a) Estimated cost upto Rs. 1 crore ... 5%.
 - (b) Estimated cost more than Rs. 1 crore ... 3%.
- (2) For Marine and offshore works irrespective of value 10%
- (3) This provision is also intended to cover the cost of work-charged establishment for which no provision should be made separately except in the case of annual maintenance estimate where provision is made for such establishment under a separate sub-head of the estimate.
- (4) The amount provided for contingencies shall be utilized as per the directions of the officers of the rank of Superintending Engineer and above as per following limits.
Superintending Engineer (C)/ subject to a maximum of Rs. 5 lakhs Chief Engineer – Available contingencies.

The contingencies can be utilized for construction of site office, and job works like Surveying, material testing, estimating, structural design, drawings, models and other field requirements etc.

11.9 Preparation of the detailed estimate

The preparation of detailed estimate and drawings and designs should be taken up only after obtaining an assurance from the Department that the site is available without any encumbrances or likely to be made available within a reasonable time.

- (1) On receipt of the administrative approval and expenditure sanction, and confirmation about the availability of site, the concerned executive engineer shall take up the preparation of the detailed estimate, and get technical sanction from competent authority.
- (2) The detailed estimate should be complete and as comprehensive as possible, and should be supported by detailed drawings, preliminary structural plans, preliminary lay-out drawings of the various services, detailed drawings and/or specifications for the various components of work involved, etc., as applicable.
- (3) The work is to be executed strictly as per the detailed working drawings and specifications finalized by the department.
- (4) The detailed estimate should give broad details for each item of the work involved. Other details shall be covered by the accompanying detailed drawings and specifications. The detailed estimate should be based on the rates given in the Schedule of Rates for those items of work covered by it, and by analyzed market rates for the remaining items.
- (5) The plan and design of the external services shall be got vetted from the technical sanctioning authority for the main building work before the detailed estimate for the

external services is technically sanctioned by the competent authority at a lower level.

- (6) The detailed estimate should invariably contain the following information:
 - (i) Necessary details in support of the lump-sum provisions made in the estimate, if any.
 - (ii) Basis on which the rates have been provided, i.e. reference of the schedule of rates or market rates.
 - (iii) A brief note on the special construction difficulties, if any, which are likely to be encountered during the construction stage.

11.9.1 Format for detailed estimate

- (1) The detailed estimate shall consist of a report in the pre designed format, plans, specifications and a detailed statement of measurements as in pre designed format , quantities and rates as in pre designed format. with an abstract showing the total estimated cost of each item. In the case of a project consisting of several works, the report may be a single document for all the works and like-wise the specifications, but details of measurements and abstracts of costs may conveniently be prepared for each work, supplemented by a general abstract bringing the whole together.
- (2) The estimate for a project/work should be comprehensive, supported by complete details and based on drawings and design calculations, where necessary.
- (3) The 'Report' of the estimate should be prepared in a lucid form, understandable by non-technical officers of other Department or the client. It should be comprehensive enough under each sub-head as mentioned below.
 - (i) History: Particulars relating to the tender documents of the proposal, and events leading up to it, and its general

purpose, including references to previous correspondence, documents and specifications, where necessary.

(ii) Design:- A description of the proposal, particularly with regard to its location and design, also with reference to standards and specifications, calculations and drawings, where necessary. In case of a revised estimate, a description of the original proposals and those finally adopted should be given.

(iii) Scope:- An explicit statement as to what work is and is not covered by the estimate, also a reference to what arrangements are being made for any portion(s) of the work which are not included in the estimates.

(iv) Rates:- Particulars as to how the rates have been arrived at, giving reference to the relevant standard schedule of rates or market rates and also to the details accompanying the estimate, where necessary, with any special explanation connected therewith.

(iv) Cost:- Cost of the work, and in case of revision, a comparison with the amount originally provided under any previous administrative sanction or detailed estimate.

(v) Method:- The method proposed for carrying out the work, whether by contract or daily labour, or any combination of these.

(vi) Establishment:- Details of any provision made in the estimate for work-charged establishment, when necessary.

(vii) Construction Plant:- Any special methods of construction to be adopted with reference to specifications, etc. and details of the provisions that have been made in the estimate for necessary construction plants and machineries, etc.

(Viii) Land:- Provisions for acquisition of land, when necessary.

(ix) Time:- The estimated time of completion from the date of receipt of Administrative Approval & Estimate Sanction indicating break up for pre-construction and construction stage.

- (4) Full reference should be given in respect of the Architectural, structural and services drawings accompanying the estimates in support of the details submitted therein.
- (5) Any other points of importance that demand knowledge of local conditions must be incorporated.
- (6) The abstract of the detailed estimates should be framed to show merely the quantity and cost of each completed item of work e.g. brick work; or it may be framed to show the cost of labour and materials separately. The adoption of either form of abstract should be determined with reference to the mode in which it is proposed to carry out the work.

12. Schedule of Rates

- (1) To facilitate the preparation of estimates, as also to serve as a guide in settling rates in connection with contract agreements, a schedule of rates for each kind of work commonly executed should be maintained up-to-date in the Department. It should be prepared on the basis of the rates prevailing at Mormugao and necessary analysis of the rates for each description of work and for the varying conditions thereof should, so far as practicable, be recorded.
- (2) The Schedule of Rates for Delhi published by C P W D shall be taken for guidance for preparation of the Port Schedule of Rate. These shall be revised at least once in three years.
- (3) As per the provisions available in All India Standard schedule of Rates published by National Building Organisation for the Marine works Under Tides a suitable extra rate to the extent of 40% of the for the main item concerned is allowed on account of slow progress of work done under this condition

- (4) The rates entered in the estimates should generally agree with the scheduled rates, but where due to any reason, the later are not available, market rates may be considered.

12.1 Recasting of Estimate

- (1) After an estimate has been technically sanctioned, it may be decided to make a change in the method originally contemplated for execution of the work. In such a case, the original abstract should be recast.
- (2) The details of cost and quantities already approved by competent authority should be re-arranged, and the revised abstract should be approved by the Executive Engineer without changing scope of work . Thereafter it shall be treated as the sanctioned abstract of the estimate for all accounts purposes.

12.2 Supplementary Estimate

Any development that is thought necessary while a work is in progress, and which is not fairly contingent on the proper execution of the work as first sanctioned, may be covered by a supplementary estimate. This estimate must be accompanied by a full report of the circumstances that render it necessary. The abstract must show the amount of the original estimate and the total of the sanction required including the supplementary amount.

12.3 Revised Estimate

When an excess beyond permissible variation over the sanctioned estimate is foreseen, and there is likely to be unavoidable delay in the preparation of a revised estimate, an immediate report of the circumstances should be made to the authority whose sanction will ultimately be required. When a revised estimate is submitted, it must be accompanied by a statement as in Appendix, comparing it with the latest existing sanction of the competent authority and by a report showing the progress made up-to-date

12.4 Estimates for additions and alterations

- (1) Normally all cases of additions and alteration should be carried out after preparations of detailed working drawings. While submitting estimates containing the proposals for additions and alterations, the fact that the concurrence of the user department has been obtained should be stated explicitly.
- (2) Normally no work of addition/alteration which involves structural changes in the residential assets, or alters the aesthetics of the external facade, shall be carried out except with the approval of concerned Architect.

12.5 Preparation of Preliminary Project Report (PPR)

For the works covered under Plan as a first step Preliminary Project Report PPR shall be prepared. The PPR should focus on analysis of the existing situation, nature and magnitude of the problems to be addressed, need and justification for the project in the context of national priorities, alternative strategies, Tender Documents environmental and social impact analysis, preliminary site investigations, stake holder commitment and risk factors. The PPR should establish whether the project is conceptually sound and feasible and enable a decision to be taken regarding inclusion in the Plan and preparation of a DPR. The PPR should present a rough estimate of the project cost. return on investment Consultation with stakeholders should be held to ensure involvement of stakeholders in the project concept and design. The Financial Adviser should be involved in this exercise.

13 Sanction for the project

Depending upon the value of the project, the Preliminary Project Report is sent to the competent authority to get administrative approval for the project as per the approved Delegation of Powers. In case the administrative approval is to be sought from Ministry of Shipping, Government of India, the Preliminary Project Report will be got approved by the Port Trust Board before forwarding to the Ministry for administrative approval.

The administrative approval is only an in-principle approval and does not authorize to execute the project unless the Detailed Project Report (DPR) is prepared and approved by the competent authority and technical sanction for the project is accorded by the competent technical authority

14 Preparation of Detailed Project Report (DPR)

14.1 Context/background:

This section should provide a brief description of the sector/sub-sector, the national priority, strategy and policy framework as well as a brief description of the existing situation.

14.2 Problems to be addressed:

This section should elaborate the problems to be addressed through the project/scheme at the local/regional/national level, as the case may be. Evidence regarding the nature and magnitude of the problems should be presented, supported by baseline data/surveys/reports. Clear evidence should be available regarding the nature and magnitude of the problems to be addressed.

14.3 Project Objectives:

This section should indicate the Development Objectives proposed to be achieved, ranked in order of importance. The deliverables/ outputs for each Development Objective should be spelt out clearly. This section should also provide a general description of the project.

14.4 Target beneficiaries:

There should be clear identification of target beneficiaries. At the time of project formulation Stakeholder analysis should be undertaken, including consultation with Stake holders. Options regarding cost sharing and beneficiary participation should be explored and incorporated in the project. Impact of the project on weaker sections of society, positive or negative, should be assessed and remedial steps suggested in case of adverse impact.

14.5 Project strategy:

This section should present an analysis of alternative strategies available to achieve the Development Objectives. Reasons for selecting the proposed strategy should be brought out. Basis for prioritization of locations should be indicated (where relevant). Options and opportunity for leveraging government funds through public-private partnership must be given priority and explored in depth.

14.6 Legal Framework:

This sector should present the legal framework within which the project will be implemented and strengths and weakness of the legal framework in so far as it impacts on achievement of project objectives.

14.7 Environmental impact assessment:

Environmental impact assessment should be undertaken, wherever required and measures identified to mitigate adverse impact, if any. Issues relating to land acquisition, diversion of forest land, rehabilitation and resettlement should be addressed in this section.

14.8 On-going initiatives:

This section should provide a description of ongoing initiatives and the manner in which duplication will be avoided and synergy created through the proposed project.

15. Technology issues

This section should elaborate on technology choices, if any, evaluation of options, as well as the basis for choice of technology for the proposed project.

15.1 Management arrangements:

Responsibilities of different agencies for project management and implementation should be elaborated. The organization structure at various levels as well as monitoring and coordination arrangements should be spelt out.

15.2 Means of Finance and Project Budget:

This section should focus on means of finance, evaluation of options, project budget, cost estimates and phasing of expenditure. Options for cost sharing and cost recovery (user charges) should be considered and built into the total project cost. Infrastructure projects may be assessed on the basis of the cost of debt finance and the tenor of debt. Options for raising funds through private sector participation should also be considered and built into the project cost.

15.3 Time frame

This section should indicate the proposed 'Zero' date for commencement and also provide a PERT/CPM chart, wherever relevant.

15.4 Risk analysis:

This section should focus on identification and assessment of project risks and how these are proposed to be mitigated. Risk analysis could include legal/contractual risks, environmental risks, revenue risks, project management risks, regulatory risks, etc.

15.5 Evaluation:

This section should focus on lessons learnt from evaluation of similar projects implemented in the past. Evaluation arrangements for the project, whether concurrent, mid-term or post-project should be spelt out. It may be noted that continuation of projects/schemes from one Plan period to another will not be permissible without an independent, in depth evaluation being undertaken.

15.6 Success criteria:

Success criteria to assess whether the Development Objectives have been achieved should be spelt out in measurable terms. Base-line data should be available against which success of the project will be assessed at the end of the project (Impact assessment). In this regard, it is essential that base-line

surveys be undertaken in case of large, beneficiary-oriented projects.

Success criteria for each Deliverable/Output of the project should also be specified in measurable terms to assess achievement against proximate goals.

15.7 Financial and economic analysis:

Financial and economic analysis of the project may be undertaken where the financial returns are quantifiable. This analysis would generally be required for investment and infrastructure projects, but may not always be feasible for social sector projects where the benefits cannot be easily quantified.

15.8 Sustainability:

Issues relating to sustainability, including stakeholder commitment, operation and maintenance of assets after project completion, and other related issues should be addressed in this section.

Note: Requirements of Appraisal limits of the EFC/PIB format may also be kept in view while preparing the DPR.

16 Approval to work of additions and alterations

- (a) No authority, with the exception indicated in sub-para (b) below, is empowered to accord administrative approval to an estimate of additions and alterations to a building, if the expenditure contemplated would result in increase of the capital cost of the building to a figure which is beyond the authority in question entitled to accord the administrative approval in case of a new assets.
- (b) Chief Engineer, Dy. Chief Engineers, Superintending Engineers and Executive Engineers may accord administrative approval, as per powers delegated to them in Appendix-I, to estimates for minor works and additions and alterations to the existing assets irrespective of the capital cost of the assets subject to the condition that: sufficient funds are available in the budget

16.1 Excess over administrative approval

Excess upto 10% of the amount of the administrative approval may be authorised by Officers of civil engineering up to their respective powers of technical sanction. In case it exceeds this limit, a revised administrative approval must be obtained from the authority competent to approve the cost so enhanced.

16.2 Technical sanction

A "technical sanction" amounts to a guarantee that the proposals are technically sound, and that the estimates are accurately prepared and are based on adequate data.

16.3 Accord of technical sanction

- (a) Based on budget provision, after receipt of administrative approval and detailed estimates are required to be prepared for technical sanction. The technical sanction should be accorded by the competent authority before a work is taken in hand. In case of revised estimates, it is not necessary to wait for the revised administrative approval to accord revised technical sanction.
- (b) A copy of the technical sanction for all the works as applicable should also be endorsed to the concerned Superintending Engineer (Elect)/Executive Engineer (elect) for initiating action at the appropriate time on electrical, air conditioning and other works. Copies of Technical Sanction of Estimate for Horticulture works shall also be forwarded to /SE(E)/EE(E) as the case may be. The municipal/Local Bodies and Electrical Supply Companies should also be approached by the Executive Engineer, Civil and Electrical, well in time for providing External Services including power supply, water supply and drainage.
- (c) Before an estimate is technically sanctioned, the following shall be desirable:

- (i) Architectural drawings and specifications.
 - (ii) Preliminary structural drawings for foundations
 - (iii) Preliminary structural drawings of superstructure
 - (iv) Preliminary drawings for internal and external services.
- (d) The authority competent to accord such sanction shall ensure that the design and specification etc., adopted in the detailed estimate are adequate enough for the building to last till its desired life. In the 'Design and Scope' column of the estimate, it shall be specifically mentioned that, 'Under normal use and maintenance, the building is expected to have an economic life of years.'
- (e) For various types of assets, the economic life shall be taken as below:
- (i) Break Water and Capital Dredging 100 years
 - (ii) RCC framed structures 50 years
 - (iii) Load bearing structures 40 years
 - (iv) Semi permanent structures 30 years.

Economic life of various internal Services/fixtures including electric wiring, water supply distribution system may vary from 15 to 25 years depending upon the geographical location, type of the services and its uses.

- (f) No estimate should be technically sanctioned unless the proforma is submitted along with the estimate to enable the competent authority to see that the detailed estimate prepared takes into account all aspects of planning and that no point has escaped notice.
- (g) In case of work for which tenders are called on "Design and construct" basis, technical sanction of such works may be accorded only on finalization of structural drawings, services drawings and other detail on submission of the same by the contractor. However it would be necessary that all the Architectural and structural data/parameters, details of functional requirement and complete specifications including preliminary drawings are finalized before the call of tenders on "Design and construct" basis.

- (h) For Technical sanction, detailed estimate shall be prepared based on applicable schedule of rates. Market rates shall be followed for the items not covered under schedule of rates. Effect of prevailing cost index over the hypothetical cost Index of schedule of rate should be taken on the amount of detailed estimate for items for which rates are based on Schedule of rate. Estimate should be technically sanctioned for the amount inclusive of effect of Cost Index.

16.4 Repairs and maintenance works

These cover operations undertaken to maintain the assets in a proper condition and include maintenance and operation of all services. The "Repairs" are further classified into two categories as follows:

- (i) Annual repairs: These cover the routine as well as yearly operation and maintenance works.
- (ii) Special repairs: These cover major repair or replacement or remodeling of a portion of an existing structure or installation or other works due to major breakdowns, or deterioration, or periodic renewal, which do not result in a genuine increase in the value of the property and life more than five years

16.5 Revenue Works

'Revenue works' are all works undertaken for maintenance of existing asset / structure in proper condition. It include repair and maintenance works which are those works concerning prevention of or making good the natural wear and tear and damages and may also include minor modification to existing assets / structures caused by those being in a continuous state of disrepair. In other words all the works wherein life is less than five years covered in repairs and maintenance works will comes under Revenue Works.

16.6 Pre-construction' and 'construction' stages

The execution of a project/work has two stages, viz. the 'Pre-construction stage' and the 'Construction stage'. The following activities are involved in these stages:

- (1) Pre-construction stage:
 - (i) Requisition from the User Department.
 - (ii) Preparation of site/soil data, and assessment of feasibility of services such as water supply, electricity, drainage and sewerage etc.
 - (iii) Discussions with the department to assess and appreciate their requirements, incorporation of the same and preparation of preliminary plans.
 - (iv) Approval of the preliminary plans by the department.
 - (v) Preparation of preliminary estimate.
 - (vi) Designing the structure in house or through consultants
 - (vii) Preparation of architectural drawings and review with the department and modification of drawings, if required.
 - (viii) Preparation and submission of the plans to the Local Bodies for their approval
 - (ix) Obtaining other statutory approvals like environmental clearances etc.
 - (x) Approval of plans by the Local Bodies.
 - (xi) Preparation of preliminary structural sizes.
 - (xii) Preparation of services drawings.
 - (xiii) Preparation of detailed working drawings.
 - (xiv) Preparation of detailed estimates for assets and all services (civil, electrical and mechanical).
 - (xv) Preparation of tender documents and call of pre-qualification applications, wherever applicable.
 - (xvi) Preparation of structural drawings.
 - (xvii) Selection of contractors from the pre-qualification applications wherever applicable.
 - (xviii) Call of tenders and pre-bid conference wherever applicable.
 - (xix) Receipt/Opening of tenders.
 - (xx) Decision on tender and award of work.

- (2) Construction stage:—
 - (i) Execution of work and contract management.
 - (ii) Completion of work.

- (iii) Testing and commissioning.
- (iv) Completion certificate
- (v) Handing over to department
- (vi) Settlement of accounts.

17 Requirements For Execution Of Works

17.1 Pre-requisites for execution of works

(1) There are three main requirements as follows in the execution of a work:

- (i) Administrative approval
- (ii) Technical sanction
- (iii) Availability of funds.

(2) No work should normally be commenced or any liability thereon incurred until an administrative approval has been obtained, a properly prepared detailed estimate has been technically sanctioned and it is approved in the annual budget provision

17.2 Procedure for Execution of Works

The broad procedure to be followed for execution of works shall be as under:-

- (i) The necessity of the work with specific budget provisions.
- (ii) Preparation of detailed design and estimates shall precede any sanction for works;
- (iii) No work shall be undertaken before Issue of Administrative Approval and Expenditure Sanction by the competent Authority on the basis of estimates framed.
- (iv) Execution of Contract Agreement or Award of work / Letter of Indent should be done before commencement of the work;
- (v) Final payment for work shall be made only on the personal certificate of the officer-in-charge of execution of the work in the format given below:

" I, Executing Officer of (Name of the Work), am personally satisfied that the work has been executed as per the specifications laid down in the Contract Agreement and the workmanship is up to the standards followed in the Industry." (As per rule of 132 of General finance rule 2005)

17.3 Works of emergency nature

The Chairman shall declare works of inescapable urgency as 'urgent/emergency work' in a judicious manner depending upon the gravity of the situation. This may arise due to a natural calamity, civil disturbances, or in the interest of port operations or directions from the statutory authorities that cannot brook any delay. In case of 'urgency' or 'emergency', the work may be executed in absence of any or all of the above-mentioned pre-requisites. On receipt of such written order of the competent authority in each case, the Executive Engineer/Assistant Engineer shall proceed to carry out the necessary work. The Executive Engineer/Assistant Engineer should obtain the administrative approval, budget approval and accord of technical sanction of the competent authority to regularise the liability as early as possible.

17.4 Deviation in Technical Sanction

- (1) The technical sanction can be exceeded up to 10% beyond which revised 'technical sanction' shall be necessary.
- (2) Similarly, if subsequent to the accord of technical sanction, material structural alterations are contemplated, the orders of the authority which sanctioned the estimate technically should be obtained, even though no additional expenditure may be involved due to such alterations.

18. Tender Opening and Evaluation

18.1 Tender Opening

18.1.1 Tenders will be opened at the office (office, date and time shall be specified) No officer below the rank of Executive Engineer should open tender unless they are so authorised by Chief Engineer in writing. Generally, Executive Engineer of particular division/section opens the tender pertaining to his

division/section. In the case of casual absence of any of these officers, an officer of equivalent rank may open the tenders in the presence of the representatives of the Accounts Department and in the presence of the tenderer's authorized representative who have paid the EMD and are present at that time. Eligible tenderers as above should send a letter of authorization containing the specimen signature(s) of their representative(s) who are deputed to be present at the time of opening of tenders. Representatives without the letter of authorization will not be permitted to witness the opening of the tender.

The tenders that are received after the due date and time of receipt are not to be considered at all. They should neither be opened nor entered in the tender opening register. They should be sent back to the sender by RPAD in an open condition with a forwarding letter duly indicating the date and time of receipt of the tender at the opening office.

- 18.1.2 The officer should, immediately at the prescribed time for opening, call the tenderers who wish to be present, to witness the opening of tenders. He should, in the presence of the representative of Accounts Department, open the cover, in which tenders are enclosed, ONE BY ONE. The officer opening the tender should invariably initial all the pages with date, He then read out the names of the tenderers, the total amount of the tender in case item rate tender and percentage plus or minus in case percentage tender The tender opening officer shall prepare in his own hand in the tender opening register maintained by the O.S. (Works) for this purpose, a statement of the percentage or lump sum tenders received and should sign that statement. In case of item rate tenders he needs to prepare only the list of tenders received. The same shall be attested by officer from the accounts department deputed for the purpose. Then he should write down in Red ink on the front page of the register the number of tenders received and initial this. The tender opening officers should particularly check up whether the tender has been properly signed or not, at all places prescribed in the Tender Documents. Unsigned tenders are not to be taken into consideration.

- 18.1.3 The officer who opens the tenders should not only content himself with reading out the tender amounts and completion periods but should also check up whether tenderer has submitted all the relevant information. Since most of the tenderers are present at the time of opening of the tenders, this checking up done at the time of opening of the tenders will reduce subsequent correspondence to a great extent if the tenderers are verbally intimated during the opening of the tenders, thus saving a considerable amount of time. These verbal instructions should always be followed by official letters.
- 18.1.4 The tenderers' authorized representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of tender opening being declared as a holiday for the Board, the tenders shall be opened at the appointed time and location on the next working day.
- 18.1.5 In case if the tender is under Two Cover System, on the day of opening, only the main cover and Cover I will be opened and read. Cover II will not be opened. The sealed cover II of all the tenderers will be put in one cover and sealed in the presence of the tenderers or their authorized representatives who are present during the time of opening of Main Cover.

19. Procedure for dealing with corrections etc.

- (1) The officer opening the tenders shall encircle all corrections, cuttings, conditions, additions and over writings and number them and attest them in the Red Ink.
- (2) The officer from the accounts department deputed to attend the tender opening shall also attest the corrections, cuttings, conditions, additions and over writings.
- (3) In case of number of corrections in the rate of any one item, either in words or in figures or in both, the number of corrections marked should indicate the corrections serially, that is to say, in case of, say, three corrections in rates of any one item, each of these corrections should be allotted independent numbers serially and not one number to represent all the three corrections.

- (4) The number of such corrections, cuttings, conditions, additions and over writings must be clearly mentioned at the end of each relevant page of the schedules attached to the Tender Documents, and they shall be properly attested with the date by both officers i.e. tender opening officer and officer from Accounts Department deputed for the purpose. Any omission observed shall also be brought out clearly on each relevant page of the schedule.
- (5) The corrections, cuttings, conditions, additions and over writings shall be allotted separate numbers i.e. corrections should start from 1, 2, 3 etc. and overwriting shall similarly start separately from 1, 2, 3 etc.
- (6) Use of correction fluid in the Tender Documents shall not be allowed. In case use of correction fluid is noticed such tender will be liable for rejection.

19.1 Procedure for dealing with Omissions

- (1) Any ambiguity in rates quoted by the tenderers, either in words or figures, must be clearly indicated on each relevant page of the scheduled attached to the Tender Documents to which it concerned, by the tender opening officer and officer from the accounts department deputed for the purpose.
- (2) where the contractor has quoted rates in Rupees and no paise is mentioned, the word only should invariably added after the words Rupees and corrections should be initialed and date with suitable remarks at the end by the tender opening officer and officer from the accounts department deputed for the purpose.
- (3) Where the Tenderers have omitted to quote the rates/amount either in figures or in words, or both as applicable, the officer opening the tender and officer from the accounts department deputed for the purpose shall record the omissions in each page of the schedule.

19.2 Processing of tenders under Two Cover System

Cover – I offer of each tenderer will be evaluated on the basis of eligibility criteria as stipulated in the tender documents.

19.2.1 The information furnished by the tenderers in Cover-I in the prescribed format supplied by the Port will form the basis for the evaluation. In exceptional cases the Engineer or his representative reserves the right to obtain the clarifications from any of the tenderers without violating the tendering process. If, in the opinion of the Port, the working method and schedule supplied in support of the tender do not meet the requirements of the specifications or date of completion of the works, the tender may be determined as non responsive and may be rejected by the Port. After satisfying that all / or some of the tenderers have attained the minimum qualifying criteria as detailed above, a suitable date and time for opening of the sealed Cover II offer of qualified tenderers will be fixed and those tenderers who are qualified will be intimated about the opening of Cover II. The sealed Cover II offers of such qualified tenderers are kept sealed in a separate cover at the time of opening. Cover I will be opened in the presence of the representatives of the qualified tenderers who choose to attend. The procedures and number of participants etc., for opening Cover II will be the same as the procedures outlined in Clause 5.1 to 5.4 The tenderer's name, the tender prices, any discounts offered on the tender prices and such other details as the Engineer may consider appropriate will be read out at the time of opening.

19.2.2 After evaluating the offers received under Cover II, the award of contract will be decided. The Engineer also reserves the right to negotiate with the lowest priced eligible tenderer prior to the award of contract, if found necessary. The Cover II offers of the tenderers who were not qualified under Cover - I will be returned to them unopened within a week from the date of opening of Cover II offers of the eligible tenderers.

20. Timely processing of tenders

- (1) Top priority should be given to decide the award of work on receipt of tenders. In order to minimize chances of delay.

- (2) The prescribed time schedule should be adhered to strictly, and if any officer is unable to follow the same, he should invariably give reasons for the same while forwarding the tenders to the authorities competent to accept it.
- (3) In case, after receipt of tenders, it becomes necessary to forward the tenders to the higher authority for acceptance due to the tender going beyond the power of the tender approving authority, details like:
 - (a) Validity period of the tender,
 - (b) Time already taken for scrutiny, and
 - (c) Balance period available, should be prominently indicated while forwarding the tenders to the higher authority, to ensure that there is no delay in processing of tenders and decisions are taken well in time.

21. Precautions to be taken while processing the tenders

The following instructions should be scrupulously followed while processing the tenders:

- (1) The tenderers are not expected to make any post-tender modifications. Any such case should be viewed seriously, under the provisions of *Form CPWD 6*. The matter should also be reported to the Enlisting Authority for disciplinary action to be taken under the Rules for Enlistment of Contractors. In any case, such modifications shall not be considered.
- (2) Tenders with any condition with financial implications, including conditional rebates, shall be rejected. However, tenders with unconditional rebate will be acceptable.
- (3) In case of tender where the validity period has already expired, decision to accept the same should be taken only after the validity period is extended by the tenderer.

22. Confidentiality

Process to be confidential Information relating to the examination, clarification, evaluation and comparison of tenders and recommendations for the award of contract shall not be disclosed to tenderers or any other persons not officially concerned with such process, until the award to the successful tenderer has been announced. Any effort by a tenderer to influence the Employer during processing of tenders or award decision will result in the rejection of his/their bid offered.

22.1 Conditions to be fulfilled before inviting/accepting tenders

- (1) The Officers of the Port shall invite/accept tenders only after the following conditions are fulfilled:
 - (i) The work is technically sanctioned.
 - (ii) When the tender exceeds by 10% of the sanction estimate then revised sanction should be obtained by the competent authority at the time of acceptance of offer.
 - (iii) When the tender involves liability exceeding the expenditure sanction for the work by an amount greater than 10%, such excess will require a revised expenditure sanction. This should be applied for as soon as such an excess is foreseen.
- (2) The tenders may be invited if the exigencies of work so deemed in anticipation of fulfillment of the above conditions. The tender accepting authority shall, however, ensure fulfillment of these conditions before acceptance of tenders.

22.2 Acceptance of tenders at justified rates with allowable variations

Variation up to \pm 5% over the justified rates may be ignored. Variation up to 10% may be allowed for peculiar situations and in special circumstances. Reasons for doing so shall be placed on record.

22.3 Procedure for conducting negotiations

There should be no post-tender negotiations except with L-1, that too in certain exceptional situations. Such exceptional

situations would include, procurement of proprietary items, items with limited sources of supply and items where there is suspicion of a cartel formation. The justification and details of such negotiations should be duly recorded and documented without any loss of time.

Negotiations should not be allowed to be misused as a tool for bargaining with L-1 with dubious intentions or lead to delays in decision-making. Convincing reasons must be recorded by the authority recommending negotiations. Competent authority should exercise due diligence while accepting a tender or ordering negotiations or calling for a re-tender and a definite timeframe should be indicated so that the time taken for according requisite approvals for the entire process of award of tenders does not exceed one month from the date of submission of recommendations. In cases where the proposal is to be approved at higher levels, a maximum of 15 days should be assigned for clearance at each level. In no case should the overall timeframe exceed the validity period of the tender and it should be ensured that tenders are invariably finalised within their validity period. In case the tender approving authority decides to go for negotiation with L1, prior approval of the accepting authority shall be obtained duly furnishing the justification and the members of the committee to negotiate with the contractor.

22.4 Rejection of Tenders

No tenders which are required to be accepted with the approval of the Chairman/ Board should be rejected by any lower authority, and all such tenders should be submitted to the Chairman for consideration. It will be for the Chairman to reject them or to approve them or to authorize further negotiations.

22.5 Communication of acceptance/rejection of tenders

- (1) After the tender for the work has been accepted, the same shall be communicated to the contractor in a sample form shown in *Annexures*.
- (2) After submission of the performance security/guarantee by the contractor in an acceptable form, an intimation to commence the work shall be given to the contractor.

- (3) Copies of these letters should also be endorsed to the following in addition to the concerned departmental officers ;
 - (i) Assistant Labour Commissioner (Central).
 - (ii) Conciliation Officer (Central).
 - (iii) Labour Officer.
- (4) In special case where the work is required to be completed in a short time, and it is not desirable to allow 10 days' period for commencement of work, the tender approving authority may reduce this period and make the necessary change in the contract form and the letter of acceptance of tender.
- (5) In the acceptance letter, the officer accepting the tender should give a reference to all the contractor's letters received with the tender or thereafter, and/or incorporate the fact of acceptance or rejection of the condition(s) mentioned in these letters of the contractor.
- (6) The tenderers whose tenders are rejected should be sent written intimation about the rejection.

22.6 Issue of letter of award

Issue of letter of award shall be signed by Executive Engineer even in case tender is approved/accepted by the higher authority.

22.7 Re-invitation of tenders

If the lowest tenderer backs out, there should be re-tendering in a transparent and fair manner. In such a situation, the Tender approving authority may advise call for limited or short notice tender if so justified in the interest of work and take decision on the basis of lowest tender. While re tendering for the work, tender will not be issued to the contractor who has backed out.

23 Security Deposit And Performance Guarantee

23.1 Performance guarantee

- (1) The successful tenderer, hereafter referred to as the contractor, shall deposit an amount equal to 5% of the tendered and accepted value of the work (without limit) as performance guarantee in one of the following forms:
 - (i) Deposit at Call Receipt/Banker's Cheque/Demand Draft/Pay Order of a Scheduled Bank. (In case guarantee amount is less than Rs. 1,00,000/-).
 - (ii) Government securities.
 - (iii) Fixed Deposit Receipt (FDR) of a Scheduled Bank.
 - (iv) An irrevocable bank guarantee bond of any scheduled bank or the State Bank of India in the prescribed form given in Annexure.
- (2) The time allowed for submission of the performance guarantee by the contractor shall be decided by the tender approving authority for a period ranging from 4 to 15 days of issue of the letter of acceptance, depending upon the magnitude and/or urgency of the work. This period can be further extended, if required, by the Nodal officer or his nominee for a maximum period ranging from 3 days to 7 days at the written request of the contractor. A sample copy of the letter of acceptance to the contractor for submission of the performance guarantee is given in Annexures.
- (3) The date of start of the work may accordingly be fixed reckoning it after 7 to 22 days from the date of issue of letter of acceptance.
- (4) The letter for commencement of work shall be issued to the contractor only after he submits the performance guarantee in an acceptable form. A sample copy of this letter is shown in Annexures.

23.2 Security deposit/Retention Money.

- (1) The security deposit shall be collected by deductions from the running bills of the contractors at the rate mentioned

below, and the earnest money that is deposited at the time of tender, shall be treated as part of the security deposit. The security deposit can also be accepted in cash or in the form of Government Securities, Fixed Deposit Receipts etc.

- (2) A sum @ 5% of the gross amount of the bill shall be deducted from each running bill of the contractor, till the sum along with the sum already deposited as earnest money amounts to security deposit @ 5% of the tendered amount of the work . Such deductions shall be made unless the contractor has deposited the amount of security at the rate mentioned in cash or Government securities or Fixed Deposit Receipts.

23.3 Repayment/Retransfer of Security Deposit

No security deposit should be repaid or re-transferred to the depositor, or otherwise disposed off, except in accordance with the terms of his agreement or bond.

Note: The depositor's acknowledgement should be obtained in all cases of security that is returned. When an interest bearing security is returned or re-transferred, the acknowledgement should set forth the full particulars of the security.

24 Refund of Security Deposit and Performance Guarantee

24.1 Conditions for refund of security deposit and performance guarantee

The security deposit and performance guarantee shall not be refunded to a contractor except in accordance with the terms of his security bond or agreement.

24.2 Recording of completion certificate

The completion certificate Shall be recorded by Assistant Engineer/Assistant Executive Engineer and the Executive Engineer concerned shall countersign it within one month. In case of works costing more than the normal acceptance power of tender of the Executive Engineer, the original certificate must be recorded by the Executive Engineer and countersigned by

the Superintending Engineer within one month. If the Assistant Engineer/Assistant Executive Engineer is not available the Executive Engineer should himself record the certificate.

24.3 Refund of performance guarantee

The performance guarantee shall be refunded to the contractor soon after the completion of the work and recording of the completion certificate as above.

24.4 Refund of security deposit

- (1) In the case of works executed against agreements in *Forms CPWD 7 & 8* the refund of security deposit to a contractor on the completion of works is regulated by *Clause 52 of general contract conditions* thereof. This clause envisages the issue of a completion certificate in terms of *Clause 55* of the general contract conditions. Such completion certificate shall be issued by the authority in a manner detailed under *section 29*.
- (2) The period of maintenance as prescribed in *Clause 17* of the Contract will be counted from the date of completion as recorded in the certificate mentioned above. The security deposit of the contractor should be refunded by the Executive Engineer after the prescribed maintenance period as stipulated in the agreement or after the date in which the final bill has been prepared and passed for payment, whichever is later.
- (3) The Office Supdt (Works)/AE(Accounts) should keep a close watch on the delays in the refund of security deposit to the contractors, and for this purpose they should periodically review the Register of Security Deposit maintained in the Department.

24.5 Refund of security deposit in cases of delay in final bill

- (1) Where there is a delay in payment of final bill, the Superintending Engineer shall make an assessment of the likely recoveries against the contractor, and order release of as much security deposit as possible unless he has reasons to withhold the release of security deposit to

the contractor. These reasons should be recorded by him in writing.

- (2) The Superintending Engineer shall satisfy himself that the following formalities are completed by all concerned before exercising his discretionary power for part payment of security deposits:
 - (i) Formalities to be completed by the departmental officers
 - (a) Completion of prescribed test checks of measurements by Executive Engineer/Assistant Engineer.
 - (b) Sanction of extra/substituted items by the competent authorities.
 - (c) Decision on levy of liquidated damages/compensation, etc.
 - (ii) Formalities to be completed by contractor
 - (a) Acceptance of final measurement recorded by the departmental officers.
 - (b) Applying for extension of time as and when required immediately.
 - (c) Rectification of defects pointed out by the departmental officers.
 - (d) Completion of work in all respects, including clearance of site, etc.
 - (e) Return of surplus materials issued by the department immediately on completion of work or as and when it comes to light.
- (3) There is no need to wait for the contractor to apply for refund of his security deposit. The Hand Receipt for this purpose should be prepared by the Junior Engineer/Assistant Engineer as soon as it is due, and sent to the Accounts Department for payment.

24.6 Effecting of recoveries

Once the recoveries become due from a contractor, the same should be effected from the money due to the contractor either from the same work or from any other work or from the security deposit. Action to recover the overpaid amount should not be

kept pending or kept in abeyance on account of the case being before the arbitrator. Action in terms of the award can be taken after the award is received and accepted by the competent authority. The recovery of overpaid amounts should be effected as early as possible and the recovery should not be kept in abeyance during the pendency of arbitration proceedings.

24.7 Time limit on claims for refund of security deposit

The claim for refund of security deposit is governed by the Limitation Act. The period of limitation is 3 years, commencing from the date that the right to the due accrues. In the case of security deposit paid along with the individual contract, the right to the due would accrue under *Clause 17* after the maintenance period, or the date of payment of final bill, whichever is later.

24.8 Refund of security deposit regarding specialized items of work

- (1) For some of the specialized items of work such as anti-termite treatment, waterproofing work, kiln seasoned and chemically treated wooden shutters etc. that are entrusted to specialized firms or registered contractors who associate specialized agencies, the contractor/firm executing the work should be asked to give a specific guarantee that they shall be responsible for removal of any defects cropping up in these works executed by them during the guarantee period. The form of the guarantee to be executed by the contractors is given vide *Appendix - 25*.
- (2) It has further been decided that 10% of the security deducted from the bills of the contractors shall be refunded to him after expiry of maintenance period in accordance with the terms of the contract in this behalf.
- (3) The Assistant Engineer/Asst.Executive Engineer shall, however, maintain a register in which all these works carried out in the Division shall be entered and which shall be periodically reviewed by the Executive Engineer.
The Register will contain the following heads:
 - (i) Name of the work:
 - (ii) Date of completion:

- (iii) Specification in brief:
- (iv) Rate paid.
- (v) Name of the firm/contractor
- (vi) History* of all defects, with date(s) of occurrence, noticed during the guarantee period.
- (vii) Action taken by the firm/contractor.

*The history will help as a ready reference about the efficiency and the quality of the work done by the firm/contractor.

24.9 Accounts Section's responsibility for prompt refund of security deposit

In order to avoid delay in the refund of security deposit to the contractor, the O.S (Accounts)/Works should put up to the Supdt. Engineer / Executive Engineer every month a list of all the cases where the security deposit becomes due for refund so that the requisite certificate is immediately obtained from the Chief Engineer and the security deposit is refunded without waiting for any application from the contractor.

25. Essential Features Of Agreements/Contracts

25.1 General principles and guidelines

- (1) The Board have full powers to accept tenders, and they are authorized to frame subsidiary rules relating to the calling for or acceptance of the tenders and the general procedures connected with the contracts.
- (2) There are, however, certain general principles and guidelines laid down for acceptance of tenders that are required to be observed by subordinate authorities empowered to enter into contract or agreement.

25.2 Exemptions from entering into agreements

The following types of contracts, the estimated cost of which is Rs.15.00 lakhs or below, are exempted from entering into agreements.

- i) All works, the contract price of which is Rs.3.00 lakhs and below;

- ii) All renewal/maintenance paint works irrespective of duration and cost;
- iii) All works to be executed within a short duration of 3 months and below, irrespective of the cost;
- iv) Servicing and Maintenance contracts with manufacturing firms and authorised agencies when executed as per standard conditions of these parties; and
- v) Works of rectification/reconditioning nature entrusted to manufacturing firms as per the conditions.

In the above cases an ordinary letter under Registered A.D. is issued to the successful tenderer communicating to him acceptance of his tender and requesting him to lodge a security deposit as required under the conditions of contract.

- 25.3 No relaxation of specification in a contract, or relaxation of the terms of an agreement entered into by the Board should be made without proper examination and consequence of such relaxation. The interest of the Port Trust should be taken due care before agreeing to any relaxation of agreement or contract. Save in exceptional circumstances, no work of any kind should be commenced without prior execution of contract documents. Even in cases where a formal written agreement is not made, no order for supplies etc. should be placed without at least a written agreement as to the price and other terms of agreement.
- 25.4 "Cost Plus" contract should be avoided except where they are inevitable and prior written approval of the Board.
Explanation: A "Cost Plus" contract means a contract wherein the price payable for supplies or services under the contract is determined on the basis of the actual cost of production of the supplies or services rendered plus profit either at a fixed rate or unit or at a fixed percentage on the actual cost of production.
- 25.5 The terms of the contract once entered into should not be materially varied without the previous consent of the authority competent to accept the tender/offer for the contract as so varied. Such variation involving payment to contractors by way of compensation or otherwise outside the strict terms of the

contract or in excess of the contract rates shall be authorized by the Chief Engineer as per the powers delegated to him.

A variation of the terms of contract, which has been approved by the competent authority, shall be made by writing executed "for and on behalf of the Board" by an officer who is authorized to execute the original contract.

No contract involving an uncertain or indefinite liability or any condition of an unusual character should be entered into without the previous consent of Accounts Department.

25.6 Execution of agreements

25.6.1 Power to sign agreements

- (i) The Chief Engineer shall sign all agreements for execution of works "for and on behalf of the Board" after the acceptance of tenders by the competent authority.

25.6.2 Avoidance of delay

There should be no delay in executing the agreement as soon as a tender has been accepted by the competent authority.

25.6.3 Corrections of agreements

The agreements should be properly checked and compared by the Supdt. Engineer/Executive Engineer/Assistant Engineer with the original Tenders as approved by the competent authority. The Divisional Department will be held personally responsible for any mistake that is found subsequently after the agreement has been formally signed. Also, he should ensure that before copies of the accepted agreements are forwarded to the authorities concerned, they are complete in all respects.

- (i) The Executive Engineer should see that conditions not existing in the approved tenders are not in any case allowed to be embodied in the agreements.
- (ii) Before signing an agreement it must be ensured that no conditions are inserted which were inadvertently omitted in the tender papers, though

intended to include in the tender. Similarly, no errors, which might have inadvertently crept in the tender should be corrected.

25.6.4 Recording of date of acceptance of tender in the agreement

The date of acceptance of tender as shown in the letters of acceptance of tender and award of work issued to the contractor, which form part of the agreement, should be indicated in the space at the bottom portion of Page 2 of *agreement Form CPWD 7, 8* etc. as the case may be.

25.6.5 Record of agreements

A record of the agreements drawn up should be kept in *Form CPWD 42*.

25.6.6 Supply of copies of contracts to contractors

- (1) Two sets of contract documents should be prepared and signed by both the parties on each page. One of the sets should be stamped "Original" and the other "Duplicate". The duplicate copy should be supplied to the contractor free of cost.
- (2) For any additional copies required by the contractor same may be charged.
- (3) The additional copies should not be marked as "Triplicate", but should be certified as True copy.

25.7 Certification and safe custody of agreements

25.7.1 Custody of agreements

- (i) The original contract documents should be kept in the personal custody of the Asst. Engineers/Office Supdt. Accounts/Works and may be given to the Accounts Department whenever required by Accounts/Legal Section after obtaining acknowledgement.

25.7.2 Certification of agreement

- (i) The Office Supdt.(Works) should certify each copy of an agreement as "True copy" and put his full signatures in token of such certification.
- (ii) Also, the original, duplicate and all copies of an agreement should be properly sealed.

25.7.3 Payments only after execution and supply of copies of agreement In the absence of execution of agreement, the first payment should not be made to the contractor without specific sanction from the Chief Engineer. No subsequent payment(s) should be made unless the agreement has been signed.

25.7.4 Weeding out of old agreements

Formation of Committee

1. For weeding out old agreements, a Committee consisting of the following shall be constituted by the Chief Engineer:
 - (a) Superintending Engineer
 - (b) Executive Engineer of the concerned Division
 - (c) Asst. Engineer (Accounts)
- (2) The Committee will review all agreements for which final bill has been paid at least 10 years earlier and will decide which of those are to be weeded out, considering the points given in (a), (b) and (c) below. The Committee will record the following certificate before weeding out/destruction of such records.
 - (a) The agreements are not required to be preserved for legal references, such as arbitration/ court cases, or any other claims of contractor/department.
 - (b) The agreements are not required to be preserved for any pending Statutory Audit/Internal Audit paras, or settlement of any accounts affecting the exchequer.

- (c) The Committee is satisfied that these records are no more required for any other referred cases etc., and no claims in respect of such records are likely to arise in future.
- (3) The Committee will also prepare a list of such records as per proforma given in (*Annexure*) for all agreements that are weeded out.

25.7.5 Supplementary agreements

- (1) Where it is not desirable to keep the complete contract open for minor items, execution of which is not immediately possible on account of:
 - (i) Certain prerequisite(s) which is(are) not the responsibility of the contractor, or
 - (ii) Execution of maintenance/operation of equipments and installations for a specified period after completion of the construction/erection work.In such cases the main contract may be finalized, and the residual work may be got done through the same contractor by execution of a Supplementary Agreement on the form prescribed vide *Appendix..*
- (2) The authority competent to accept the tender will be the authority to order provisional closure of the original contract and drawing up of the supplementary agreement.
- (3) The bill in relation to the work already done by the contractor against the first or original agreement should be provisionally finalized on the Final Bill Form (Yellow Paper) by adding the words "Provisional Final" on the top as well as against the entry "Serial number of this bill" of the said Bill Form. As per condition 2 (f) of the Supplementary Agreement, the final bill relating to the entire work under the two agreements, i.e. original and supplementary agreements, shall be prepared after completion of the entire work on the Final Bill Form (Yellow Paper).

25.7.6 Completion of Agreements

Adequate care should be taken to complete the agreement to be entered into between the contractor and the Chief Engineer for and on behalf of the Board.

(1) Constituents of an agreement

(a) A complete agreement would consist of:

(i) Notice inviting tenders

(ii) Tender notice, form of tender

(iii) Schedule of Quantities which indicates items of work, quantity, rates, unit, amount,

(iv) Letter of the contractor submitting the tender,

(v) Other letters of the contractor and the departmental officers that were exchanged before the tender is accepted,

(vi) Letter of the Executive Engineer communicating acceptance of the tender, and

(vii) Letter of the Executive Engineer regarding commencement of the work (after submission of the performance security/guarantee by the contractor).

(b) Ports Safety Code, Model Rules for protection of health and sanitary arrangements for workers employed by its contractors, Central Contractors' Labour Regulations,

Fair Wages clauses etc. should form part of the agreement.

Signing of all correction slips by the contractor. Instances have come to notice where there are a number of correction slips which are required to be inserted at the time of drawing the agreement, in some cases the contractors fail to sign one or more correction slips resulting in dispute and disregarding claims of the Department. As such, special care is required to be taken to see that all corrections, additions, alterations, or slips attached to the agreements are duly signed both by the contractor and the Executive Engineer.

26. Execution Of Works

26.1 Inspection of Works.

It is incumbent upon the various officers concerned with the

work, namely, Deputy Chief Engineers/ Superintending Engineers/Executive Engineers/Assistant Executive Engineers /Assistant Engineers/Junior Engineers to inspect the works frequently to ensure that the works are in general being executed according to the design, drawings and specifications laid down in the contract.

26.2 Recording of inspection notes

All the officers shall ensure issue of inspection notes/ instructions after their inspection. These may be issued by way of recording the instructions in the Inspection Register at site, or by issue of inspection notes. The instructions to be complied by the contractor shall be carried on to the Site Order Book for ensuring compliance. Action taken report on the inspection note issued by an inspecting officer should be given by the Executive Engineer within one month. During next inspection, earlier inspection report should be reviewed by the inspecting officers.

26.3 Responsibility for quality of work

The Officer who records and test checks the measurements for an item of work will be responsible for the quality, quantity and dimensional accuracy of the work. The Assistant Engineer should make special efforts to be present at site when concreting is going on and must ensure quality of the concrete in work through appropriate fineness module of fine aggregate, proper grading of coarse aggregate in relation to the grade of cement used, and an appropriate water-cement ratio depending on the temperature at which the concrete is laid, laying and curing, to obtain the designed or desired strength of concrete.

26.4 Responsibility for Quality Assurance

The direct responsibility for ensuring proper quality of work as per approved specifications for achieving the intended performance and structural, functional and aesthetical parameters, and the desired life of the building/installation/structure rests with the construction team of Supdt. Engineer, Executive Engineer, Assistant Engineer and Junior Engineer. The Dy. Chief Engineer shall be overall responsible for management of Quality System and Procedures for the works under his charge. The powers of acceptance of substandard work

delegated to the Dy. Chief Engineer should be used sparingly and under exceptional circumstances. The Chief Engineer shall periodically review and monitor the Quality Assurance system.

26.5 Responsibility for quality

In respect of all works, the responsibility of various officers for checking of materials and workmanship of items of works shall be as given EE/AEE,AE. However, this does not absolve the Junior Engineer and other officers of their responsibility to get the work executed as per specifications.

26.6 Deviations from architectural drawings

Any change from the provisions in the drawings issued by the Executive Engineer(D&D) and Architect that becomes necessary during the execution of the work due to any practical difficulty, shall be brought to the notice of the Technical Sanctioning authority and Architect, and their approval obtained.

26.7. Critical situations

Situations for calling spot quotations – competent authority

- (1) Wherever a work is to be taken up, or a material is to be procured under critical situations, such as in the case of a break-down of an essential service, or works which brooks no delay, spot quotations may be collected from reputed and established agencies dealing with the work or supply of material, and the work awarded or supply order placed immediately.
- (2) In case of a situation where there is a shortage of a critical material that is required to be arranged departmentally for the execution of a work, and its rate is not stable, and there is a wide day-to-day fluctuation in its rate in the market, spot quotations may be collected from reputed and established agencies dealing with the material, and supply order may be placed immediately for such quantities of material that are immediately required, and as are available with the agency. Spot quotations should be collected by EE or AE only.

- (3) Prior approval of such authority should be obtained, in oral if not in writing, before awarding the work or placing the supply order. Reference thereof should be mentioned while forwarding the case for obtaining the written approval of this authority, and the same should be sought at the earliest possible opportunity but not later than 10 days.

26.8 Progress reports – submission by the contractor

- (1) Apart from the progress reports which are being compiled and submitted to higher authorities from various levels in the department, there should be a stipulation in the contract for large value works, say, Rs.1 crore and above, or as may be decided by the tender documents approving authority, for the contractor to submit monthly progress report of the work in a computerised form. The progress report shall contain the following, apart from whatever else may be required as specified:
 - (i) Project information, giving the broad features of the contract.
 - (ii) Introduction, giving a brief scope of the work under the contract, and the broad structural or other details.
 - (iii) Construction schedule of the various components of the work through a bar chart for the next three quarters (or as may be specified), showing the milestones, targeted tasks and up to date progress.
 - (iv) Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative up to the month, with reasons for deviations, if any, in a tabular format.
 - (v) Plant and machinery statement, indicating those deployed in the work, and their working status.
 - (vi) Man-power statement, indicating individually the names of all the staff deployed in the work, along with their designations.
 - (vii) Financial statement, indicating the broad details of all the running account payments received up to date, such as gross value of work done, advances taken, recoveries effected, amounts withheld, net payments, details of cheque payments received, etc.

- (viii) A statement showing the extra and substituted items submitted by the contractor, and the payments received against them, items pending for sanction/decision by the Department, broad details of the bank Guarantees, indicating clearly their validity periods, broad details of the insurance policies taken by the contractor, if any, the advances received and adjusted.
 - (ix) Progress photographs, in colour, of the various items/components of the work done up to date, to indicate visually the actual progress of the work.
 - (x) Quality assurance and quality control tests conducted during the month, with the results thereof.
- 2) The progress report submitted by the contractor shall be checked and certified by the Junior Engineer and the Assistant Engineer, and has to be reviewed by the Executive Engineer and the Superintending Engineer, over their dated signatures.
- (3) All works costing Rs. 1 crore and above, and any work of unique importance and character of the value of the work, should have videography undertaken at various stages of construction right from the day of start of work to date of completion/occupation, covering all major events, inspections, visits by dignitaries, etc

26.9 Completion of Works

- (1) The User Department shall be kept informed at regular intervals about the stages of progress of work so that the User Department's observations, if any, could be responded to before the work is completed.
- (2) On completion of the work, the Department should be intimated of the same and formal handing over arranged in writing. Reasonable advance intimation of completion of the work should be given to the concerned Department to enable them to make arrangements for taking over.
- (3) Completion plans of the project, including all services, should be prepared and submitted along with the

completion report showing the expenditure incurred on the project.

- (4) The Completion Report should be prepared from the Works Registers indicating the expenditure incurred till the date of completion and passing the excess, if any, as it may be within the competence of Officers.
- (5) The Executive Engineer in charge of the records should maintain a register called "Consolidated Register of Works" so as to exhibit the total cost of the project including all components viz., building, water supply, sanitary installation, electrical installations, etc. For this purpose, the concerned Divisional units, on completion of their portion of the work will intimate the audited figures of expenditure to the record through a Completion Report, and get the excess, if any, passed. The overall responsibility for obtaining the revised administrative approval and expenditure sanction for the project as a whole, wherever required, will rest with the Executive Engineer (Civil).

27. Site Order Books And Inspection Register

27.1 Maintenance of Site Order Books

- (1) The Site Order Books shall be maintained in the prescribed form. The Site Order Book shall be printed and its pages machine numbered and issued by the Executive Engineer in different sizes containing sufficient number of pages, depending upon the magnitude of the work.
- (2) A flyleaf should be attached with each Site Order Book containing instructions regarding maintenance of Site Order Books.
- (3) These will be maintained properly and preserved for a period of 5 years or up to the time all disputes/arbitration cases of the work are finally settled, whichever is later, after completion of a work in the same manner as a Measurement Book.

- (4) The following procedure shall be followed regarding the maintenance of Site Order Books:
 - (a) Senior Officers of the rank of Superintending Engineer and above shall communicate their observations by way of inspection notes.
 - (b) Verbal orders of Senior Officer. Whenever any Senior Officer gives verbal instructions to his Junior Officer at the site of work, it is necessary that he should confirm such orders in writing. In any case, it should be the responsibility of the Junior Officer to get these confirmed in writing. Though verbal orders have got to be confirmed in all cases, implementation of these verbal orders should not be delayed for want of confirmation.
 - (c) As far as the Executive Engineer and Assistant Engineer are concerned, they should invariably sign the Site Order Book in token of their having read all the instructions issued by various Officers and replies made thereto. In case the Executive Engineer or Assistant Engineer himself wants to give any instructions, he should record them in the Site Order Book. In regard to important matters, they may find it necessary to communicate such orders even in writing in the form of inspection notes.
 - (d) The Junior Engineer/Assistant Engineer should also record his observations in the Site Order Book if he finds any defective work going on, or if the contractor is not complying with any of the terms of the contract, or on the slow progress of work, if any.
 - (e) The Site Order Book should be maintained at the site of the work, and it should never be removed from there under any circumstance.
 - (f) Recording of observations by the contractor The contractor or his authorized agent will also be at liberty to note his difficulties etc. in this Book.
 - (g) Recording of compliance of orders/instructions. The compliance of orders/instructions given by the supervisory

staff and the date(s) of its (their) compliance should be recorded side by side in the Site Order Book by the Junior Engineer/Assistant Engineer with initials dated. The Executive Engineer should also periodically review the Site Order Book to ensure that it is being properly maintained and used.

- (h) Verification of Site Order Book before releasing payment. The Site Order Book should be consulted at the time of making payments to the contractor. The Assistant Engineer should record the certificate on the bill(s) submitted by the contractor to the effect that the Site Order Book has been verified before signing such bill(s). This would enable the Assistant Engineer to ensure whether the defects pointed out during construction have been rectified or not, and also to propose part rates, if necessary, before the payments are made for the items of work for which defects were pointed out but have not been rectified.

27.2. Maintenance of Inspection Register

- (1) An Inspection Register is required to be maintained at every site of work, duly issued by Executive Engineer and docketed from the Division Office.
- (2) The proforma for the Inspection Register shall be as per *Annexure*.
- (3) Entries regarding site visit of senior officers
 - (i) Whenever he visits the site, the Superintending Engineer shall record the date and time of his visit, items inspected and his observations. Entry of visit should be made even if no defects are observed.
 - (ii) Similarly, the Chief Engineer shall record his observations in the Inspection Register, at least in 50% of his visits, and in other visits he shall at least sign the Inspection Register in token of his visit to the work.

- (iii) If for some reason, the Chief Engineer is not in a position to do so, he may direct the Executive Engineer to record his observations in the Inspection Register and send a copy of those observations to the Chief Engineer by way of confirmation.
- (4) Alternatively, the Dy.Chief Engineer/Superintending Engineer may issue inspection notes, copies of which shall be pasted in the Inspection Register.
- (5) It will be the responsibility of the Executive Engineer to ensure that the observations of the inspecting officers for each and every visit are available in the Inspection Register, either through recorded notes or through pasting of the inspection notes.
- (6) Carrying over senior officers' observations to the Site Order Book
The Executive Engineer/Assistant Engineer shall carry over such observation and defects on which action is to be taken by contractor to the Site Order Book with appropriate cross references in the Inspection Register.
- (7) Review of observations for compliance. It is also necessary that the observations recorded in the Inspection Register by the Chief Engineer/Superintending Engineer be reviewed during their subsequent inspections to ensure their compliance.
- (8) These are also required to be reviewed during Quality Assurance Inspection.

28. Extra Substituted And Deviated Items Of Work

28.1 Deviations

Deviation means deviation in quantities of items, i.e. where there is increase or decrease in the quantities of items of work in the agreement.

28.2 Market rates for quantities deviating beyond certain limit

As per provisions of *clause 12.2 of GCC*, in case of agreement items, substituted item, agreement cum substituted items which exceed the limit stipulated in schedule F, of the contract, the contractor within 15 days of receipt of order or occurrence of the excess, can claim revision of rates, supported by proper analysis, for excess quantities. Nodal officer or his nominee shall consider the analysis submitted by contractor and determine the rates on basis of market rates.

Further as per provision of *clause 12.3 of GCC*, in case market rates are less than the agreement rates then in such a case Nodal officer or his nominee should give notice to the contractor within one month of occurrence of the excess and should decide the rates based on market rates considering the reply of contractor.

The rates should be worked out by adopting the market rates of material/labour, prevailing at the time of occurrence of excess, in the relevant item as adopted in the justification

28.3 Sanction of deviations

Apart from obligation of sanctioning rates under *clause 12.2, 12.3 of contract*, a proper check is needed on deviations in quantities on higher/lower side for each and every item. In order to exercise proper check on deviations, following procedures shall be followed.

- (1) Deviations in quantities of individual item upto + 10% of agreement quantities will need prior approval of Chief Engineer (TS authority).
- (2) Deviations beyond this limit of + 10% should not be made at site without in principle approval of TS authority. Once in principle approval is obtained, the total deviations (including initial + 10%) shall be sanctioned by officers as per delegation of powers given at Appendix .

28.4 Extra/Substituted Items

28.4.1 Definition

- (1) Extra items of work are items that are completely new, and are in addition to the items contained in the contract.
- (2) Substituted items are items that are taken up with partial modification or in lieu of items of work in the contract.

28.4.2 Nomenclature of item

The wordings of the extra/substituted items sanctioned by the competent authorities should be properly formulated so as to reflect the exact mode of execution in the field.

28.4.3 Prior sanction of competent authority necessary

- (1) No extra/substituted item should be executed or approved without the prior concurrence of the Chief Engineer who accorded the technical sanction.
- (2) Assistant Engineer/Executive Engineer should anticipate any extra /substituted item that may be necessary for the execution of the work, and they shall initiate the case after obtaining prior concurrence as per sub-para (1) above for its approval from the competent authority. Such cases shall be expeditiously processed at all levels to minimise delay in the execution of the work. Pendency of such items shall be closely monitored by Executive Engineer and higher level officers.

28.4.4 Determination of rates for deviated/extra/ substituted items

- (1) The rate of extra items and deviation items beyond the permissible limit will be worked out at market rates prevailing at the time of commencement of execution of these items. For substituted items, the agreement rate of the original item will be adjusted for the difference in market rates of original and substituted items. The

analysis of rates on market rates should be on similar lines as adopted in the justification of tender.

- (2) For working out rates under *Clause 12 of Forms CPWD 7 and 8*, the contractor shall submit his rates along with proper analysis for all extra/substituted items. These shall be duly considered by the Nodal officer or his nominee while finalizing the rates or forwarding the statement(s) for obtaining the approval of the competent authority.

28.4.5 Measurements for inadmissible items

In case of items that are claimed by the contractor but in the wisdom of the Department are not admissible for payment, measurements should be recorded without prejudice for record purposes only, so that in case it is subsequently decided to admit the contractor's claims there should be no difficulty in determining the quantities of such work done. A suitable remark should, however, be made in red ink against such measurements to guard against payment.

Rates for extra items allowing overheads on stipulated material supplied to contractor 2.5% may be added as overheads over the issue rates of materials stipulated in the contract while analyzing rates for extra items. The percentage represents the following charges:

- (i) Office expenditure of the contractor.
- (ii) Storage of materials.
- (iii) Handling expenses and other incidental charges.

The percentage does not include transport charges

29. Issue Of Materials To Contractors

29.1 Issue of materials

- (1) Issue of materials to works, whether from stock or by purchase, transfer or manufacture, are, divided into two classes:
 - (i) Issue to contractor:

Issue of materials to contractors with whom agreements for both labour and materials, have been entered into.

- (ii) Issue direct to works:
Issue of materials when work is done departmentally or through a contractor whose agreement is for labour only.

- (2) In view of likely liability of Sales tax, it has been decided not to stipulate materials in the contract for issue to contractors unless some exigencies of work so demand in which case approval of Chief Engineer will be required on case to case basis. Wherever such approval is obtained following shall be followed.

The issue of materials to contractors is to be stipulated in contracts, which are for complete items of work, only in the following circumstances:

- (i) When it is necessary to retain in the hands of Port the supply of imported materials.
- (ii) When, in the interest of work, or with the object of utilizing existing stocks or materials, it is desirable to retain in the hands of Port the supply of certain other materials as well, and a condition to this effect has been inserted in the contract.

- (3) Stipulation of materials to be issued by the Department
 - (i) Stipulated materials shall be issued for use at site on works, for all the items where such materials are required. For factory made products like pre-cast cement tiles, pre-cast hollow concrete blocks, pre-cast foam concrete blocks, pre-cast RCC pipes etc., stipulated materials shall not be issued.
 - (ii) It should also be ensured that description of the materials to be issued should be adequately specified in order to obviate chances of any dispute.
 - (iii) The contract should specify:
 - (a) The materials to be supplied by Port for use on the work,

- (b) The place or places of delivery, and
 - (c) The rates to be charged to the contractor for each description of materials.
- (iv) The rates to be charged to the contractors for materials to be supplied should be definitely specified (vague provisions e.g. at stock rates should be avoided) and if intending contractors had been told that the materials would be supplied at certain rates and asked to tender on that assumption, then that rate should be adhered to in the contract.
- (v) No carriage or incidental charges are borne by Port for moving the materials beyond the place where the contractor has agreed to take delivery thereof.
- (vi) The contractor should be held responsible for obtaining from Port all such materials required for the work, and for making payment for them by deduction from his bills at the rates specified, regardless of fluctuation in the market rates or in the stock rates of the Division.
- (vii) Conditions for supply of departmental materials should be so explicit that no doubt or ambiguity is left which may encourage the contractor to derive undue financial benefit subsequently.
The Tender Documents should include the specific items of work for which materials are intended to be issued by the department with detailed description of materials.
- (4) Stipulation of free issue of materials
In contracts entered into by the department for works, stipulation to issue departmental materials such as steel, cement etc. free of cost should be avoided. However, in some exceptional cases, if such free issue of departmental materials is stipulated, it should be ensured that suitable provisions are made in the contract with regard to return of surplus materials and/or material

used in excess of theoretical requirement. The provision for wastage/variation, if any, that will be permitted should be clearly indicated. The recovery rate for effecting recovery from the contractor, in case the excess materials are not returned or if the wastage/variation is more than the permissible limit, should also be clearly stipulated, and it should be so fixed that it discourages the contractor from retaining the unused materials.

The unstamped receipts obtained from the contractors for the materials issued to them (especially in the case of electrical materials and fittings), and even when these are issued free of cost as stipulated in the agreement, makes of materials/fittings and full technical details of the accessories shall be clearly indicated to ensure that the same materials/fittings as issued by the Department are kept in safe custody by the contractor at all times, and used on the works for which these are issued.

- (6) Drawing of stipulated materials by the contractor
It is not permissible for the contractor to obtain the materials otherwise where the contract stipulates the issue of materials by the Department, unless in a case of emergency the supply has been entrusted by the Nodal officer or his nominee for recorded reasons to the contractor himself at suitable rates.
- (7) Stipulation of materials those are not available
The Divisional Officers should not make any provision in the tender for the supply of materials by the Department to the contractors if the materials are not available for issue from the Port stores, or where they cannot be arranged in time for issue.

29.2 Issue of materials when not stipulated

- (1) As a general rule, no material other than that stipulated for issue in the contract should be supplied to contractor for use on a works.
- (2) If at any time subsequent to the execution of a contract for finished items, the contractor desires the issue to him,

for use on a work, of materials which exist in Port stores, but the supply where of by Port was not provided for in contract, the materials should not be issued except with the express authority of the Superintending Engineer who should specify in each case the rate to be charged for the materials inclusive of delivery at the place where they are stored.

When submitting such a case to the Superintending Engineer, the Divisional Officer should elucidate the circumstances that gave rise to this contingency and should also add his recommendations in respect of the recovery rates for such materials.

- (3) Issue rate to be charged
 - (i) The rate charged for the materials should be:
 - (a) That provided in the Analysis of Rate for the item of work on which it would be used, plus or minus the percentage above or below the Schedule Rate allowed to the contractor, or
 - (b) Market rate, or
 - (c) Stock issue rate plus storage charges, whichever is higher. No carriage or incidental charges should be borne by Port in connection with the supply.
 - (ii) Where the finished item in which the materials to be used is available in the agreement, while adopting the three rate formula as above, the rate as per analysis should be taken as basic rate adopted in the Analysis of Rate, plus 7.5% contractor's profit, multiplied by the percentage the rate quoted for that particular item bears to the estimated rate of the item. In case the same material is to be used in more than one finished item this percentage should be worked out on an average basis taking into account the tender rates and estimated rates for these items (weighted average).

- (iii) Where the finished item in which the material is to be used is not available in the agreement, or where its rate is derived according to clause 12.2 of the agreement, the element of rate for the materials taken in the Analysis of Rate of the item should be considered while applying the three rate formula.
- (4) In cases in which the Port undertakes to supply materials to a contractor, full description of the materials as also its condition should be indicated in the relevant conditions of agreement with a view to safeguard the interests of the Port.
- (5) Free issue of non-stipulated materials to the Contractor should be avoided as far as possible.

29.3 Special conditions for steel

- (1) The contractor shall procure steel reinforcement bars conforming to the relevant BIS codes from the main producers as approved by the Ministry of Steel and secondary producers or re-rollers having valid BIS license. For TMT bars conforming to relevant BIS code, procurement shall be made from main producers and secondary producers having valid BIS license.
- (2) The contractor shall have to obtain and furnish test certificates to the Nodal officer or his nominee in respect of all supplies of steel brought by him to the site of work.
- (3) Samples shall also be taken and got tested by the Nodal officer or his nominee as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to BIS codes, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time of written orders from the Nodal officer or his nominee to do so.
- (4) The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more, or as decided by the Nodal officer or his nominee.

- (5) The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
- (6) For checking nominal mass, tensile strength, bend test, re-bend test etc. specimens of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:

Size of bar	For consignment below 100 tonnes	For consignment above 100 tonnes
Under 10 mm dia bars	One sample for each 25 tonnes or part there of	One sample for each 40 tonnes or part thereof
10 mm to 16 mm dia bars	One sample for each 35 tonnes or part there of	One sample for each 45 tonnes dia bars or part there of
Over 16 mm dia bars	One sample for each 45 tonnes or part there of	One sample for each 50 tonnes or part there of

- (7) The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor/Department in the manner indicated below:
- (a) By the contractor, if the results show that the steel does not conform to relevant BIS codes.
- (b) By the Department, if the results show that the steel conforms to relevant BIS codes.
- (8) The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in *clause 10 of the contract*. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the

consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.

- (9) The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Nodal officer or his nominee.

29.4 Removal of rejected/sub-standard materials

The following procedure shall be followed for the removal of rejected/sub-standard materials from the site of work:

- (i) Whenever any material brought by the contractor to the site of work is rejected, entry thereof should invariably be made in the Site Order Book under the signature of the Assistant Engineer, giving the approximate quantity of such materials.
- (ii) As soon as the material is removed, a certificate to that effect shall be recorded by the Assistant Engineer against the original entry, giving the date of removal and mode of removal, i.e., whether by truck, carts, or by manual labour. If the removal is by truck, the registration number of the truck should be recorded.
- (iii) When it is not possible for the Assistant Engineer to be present at the site of work at the time of actual removal of the rejected/sub-standard materials from the site, the required certificate should be recorded by the Junior Engineer, and the Assistant Engineer should countersign the certificate recorded by the Junior Engineer.

30. Measurement Books (MBs)

30.1 General

The payments to contractors and others for the work done or other services rendered are made on the basis of measurements recorded in the Measurement Book. Instructions regarding maintenance of the measurement books including standard

Measurement Books and review of measurement books are given in subsequent paras here under.

30.2 Writing of Measurement Book

- (1) The measurement book is the basis of all accounts of quantities whether of works done by Contractors or materials received. It should be so written that the transactions are readily traceable.
- (2) These books should be considered as very important accounts records and maintained very carefully and accurately as these may have to be produced as evidence in a court of law, if and when required.

30.3 Register of Measurement Books

- (1) All the Measurement Books belonging to a Division, should be numbered serially. A register should be maintained in form *CPWA 92* showing the serial number of each book, on receipt, Sub-Division to which it is issued, the date of issue, date of its return to the Divisional Office and date of its record after the required review in the Divisional Office has been completed.
- (2) A similar register should be maintained in the Sub-Divisional Office showing the names of persons, i.e. Assistant Engineer/Junior Engineer, to whom the Measurement Books are issued.

30.4 Transfer of Measurement Books

- (1) The Measurement Books that are no longer required to be used in the Su1b-Division or with the Junior Engineer should be withdrawn promptly even though not completely written up and re-issued.
- (2) When an Assistant Engineer or Junior Engineer in charge of the works or stores is transferred he should hand over the Measurement Books issued to him to his successor and these should be shown as received back from him and re-issued to the Relieving Officer. The transfer should also be recorded in the Measurement Book after the last

entry in each book under dated signature of the relieving officer and Relieved Officer.

30.5 Recording of Measurements

- (1) Entries at commencement of measurements
Each set of measurements to be recorded should commence with entries stating:
 - (i) In the case of bills for works done:
 - (a) Full name of work as given in the agreement/estimate
 - (b) Location of work
 - (c) Name of contractor
 - (d) Number and date of agreement
 - (e) Date of written order to commence work
 - (f) Date of actual completion of work
 - (g) Date of recording measurements
 - (h) Reference to previous measurements
 - (ii) In the case of bills for supply of materials"
 - a. Name of supplier
 - b. Number and date of supply order/agreement
 - c. Purpose of supply in one of the following forms as applicable to the case:
 - (i) Stock (for all supplies for stock purpose)
 - (ii) 'Purchase' for direct issue to the work (for direct issue to the work (full name of the work as given in the estimate shall be mentioned)
 - (iii) 'Purchase' for (full name of work as given in estimate) for issue to contractor on.....
 - d. Date of written order to commence the supply
 - e. Date of actual supply
 - f. Date of recording measurements
- (2) Writing of abstract
 - (i) A suitable abstract should then be prepared which should collect in the case of measurements for works done, the total quantities of each distinct item of work relating to each sanctioned sub-head. The measurement books meant for this purpose contain pages in singleton. Details

of quantities, rate and amount of each item for every bill are entered in this Measurement Book in a tabular form.

- (ii) For recording measurements and also for preparing abstract, the agreement item No. both in words as well as in figure, should be given neatly along with description of the item in full or in abbreviated form.
- (3) Nomenclature of item
- (i) In case of extra/substituted item of work that is not covered in the agreement, the full nomenclature shall be reproduced in the Measurement Book and the bill form.
 - (ii) The full nomenclature of the items shall be adopted in preparing abstract of final bill in the Measurement Book and also in the bill form for final bills.
- (4) Cross reference in case of running account bill

If the measurements are taken in connection with a running contract, a reference to the last set of measurements, if any, should be given.

- (5) Recording of date of completion
- (i) If the entire job or contract has been completed, the date of completion should be duly recorded.
 - (ii) If the measurements taken are the first set of measurements on a running account, or the first and final measurements, this fact should be suitably noted against the entries in the Measurement Book, and the latter case, the actual date of completion should be recorded.
- (6) Neat recording of measurements
- All measurement should be recorded neatly in the Measurement Book.

(7) Signature of the contractor

The signature of the contractor or his authorized representative should be obtained in the Measurement Book for each set of measurements.

(8) Measurement in ink

The measurements shall be recorded in ink.

(9) Making corrections in measurements

(i) No entry shall be erased or overwritten. If a mistake is made, it should be corrected by crossing out the incorrect words or figures and inserting the correction. The correction thus made shall be initialed and dated by the officer recording/checking measurements.

(ii) When any measurements are cancelled or disallowed these must be endorsed by the dated initials of the Officer ordering the cancellation or by a reference to his orders, initialed by the Officer who made the measurements, the reasons for cancellation being also recorded.

(10) Page numbering

(i) The pages of the Measurement Books should be machine numbered.

(ii) Entries should be recorded continuously and no blank page left or torn out. Any pages or space if left out blank inadvertently should be cancelled by diagonal lines, the cancellation being attested and dated.

(11) Recording of measurement only by authorized persons

All items of work in a project irrespective of their cost shall be measured and recorded by the Junior Nodal officer or his nominee of the work. It is, however, open to the Assistant Engineer or the Executive Engineer to record measurements for any particular item of work himself.

(12) Measurement of repetitive works

In case of works of repetitive type, detailed measurements of 20% of the total number of units, subject to a minimum of 20 units, need only be recorded.

(13) Certification of measurements

The person recording the measurements should record a dated certificate 'Measured by me' over his full signature in the Measurement Book.

30.6 Where measurements need not be recorded

- (1) No measurements need be recorded for petty purchases made through permanent imprest accounts. It is adequate in such cases that the Junior Engineer or the Assistant Engineer makes an endorsement on the original and duplicate copies of the cash voucher/bills of the suppliers regarding verification of the same.

30.7 Notice to the contractor before recording measurements – action to be taken if he fails to respond

- (1) Clauses of Contract in General Conditions of Contract provides that before taking any measurement of any work, the Nodal officer or his nominee or a subordinate deputed by him shall give 3 days' notice to the contractor. If the contractor fails to attend at the measurements after such notice or fails to countersign or to record objection within a week from the date of measurement, then the measurements recorded in his absence by the Nodal officer or his nominee or by the subordinate deputed by him as the case may be shall be deemed to have been accepted by the Contractor.
- (2) It happens that sometimes when the measurements recorded by the Junior Engineer are not accepted by the contractor, the fact is not brought to the notice of his superior officers ie. Assistant Engineer/Executive Engineer immediately, with the result that prompt action under clause 6 of contract form CPWD 7/8 cannot be taken. The

idea of *clause 6* is to bind the contractor to file objection, if any, on his side to the measurement recorded by the Departmental Officers within a definite period so as to avoid any disputes later on. It has been decided that in all cases of works executed on contract forms *CPWD 7/8*, when the contractor fails to attend at the time of measurements or to countersign the measurement books in token of his having accepted the measurements recorded therein, or to record the difference, the Junior Engineer/Assistant Engineer taking the measurements should report this fact within 72 hours to the Assistant Engineer/Executive Engineer in writing. The latter, on receipt of such a report, should take immediate action under *clause 6* *ibid*, and inform the contractor in writing that the measurements as taken by the Junior Engineer/Assistant Engineer are final as per *clause 6 of form CPWD 7/8*, and no claim whatsoever on this account shall be entertained.

30.8 Preparation of bill

- (1) On completion of the abstract, the Measurement Book should be submitted to the Asst.Engineer/Asst.Executive Engineer, who after carrying out his test check should enter the work 'Check and bill' with his dated initials. The Junior Engineer should then check the calculation of quantities in the abstract, and the bill in case of work carried out by contract, and should then place the Measurement Book and the bill before the AEE/AE who, after comparing the two, should sign the bill and the Measurement Book at the end of the abstract.
- (2) From the Measurement Book all quantities should be clearly traceable into the documents on which payments are made. When a bill is prepared for a work or supplies, every page containing the detailed measurements must be invariably scored out by a diagonal red ink line. When the payment is made, an endorsement must be made in red ink, on the abstract of measurements, giving a reference to the number and date of the voucher of payment.

(3) Corrections to calculations or rates in the Measurement Book

Any corrections to calculations or rates made in the Sectional Office or Divisional Office should be made in red ink and brought to the notice of the Executive Engineer i.e Divisional Officer, as the case may be and of the person recording the original measurements. In the case of final bills, the payment should be deferred until the corrections have been accepted by the person making the measurements. All corrections made by the clerical staff should be in red ink.

30.9 Movement of Measurement Books

Measurement book should be sent only through Special Messenger.

30.10 Recording measurements of supply/issue/laying of steel

(1) Supply of steel

(i) In case of supply of steel, the measurement should be recorded:

- (a) On actual weight basis for bars upto 10 mm dia and
- (b) On standard sectional weight basis for bars above 10 mm dia. In the latter case, the measurements should indicate the total number with length of bars in each bundle, total number of bundles, standard weight running meter weight of each bundle, total weight of all bundles, etc. The entry should not be a copy from the invoice issued by the firm.

(ii) Issue of steel

The issue of steel shall be made in the same manner as for the supply as described in sub-para (1) above.

(2) Laying of steel

(i) Wherever the structural drawings that are approved by the Department for a work contain the bar bending schedule, the measurements of reinforcement bars laid shall be recorded on the

basis of this schedule after due verification that they have been laid in conformity to the structural drawings. The bar bending schedule shall show the extra percentages that shall be allowed for laps and wastages. Detailed measurements of each and every bar shall be dispensed with in such cases.

- (ii) In other cases, the bar bending schedule shall be prepared by the contractor, and checked and signed by the Nodal officer or his nominee before the bending of bars is taken up at site.

30.10.1 Test Check by the Assistant Engineer

- (1) The Assistant Engineer must satisfy himself before passing a bill for payment, or before submitting it to the Divisional Officer for payment, that the work of supply billed for has actually been carried out/completed in accordance with the terms and conditions of the contract. He should personally inspect all works of any magnitude before authorizing final payments in connection therewith.
- (2) In addition to the above, he is required to check measure the works in his charge as below:
 - (i) All items of work in a project irrespective of their cost, shall be measured and recorded by the Junior Nodal officer or his nominee of the work. It is, however, open to the Assistant Engineer to record measurements for any particular item of work himself. In case of absence of Junior Engineer, the Assistant Engineer may be asked to record measurements.
 - (ii) The Officer accepting the tender for any work may stipulate and require the Assistant Engineer/Asst. Executive Engineer to record measurements himself or exercise 100% check on the measurements recorded by his subordinate for any item including those, which, owing to their situation, cannot subsequently be checked measured or which have

very high unit rates or which in the opinion of the Officer are important.

Important items for Measurements

Important works, within meaning of the above, include items which owing to the situation cannot be subsequently checked or which have very high unit rates. For guidance, these items are classified generally as below:

Items of work which owing to their situation cannot subsequently be checked.

- (i) All work below ground level such as concrete, masonry, steel work etc. in foundation; and
- (ii) Fabricated steel work in columns, beams etc. which are encased either in masonry or concrete, reinforcement in RCC/RB work.
- (iii) Wood work, iron work etc. hidden by ceilings, wall paneling or floor boardings.
- (iv) Bitumen painting of roofs under mud phuska and tiles paving or under terrace concrete.
- (v) Water proofing compounds used in gauging cement.
- (vi) Lines of pipes buried in floor or masonry in internal sanitary, water supply or drainage installations.
- (vii) Earthing installation, cable laying etc.
Items of works which are considered to have very high unit rates:
 - (a) RCC work
 - (b) Items in sunk ashlar stone or marble work, plain sunk or moulded in walls, columns, arches or domes
 - (c) Stone or marble work in wall lining. All steel cladding, structural glazing etc.

- (d) All wood work in Chowkhats, frames or trusses in Indian or Burmah teakwood.
 - (e) All joinery work in shutters, trellis works, miscellaneous wood work etc. whether in Indian teak or Burma teakwood.
 - (f) All brass, oxidized brass or other similar costly fittings of doors, windows etc. where payable separately.
 - (g) All major equipments for AC, lifts, generator sets, sub-station equipments, fireworks, any other items desired by Nodal officer or his nominee.
- (3) The AEE/AE should check measure not less than 100% of the value of the measurements recorded by his Junior Engineer before any running/final bill is paid.
- Note : For the purpose of test check, 'measurements' means the 'corresponding monetary value of measurements of work done'. This however, does not apply to 'levels', in which case the test check has to be based on the number of levels recorded.
- (5) While test checking the works of repetitive type, the Assistant Engineer (Elect.) should test check 100% of all items of at least one unit, taken at random, besides test checking isolated and individual items in other units to bring the total extent of check measurement to the desired limit of 50% of value of work done.
- (6) Besides the mandatory test check of RCC and hidden items of work, the test check of measurements by Assistant Engineer shall also include not less than 50% of the plumbing work for sanitary and water supply wherever applicable.

30.10.2 Test check by the Executive Engineer/Supdt.Engineer

- (1) The Executive Engineer should test check 20% of the measurements recorded by his subordinates at least every

alternate bill . Supdt.Engineer should check 10% of the Measurements recorded by AEE/AE.

- (2) Test check of RCC and plumbing works
 - (i) Test check of the Executive Engineer shall also include at least 20% test check of the measurements of RCC items so as to ensure structural safety of building.
 - (ii) Besides the mandatory test check of RCC and hidden items of work, the test check of measurements by the Executive Engineer shall also include not less than 20% of the plumbing work for sanitary and water supply.

- (3) Test check in road works
In case of road work involving supplying and laying of sub-base and base course material:
 - (i) The stacks shall be uniformly distributed along the road. The collection of stone metal shall be completed for the entire work, or for complete length of 1 km. or as directed by the Nodal officer or his nominee, and measured before the work of laying and consolidation is taken up in hand.
 - (ii) The Assistant Engineer shall test check not less than 10% and the Executive Engineer, not less than 5% of the supply of materials in each length of 1 km before the work of laying is started.

- (5) Test checks to be attested
The individual items checked should be clearly shown in the Measurement Book, and the result recorded by the officer concerned. The items thus checked should be attested by the dated initials of the Checking Officer.

- (6) Consolidated record of checks/test checks
 - (i) A collective record of all the check carried out from time to time will be prepared in each Measurement Book in the following tabular form

- (a) Date of check
 - (b) Page recording measurements subject to test check
 - (c) Value of measurements checked
 - (d) Result of the check exercised
 - (e) Dated initials and designation of the Checking Officer
- (ii) The result will be indicated by the word 'Satisfactory' or 'Unsatisfactory' as judged at the time on merits of each case. Unsatisfactory result will be communicated to the JE or both the JE and AE as the case may be.

31 Recording measurements for earth leveling work

31.1 Level Books

In case of leveling operations and earthwork, measurements are required to be recorded in Level Books in addition to Measurement Books. The Level Books should be numbered, accounted for and handled like Measurement Books.

31.2 Preparatory Works

Before starting the earth work, the following steps should be taken:

- (1) Original ground levels should be recorded in the Level Book in the presence of the contractor or his authorized representative, and should be signed by him and the Departmental Officer who records the levels. All the local mounds and depressions should be indicated clearly in the drawing and the field Level Book, and should be checked by the Assistant Engineer/Executive Engineer before the leveling work is started.
- (2) A suitable baseline should be fixed with permanent masonry pillars at distances not exceeding 150 metres to provide a permanent reference line for facilitating check work. The base line(s) should be entered in the Level Book with co-ordinates. These baselines should be maintained till the final payment for the work has been made.

- (3) While recording the levels, it should be ensured that the circuit is closed by taking final levels of the starting point or any other point, the R.L. of which was previously determined.
- (4) Plans showing initial levels, location of bench marks and reduced levels, should be prepared and signed by both the parties and attached to the agreement before commencement of the work.

31.3 Test check of the levels

- (1) The AE should exercise test check at least to the extent of 50%, and the Executive Engineer at least to the extent of 10% where the value of this item of work exceeds 10% of the contract value.
- (2) The test check of the levels should be carried out independently by each officer, and the readings should be recorded in the prescribed Level Book in red ink against the old levels which should be neatly scored out wherever necessary. If the test check carried out reveals serious mistakes in the original levels, these should be taken or re-taken and re-checked.
- (3) The test check carried out by an Officer should be as representative as possible for the entire work done.
- (4) On completion of work, the levels should again be recorded in the Level Book and the Contractor's signatures obtained. These levels should also be test checked by the AE/EE to the same extent as indicated in (1) within one month of the date of completion of the earth work, and according to the procedure as laid down in the case of initial levels as indicated above.
- (5) The formation levels as per final execution of the work should be compared with the proposed formation levels and the work got rectified within permissible tolerance.

31.4 Payment for leveling work

- (1) Every fourth running bill and the final bill should be paid on the basis of levels.
- (2) Intermediate payments can, however, be made on the basis of borrow pit measurements. The EE should take care that the quantities thus assessed are not in any case more than the actual work done.

31.5 Large Scale leveling work

- (1) In case of large scale leveling work involving both cutting and filling, an accurate site plan should be prepared before the work is commenced. The portions requiring cutting and filling shall then be divided into squares and corresponding squares into filling, which are complementary to the squares in cutting given the same number.
- (2) A table may be written upon the plan showing leads involved between the various complementary squares. This would form a lead chart for the work to be done.
- (3) Before the work of leveling is commenced, the lead chart shall be checked by the AE in the presence of the contractor or his authorised representative, and his signatures shall be obtained on the same. This should form an integral part of the contract and should be duly signed by both the integral parties before commencement of the work.
- (4) The quantity payable for earthwork shall be lower of the quantity derived from cutting or filling. The payment for lead shall be based on lead chart prepared in the aforesaid manner.
- (5) In case of earth to be imported, the area from where the earth is to be imported, should be pre-determined wherever possible before the start of the work, and wherever feasible, the average lead should be worked out and stipulated in the tender. After this is determined,

initial levels of the area to be filled should be recorded. The levels should be properly checked during the progress of work and on completion.

32 Computerised Measurement Books (CMB's) and Bills to be submitted by the Contractor

32.1 Application and format of the Computerised M.B.

- (1) In works of estimated cost put to tender of Rs.15 lakh and above, approving authority, the conventional Measurement Books shall be replaced by a bound volume of computerized measurements to be furnished by the contractor, duly machine numbered for the pages, and with an MB number given by the Division Office. The pages of these Measurement Books shall be of A-4 size. All these Measurement Books belonging to a Division shall be serially numbered, and a record of these Computerised Measurement Books shall be maintained in a separate Register in *Form CPWA 92*.
- (2) The same format as in existing Measurement Books shall be used for the Computerised Measurement Books. The measurements shall be carried forward from the previous recorded measurements as per the existing procedure.

32.2 Mode of measurements

- (1) The measurements shall be recorded and entered in computerized format in the first instance by the contractor, and a hard copy shall be submitted to the Department. All entries shall be made exactly as per the existing procedure.
- (2) These measurements shall then be 100% checked by the JE. If JE is not available, the AE shall perform 100% check of the measurements. The contractor shall incorporate all such changes or corrections, as may be done during these checks, to his draft computerized measurements, and submit to the department the corrected computerized

measurements in the form of a book, duly hard bound in red colour on the lines of the Conventional Measurement Books now in use, and with its pages machine numbered.

- (3) The AE and the EE shall test check these computerized measurements as per the existing instructions. This book shall be treated as a Computerised Measurement Book.
- (4) The Computerised Measurement Book shall be allotted a serial number as per the Register of Computerised Measurement Books.

32.3 Cutting or over-writing in the computerized M.B. not allowed

- (1) The Computerised Measurement Book given by the contractor, duly bound, with its pages machine numbered, shall have no cutting or over-writing.
- (2) It is the responsibility of the JE or the AE as the case may be to ensure that the checks and test checks done by them in the initial draft measurements are correctly incorporated in the Computerised Measurement Book before they record their certificates.
- (3) In case of any error, the Computerised Measurement Book shall be cancelled, and the contractor shall re-submit a fresh Computerised Measurement Book. This should be done before the corresponding computerized bill is submitted to the Division for payment.
- (4) The contractor shall submit as many copies of Computerised Measurement Books as may be required, and as are specified in the tender documents/Contract, for the purpose of reference and record in the various offices of the department.

32.4 Computerised Bill to be submitted by the Contractor

- (1) The contractor shall submit his running and final bills in a computerized form in the same format as the existing conventional bills, with all the pages machine numbered, and hard bound, and with all the entries made as per the existing procedure.
- (2) The contractor shall submit as many copies of the computerized bills as may be required for the purpose of reference and record in the various offices of the Department.
- (3) The bill shall be carried forward from the previous running account bill as per the existing procedure.
- (4) These computerized bills shall be processed by the various offices for payment, as per the existing procedure.

33 Review of Measurement Books

- (1) The Measurement Books are required to be reviewed by Executive Engineers. The Asst. Engineers are required to submit the Measurement Books in use in the Sub-Divisions to the Divisional Office, from time to time, so that at least once a year the entries recorded in each of the Books are subjected to a percentage check. The Divisional Officer should ensure that this annual review is conducted regularly and positively every year.
- (2) The review by the Accounts Department shall be in the following respects:
 - (i) To compare the books in use with part I of the Register of Measurement Books maintained *in CPWA Form 92*, and to note necessary corrections in the Register.
 - (ii) To see that no original sheet is torn out of a Measurement Book, nor any entry erased or

disfigured, and that the corrections made therein are initialed.

- (iii) To see that pencil entries are not inked over.
 - (iv) To test check the accuracy of calculations, and to ensure that the instructions regarding writing of Measurement Books, recording of measurements, and their test check are being followed properly.
- (3) On receipt of the Measurement Books in the Divisional Office, the EE should indicate in column 2 of the "Review Notes" in each Measurement Book as referred to in para 14.13(5). The extent of this check will be determined by the EE having regard to the result of the last review, and should cover complete set of measurements.
- (4) Payments based on the entries reviewed should be traced into various accounts and verified. Similarly supplies or issue of materials should be traced into the various accounts, contractor's ledger, etc. and verified.
- (5) Communication of discrepancies
- The defects, discrepancies, etc. noticed should be communicated to the AE concerned and summarized in the followed form in the Measurement Book that has been test audited:
- (6) The Measurement book completed and returned for record during the year should also be similarly examined prior to their final record in the Divisional Office.

34 Loss of Measurement Books

- (1) When a Measurement Book is lost, an FIR should be lodged with the police.
- (2) An immediate report of the facts of the case together with an explanation of all parties concerned responsible for the loss should also be made promptly to the Chief Engineer, who is empowered to sanction the write off of the lost

Measurement Books. In case of theft or loss of a blank Measurement Book, the SE shall be the competent authority to write off the loss.

- (3) Such losses for write off should be reported in the proforma as at *Appendix 10*.
- (4) It is also necessary that the measurements in the lost Measurement Book should be re-constructed at the earliest.

35 Standard Measurement Books (SMB's)

35.1 Purpose

The Standard Measurement Books are maintained to record the measurements of permanent standing in a building, and are required to be brought up to date from year to year on the basis of additions, etc. that are made to the building during a year. These are used for preparing the repairs estimates and contractors' bills for such repairs so as to avoid taking detailed measurements on each occasion.

35.2 Preparation and accounting of Standard Measurement Books

- (1) The Standard Measurement Books shall be prepared after the completion of the work by the Construction Division that has executed the work. The preparation of these books will ordinarily be undertaken in accordance with the program for each Sub-Division or such other suitable unit as may be fixed by the Divisional Officer.
- (2) All drawings, Standard Measurement Books etc. should be properly documented before handing over the building.
- (3) All the Standard Measurement Books should be *on Form CPWA 23-A*, and should contain pages in singleton. They should be numbered in an alphabetical series so as to be readily distinguishable from those assignment to ordinary Measurement Books.

- (4) These will be accounted for in the same manner as ordinary Measurement Books in a register in *Form No.CPWA 92 (Part II)*.
- (5) A similar register will be maintained in each Sub-Division showing the books belonging to it, and reviewed as done in case of the ordinary Measurement Books.

36 Writing of Standard Measurement Books

- (1) The Standard Measurement Books should be written legibly in ink, and certified as correct by the Executive Engineer. These could be maintained very carefully and accurately, as they may have to be produced as evidence in a Court of Law.
- (2) The Standard Measurement Books should either be written by the Assistance Engineer himself or a Junior Engineer under his orders. Each set of measurements taken by the JE should, however, be fully checked by the AE, after which it should be examined by the Executive Engineer. He should declare in writing in the Book itself as finally approved by him for the purposes of preparing annual repair estimates and contractors' bills for the work done. Until this is done, the Book will not be assigned a number, and will not be entered in the Register of Standard Measurement Books.
- (3) The Standard Measurement Books shall be brought up to date under the supervision of the Assistant Engineer with reference to the building or work concerned within one month of closing of the accounts of the estimate thereof. All such corrections shall be attested by the AE, and approved by the Executive Engineer.

37 Computerised SMB's

The SMB's can also be in the Computerised Measurement Book form, and shall fully correspond with the final computerized measurements for the various items as recorded in the

Computerised Measurement Book used during the construction stage.

38 Check by superior officers

- (1) The Executive Engineer shall check the compilation of Standard Measurement Books from time to time by personally examining each book at least once a year. To this end, the program of work should ordinarily be as follows :
 - (a) Soon after the close of the official year as possible, the AE concerned shall arrange for a personal examination of these books with a view to satisfying himself that they have been brought up to date with reference to the additions, alterations or special repairs carried out in the building or works during the preceding year, and ensuring their submission on such dates as may be fixed for the purpose for the inspection of the Divisional Officer.
 - (b) On receipt in the Divisional Office, the Books will be compared with the Register of Standard Measurement Books in order to ensure that all the Books have been submitted for inspection. These shall then be subjected to such scrutiny as the Divisional Officer may direct. A comparison of these Books with the accounts of expenditure, and the record of connected measurements relating to estimates for additions/ alterations or special repairs to building and works in the Division should, however, form a feature of the check to be applied.
- (2) A record of the results of the scrutiny referred to above should invariably be retained and produced, if required, during the inspection of SE/Audit/Accounts Officer.

39 Submission of certificates

- (1) A report should be made to the SE, so as to reach him not later than the 31st July of each year, with copy endorsed to the concerned Accounts Officer, certifying in clear terms:

- (i) That all the Standard Measurement Books of the Division have been inspected by the Executive Engineer.
 - (ii) That the entries made therein have not been tampered with.
 - (iii) That all Books are reliable with upto date records.
- (2) When a payment is based on Standard Measurements, the following certificate should invariably be recorded on the bill, in his own handwriting, by the AE preparing, examining or verifying it:
- "Certified that the whole of the work billed for herein has been actually done, and that no portion thereof has been previously billed for in any shape."*

40 Online Measurements

The Port shall examine to go in for recording online measurements in lieu of computerised Measurement Books in which case also the procedure for recording of measurements , check measurements by Assistant Engineer and Executive Engineer shall be same as for computerized measurement books

41 Preparation And Passing Bills For Payments

41.1 Preparation and passing of bill

- (1) The contractor is required to prepare the bill in one of the forms prescribed, as applicable in each case, for the work done by him and submit the same to the Sub- Divisional Officer.
- (2) Wherever Computerised Measurement Books have been stipulated for use, the contractor shall submit Computerised Bills for all his claims, and thereafter these bills shall be processed in the usual manner.
- (3) Before the bill of a contractor/supplier is passed, the entries in the Measurement Book relating to the description and quantities of work/supplies should be scrutinized by the Assistant Engineer, and calculations of

“Contents or Area” should be checked arithmetically under his supervision.

The bill should then be checked, passed and paid in the office of the Executive Engineer from the Measurement Book entries.

42 Payment of bill

42.1 Part rates

Full rates, as per agreement/supply order should be allowed only if the work or supply has been accepted as of required quality and specification. If the contract is determined, or an on account payment is to be made when the contract is to run, a part rate as considered reasonable shall be allowed with due regard to the work remaining to be done and general terms of the agreement, and after getting the part rate statement approved from the bill passing authority.

42.2 Payment for supply

In case of supplies, the payment is not permissible until the stores have been received, examined and accepted. In case payment has been permitted on production of despatch documents etc. the payment should be treated as advance against the final settlement on receipt, examination and acceptance of the stores.

42.3 Forms of Bill for payment and vouchers

The authorised forms of bills to be used for payment of contractors/ suppliers and their utility are described below:

42.4 Payment for work done

Payment for work done or supplies made on running account should be made periodically on submission of the bill by the contractor/supplier.

43 Documentations Of Accounts

43.1 Bills Register

- (1) The payments made in the Admin. Offices are made on receipt of the bills from the various Sub- Divisions. A consolidated record of all the bills received from the Sub-Divisions in respect of works/supplies should be maintained in one register known as the Register of Bills.
- (2) The bills should be entered in the register strictly in order of receipt, i.e. the bills received first should be entered before the bills received afterwards. The payment of the bills should also be made strictly in order of their receipt. In no case a bill received afterwards should be given priority over the bills that have been received before, except under the written orders of the Divisional Officer.
- (3) The Office Supdt./Accounts should ensure that the register is properly maintained and kept up-to- date in the Accounts Section. The register should be submitted to the Executive Engineer/Superintending Engineer every week for his perusal, and he will record in the register cases in which these instructions have not been followed.
- (4) The bills of work charged establishment, muster rolls and establishment bills should not be entered in this register.
- (5) A similar register, as mentioned above, should also be maintained in each Sub-Division in respect of payments to be made by the Assistant Engineer. This register should be kept by the Sub- Divisional Clerk in the same way as the register in the Divisional Office, and put up to the Assistant Engineer every week.

43.2 Register of Works

- (1) The permanent and collective record of the expenditure incurred in the Division during a year on each work is the "Register of Works". This record is maintained in the Divisional Office.

- (2) There are two forms of Registers of Works (*CPWA 40 and 41*) corresponding respectively to the two forms of Works Abstracts (*CPWA 33 and 34* that are used in the Sub-Division) for Major and Minor Works. The detailed Form *CPWA 40* should be used for Major Works estimates, and the simpler Form *CPWA 41* for Minor Works estimates. In respect of petty works, no record is necessary beyond the petty works requisition and Account Form *CPWA 32*, which is self-explanatory. But if desired, expenditure on these works may be recorded in Register of Works for Minor Works Estimates in Form *CPWA 41*.
- (3) Generally in cases of Major Works, the account of expenditure incurred is maintained in detailed Form *CPWA 40* of the Register of Works. In case the Superintending Engineer or other sanctioning authority so desires, the accounts of Minor Works may also be kept by sub-heads in detailed Form *CPWA 40*. The Superintending Engineer is empowered to dispense with maintenance of accounts in the Register of Works by Sub-heads in respect of any work if he considers that the circumstances render such accounts useless or impossible to maintain. In such cases, a copy of such orders should also be forwarded to the Accounts Officer.
- (4) The Registers of Works are posted monthly from Works Abstracts. Separate folio or set of folios in Form *CPWA 40* Register should be assigned to each Major Works estimate. Entries relating to Minor Works estimates can be made on a single page in Form *CPWA 41* Register.
- (5) The Work Abstracts are required to be maintained in Sub-Divisional Office in a single sheet on each work. These should be sent regularly every month to the Divisional Office for compilation of the monthly accounts.
- (6) Before submission of the monthly account, the Registers of Works should be completed, reviewed by the Executive Engineer and date initialed by him in token of his having examined the entries and found to be correct.

43.3 Materials Account

Materials are purchased for maintaining stocks for requirements of various original and maintenance works, and can be of following two types:

- (1) Materials issued to contractors for use on the work in respect of completed items of work for both labour and materials for which they have quoted.
- (2) Materials issued direct to works when the work is done departmentally or by contractors whose agreements are for labour work only.

44 Materials issued to contractor

- (1) In the cases of issue of materials to contractors in respect of complete items of work, the materials are issued to the contractor as stipulated in the agreement at a fixed issue rate as indicated therein. These rates should include storage and other charges where these are issued from stock. The materials, other than those stipulated in the agreement, should not be issued in such cases without the express authority of the Superintending Engineer, who should specify in each case the "Issue Rate" to be charged for the materials inclusive of delivery at the place where these are stored.
- (2) This restriction may, however, be waived in respect of petty issues (at full issue rates) from the existing stocks not exceeding Rs. 5,000/- in any month for any one contract.
- (3) In case of materials issued direct to works, its detailed account should be kept in Form *CPWA 35*, i.e. Material at Site Account. Only principal items of materials, i.e. those items, the estimated cost of which exceeds Rs. 10,000/- each, need to be detailed in this account.
- (4) Both quantities and values of such items should be shown, except in respect of carriage and incidental charges for which only values should be shown.

- (5) All the minor items may be lumped together under the heading "petty items" for which only values should be shown.

45 Annual verification of balances

Unused balances of materials charged direct to work should be verified at least once a year, and a report of verification of the materials should be sent by the Assistant Engineer in Form CPWA 37 to the Executive Engineer.

46 Maintenance of account

- (1) In order to control the quantum of the materials both in receipt and issues, a numerical account of the principal items should be maintained. This should be maintained in respect of works costing more than Rs. 1,00,000/-.

- (2) A simple numerical account may, however, be maintained for the minor works and departmental repair works at the discretion of the Executive Engineer, if there is an accumulation of materials for a number of works.

- (3) Where the materials are issued to a work done departmentally or through a contract on labour rates only, the Material at Site Account should be maintained only if the estimated cost of the work is more than Rs.50,000/-

47 Cement Registers

- (1) The Assistant Engineer/Executive Engineer should check the registers maintained for accounting of cement at different work sites.

- (2) In case of works where Ready Mixed Concrete (RMC) is stipulated to be used from an approved source/manufacture, such registers need not be maintained. However, the computerised dispatch slips that are sent with each dispatch of RMC shall be kept on record.

48 Hire charges of Plant and Machinery

- (1) When so specified, the contractor may be allowed use of Plant and Machinery of the Department at fixed hire rates. The hire charges of such Plant and Machinery will count from the date these are taken out from the Departmental Workshop or a specific place till the date of their return.
- (2) The rates of hire charges are fixed from time to time. The hire charges are for each day of 8 hours (including one hour lunch break) or part thereof.
- (3) The hire charges shall include the idle days except for a major break down necessitating its return to the workshop. In case of any dispute, the decision of the Superintending Engineer shall be final.
- (4) These hire charges shall include services of operating staff and maintenance staff as also the materials required for normal maintenance and repairs.

49 Dismantled materials account

49.1 Dismantled materials arising out of dismantlement through departmental works

- (1) The serviceable materials obtained from dismantlement of a building or structure wherever not sold by tender or auction, should be recorded without value in the Measurement Book for record purpose. On the basis of these measurements, these should be taken in the Register of Dismantled Materials in the form at Appendix. After the entries are made in the Register, and duly attested by the Assistant Engineer, the entries in the Measurement Book should be crossed by diagonal red ink line with a suitable note that these materials have been entered in the Register.
- (2) A separate folio or set of folios should be kept apart for keeping the accounts of dismantled materials pertaining to each work.

(3) The serviceable materials obtained from dismantlement should be used in the works as far as possible and shall be shown as issued to works accordingly in the Register. The unserviceable materials should be disposed of in the manner indicated in provisions under *section 45* of this Manual.

(4) The indisposed balances should be physically verified at least once a year and the result of the verification recorded in the "Remarks Column".

(5) This register (even for "Nil" transactions) should be submitted by the Assistant Engineer regularly each month along with the monthly accounts for scrutiny in the Divisional Office before the Executive Engineer for monthly review. The fact of such review should be placed on record in all cases preferably in Form *CPWA 96* (memo of review).

(6) In no case dismantled materials should be collected on the road berms. If for any reason, it is not found possible to comply with these instructions in any particular case, the written approval of the Superintending Engineer and local authority, if any, should be obtained.

(7) The "Empties", i.e. empty drums, tins, bags, and other containers should also be included and accounted for in the Register of Dismantled Materials.

49.2 Dismantled materials arising out of dismantlement through contract

(1) In case a building or structure is dismantled through contract, a stipulation/provision in the schedule of work can be made in the Tender/contract that the contractor has to take away the dismantled materials within specified time, and for which he should give credit to the Department at his tendered and accepted rates.

(2) There may be cases where the intrinsic value of the dismantled materials may be more than the cost of dismantlement of the building/structure. In that event, sufficient safeguard should be taken through suitable stipulation/provision in the Tender/contract whereby the

contractor deposits the cost of dismantled materials in full with the Department before he is allowed to take up the dismantling work. The cost of dismantling shall be paid to him after he completes the dismantling work.

(3) The contract shall also have the usual provision for security deposit/performance guarantee to ensure that the contractor completes the dismantling work, and that he does not just walk away with the costly dismantled materials.

(4) In case where dismantlement is part of construction contract, lump sum stipulation can be made for dismantling and removing the dismantled material, recovery of which can be made as early as possible preferably in first three running bills.

49.3 Dismantled materials arising out of maintenance works

(1) Relevant para of Maintenance Manual may be referred to for disposal of dismantled materials arising out of maintenance works done through contracts.

(2) In case of dismantled materials of negligible salvage value arising out of departmental maintenance of works, such as electrical lamps and tubes, A.C . sheet ridges, PVC flooring, etc., may not to be taken in the dismantled materials account, and they shall be disposed of as deemed fit. The Junior Engineer/Assistant Engineer/Executive Engineer shall exercise a check on the quantum of materials dismantled from their normal consumption pattern.

(3) For other dismantled materials having salvage value arising out of such works, these should be accounted for in the Register of Dismantled Materials, and disposed of, or re-used as the case may be.

50. Payments To Contractors

50.1 Register of Bills and its review

(1) The Divisional Officer should maintain a register to keep a record of the monthly running payments made to the

contractors in respect of contracts costing above Rs.50,000 in the prescribed proforma. As and when a bill is submitted, the same shall be entered in this register.

(2) The register should be reviewed by the Executive Engineer regularly to ensure that payments are being made to the contractors in time.

(3) The register should be posted at the time of making monthly running payment to the contractor.

50.2 Final payments

(1) Final measurements should be recorded within one month of the completion of work. Final payments for works costing more than Rs. 15 lakhs should be made within 3 months of the completion of work, and for other works within one month.

(2) Regarding prompt completion of all the formalities in connection with the release of the final payment as far as possible, following time schedule for payment of bills should be adhered.

The following time schedule for payment of bills and issue of completion certificates has been prescribed:

Stage	Time Limit
1	2
Payment of running bills	As far as possible before expiry of 7 working days from the presentation of the bill. Both AE/AEE and EE should not take more than 4 working days each
Contractor's notice of completion of work	Within 10 days on completion of the work .
Issue of completion certificates for works	Within 30 days of receipt of contractor's notice.
Submission of final bill by the contractor	Within One month of the date of the final certificate of completion furnished by the Nodal officer or his nominee or 3 months of the physical completion of the work, whichever is earlier.

Payment of final bills for works up to Rs. 15 lakhs	One month of receipt of final bill from the contractor.
Payment of final bills for works over Rs. 15 lakhs	3 months of receipt of final bill from the contractor.

50.3 Inspection of works and issue of completion certificate

(1) Before the work is declared as completed in all respects and final payment is released to the contractors, it has to be inspected by the Dy.Chief Engineer/Superintending Engineer.

(2) The Superintending Engineer shall also record the following certificate:

"I have inspected the work of contract value of which is Rs. vide Agreement No. today. As a result of this inspection and my previous inspections, I find that the work has been carried out generally to specifications, and has been completed satisfactorily. There are no noticeable defects except for the following:

....."

(3) The above certificate is required to be recorded within a period of one month from the date of completion of the work.

(4) In the case of works whose contract value is less than the above, the Executive Engineer have to record similar certificate as the case may be. The defects so pointed out if any should be rectified by the contractor, or by the Department at his cost expeditiously, action for which should be taken in terms of the contract.

(5) An attested copy of the completion certificate will be attached with the office copy of the Final bill of the contractor, and it shall remain on the record of the Division. The Executive Engineer shall not make final payment till this certificate is recorded and attached to the office copy of the bill. This certificate, however, will in no way reduce the responsibility of the Executive Engineer for due check of the work and the bill as required by the rules and code of practice of the Department.

- Completion certificate to be recorded by the Superintending Engineer in whose tenure the work is completed
- (i) The completion certificate is required to be recorded by the Superintending Engineer in whose time the work is completed irrespective of the fact that a part of the work may have been done during the incumbency of his predecessor. The Superintending Engineer recording the certificate is not responsible for work which may have been covered up during the incumbency of his predecessor, for instance, work in foundations or below the concrete flooring, but he is required to point out the defects which are visible, for instance, defects in the doors and windows, plastering flooring, painting etc. The Superintending Engineer should necessarily record the completion certificate for the works completed in his tenure on the post before he handover the charge to his successor on transfer.
 - (ii) In specific cases where there are practical difficulties, such as the Superintending Engineer being no longer in the Department due to resignation, death etc, in getting the completion certificate recorded by him, the Dy.Chief Engineer may decide any relaxation of the existing instructions after examining the details of the case, and issue directions accordingly. Administrative action should also be initiated against the Superintending Engineer for not taking proper/timely action in getting the completion certificate recorded, whatever justified, as revealed by the facts of the case. Administrative action should also be initiated against the Superintending Engineer for not taking proper/timely action in getting the completion certificate recorded, whatever justified, as revealed by the facts of the case.
 - (iii) In case of project management consultancy works, Completion certificate from the Consultants is necessary before final bill is paid to the Contractor.
 - (iv) In the case of such work, the Executive Engineer should inform the Consultant concerned of the work having been completed in all respects within one month of the physical

completion of the work, and request him to carry out his inspection and record the required completion certificate. Consultant shall inspect the work and issue the certificate within 3 months of receipt of such intimation.

- (v) An attested copy of this certificate of the Consultant shall be attached with the office copy of the final bill along with that of the Superintending Engineer, and it shall remain in the record of the Division.

50.4 Payment through bank

All Payment due to a contractor, shall be made to his bank only through ECS under no circumstance payment will be made direct to the contractor .

50.5 Deduction of income tax at source

- (1) Under Section 194C of the Income Tax Act, 1961, deduction of income tax is required to be made at source by disbursing officers from payments made to contractors.

Before signing the First and Final bill/Running Account bill/Final bill, the Accounts Officer should see that:

- (i) The statutory deduction on account of income tax, wherever due, has been made from the bill of the contractor, and
- (ii) The same is specifically shown in the Memorandum of Payments thereof under the item, "By recovery of amounts creditable to other works or heads of accounts".

- (2) In view of the existing provision of Section 288 B of the Income Tax Act, 1961, the amount of tax to be deducted at source should be rounded off to the nearest rupee by ignoring amount less than fifty paise and rounding off amounts of fifty paise or more to one rupee.

- (3) The tax deducted on behalf of the Government should be paid to the credit of the Income Tax t within one week from the last day of the month in which the deduction is made.

(4) The authority responsible for making any payment to a contractor should issue a certificate of tax deducted at source in the specified form.

51 Acceptance of sub-standard work

(1) In general, sub-standard works should not be allowed to occur, as they reflect poorly on the professional competence of the field staff and adversely affect the image of the Department.

(2) Acceptance of work below specifications and/or below acceptable levels of workmanship, and the resulting payment at reduced rates for such defective/deficient works should be resorted to only for those items where materials conforming to the required specifications are not available, or where it is structurally impossible to get the work re-done or where in opinion of Superintending Engineer in charge it is expedient to do so.

(3) Acceptance of sub-standard work at reduced rates should be done only under exceptional circumstances Superintending Engineer is the competent authority to accept sub-standard work.

(4) The total value of quantities of items at agreement rate for which the Superintending Engineer accepts sub-standard work in a contract shall not exceed 5% of the contract value. In case total value of such items exceeds 5% prior approval of Chief Engineer would be necessary. Before a sub-standard work is accepted by the Department, the Nodal officer or his nominee, after getting prior approval of competent authority, should write a letter to the contractor, for and on behalf of the Board regarding acceptance of the same and the provisional rates pending the decision of the competent authority with regard to final rates. In reply to this letter, the contractor should send his consent for acceptance of the terms specified by the Department. For this purpose two forms, as per Annexures I and II, may be used.

(5) The decision of the Dy.Chief Engineer/Chief Engineer regarding the quantum of reduction as well as justification thereof in respect of rates for sub-standard work that may be decided will be final, and would not be open to arbitration .

Specimen of letter by the Executive Engineer to the contractor for
provisional reduction in rate for sub-standard work
[Reference para 30.2(4)]

To,
M/s

Dear Sir(s)

Sub: Construction of Agreement no.

1. The Mormugao Port Trust Board considers that the items of work (specified in the statement appended herewith) relating to the work undertaken by you in terms of the above agreement have not been executed in accordance with the prescribed specifications and/or in a workmanlike manner and therefore, cannot be accepted in terms of the above said agreement for payment at the rates specified in the agreement.

2. The board however, is willing to consider acceptance of the same should you agree to receive payment at rates suitably reduced taking into consideration the sub-standard nature of the said items of work. The Superintending Nodal officer or his nominee of the concerned work will determine as to what suitable reductions in the rates should be made from the agreed rates for the said items. His decision shall be final. Pending such decision of the Superintending Engineer, however, the payment for the said items of work will be made at the provisional rates indicated against each item.

3. If you agree to the aforesaid conditions for acceptance of payment for the said items of work you may please return the enclosed form duly executed by you.

4. If no reply is received from you within three weeks of the date of receipt of the letter it shall be presumed that the offer is not acceptable to you. In the said event the offer shall stand withdrawn, without prejudice to the rights and remedies of the Board in terms of the contract.

Yours faithfully,

Executive Engineer

Encl.: Statement as above. For and on behalf of the Mormugao Port Trust

Specimen of letter of contractor’s acceptance of provisional reduction
of rate for sub-standard work
[Reference para 30.2(4)]

To
.....

Sub: Construction of

Reference: Your letter no.

Sir,

I/We have carefully read the terms and conditions offered in your letter dated and they are acceptable to me/us.

Pending the decision of the Superintending Engineer of the final rates of payment against the items of work specified in the statement attached to your above letter, which will be final and binding, I/we agree to the same being paid at the provisional rates indicated against each of the said item of work for the above work as mentioned in your statement.

Yours faithfully,

Contractor(s)

52 Advance payment for work done and measured

(1) Advance payments to contractors against on account bills received in the Divisional Office may be made by the Divisional Officers, on receipt of an application from the contractor for financial aid in the shape of part payment, shall make a lump-sum advance payment on Hand Receipt *Form 28*, subject to the following conditions:

(i) The bill in respect of which the advance is proposed to be made should actually be under check in the Divisional Office.

(ii) The amount of advance should not exceed 75% of the net amount of the bill under check, but no advance payment will be admissible in cases where the amount of advance payable works out to less than Rs.20,000/-

(iii) The payment should be suitably endorsed both on the running bill against which the advance payment is made and the connected abstract of measurements in the Measurement Book. The Hand Receipt voucher on which payment is made should bear reference to the number, date and amount of the bill against which the payment is made, and also to the page number of Measurement Book and the number, date and amount of the voucher, if any, on which the previous on account payment was made. The payment should be treated in the accounts as an advance.

(iv) Before making payment, an undertaking should be obtained from the contractor to the extent that, should the amount of advance paid to him is subsequently found to be more than the amount of the running account bill in respect of which the advance was paid, he will refund to Port forthwith the amount overpaid. The Divisional Officer shall ensure that the advance is adjusted when payment is made on the running account bill in respect of which it was made, and for any overpayment which may occur.

(v) A record of advances authorized by the Executive Engineer shall be kept in a special register which should be inspected by

the superintending Engineer at the time of his inspection of the Divisional Office.

(vi) Grant of a 2nd advance before the first one has been recovered shall not be permitted.

53 Advance payment for work done but not measured

(1) The following rules should be observed with regard to advance payments made to contractors for work done but not measured:

(a) Advances to contractors are, as a rule, prohibited and payments to contractors should not be made until detailed measurements of the work have been taken and recorded. Advance payments may, however, be made in cases of real necessity, when it is essential to do so, and in such cases previous sanction of the Chief Engineer should invariably be obtained.

(b) An advance payment for work actually executed may be made on the certificate of a responsible officer (not below the rank of Sub-Divisional Officer) to the effect that not less than the quantity of work paid for has actually been done, and the officer granting such a certificate shall ensure that no overpayment occurs on the work in consequence.

(c) The certificate printed on the Running Account bill must be signed by the Divisional Officer, and the lump-sum amount paid on account of the several items should be specified against item 2 of Part III of the bill.

(d) If a secured advance has been previously allowed to a contractor on the security of any materials and such materials have been used in the construction of an item, the amount of the advance payment for that item should not exceed a sum equivalent to the value of work done less the proportionate amount of secured advance ultimately recoverable on account of the materials used.

(e) When an advance payment has been authorized by the competent authority, it would be followed by detailed

measurements within 2 months at the most. Beyond 2 months. The grant of a second advance before the first one has been recovered shall not be permitted except with the prior approval of Chief Engineer.

(2) Advance payments for work done but not measured should be made on bill and the same be classified in the works accounts under suspense Sub-Head "Advance Payments".

54 Advance payment to private firms/autonomous bodies for chemical analysis and testing of materials

(1) A list of laboratories for chemical analysis and testing shall be approved by the Superintending Engineer. Advance payment may be made by the Executive Engineer to an enlisted laboratory, and for this purpose no further approval shall be necessary.

(2) The amount of advance shall be drawn on a simple receipt and accounted for under the final head to which the expenditure on services in question would be debited.

55 Secured advances

(1) Secured Advances on the security of materials brought to site may be made to the contractors for items which are to be used on work.

(2) The Divisional Officers can sanction the secured advance up to an amount not exceeding 90% of the value of the materials as assessed by the Nodal officer or his nominee, or an amount not exceeding 90% of the material element cost in the tendered rate of the finished item of work, whichever is lower.

(3) A formal agreement should be drawn up with the contractor under which Port secures a lien on the materials and is safeguarded against losses due to the contractor postponing the execution of the work or due to shortage or misuse of the materials, and against the expense entailed for their proper watch and safe custody.

(4) Payment of such advances should be made only on the certificate of an officer not below the rank of Divisional Officer that:

(i) The quantities of materials for which the advances are made have actually been brought to site.

(ii) Full quantities of the materials, for which advance is to be made, are required by the contractor for use on items of work for which rates for finished work have been agreed upon.

(iii) The quality of materials is as per the specifications.

(5) Recoveries of advances so made should not be postponed until the whole of the work entrusted to the contractor is completed. They should be made from his bills for work done as the materials are used, the necessary deductions being made whenever the items of work in which they are used are billed for.

(6) Secured advance shall be granted only for non-perishable items. It can however, be granted for perishable items after the contractor indemnifies the Port through an insurance cover. The Divisional Officer shall identify whether an item is perishable or not.

56 Stage payments not to be treated as secured advances

Where stage payments are stipulated in certain contracts, like for E&M and other specialized works, such payments shall not be treated as secured advance.

57 Grant of mobilization advance

Grant of mobilization advance to the contractors for executing capital intensive works In respect of certain specialized and capital-intensive works with estimate cost put to tender Rs. 10 crores and above, provision of mobilization advance may be kept in the Tender Documents. Chief Engineer should use their discretion carefully in deciding whether any particular work shall be considered as specialized or capital intensive one. Applicability or otherwise of relevant clause of GCC shall be

clearly indicated in Schedule 'F', while finalizing Tender Documents of a particular work.

(i) The Mobilization advance limited to 10% of tendered amount at 10% simple interest can be sanctioned to the contractors on specific request as per term of the contract.

(ii) The mobilization advance shall be against a Bank Guarantee of a Scheduled Bank for the full amount of advance. The advance should be released in not less than two installments. The interest on the advance shall be calculated from the date of payment to the date of recovery, both days inclusive.

(iii) The recovery should be commenced after 10% of work is completed and the entire amount together with interest shall be recovered by the time 80% of the work is completed.

58 Grant of advance for plant and machinery and for shuttering material

(1) An advance for plant and machinery that are required for the work and brought to site by the contractor may be given if requested by him in writing within one month of bringing them to site. Such an advance may be given if the Nodal officer or his nominee feels that the plant and machinery would add to the expeditious execution of the work and improve the quality of the work.

(2) The amount of advance shall be restricted as follows:

(i) For new plant and machinery 5% of the tendered value, or 90% of the price of such new plant and machinery paid by the contractor [for which he shall produce satisfactory evidence to the Nodal officer or his nominee], whichever is lower.

(ii) For second hand and used plant and machinery 5% of the tendered value, or 50% of the depreciated value of the plant and machinery [as may be decided by the Nodal officer or his nominee], whichever is lower. The contractor, if so required by the Nodal officer or his nominee, shall submit the statement of value of such old plant and machinery duly approved by a

registered value recognized by the Central Board of Direct Taxes under the Income Tax Act, 1961.

(3) No such advance shall be paid on any plant and machinery of perishable nature, or of value less than Rs. 50,000/-.

(4) 75% of such amount of advance shall be paid after the plant and machinery is brought to the site, and balance 25% on their successful commissioning.

(5) The recovery should be commenced after 10% of work is completed and the entire amount together with interest shall be recovered by the time 80% of the work is completed.

(6) The contractor shall be at liberty to take away the plants and machinery after the advance(s) along with the interest due on it(them) is(are) realized by the Department, and in the opinion of the Nodal officer or his nominee, they are not required at site for the execution of the balance items of work.

59 Leasing of equipment

Leasing of equipment shall be considered at par with purchase of equipment, and shall be covered by tripartite agreement with the following:

- (i) Leasing company which gives certificate of agreeing to lease equipment to the contractor,
- (ii) Nodal officer or his nominee, and
- (iii) Contractor.

59.1 Hypothecation of equipments

(1) All such plant and machinery, for which payment of advance is requested by the contractor, shall be hypothecated to the Port before the payment of advance is released.

(2) The contractor shall not be permitted to remove from the site such hypothecated plant and machinery without the prior written permission of the Nodal officer or his nominee.

(3) The contractor shall be responsible for maintaining such plant and machinery in good working order during the entire period of hypothecation, failing which such advance shall be recovered in lump sum.

59.2 Insurance of equipments

(1) The contractor shall insure, at his cost, the plant and machinery for which mobilization advance is sought and given, for a sum sufficient to provide for their replacement at site.

(2) Any amount that is not recovered from the insurers shall be borne by the Contractor.

60. Extension Of Time And Compensation For Delay

60.1 General Principles

(1) At the time of issuing Notice Inviting Tenders for a particular work, the Nodal officer or his nominee should specify the time allowed for completion of the work consistent with the magnitude and urgency of the work.

(2) The time allowed for carrying out the work as entered in the contract shall be strictly observed by the contractor, and shall be reckoned from the day (as mentioned in the tender documents) after the date on which the letter of acceptance is given to the contractor.

(3) The work shall be proceeded with all due diligence on the part of the contractor throughout the stipulated period of the contract (time being deemed to be the essence of the contract).

(4) To ensure good progress of the work during execution, the contractor shall be bound, in all cases, in which the time allowed for any work exceeds one month (save for special job), to complete the work as per the milestones given in Tender Schedule under Clauses of the contract, or as per the re-scheduled milestones. However, for special jobs, if a time schedule has been submitted by the contractor and the same has been accepted by the Nodal officer or his nominee, the contractor shall comply with such time schedule.

60.2 Review of Progress of the work

1) The tender documents approving authority shall stipulate time schedule for physical milestones. The tender accepting authority shall review the progress of work each month with all the concerned disciplines including the contractor. The factors affecting the progress shall be identified and discussed and remedial measures taken, wherever required. Detailed minutes of these meetings shall be issued. Whenever physical milestones have been specified in the tender documents, the detailed review may be carried out on the dates specified for such milestones.

2) If an extension of time has been granted by the competent authority for genuine hindrances, he should re-schedule the milestones appropriately for the work.

Clause 40 and 41.1 of General and Special Conditions of Contract. Empower the Engineer in charge (Nodal Officer) to grant extension of time for the completion of the work on certain conditions. He can exercise such powers if the following conditions are satisfied:

- (i) The contractor must apply to the Nodal officer or his nominee in writing for extension of time.
- (ii) Such an application must state the grounds that hindered the contractor in the execution of the work within the stipulated time.
- (iii) Such an application must be made within 28 days of the date on which such hindrance arose.
- (iv) The Nodal officer or his nominee must be of the opinion that the grounds shown for the extension of time are reasonable.

60.3 Powers of Officers for grant of extension of time

In respect of the works accepted by Govt. /Board, power for grant of extension have been delegated to the Chairman. In respect of works accepted by Dy.Chairman/Chairman powers for grant of extension have been delegated to the Chief Engineer.

60.4 Grant of extension of time without application

(1) Based on the Hindrance Register where adequate and proper grounds exist, the Nodal officer or his nominee can grant extension of time even in the absence of application from the contractor under *Clause 40 & 41*.

(2) The extension, in order to be binding, will have to be by the 'agreement' of the parties, express or implied. It is, therefore, follows that if the extension of time is granted by the Executive Engineer and such extension of time is accepted by the contractor, either expressly or implied by his action before and subsequent to the date of completion, the extension of time granted by the Executive Engineer is valid. It is, therefore, necessary that the Executive Engineer grants extension of time provisionally even when the contractor does not apply for extension of time in order to keep the contract alive. If the contractor refuses to act upon the extension granted by the Nodal officer or his nominee, it will attract the provisions under the agreement.

(3) The recovery of liquidated damages for delayed performance, on account of which extension of time is granted *under clause 43* of General conditions of contract .

(4) The form of application for extension of time to be submitted by the contractor has been standardised. The contractor is required to apply for grant of extension of time within 28 days in accordance with clause 43 of the General conditions of contract.

60.5 Action on belated application for extension of time

Although the contractor is required to seek extension within 28 days from the date of occurrence of hindrance for which the extension is sought, it does not debar the grant of extension sought later, as it is always competent to a promise to waive a delay and accept performance after the stipulated time. However, the extraordinary concession should be refused save in most exceptional circumstances, and for very good causes shown for not seeking it within the period of 28 days. The contractor has no right to have this request for extension considered where he has not applied for it .

60.6 Recording of hindrances

- (1) Whenever any hindrance comes to the notice of the junior engineer, he should at once make a note of such hindrance in the register kept at site, and immediately make a report to the Executive Engineer within a week.
- (2) The Executive Engineer shall review the Hindrance Register at least once in a month.
- (3) The Performa for the Hindrance Register shall be as per Annexure.
- (4) The following points should be kept in mind while entering the hindrances in the Hindrance Register:
 - (i) The entry of date of start of hindrance and date of removal of hindrance should be made on the same day as the hindrance takes place or the cause of the hindrance is removed, respectively.
 - (ii) The Executive Engineer should work out the over-lapping period, net period of hindrance and weightage of each hindrance within 15 days of removal of the cause of hindrance. The items of work affected due to any hindrance should be clearly mentioned in the Hindrance Register by the Assistant Engineer, and the weightage should be allowed on this basis.
 - (iii) Each hindrance entered in the Hindrance Register should be authenticated by the Executive Engineer.
 - (iv) The hindrances, which are in the control of contractor, should not be entered in the Hindrance Register:
 - (v) The hindrance should be recorded carefully in the Hindrance Register after considering its effect on completion of work.
 - (vi) SE Engineer should review the Hindrance Register whenever he visit the site of work.

60.7 Processing cases of extension of time

(1) The Assistant Engineer shall decide upon the grant of extension of time within 15 days of the completion of work, and forward the case with his recommendations to the Executive Engineer.

(2) The Executive Engineer shall take a decision within 15 days if it is within his power to do so, or, otherwise, forward the case to the SE with his recommendations within this period.

(3) The SE should then pass orders within 15 days of the receipt of the extension case from the Executive Engineer. If the orders of the competent authority are not received in time, Executive Engineer should extend the contract before the stipulated date actually expires so that the contract might remain in force, but while communicating this extension of time, he must inform the contractor that this was without prejudice to Port's right to levy compensation under clause 43 of GCC .

(4) The sanction of extension of time will in all cases be issued by the Asst. Engineer/ Executive Engineer in the proforma shown in Appendix. The form provides that the extension of time is granted without prejudice to right to Port to recover liquidated damages in terms of Clause 43 of GCC. In all cases, a copy of the letter granting extension of time will be endorsed to the concerned Audit/Accounts Officer. While doing so, it should be made clear in the endorsement whether the SE has decided to levy or not levy compensation or liquidated damages.

60.8 Extension of time without levy of compensation

In the case where extension is granted without levy of compensation after approval of the competent authority, provision suggested in the preceding paragraph should stand with a view to safeguard the interest of the Port., especially against unforeseen circumstances.

60.9 The word 'compensation' should be used in relation to *clause 2* of the agreement in *CPWD Forms* and similar clauses in other contract Forms instead of the word 'penalty'.

61 Section 74 of the Indian Contract Act, 1872

(1) When a contract has been broken, and if a sum is named in the contract as the amount to be paid in case of such breach, or if the contract contains any other stipulation by way of compensation, the party complaining of the breach is entitled, whether or not actual damage or loss is proved to have been caused thereby, to receive from the part who has broken the contract, a reasonable amount not exceeding the one so named or as the case may be the compensation stipulated for.

(2) All letters of extension of time to be issued to the contractor should be over the signature of the Nodal officer or his nominee, as he is the only officer so empowered contractually to grant extension of time. Similarly, all letters intending to impose compensation or to recover liquidated damages under the agreement should be issued over the signature of the SE, as he is the only officer competent to do so under the agreement, in order to fulfill contractual obligation.