

E. C. No. 75

ESTIMATES COMMITTEE
1957-58

EIGHTH REPORT

(SECOND LOK SABHA)

MINISTRY OF DEFENCE

NAVAL DOCKYARD, BOMBAY



LOK SABHA SECRETARIAT
NEW DELHI
March, 1958

CORRIGENDA

Eighth Report of the Estimates Committee on the Ministry of Defence - Naval Dockyard, Bombay.

Page 9, para 21, line 4, for 'feels' read 'feel'

Page 15, paragraph last line after 'Chilka Lake', insert

Page 21, line 7. for 'from' read 'for'

Page 31, Serial No. 3, line 6, for 'Shipyard' read 'Shipyards'

Page 33, Serial No. 12, line 3, for 'Dockyard' read 'Dockyards'

Page 34, line 5. for 'proposed' read 'propose'

Page 35, Serial No 19, line 7. for 'auxidiary' read 'Subsidiary'

Page 36, Serial No. 26, line 3. for '35' read '34'

Page 37, Serial No. 28, line 4. for 'containing' read 'combining'

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INTRODUCTION

I, the Chairman, Estimates Committee, having been authorised by the Committee to submit the Report on their behalf, present this Eighth Report, on the Ministry of Defence on the subject Naval Dockyard, Bombay.

2. The Committee wish to express their thanks to the Secretary and other Officers of the Ministry of Defence and Naval Headquarters for placing before them the material and information that they wanted in connection with their examination of the Estimates.

NEW DELHI;
The 31st March, 1958.

BALVANTRAY G. MEHTA,
Chairman,
Estimates Committee.

I

ORGANISATION AND ADMINISTRATION

(a) Historical Background

The history of the Naval Dockyard, Bombay, is the history not only of the Indian Navy, but also of the Port of Bombay. Since 1534, when the islands in and around Bombay Harbour were ceded to Portugal by the Sultan of Gujrat and the total population of the islands was also very small, efforts were made by the authorities to develop the area by encouraging settlers to reclaim land for their own use. Being a trade centre, Bombay grew so rapidly in size, prosperity and importance that by 1686 ships trading there required the facilities offered by a graving dock. Construction of the first 'Bombay' Graving Dock was, however, only begun in 1748 and completed in the year 1750. This dock proved so successful that a second dry dock was constructed in 1756 and by 1765 a third dry dock was also in operation. In the year 1805, 'Duncan' Dock was built which was subsequently enlarged in 1890. This exists even now and can now accommodate the smaller classes of modern cruisers. In the same year (1890) the construction of a Wet Basin and a Torpedo dry dock with all ancillaries was carried out. The Wet Basin and Torpedo graving dock still continue to give good service. The Naval Dockyard, Bombay, has three Dry Docks at present, *i.e.*, Duncan Dry Dock, Bombay Dry Dock and Torpedo Dry Dock.

(b) Functions

2. During the later part of the 18th and early part of the 19th century the functions of the then Dockyard used to be ship building and refits. It is understood that some of the finest sailing ships of the Royal Navy made of Teak were built in India, but later major ship building was stopped in this country about 1831. After the advent of the steel ships no further ship building was carried out in India. However, between 1831 and 1909 quite a number of small crafts were built in this Yard for local use and some of them are still in existence. During the second World War, the Dockyard was responsible for much useful and important work. After the fall of Singapore, most of the burden fell on this yard which was fully engaged in repairs to all manner of vessels and craft in addition to the installing of guns in merchant ships and later to anti-aircraft protection and degaussing.

3. With the change from wood ships to steel ships and from sails to modern propulsive machinery, there has also been a change in the functions of the Naval Dockyard, Bombay, in that it has become

primarily a repair Yard instead of a building-cum-repair Yard. The Dockyard, as it exists today, is meant for the repair and upkeep of the whole Indian Naval fleet. Its primary function is broadly to carry out major and minor refits, repairs and maintenance of the ships of the Indian Navy and conversion, alterations and additions to and manufacture of boats, barges yard craft etc., as well as manufacture of some items of stores. In the upkeep of the Fleet it included functions such as provision of all varieties of necessary logistic support, stores, armament, ammunition, fuel, machinery spares etc.

(c) **Organisational set-up**

4. The Naval Dockyard functions under the general superintendence of the Captain Superintendent who has the following major departments under his control:

- (a) Industrial Manager
- (b) Naval Stores
- (c) Spare Parts Distribution Centre
- (d) Dockyard Apprentices School
- (e) Naval Chemical and Metallurgical Laboratory
- (f) and Others.

The functions of some of the important departments are given at Appendix I.

5. The Committee understand that the activities of certain departments like Naval Stores, Spare Parts Distribution Centre etc., are not confined to meeting the requirements of the Naval Dockyard only but cover the requirements of the Navy as a whole. They are not convinced by the reasons advanced for keeping these Departments whose main function is storage and supply of stores as a part of the Naval Dockyard Organisation. They feel that the repair and refit aspect of the duties (e.g. servicing etc.) can well be entrusted to a small section under the Industrial Manager's Department. They also do not see any justification for keeping the Spare Parts Distribution Centre and the Naval Stores Department as two separate Departments. *In the Committee's view it might perhaps be possible to amalgamate these two Supply Departments under one Manager.*

The Committee feel that the existing arrangements, besides creating difficulties and complications in assessing the true cost of operations of an industrial concern such as the Naval Dockyard, places an avoidable strain and pressure on the management who should mainly concentrate on bringing about efficiency and economy in the operations of the Yard itself. Further, the expansion of the Dockyard which is currently under execution, is bound to increase the responsibilities of the management considerably. *The Committee, therefore, recommend that in the interest of economy and efficiency, the organisational and administrative set up of the Naval Dockyard should be examined with a view to making it a compact industrial unit.*

6. The Committee were informed that the Naval Chemical and Metallurgical Laboratory, besides assisting the Dockyard authorities in their day-to-day problems, is also building up a school of research of special application to naval materials *i.e.* research on anti-corrosion and anti-fouling paints and metallurgical research. In research on paints, it is assisting researches currently being carried out at the National Chemical Laboratory and the Central Lac Research Institute. It is also engaged in research on the use of indigenous materials and plant toxins for paints. Accelerated corrosion tests as well as comparative tests on corrosion of various alloys etc., are being carried out. The Laboratory is also assisting the paint industry in India by offering raft trials for paints used under water or in marine atmospheres. They are also engaged in research on fouling organisms as well as marine borers for wood. The Committee, while appreciating the assistance rendered by the Laboratory to the Dockyard, do not consider the Laboratory just as an adjunct of the Dockyard organisation. On the other hand they feel that the scope of its activities is much wider and more comprehensive. They find that no such unit exists in the U.K. and U.S.A. Dockyards. *They would, therefore, suggest that the feasibility of constituting the Naval Laboratory into an independent unit, separate from the Dockyard so as to enable it to concentrate mainly on research which could be useful not only to the Naval Dockyard and Naval ships, but to the shipyards and merchant ships in the public and private sector, may be examined.*

(d) Admiral Crace Committee's Report

7. To review the organisation and working of the Naval Dockyard, Bombay, a Technical Committee was appointed by Government in 1946, under the Chairmanship of Admiral Sir John G. Crace. The Committee began to function on 3rd January, 1947, when Admiral Crace arrived in Bombay. In their report submitted to Government in March, 1947, the Committee recommended a large scale reorganisation of the Naval Dockyard, Bombay. The Committee understand that many of the recommendations of the Crace Committee were accepted by Government and that as a result thereof the industrial activities of the Dockyard were amalgamated under one head. The Committee were, however, surprised to learn that some other Departments which were also recommended by the Crace Committee to be placed under the Industrial Manager, have not yet been brought under the latter's control and that necessary action in this regard is being taken only now, although the report was submitted to Government about ten years ago. *The Committee deprecate the delay in implementing even those recommendations which have been accepted by Government. In this connection they would reiterate the following observations of the Committee contained in para. 8 of their 22nd Report:*

“The Committee would observe in this connection that whenever a Committee or officer is appointed by Government to examine any particular matter and make recommenda-

tions thereon, the Report should be examined in detail as soon as it is received. Thereafter, action should be taken to arrive at a decision on the recommendations. Action should then be initiated without delay to implement such of the recommendations as have been accepted, and a continuous review of the progress of the action should be maintained. A statement showing the recommendations contained in the Report, the decisions taken thereon, if any recommendations are not accepted the reasons therefor and the action taken to implement the accepted items should be drawn up and maintained up-to-date from time to time. Except in case, when for sufficient reasons Government consider that it is inexpedient in the public interest to do so, the Report as well as the decision of Government thereon should be given the widest publicity and copies thereof placed before Parliament."

8. During the discussion on this subject the Committee learn that only one copy of the Crace Committee Report was available with Government. *They consider it very unsatisfactory that Government should have only one copy of such an important document, which, if lost, would result in depriving the Government of the benefit of the report for the preparation of which considerable amount of labour and money must have been spent.*

(c) Top Management

9. The Committee understand that the posts of Captain Superintendent and various Heads of Departments and also that of Assistant Managers of various Departments, with the exception of one departmental head viz., Assistant Manager of the Construction Department which post has at times been held by civilians for short periods, have invariably been held by the Service officers. The reasons advanced in favour of the appointment of Service officers to these posts were that the Service officers were bound to be conversant with the needs of ships and they knew the extent of repairs necessary to the ships. The Ministry pointed out that the U.K. practice where the civilian officers manage the Construction and Electric Engineering Departments as well as hold responsible technical appointments in other departments could not be followed in India since there was no civilian cadre of Electrical Officers as in U.K. and the Corps of Naval Constructors was for all intents and purposes a Service Corps unlike the U.K. system. While the Committee agree that intimate knowledge of the fleet, of naval practice and of the ships at sea is an advantage to the officers in these departments, they feel that the existing policy with the inherently short tenure of office of the Naval Officers in all these higher appointments not only affects the efficiency and harmonious working of the Dockyard but leaves little incentive and encouragement for the subordinate civilian staff in the Dockyard Service. *The Committee would, therefore, suggest that the Government might examine the possibility of relaxing the existing policy by throwing open some higher posts for*

deserving civilians having suitable technical and administrative experience and also by civilianising the Corps of Naval Constructors and Electrical Engineers as far as practicable.

10. The Committee were informed that the average tenure of the Captain Superintendent and various Heads and Assistant Managers of Departments in the Naval Dockyard, all of whom are Service Officers as stated above, was two to three years. It was stated that it generally took them three to six months to become fully acquainted with local conditions of the Dockyard. Against this, the Committee find that in U.K. it has been estimated that the time taken by the Admiral Superintendent of the Dockyard to become adequately acquainted with local conditions and Dockyard responsibility varied from six months to two years. Since the average tenure of office of the Captain Superintendent and other Heads of Department is two to three years only, it appears to the Committee that even if only six months are taken by these high officers in equipping themselves and in the process of settling down it constitutes an unduly high proportion of their tenure of office. Further, the interest of the incumbents is also likely to flag in their existing responsibilities towards the end of the tenure period. The Committee, therefore, consider that the existing tenure of officers of the top management is too short to enable them to introduce schemes for improvement and watch their results. It is also not conducive to the building up of a good management team. *They recommend that in order to strengthen the Management team, the Captain Superintendent and the Heads of Departments should normally hold these appointments for periods not less than five years in the Dockyard. In the Committee's view such a step will ensure continuity in the service and improve general efficiency of the Dockyard.*

11. The Committee were informed that the Captain Superintendent of the Naval Dockyard had no previous experience of maintenance and repairs of ships and that in the junior appointments as many officers as possible were afforded an opportunity to gain Dockyard experience. *However, the Committee suggest that while selecting officers for appointment to the top management one of the criteria should be their special aptitude in administration and organisation as shown by their past record, as well as Dockyard experience.*

12. The Committee understand that in the past only two departmental officers were given dockyard training (including management subjects) by attachment with the Royal Navy and that of late this training had been discontinued since the Royal Navy which used to provide this training discontinued the Dockyard course several years ago. The last of these officers was trained about 10 years ago. The Committee learn that there are no arrangements at present regarding such training in this country for the officers but Government propose to send a few selected officers for training with the Royal Navy who have restarted this course recently. *The Committee recommend that early steps*

should be taken to finalise the scheme regarding Dockyard attachment course in the Royal Navy for the Naval officers and for employing them usefully in the Naval Dockyard, Bombay, after they have completed the course in the Royal Navy... They would also recommend that it should be explored whether similar training could be arranged in other countries. The Committee would also suggest that the feasibility of introducing such training in India as early as possible with the help of foreign experts should also be examined.

13. The Committee were informed that the Captain Superintendent, Naval Dockyard, Bombay, had no financial powers apart from the authority to purchase stores not in stock upto a monetary limit of Rs. 2,000, subject to financial concurrence. It is understood that he had experienced some difficulties in the past on account of the lack of financial powers which had also at times retarded the progress of work. The Committee learn that in U.K. the Admiral Superintendent enjoys considerable powers e.g. hiring of temporary labours, issue of stores to ships permanently, purchase of machinery to a limited extent from the block grant etc. Although the Commodore-in-Charge, Bombay, has some of these powers to a limited extent yet the arrangement does not appear to be satisfactory. The Committee feel that for an efficient management of the Dockyard, there is an imperative need for the delegation of suitable powers to the Captain Superintendent so that he may not find any difficulty in the day to day functioning of the yard. The Committee are surprised to learn in this connection that even the Naval Headquarters have not so far submitted proposals for such enhancement, although they had been keenly feeling the necessity therefor. *The Committee recommend that the question of delegation of more financial powers to the Captain Superintendent, Naval Dockyard, Bombay, should be considered at an early date. Further, they would suggest that the feasibility of appointing an Advisory Committee, composed of Senior Dockyard officials having experience of Dockyard matters, to advise the Captain Superintendent in important matters, e.g. purchases, sub-contracting of works, etc., be examined.*

(f) Corps of Naval Constructors

14. The Committee learn that Government have formulated a scheme for building up a Corps of Naval Constructors who would be qualified in the designing and building of warships. Out of the 18 officers proposed for the Corps, two officers have already completed this training and six are stated to be undergoing training with the Admiralty in the U.K. The Committee were told that since practical experience in the building of war ships is not yet available in India, the training would have to be continued abroad. *The Committee suggest that the feasibility of starting a basic course of training for Naval Constructors in India should be examined and for that purpose advantage might be taken of the Naval Architecture course provided by the Indian Institute of Technology at Kharagpur. Specialised training may, however, continue to be given abroad till such time as facilities for such training are available in India.*

(g) Study of Foreign Dockyards

15. The Committee are disappointed to learn that no comparative study has so far been undertaken by the Naval Headquarters or the Naval Dockyard in India of the organisation and working methods of the Naval Dockyards in other countries. They consider that such a step is necessary for improving the efficiency and economy of the Naval Dockyard, Bombay. *The Committee recommend that a detailed and systematic study of the organisation, administrative set up, methods of working, etc., of the dockyards not only in U.K. and other Western countries but also in Japan and U.S.S.R. should be undertaken with a view to utilising the knowledge for improving the structure, management and methods of functioning of the Dockyard in this country.*

16. *The Committee would further suggest that the Government should also consider the question of inviting some specialists from abroad to study the dockyard conditions and to make suggestions on the methods to be adopted for improving the efficiency.*

(h) Annual Administrative Report

17. *The Naval Dockyard does not prepare an annual administrative and financial report showing its achievements, future requirements and programmes etc. The Committee would suggest that this should be done and that it should be included in the administrative report of the Defence Ministry.*

II

BUDGET AND FINANCE

(a) Shortfall in Expenditure

18. A statement showing the Budget provision and the total expenditure on the Naval Dockyard, Bombay, including pay and allowances of the Staff, Stores, equipment etc., during the years 1952-53 to 1956-57 is given at Appendix II. It will be seen therefrom that while in 1956-57, the expenditure under every sub-Head fell short of the estimates during the previous years also the actual expenditure was consistently less under 'Stores' and 'Dockyard Expansion Schemes'.

19. The Committee were informed that this shortfall was due to (i) the existing procedure requiring separate financial sanction for placing indents in each case after budget allocation which took much time, (ii) delay in placing indents, (iii) non-materialisation of delivery of stores and payments therefor in the same financial year. Since the same reasons are repeated every year for the shortfall in expenditure the Committee consider that they can be foreseen and avoided. In the opinion of the Committee this indicates failure on the part of the authorities to exercise proper care in estimating and also inadequate planning in the expenditure of money already voted by the Parliament. Large surrenders under each sub-head not merely retard the progress of the particular work but seriously affect the planning in other branches, grants for which have to be curtailed on account of the provisions made for such works. *The Committee feel concerned at such shortfalls of expenditure compared to estimates. This is a matter which they propose to examine in greater detail in their examination of 'Budgetary Reforms'. In this particular case, they were informed that effective steps had been adopted to eliminate delays and that from 1957-58 onwards such lapses or surrenders of funds would not happen. The Committee hope that this matter would be kept continuously under review and that the position would improve from the current year onwards.*

(b) Budget Estimates

20. Under the existing system of budget and accounting, separate figures of expenditure on the pay and allowances of Service personnel employed in the Dockyard as well as on stores and equipment expended therein, are not available in the budget or the accounts. The Committee were informed that this could not be done without certain alterations in the procedure and accounting system. They consider that the existing budgetary and accounting system in the Naval Dockyard is not suitable for an industrial undertaking. They find that the Chief Cost Accounts Officer, Ministry of Finance,

Government of India, who examined the system of accounts obtaining in the Naval Dockyard in 1951 had also come to a similar conclusion and had recommended that the budget of the Dockyard should be prepared separately from the budget estimates of the Navy. *The Committee regret to find that in spite of such a recommendation having been made in 1951 no separation of Dockyard budget estimates has been made so far. They, therefore, recommend that the question should be reviewed again as early as possible with a view to its implementation.*

(c) Production Accounts

21. The Committee were informed that production accounts were being prepared on commercial principles for the Naval Dockyard and that all expenditure on labour, material and overheads were charged in those accounts. They feel that the production accounts now prepared are not a satisfactory substitute to the commercial system of accounting. Also the Committee observe that the production accounts are finalised long after the close of the financial year. They find that the accounts for 1954-55 were made available by the Controller of Defence Accounts (Navy) to the Financial Adviser, Ministry of Finance (Defence) in July 1956 and the accounts for 1955-56 in June 1957. *They, therefore, consider that this question also should be reviewed and the feasibility of introducing a commercial system of accounts for the Naval Dockyard should be examined.*

(d) Cost Accounting

22. Though a system of cost accounting has been in existence in the Naval Dockyard, the Committee are not satisfied that it is being used for effecting cost control. They notice that as early as October, 1951, the Chief Cost Accounts Officer, Ministry of Finance, Government of India, also found that there was no application of the cost accounting done in that organisation and recommended that immediate steps should be taken to introduce the necessary planning and budgetary control without which no cost accounting could prove really useful. He made various detailed recommendations. As one of the first steps, he recommended that the standard of expenditure to be normally incurred on each type of work to be carried out at the Yard, should be fixed and a schedule of such charges should be prepared. He recognised the difficulty in fixing such standard costs but nevertheless made detailed recommendations regarding the method of fixing the standards for various items. The Committee notice that little progress has been made in fixing the standard costs. Although it was stated that some data of past expenditure was being built up for certain types of work in the Dockyard, no standard costs are worked out for annual maintenance etc. The Committee regret to note that six years after having obtained a specialist's advice on the subject, the position is not much better than it was. *They recommend that immediate and energetic measures should be taken to make cost control a reality in the Naval Dockyard.*

23. The Committee learn that during the years 1954-55, 1955-56 and 1956-57, Indian Companies were associated for doing repair etc. work on behalf of Naval Dockyard Bombay and were paid Rs. 9·7 lakhs on the account. *The Committee consider this a step in the right direction as this would encourage the building up of subsidiary industries which would be of much help during emergencies. At the same time they would emphasise that this should be done with due regard to the efficient and economic functioning of the Dockyard.*

(e) Depreciation Account

24. The Committee understand that an account of depreciation of the Plant and Machinery etc. in the Naval Dockyard is maintained but there is no depreciation fund. Under Rule 333 of the Financial Regulations for the Indian Navy, depreciation is required to be calculated at 10 per cent. per annum on the diminishing annual value of Plant and Machinery in the Naval Dockyard. They are, however, surprised to learn that the Inventory of the Plant and Machinery etc. in the Naval Dockyard is not completely priced and hence no precise information about the cost of equipment, is available with the Government. The Committee fail to understand how in the absence of reliable information about the cost of Plant and Machinery the element of depreciation on this account, as required by the Financial Regulations is calculated and added to the cost of operations of the Dockyard. They consider this state of affairs very unsatisfactory for an industrial undertaking which should keep proper depreciation accounts. *The Committee were told that the question of maintaining a proper Depreciation Fund Account in the Dockyard is under examination. They hope that the matter would be examined expeditiously by Government and a decision arrived at without any further delay.*

III

DEVELOPMENT PROJECTS

(a) Expansion Scheme

25. The need for expansion of facilities in the Naval Dockyard, Bombay, to meet the increased commitments was felt as early as 1947. The Dockyard facilities at that time were available exclusively for ships of small size and draught. Further the Dockyard was deficient in refitting berths and the dry docks were too small for modern requirements. It was, therefore, considered that for future requirements of Indian Navy a much larger Dockyard would be necessary with dry docks and quays capable of accommodating larger ships. In 1948, Mr. Murray, Chief Engineer of the Calcutta Port Commissioners was asked by the Government to investigate the possibility of developing the Naval Dockyard, and of constructing a new dockyard on the West Coast. After investigating all possible sites from Bombay to Cochin, Mr. Murray recommended that from the engineering and economic aspects the Naval Dockyard, Bombay, should be developed in preference to constructing a new dockyard at another site. He also considered that the time factor was another argument in favour of Bombay.

26. As a result of Mr. Murray's report, Government appointed, in June, 1949, Sir Alexander Gibb & Partners, Consulting Engineers, who had in the past acted in that capacity *vis-a-vis* the British Admiralty in the construction of the Dockyard at Singapore, to advise on the development of the Indian Naval Dockyard at Bombay. The firm submitted a scheme for the development of the I.N. Dockyard in June, 1950. In that, they had contemplated five stages for the Dockyard Expansion. The necessity for the whole project was accepted by Government at an estimated cost of about Rs. 25 crores.

27. The first stage contemplated in the original report of M's Alexander Gibb and Partners was found on examination to be restricted in scope. The same was, therefore, modified in the light of naval plans and requirements and a revised scheme was prepared in November, 1952. Under the scheme the main items of work of Stage I, which now included items from the other stages of the original scheme and which was originally estimated to cost Rs. 5.55 crores, are as follows:

- (a) Dredging, reclamation, barracks and destroyer Wharves, roads, railways and buildings.
- (b) Cruiser graving dock, frigate wharf, boat wharf.

- (c) Pumping machinery, cranes, culvert valves, floating caissons, electrical services, air and water services for the graving dock.

Other stages of construction are yet to be planned in detail and await Government sanction. The Committee were informed that it was not possible at this stage to envisage the completion of other stages as no firm action had been taken in that connection.

28. The work on the new Stage I was started in the middle of 1955 and is expected to be completed in 1961. The Committee consider it very unfortunate that over 2½ years should have been taken in commencing the execution of the project in 1955 when the scheme was finalised towards the end of 1952. Further the estimated expenditure on the development of the Naval Dockyard during the period of First Five Year Plan was Rs. 330 lakhs, whereas the actual expenditure was only Rs. 45 lakhs. Even during the first year of the Second Plan (1-4-56 to 31-3-57) as against an estimate of Rs. 100 lakhs, the expenditure was Rs. 476 lakhs. *The Committee feel that in an important matter like the Naval Dockyard, a greater sense of urgency in executing the project should have been shown.*

(b) Contracts

29. The Committee understand that construction work on Contracts I and II in the Dockyard is not proceeding according to the time schedule. Contract No. I which was due for completion at the end of 1957 is likely to be completed by the end of 1960 or the beginning of 1961, while the work on Contract No. II which was due for completion by January, 1959, will be completed by the end of January, 1960.

The main reason for the delay in respect of Contract I is stated to be the failure of the Contractor to carry out the work undertaken by him. In this case, although the quotations from the contractors were received in October, 1953, work actually commenced only in the beginning of 1955. It was explained that the delay of over one year was due partly to the failure of the contractors to obtain dredging plant in time and partly to other causes. Even after the commencement of work, the progress made by the contractor was negligible. He was repeatedly asked to accelerate the progress but no appreciable improvement resulted and ultimately the contract was forfeited in December, 1956.

30. The original value of this contract was Rs. 1.82 crores. The revised estimates for the completion of the work in connection with this contract which is now being executed departmentally are stated to be between Rs. 3 and 4 crores. Besides the resultant extra cost

on this work, there will be a delay of about 3 to 4 years in the execution thereof, thereby causing certain imponderable losses like wharfage for this period. The Committee understand that the work is being executed at the cost of the defaulting contractor and that to recover the extra cost from him, Government hold a bank guarantee of about Rs. 12 lakhs, retention money of about Rs. 3 lakhs and certain plant and equipment left by him on the site. They further learn that the contractor has submitted certain claims amounting to Rs. 89 lakhs which, according to the Government and the Consultants, are extra contractual and have not been admitted. They were told that there was no question of any payment before the completion of work even if there was a claim. *The legal implications of this case are stated to be under examination by the Ministry of Law.*

The Committee were informed that the Principal Contractor did not have previous experience in the actual construction of a Dockyard, although he had the assistance of an Italian firm, which had the necessary experience. The failure was attributed mainly to inadequate plant and equipment and failure to employ the requisite trained personnel. It was explained that before accepting the tender Government obtained the assurance of the Consultants that the technical associates of the contracting firm possessed the required plant for the execution of the work as well as the know-how for the construction of such plant as had to be built at the site of the work. The contractor was also issued warning under the Contract when it was noticed that he had failed to employ skilled personnel. *The Committee hope that the interest of the State will be adequately safeguarded in this case.*

(c) Consultants

31. Alexander Gibb and Partners were appointed as Consultants for the Dockyard expansion project and an agreement was concluded with them on the 22nd November, 1952. Under the agreement they are to give technical advice, prepare designs estimates etc., and supervise construction for the whole of Stage I. Their remuneration was based on a certain percentage of the actual agreed cost of the works. The project was at that time composed of five Stages. While the entire cost of the project was estimated at Rs. 25 crores, Stage I was expected to cost about Rs. 5.55 crores. The Committee understand that due to delay in the progress of work, failure of Contract No. 1 etc., as well as inclusion of some additional items, the estimates for the Stage I are being revised and the same are likely to cost nearly Rs. 10 crores. Of the increase of about Rs. 5 crores over the original estimates, Rs. 2.8 crores approximately were stated to represent the cost of additional items e.g., the extension of ballard pier and patent slipway and the balance of Rs. 2.2 crores was attributable to increased cost of labour and material. *The Committee were further told that in a meeting held before the agreement with the Consultants was finalised, it was agreed that should there be a steep rise in the cost of*

labour and materials which was not reflected in the cost of establishment of the Consultants, they would consider a reduction in their remuneration. The Committee regret to note that this understanding was not incorporated in the agreement.

32. The Committee do not feel happy over the method in which the fees of the Consultants have been fixed. The position at present is that the Government do not know what their commitments on account of the fees for the Consultants will be, since the fees are based on a percentage of final cost and the total cost of Stage I is not yet definitely known. The present terms are such as to give them an unintended benefit on account of the increase in the cost of work due to extraneous reasons, like contractor's delays and failure and not due to additions to the work. The Committee would, therefore, recommend that Government should review the matter and lay down principles on which remuneration should be paid to Consultants in future contracts. In this connection the Committee would like to mention that the Consultants appointed for the two Steel Plants in Rourkela and Bhilai are given fixed fees for their services. *They would suggest that Government should negotiate with the Consultants in the present case in order to eliminate increments of cost on account of extraneous reasons, from the cost of the project, for determining remuneration.*

(d) **Construction Committee**

33. The Committee were informed that the progress of work of the project was watched by a Construction Committee which dealt with all policy matters concerning the Project as a whole. It is constituted as follows:

- (i) A representative of the Ministry of Defence (not below the rank of Joint Secretary) who will be Chairman of the Committee.
- (ii) A representative of the Ministry of Finance (Defence) (of appropriate rank—Joint Financial Advisor).
- (iii) Chief of Material (Navy) or his representative.
- (iv) Engineer-in-Chief, Army Headquarters or his representative.

The Under Secretary (Navy) in the Ministry of Defence *ex-officio* Secretary.

The Committee regret to note that in spite of the existence since 1953 of such a Committee which was constituted specifically to expedite the execution of this project, the progress on the work has not been satisfactory. They find that out of the 40 meetings held by this Committee during April, 1953 to November, 1957, only one meeting was held in Bombay. The Committee regret to note that the Construction Committee has not been effective in its work as it was expected to be. However, they were informed that the position has shown an improvement in 1957-58 during which year as against the sanctioned budget grant of Rs. 75 lakhs, an expenditure of Rs. 79 lakhs is antici-

pated. It was also stated that the position was likely to improve in subsequent years. *The Committee recommend that more effective steps should be taken to secure the expeditious execution of the Expansion Project.*

(e) Location of Second Naval Dockyard

34. The Committee were informed that in 1948, Mr. Murray of the Calcutta Port Trust was asked, *inter alia*, to report on the possibility of constructing a Dockyard either at Vishakhapatnam or elsewhere on the East Coast. He examined the scope for a Dockyard at Calcutta, Madras, Cocanada and Vishakhapatnam. He rejected the first three and recommended Vishakhapatnam, but pointed out its disadvantages due to the narrowness of the existing channel and curvature therein and suggested the excavation of a new entrance channel as an integral part of the construction of the dockyard. About the existing channel he stated, ".....although it can be improved, (it) would never be entirely satisfactory for long ships as it approaches the turning basin at a bad angle." As regards the proposed new channel, he pointed out that it might involve the demolition of buildings.

The Committee were informed that Sir Alexander Gibb and Partners examined the suitability of Vishakhapatnam again in 1956 and recommended in their report submitted in May, 1956, the setting up of a dockyard there, in spite of the narrowness of the channel at Vishakhapatnam to which a reference was made in the report. *The Committee would, therefore, suggest that while taking a final decision on the location of the second dockyard, all the factors mentioned above, together with strategic considerations, should be carefully examined. They would further suggest that the possibilities of other sites including the Chilka Lake Paradip etc., on the East Coast may also be taken into consideration.*

35. *The Committee regret to observe that though as early as 1948, Government of India recognised the necessity for a second dockyard on the East Coast, no effective steps have so far been taken in that direction. They recommend that in view of the importance of the matter, a decision should be taken as early as possible.*

(f) Salvage Organisation

36. The Committee were informed that at present there is no Salvage Organisation in the Dockyard or in the Indian Navy and that it was not considered necessary to have a whole time organisation for purely economic reasons. In the event of ships running aground or meeting with an accident all available resources are commissioned by the Dockyard authorities to do whatever is possible. There was also some salvage equipment earmarked for this purpose, which was kept in Bombay to meet an emergency. For minor work allied to salvage there is also a small organisation in the form of Diving School. For major mishaps there were Specialist foreign firms to undertake the job

who had their representatives here. The Committee feel that the present salvage arrangements are not quite satisfactory particularly in view of the requirements of the expanding Indian Navy and the merchant fleet. *Although the Committee agree that a separate salvage organisation is not warranted in the present conditions, they recommend that the Government might examine the feasibility of combining any other existing Naval organisation e.g., the Diving School, with the functions of a salvage organisation in order to build up a nucleus organisation.*

IV

WORKSHOPS

(a) Capacity

37. The Committee were informed that workshops in the Dockyard were not adequately equipped to handle all types of repair and refit work of the ships of the Indian Navy. The Dockyard has developed rather haphazardly for the last 150 years and the equipment and facilities available now are not adequate for an independent Navy. Much specialised and heavy work connected with Cruisers and Destroyers cannot be undertaken in the Naval Dockyard. Moreover, facilities for such work are also not available elsewhere in India. With regard to the arrangements for executing such jobs, the Committee were informed that such an occasion has not arisen so far and if any such occasion were to arise within the next few years, the work would have to be entrusted to some other foreign countries. The facilities for the execution of such jobs will, however, be available in India after the proposed expansion of the Dockyard has been completed.

(b) Condition of Plant and Machinery

38. As stated earlier no priced inventory of Plant, Machinery, equipment, etc., is maintained in the Naval Dockyard and hence it is not possible to give the actual figure of capital investment of the various workshops. Roughly it is estimated to be of the order of Rs. 4 crores although the present replacement cost will be much greater. The Committee understand that the condition of the plant and machinery in the Dockyard is not satisfactory. They also understand that during the last 10 years machinery worth Rs. 35 lakhs has been obtained or is on order out of which Rs. 30 lakhs have been sanctioned during the last 3 years only. The machinery actually installed in the Dockyard during this period is only 60% of the above. The Committee understand that during the current year Rs. 9 lakhs have been sanctioned for the purchase of machinery. It was explained that the replacement of obsolete plant and machinery was awaiting the establishment of new workshops to be put up on the completion of the Dockyard Expansion Scheme. The Committee are not satisfied with this position. They feel that such a policy would lead to indefinite postponement of the renewal programme since all the stages of the Dockyard Expansion Scheme have not yet been finalised by Government. They cannot but conclude that there has been no proper planning in this regard since they find that during the seven years after independence machinery worth Rs. 5 lakhs only was placed on order. *Since the efficiency and economy of the Dockyard are adversely affected by old machinery, the Committee recommend that every possible step should be taken by Government to accelerate the pace of replacement of outmoded plant and machinery.*

39. With regard to the procedure followed in placing demands for new machinery, the Committee understand that all proposals for new machinery are examined by the Naval Headquarters, Ministry of Defence and Finance (Defence). This obviously takes time. Besides the above administrative delays, there are delays in procurement as all new machinery is obtained through the D.G.S. & D. who has to go through the process of advertisement, calling for tenders etc. Thereafter there are shipping delays also. Further the problem of procurement of machinery which is mostly bought from abroad has been complicated due to foreign exchange difficulties. *The Committee consider that the whole procedure should be examined with a view to effecting simplification, so as to meet the present day needs. Further they would recommend that in order to meet the problem of delay in procurement of stores, plant and machinery, advanced planning, say two years in advance, should be done.*

40. The Committee understand that the Captain Superintendent has at present no powers to purchase plant and machinery required for the Dockyard. They were told that although suggestions were made in the past by the Naval Headquarters for the delegation of such powers to the Captain Superintendent and for giving a block grant to the Navy, no concrete proposals were made and were not therefore considered or accepted by Government. They, however, understand that a proposal to give a monetary grant of Rs. 2 lakhs every year to the Captain Superintendent for replacement of Plant and Machinery is now under consideration by Government. *The Committee are convinced that the heads of industrial concerns should have adequate powers in such matter. They hope, therefore, that an early decision would be taken to delegate suitable powers.*

(c) Incentive System of Payment

41. The Committee understand that the incentive system of payment has not been introduced in the Naval Dockyard, and that the Unions themselves were against the fixation of rates for the major type of repairs since the actual time involved in any particular work could not be accurately foretold. They were informed that this point was also considered by Admiral Crace's Committee which rejected the idea introducing the system of payment by result in the Naval Dockyard as they stated that the awareness of benefits of such a system did not exist amongst the Indian labourers at that time. The Committee are not convinced by the above reasoning since they feel that the labour in India has much advanced during this period so as to realise the benefits of this system. They find that this system has been accepted as a sound system and is increasingly used in all the major industries including the Ordnance Factories. The Committee learn that various forms of incentive payment schemes are in operation in the Naval Dockyards and the ship repairing works in U.K. As regards the Unions, their reluctance can be overcome by explaining to them the implications of these schemes and by enlisting their co-operation. *The Committee,*

therefore, recommend that Government should examine the possibilities of extending the incentive system of payments to the Dockyard. For this purpose the system introduced in U.K. might also be studied, and the advice of experts who have special knowledge of the matter may be sought.

(d) Production Committees

42. The Committee understand that there are no Production Committees in the Naval Dockyard. There are the Works Committee and Shop Committees on which the workers are represented. The main function of the Works Committee is to promote measures for securing and preserving amity and good relations between the employer and employees. The Shop Committees were also stated to concern themselves with matters regarding the welfare of workers. It was stated that no suggestion to improve productivity and efficiency has come from these Committees. *The Committee would suggest that effective steps should be taken to enlist the active co-operation of the workers in these matters and that measures should be adopted to create enthusiasm in them in this regard.*

V

STORES

(a) Accounting of Stores

43. The Committee were informed that it was not possible to give separately the figures for Stores supplied to the Naval Dockyard, Bombay, as separate figures for Stores issued to the Dockyard are not maintained by the Naval Stores Department which catered to the stores requirements of the whole Navy. They understand that in regard to the issue of Stores by the Naval Stores Department, only a quantitative account is kept by them for each item of Stores issued and they are not required under the existing procedure to keep separate figures of stores supplied to various users. Further accounting and pricing of the stores was done by the Naval Dockyard and the Controller of Defence Accounts (Navy) respectively. A proper check was also maintained by the concerned Audit officers, both of the Issue Department and the User Department on the quantity of Stores issued to Naval Dockyard. In addition there were supervisory staff at all levels in the Naval Dockyard to scrutinise that the Stores issued were actually utilised in the repair job.

The Committee, however, understood that there were certain allegations regarding irregular practices in respect of Stores and that an investigation Committee had been set up. It was stated that the Captain Superintendent did not reach any conclusions nor was the result of the investigation communicated to the Naval Headquarters. The Government had, however, called for a full report from the Chief of Naval Staff and the matter was said to be under the examination of the Naval Headquarters. *The Committee called for in November, 1957 a copy of the Report of the Investigation Committee as well as for details regarding the action taken by Naval Headquarters and Government thereon. It has not so far been made available to them. The Committee would like this to be done at an early date. The Committee would also suggest that even if the present Stores procedure is considered satisfactory, an enquiry into the extent to which it is being correctly followed in practice should be carried out at an early date.*

44. The Committee were informed that approximately 50 to 60 per cent of the Stores required by the Dockyard are indigenously manufactured. They further understand that vigorous efforts are being made by Government to promote purchase of Stores from indigenous sources and that officers frequently go round the various manufacturing firms and establishments in the country to see if the naval requirements can be met from indigenous sources and when

placing indents, the attention of D.G.S. & D. is specially drawn to the particular indigenous sources of supply. The Committee, however, find that while the percentage of imported naval stores to the total value of stores during 1952-53 was 41·4 per cent, it rose to 55·8 per cent during 1956-57. The increase was stated to be mainly due to the import of the latest technical equipment for the training school and purchases made from improving the stock position of certain items. *While appreciating the efforts made in replacing imported stores by indigenous ones, the Committee feel that much leeway has yet to be made in this matter. The Committee would, in this connection, refer to their recommendations in paras 62 to 65 of their 56th Report where they had recommended the appointment of an Equipment Committee for the Defence Stores and the establishment of showrooms in various industrial centres of the country for exhibiting defence stores which are now being imported. The Committee would reiterate here those recommendations, as they are certain that the measures recommended by them in that report would help to a very large extent, in locating indigenous capacities for a number of items of naval stores which are imported at present. The Committee would also suggest that very wide publicity should be given by advertisements and other means to the requirements of various items of Stores by the Navy, so that the indigenous sources could be further explored.*

45. *In this connection, the Committee would also suggest that there should be full co-ordination between the Forest Research Institute, Dehra Dun, and the Naval Dockyard, Bombay, in the matter of supply of timber in order that the existing forest wealth could be utilised to the maximum possible extent for the requirements of the Navy as a whole and the Dockyard in particular.*

(b) Categorisation of Stores

46. The Committee were informed that stores were categorised 'operational', 'urgent' and 'ordinary' for procurement purposes and that the provisioning officers and the officers who were authorised to raise indents were responsible for their classification except that 'operational' indents required the prior approval of Naval Headquarters. The Committee were not furnished with the value of stores purchased annually under each of the above categories. However, they regret to learn that the time limits originally fixed for the supply of stores under 'Operational' and 'Urgent' category have not been adhered to in 60 per cent of the cases in the past. In view of the general delay in the supply of these stores, the Committee cannot help the conclusion that the categorisation is not correctly made in all such cases. *Since the procurement of the stores categorised as 'operational' and 'urgent' cost much more than ordinary stores, the Committee would recommend that immediate steps should be taken to ensure that indents for stores are not classified without sufficient justification as 'operational' and 'urgent'. They would also suggest that a periodical review of the classification in a few cases should be made to judge the correctness of the classification.*

(c) Surplus Stores

47. The value of surplus stores held by the Naval Stores Depots at the end of the last three years and those declared to the D.G.S. & D. during that period was as under:

	Value of surplus stores	Value of Stores declared
	Rs.	Rs.
1-4-1955	33,00,000	53,000
1-4-1956	28,50,000	—
1-4-1957	29,00,000	2,21,000

These figures show that the rate of declaration of surplus stores for disposal has been very low compared to the surplus on hand. It was said that due to the modernisation of the equipment in the U.K. Admiralty, a large part of these Stores had gone out of production in U.K. and that any fresh procurement of these items which would be required for use in the equipment with the Indian Navy would pose a great problem. Besides these stores were stated to have very little sale value. The Committee are not convinced by the above reasoning. They fail to understand why these stores are treated as surplus to requirements when the reasons for retention of these stores are so strong. The stock requirements have to be worked out with reference to various factors, including the need to stockpile certain types of stores which have gone or are likely to go out of the market. Stores which are required to be stocked cannot be considered surplus. *The Committee, therefore, suggest that the so-called surplus stores should be carefully reviewed to separate the really surplus items and to dispose them of very early, so that they may not unnecessarily occupy storage space and entail storage charges.*

VI

STAFF MATTERS

(a) Staff Strength

48. The Committee find that compared to 1st April, 1947 the strength of industrial staff increased by 17 per cent in 10 years, whereas the strength of non-industrial staff has increased by 74·4 per cent during the same period. The increase in non-industrial staff was attributed to the re-organisation and expansion of Supply and Service Departments, e.g., Armament Supply Organisation and Naval Store Organisation. It is further observed that although the total output in the Dockyard during 1956-57 decreased by Rs. 5·5 lakhs and 16 lakhs as compared to that achieved during the years 1954-55 and 1955-56 respectively, the number of industrial and non-industrial employees during the same period went up by 858 and 486 respectively. The reasons given for this disproportionate increase in the staff were that the figure of output related to the Industrial Manager's Department only, whereas the staff strength pertained to the Dockyard as a whole and included figures of increase in the strength of Supply Departments, whose activities were not and could not be costed. These reasons are not considered convincing by the Committee as they find that the holdings of the stores during 1956-57 were lower compared to the previous two years. Also the values of issues from stores during 1956-57 and 1955-56 were lower than those during 1954-55. *The Committee therefore feel that the staff strength has increased out of proportion to the total output of the Dockyard as a whole.*

49. In this connection the Committee would invite attention to the following remarks made by the Chief Cost Accounts Officer, Ministry of Finance, who reported on the Dockyard in October, 1951. He said:

“The assessment of the number and types of labour forces required for each department should be based on an output for full eight hours per man per day and not on the present basis of working, when according to the C.S.D. and the Industrial Manager, they are getting an output of only 4 hours per man per day, even though the men are paid for 8 hours per day.

* * *
* * *

The authority who will undertake this responsibility should definitely be told that the existence of surplus

labour force at present, if any, is none of their concern. That is a problem which should be tackled by higher authorities at the Naval Headquarters. If for certain social, political etc. reasons, surplus labour has to be retained, then it will be done with a definite knowledge of the extent of that liability and not with the indefiniteness which exists at present."

As regards the ministerial staff he found that there were spots where unnecessary work was being done and therefore considered that a careful and detailed job analysis should be undertaken to ensure that manpower was not wasted. He suggested an expert study of these matters.

From the statement furnished to the Committee showing action taken on these recommendations, they find that an assessment of strength "is being done" but it is not evident whether any job analysis in respect of ministerial staff has been undertaken. *The Committee desire that they should be furnished detailed information on the steps so far taken and the results thereof. The Committee would also suggest that a Technical Committee consisting of Engineers, Cost Accountants and trained Administrators should be asked to examine the workload and strength of the staff of all categories including industrial, non-industrial, technical, non-technical, clerical and supervisory in the various departments of the Dockyard.*

(b) Dockyard Apprentice School

50. The Committee are informed that the Naval Dockyard is experiencing great difficulty in securing trained technicians and skilled craftsmen. For this purpose an Apprentice School has been set up. There are two types of apprentices, who are trained in the Dockyard Apprentice School viz., General Apprentices and Trade Apprentices. After completion of the training period of 4 years they are employed as Tradesman Grade I and II. General apprenticeship training envisages greater amount of theoretical instruction and it has been so arranged that after satisfactory completion of apprenticeship and attachment to the various workshops, they would form the material from which technical supervisors and draftsmen could be selected. The capacity of the School is 115 apprentices. The average cost of their training is Rs. 3,000 - in the case of General Apprentices and Rs. 1,500 - in the case of Trade Apprentices, excluding the amount of stipend etc. paid to them.

51. The Committee understand that about 80 apprentices have left the service after completion of their apprenticeship or during apprenticeship period during the last three years. This wastage amounts to 40 per cent of the total. The main reasons for their leaving the service are stated to be low scales of pay in the Dockyard and better prospects available outside. The Committee feel unhappy

that this high rate of wastage occurs when the Dockyard is experiencing shortage of trained technicians and craftsmen. *They would recommend that a comprehensive enquiry should be made into the causes of the defection of the apprentices. The enquiry should include all aspects such as the terms and conditions of service of the apprentices and tradesmen, their prospects in the dockyard, the methods of selection etc. They suggest that the authority conducting the enquiry should also take note of similar problems solved in other industries in the country and also in other countries.*

52. The Committee were informed that the stabilised requirements of skilled craftsmen and technicians in the Dockyard were about 150 and that 75 per cent of this requirement would be met by the Dockyard Apprentice School. *In view of the shortage of men required to meet even the current requirements and the necessity to train technicians and craftsmen for the proposed second Dockyard, the Committee would suggest that the feasibility of arranging double shift in the Dockyard Apprentice School to augment the strength of this class of personnel may also be considered.*

53. The regulations provide that the parent or guardian of a general or trade apprentice should execute a security bond to pay to Government specified amounts in the event of the apprentice not completing the full training and a minimum period of service of five years thereafter. But the Committee learn that although 80 apprentices have left service, no recoveries of the security amount have been made so far. *The Committee consider this position unsatisfactory. If it is intended that the security bond should act as a deterrent against defections, recovery must be promptly enforced, the execution of the bond without the fear of recovery will not be a deterrent, as is obvious from the fact that in spite of the bond a large number of apprentices has left service. If, however, it is considered for sufficient reasons that the recovery of the amounts may not be advisable or practicable in a large number of cases, the condition should be deleted and suitable alternative measures to prevent the wastage should be taken.*

(c) Overtime Payments

54. The Committee find that the percentages of overtime payment to the expenditure on pay and allowances of civilians in the Dockyard during the three years (1954-55 to 1956-57) amount to about 7 per cent, 9 per cent and 7 per cent respectively. They were told that overtime had to be worked to complete the work in schedule time and that since 1955-56, the overtime has been brought down to acceptable limits by the employment of additional workers. The Committee consider that even now the percentage is very high.

They also learn that there have been a few cases of faked documents for overtime. Also there is some dissatisfaction among those sections which do not normally earn overtime. *The Committee consider that the system of overtime tends to create a tendency to go*

slow among the workers with a view to earning overtime. They are unable to agree that the employment of additional workers is the necessary solution for reduction of overtime. As already stated by them, the workload and labour strength should be carefully assessed. They would also recommend that the reasons for working overtime in each case should be examined and efforts should be made to keep overtime to the minimum.

(d) Residential Accommodation

55. The Committee understand that a Dockyard Workers' Colony has been built at Pawai, about 18 miles from Bombay, where about 500 quarters have been constructed. These have been occupied by 200 non-industrial and 300 industrial employees, the percentage of which roughly works out to 10 per cent and 5 per cent respectively. *The Committee do not consider the existing provision of accommodation to the Dockyard workers adequate. They understand that there is a proposal to provide additional accommodation to Dockyard employees by undertaking subsequent phases of construction. The Committee recommend that early action should be taken to complete the construction programme of residential accommodation for the employees.*

(e) Medical

56. The Committee were informed that the doctors employed in the hospital and various dispensaries in the Dockyard hold only normal medical qualifications and are not trained in industrial medicine. *The Committee suggest that in the light of modern developments in industrial medicine the need to give the doctors attached to industrial concerns proper training in industrial medicine should be kept in view.*

NEW DELHI;
The 31st March, 1958.

BALVANTRAY G. MEHTA,
Chairman,
Estimates Committee.

APPENDIX I

(Vide paragraph 4)

Functions of some of the important Departments in the Naval Dockyards

- (a) The Industrial Manager's Department is by far the biggest and forms the bulk of repair activity in the Dockyard. The Department is comprised of five Sections, which *inter alia* includes three major Sub-Divisions engaged in specialised fields of work *viz.*, Engineering, Electrical and Construction. Each Sub-Division is headed by an Assistant Manager helped by a number of Technical Assistants.
- (b) *Naval Stores Department:* This department is the main Stores Depot and organisation in the Navy catering for the various types of Stores, equipment, clothing and fuel requirements of (i) the Dockyard for repair and refits of ships, (ii) the ships of the fleet to maintain themselves as efficient fighting ships, and (iii) the Shore establishments including all the training establishments.
- (c) Spare Parts Distribution Centre supplies both mechanical and electrical requirements of spare gear for the machinery fitted in the fleet and establishments.
- (d) The functions of Naval Chemical and Metallurgical Laboratory include the functions of a dockyard laboratory, *i.e.* this laboratory is referred to for scientific advice by dockyard authorities at all levels. The laboratory is associated with inspection of hulls when the ships are docked. All service failures are referred to this laboratory for analysis. The laboratory undertakes testing and inspection of materials of non-routine nature. In exceptional cases where local purchase is to be effected urgently, the laboratory undertakes inspection of even routine materials. The laboratory has been associated with dockyard authorities in various user trials and incorporation of improved techniques, for example, quartering trials for paints, zinc spraying of hulls, metal spraying of shafts, cleaning of machinery, water treatment of boilers, analysis of lubricants for following up functioning of engines, testing of foundry materials, radiography of welded structures, etc.

Besides assistance to dockyard authorities in their day-to-day problems, the laboratory also is building up a school of research of special application to naval materials, *i.e.* research on anti-corrosion

and anti-fouling paints and metallurgical research. In research on paints it is assisting researches currently being carried out also at the National Chemical Laboratory and the Central Lac Research Institute.

Naval Chemical and Metallurgical Laboratory is also engaged in use of indigenous materials and plant toxins for paints. Accelerated corrosion tests as well as comparative tests on corrosion of various alloys etc. are being carried out. The laboratory is assisting paint industry in India by offering raft trials for paints used under water or in marine atmospheres. They are also engaged in research on fouling organisms as well as marine borers for wood. This research has great bearing on materials like timber and underwater paints.

The laboratory also assists dockyard and naval personnel by giving technical lectures and circulating survey reports of technical interest.

APPENDIX II

(Vide para 18)

Budget Provision and the Total Expenditure on the Naval Dockyard including that on Pay & Allowances of the Staff, Stores, Equipment etc. during the year 1952-53

Head of Account	1952-53		1953-54		1954-55		1955-56		1956-57	
	Budget	Expendi- ture	Budget	Expendi- ture	Budget	Expendi- ture	Budget	Expendi- ture	Budget	Expendi- ture
<i>Major Head 59—A.N. (Revenue Expenditure).</i>	..	..	..	..	..	..	..	..	..	..
<i>Sub-Head 'A' & 'B'—Pay & allowances of Service Personnel including Reservists.</i>										
<i>Sub-Head 'C'—Pay and Allowances of civilians</i>										
Minor Head (d)—Dockyard	100.05	95.13	98.80	96.12	101.20	103.10	103.50	114.48	110.78	85.83
(b)—N. S. Organisation	23.95	23.15	25.75	24.24	26.10	25.64	27.65	27.65	30.25	29.40
(c)—N.A.S. Organisation	24.59	20.73	21.00	22.05	23.90	23.00	27.00	25.21	28.00	27.20
<i>Sub-Head 'D'—Transportation & Miscellaneous.</i>										
Minor Head (b) 5—Dockyard	1.70	1.08	1.35	1.15	1.57	1.36	1.35	1.26	1.75	1.25
(b) 3—N.S. Organisation	.25	.43	.23	1.44	.35	1.43	1.25	1.98	1.86	.74
(b) 4—N.A.S. Organisation	.10	.04	.10	.06	.10	.07	.10	.09	.13	.11

Secret

Head of Account	1952-53		1953-54		1954-55		1955-56		1956-57	
	Budget Expenditure	Budget Expenditure	Budget Expenditure	Budget Expenditure	Budget Expenditure	Budget Expenditure	Budget Expenditure	Budget Expenditure	Budget Expenditure	Budget Expenditure
Sub Head 'E' & 'G' (c)—Expenditure on Stores (Indigenous & Imported)										
Naval, Engineering, Armament Stores etc. for Navy as a whole (but excluding Provisions, Petrol, Oil fuel and Clothing.)	396.64	144.16	384.35	263.81	439.47	301.57	405.68	378.84	511.41	365.16
Sub Head 'F'—Cost of Works.										
Maintenance of Buildings etc.	6.89	N.A.	7.83	6.47	8.02	7.24	8.14	6.67	8.27	6.74
Major Head 86—Sub-Head 'B'—I. N. (Capital Expenditure)										
5. Dockyard Expansion Scheme	55.00	.96	30.00	4.78	120.00	6.56	125.00	33.00	100.00	47.60
Sub Head 'A' & 'B' :—	In the present system of accounting budgeting under these heads, estimates are made for the Service as a whole and NOT for various establishments separately.									
Sub Head 'C' & 'D' :—	The figures are in respect of Dockyard including the various Depots, under C.S.D. viz. Gunmountings, Fire Services, S.P.D.C. etc. but excluding N.S. & N.A.S. Organisation. The figures in respect of the latter two Organisations have however been shown separately.									
Sub Heads 'F' & 'G' (c) :—	Separate stores figures (both indigenous and imported) in respect of Dockyard alone are NOT available as the estimates are made with reference to the various types of the stores and NOT for each Office. The figures shown above under these heads are in respect of Naval Stores, Armament Stores, Spare Parts and Machinery and Gunmounting Stores etc. for the Navy as a whole.									
	N. A. stands for NOT Available.									

APPENDIX III

Statement showing the summary of Conclusions/Recommendations of the Estimates Committee contained in the Report.

Sl. No.	Reference to para No. in the Report	Summary of Conclusions/Recommendations
1	2	3
1	5	The Committee feel that the Departments whose main function is storage and supply of Stores could be separated from the Naval Dockyard Organisation by entrusting the servicing aspect of their duties to a section under the Industrial Manager's Department. They also do not see any justification for keeping the Spare Parts Distribution Centre and the Naval Stores Department as two separate Departments. In the Committee's view it might be possible to amalgamate these two Supply Departments under one Manager.
2	5	The Committee recommend that in the interest of economy and efficiency, the organisational and administrative set up of the Naval Dockyard should be examined with a view to making it a compact industrial unit.
3	6	The Committee suggest that the feasibility of constituting the Naval Laboratory into an independent unit, separate from the Dockyard, so as to enable it to concentrate mainly on research which could be useful not only to the Naval Dockyard and Naval Ships but to the Shipyard and merchant ships in the public and private sectors, may be examined.
4	7	The Committee deprecate the delay in implementing those recommendations of the Crace Committee which have been accepted by Government. In this connection they would reiterate the observation of the Committee, contained in para 8 of their Twenty-Second Report.
5	8	During the discussions on this subject the Committee learnt that only one copy of the Crace Committee Report was available with Government. They

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| | | consider it very unsatisfactory that Government should have only one copy of such an important document, which if lost, would result in depriving the Government of the benefit of the report for the preparation of which considerable amount of labour and money must have been spent. |
| 6 | 9 | The Committee suggest that the Government might examine the possibility of relaxing the existing policy by throwing open some higher posts for deserving civilians having suitable technical and administrative experience and also by civilianising the Corps of Naval Constructors and Electrical Engineers as far as practicable. |
| 7 | 10 | The Committee consider that the existing tenure of officers of the top management is too short to enable them to introduce schemes for improvement and watch their results. They recommend that in order to strengthen the Management team, the Captain Superintendent and the Heads of Departments should normally hold these appointments for periods not less than five years in the Dockyard. In the Committee's view such a step will ensure continuity in the service and improve general efficiency of the Dockyard. |
| 8 | 11 | The Committee suggest that while selecting officers for appointment to the top management one of the criteria should be their special aptitude in administration and organisation as shown by their past record as well as Dockyard experience. |
| 9 | 12 | The Committee recommend that early steps should be taken to finalise the scheme regarding Dockyard attachment course in the Royal Navy for the Naval Officers and for employing them usefully in the Naval Dockyard, Bombay, after they have completed the course in the Royal Navy. They would also recommend that it should be explored whether similar training could be arranged in other countries. The Committee would also suggest that the feasibility of introducing such training in India as early as possible with the help of foreign experts should also be examined. |
| 10 | 13 | The Committee recommend that the question of delegation of more financial powers to the Captain Superintendent, Naval Dockyard, Bombay, should be considered at an early date. Further, they |

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- would suggest that the feasibility of appointing an Advisory Committee, composed of Senior Dockyard Officials as well as a few experienced officials and non-officials having experience of Dockyard matters, to advise the Captain Superintendent in important matters, e. g. purchases, sub-contracting of works, etc., be examined.
- 11 14 The Committee suggest that the feasibility of starting a basic course of training for Naval Constructors in India should be examined and for that purpose advantage might be taken of the Naval Architecture course provided by the Indian Institute of Technology at Kharagpur. Specialised training may, however, continue to be given abroad till such time as facilities for such training are available in India.
- 12 15 The Committee recommend that a detailed and systematic study of the organisation, administrative set-up, methods of working etc., of the Dockyard not only in U.K. and other Western countries, but also in Japan and U.S.S.R. should be undertaken with a view to utilizing the knowledge for improving the structure, management and methods of functioning of the Dockyard in this country.
- 13 16 The Committee would suggest that the Government should also consider the question of inviting some specialists from abroad to study the Dockyard conditions and to make suggestions on the methods to be adopted for improving the efficiency.
- 14 17 The Naval Dockyard does not prepare an annual administrative and financial report showing its achievements, future requirements and programmes etc. The Committee would suggest that this should be done and that it should be included in the administrative Report of the Defence Ministry.
- 15 18-19 The Committee find that while in 1956-57, the expenditure under every Sub-Head fell short of the estimates, during the previous years also the actual expenditure was consistently less under 'Stores' and 'Dockyard Expansion Schemes'. Since the same reasons are repeated every year for the shortfall in expenditure, the Committee consider that they can be foreseen and avoided. In the opinion of the Committee this indicates failure on the part of the authorities to exercise

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proper care in estimating and also inadequate planning in the expenditure of money already voted by the Parliament. The Committee feel concerned at such shortfalls of expenditure compared to estimates. This is a matter which they proposed to examine in greater detail in their examination of Budgetary Reforms. In this particular case they were informed that effective steps had been adopted to eliminate delays and that from 1957-58 onwards such lapses or surrenders of funds would not happen. The Committee hope that this matter would be kept continuously under review and that the position would improve from the current year.

- 16 20 Under the existing system of budget and accounting separate figures of expenditure on the pay and allowances of Service personnel employed in the Dockyard as well as stores and equipment expended therein are not available in the Budget or the accounts. They consider that the existing budgetary and accounting system in the Naval Dockyard is not suitable for an industrial undertaking. They find that the Chief Cost Accounts Officer, Ministry of Finance, Government of India, had recommended in 1951 that the budget of the Dockyard should be prepared separately from the Budget estimates of the Navy. The Committee regret to find that in spite of such a recommendation having been made in 1951, no separation of Dockyard Budget estimates has been made so far. They recommend that the question should be reviewed again as early as possible with a view to its implementation.
- 17 21 The Committee feel that the production accounts now prepared for the Dockyard are not a satisfactory substitute to the commercial system of accounting. The Committee consider that this question also should be reviewed and the feasibility of introducing a commercial system of accounts for the Naval Dockyard should be examined.
- 18 22 The Committee regret to note that six years after having obtained a specialist advice on the system of cost accounting done in the Dockyard, the position is not much better than it was. They recommend that immediate and energetic measures should be taken to make cost control a reality in the Naval Dockyard.
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- 19 23 The Committee learn that during the years 1954-55, 1955-56 and 1956-57, Indian Companies were associated for doing repair etc., work on behalf of Naval Dockyard, Bombay, and were paid Rs. 9.7 lakhs on that account. The Committee consider this a step in the right direction as this would encourage the building up of subsidiary industries which would be of much help during emergencies. At the same time they would emphasize that this should be done with due regard to the efficient and economic functioning of the Dockyard.
- 20 24 The Committee were told that the question of maintaining a proper Depreciation Fund Account in the Dockyard is under examination. They hope that the matter would be examined expeditiously by Government and decision arrived at without any further delay.
- 21 27-28 The work on the new stage I was started in the middle of 1955 and is expected to be completed in 1961. The Committee consider it very unfortunate that over 2½ years should have been taken in commencing the execution of the project in 1955 when the scheme was finalised towards the end of 1952. The Committee feel that in an important matter like Naval Dockyard, a greater sense of urgency in executing the project should have been shown.
- 22 29-30 The main reason for the delay in respect of Contract I is stated to be the failure of the contractor to carry out the work undertaken by him. Even after the commencement of work, the progress made by the contractor was negligible. He was repeatedly asked to accelerate the progress but no appreciable improvement resulted and ultimately the contract was forfeited in December, 1956. The Committee understand that the work is being executed at the cost of the defaulting contractor and that to recover the extra cost from him, Government hold a bank guarantee of about Rs. 12 lakhs, retention money of about Rs. 3 lakhs and certain plant and equipment left by him on the site. They further learn that the contractor has submitted certain claims amounting to Rs. 89 lakhs which according to the Government and the consultants are extra contractual and have not been admitted. The legal implication of this case are stated to be under examination by the Ministry of Law. They, however, hope that the interest of the State will be adequately safeguarded in this case.

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23	31	<p>Under the agreement, the remunerations of the Consultants are based on a certain percentage of the actual agreed cost of the works. The Committee were informed that in a meeting held before the agreement with the consultants was finalised, it was agreed that should there be a steep rise in the cost of labour and materials which was not reflected in the cost of establishment of the Consultants, they would consider a reduction in their remunerations. The Committee regret to note that this understanding was not incorporated in the agreement.</p>
24	32	<p>The Committee do not feel happy over the method in which the fees of the Consultants have been fixed. The present terms are such as to give them an unintended benefit on account of the increase in the cost of work due to extraneous reasons, like contractor's delays and failure and not due to additions to the work. The Committee would, therefore, recommend that Government should review the matter and lay down principles on which remuneration should be paid to consultants in future contracts. They would suggest that Government should negotiate with the consultants in the present case to eliminate increments of costs on account of extraneous reasons, from the cost of the project for determining remuneration.</p>
25	33	<p>The Committee regret to note that in spite of the existence since 1953 of such a high powered Committee like Construction Committee, which was constituted specifically to expedite the execution of this project, the progress of the work has not been satisfactory. The Committee also regret to note that the Construction Committee has not been as effective in its work as it was expected to be. However, they were informed that the position has shown an improvement in 1957-58 during which year as against the sanctioned budget grant of Rs. 75 lakhs, an expenditure of Rs. 79 lakhs is anticipated. It was also stated that the position was likely to improve in subsequent years. The Committee recommend that more effective steps should be taken to secure the expeditious execution of the Expansion Project.</p>
26	34	<p>The Committee would suggest that while taking a final decision on the location of the second Dockyard, all the factors mentioned in para. 35 of the</p>

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Report should be carefully examined. They would further suggest that the possibilities of other sites including the Chilka Lake, Paradip etc. on the East Coast may also be taken into consideration.

- 27 35 The Committee regret to observe that though as early as 1948, Government of India recognised the necessity for a second dockyard on the East Coast, no effective steps have so far been taken in that direction. They recommend that in view of the importance of the matter, a decision should be taken as early as possible.
- 28 36 Although the Committee agree that a separate Salvage Organisation is not warranted in the present conditions, they recommend that the Government might examine the feasibility of continuing any other existing Naval organisation *e.g.*, the Diving School with the functions of a salvage organisation in order to build up a nucleus organisation.
- 29 38 Since the efficiency and economy of the Dockyard are adversely affected by old machinery, the Committee recommend that every possible step should be taken by Government to accelerate the pace of replacement of outmoded plant and machinery.
- 30 39 The Committee consider that the whole procedure of procurement of machinery should be examined with a view to effecting simplification so as to meet the present day needs. Further they would recommend that in order to meet the problem of delay in procurement of stores, plant and machinery advance planning, say two years. in advance, should be done.
- 31 40 The Committee understand that the Captain Superintendent has at present no powers to purchase plant and machinery required for the Dockyard. They however, understand that a proposal to give a monetary grant of Rs. 2 lakhs every year to the Captain Superintendent for replacement of plant and machinery is now under consideration by Government. The Committee are convinced that the heads of Industrial concerns should have adequate powers in such matters. They hope, therefore, that an early decision would be taken to delegate suitable powers.
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- 32 41 The Committee recommend that Government should examine the possibilities of extending the incentive system of payments to the Dockyard. For this purpose the system introduced in U. K. might also be studied and the advice of experts who have special knowledge of the matter may be sought.
- 33 42 The Committee were informed that no suggestion to improve productivity and efficiency has come from Shop Committees or Works Committees. The Committee would suggest that effective steps should be taken to enlist the active co-operation of the workers in these matters and that measures should be adopted to create enthusiasm in them in this regard.
- 34 43 The Committee understood that there were certain allegation regarding irregular practices in respect of stores and that an Investigation Committee had been set up. The Committee would desire to be furnished with a copy of the Report of Investigation Committee with details regarding the action taken by Naval Headquarters and Government. The Committee would also suggest that even if the present stores procedure is considered satisfactory, an enquiry into the extent to which it is being correctly followed in practice should be carried out at an early date.
- 35 44 While appreciating the efforts made in replacing imported stores by indigenous ones, the Committee feel that much leeway has yet to be made in this matter. They would reiterate the recommendations contained in paras 62 to 65 of their 56th Report regarding the Appointment of an Equipment Committee and the establishment of showrooms for Naval Stores also. The Committee would also suggest that very wide publicity should be given to the requirements of remaining items of stores by the Navy, so that the indigenous sources could be further explored.
- 36 45 In this connection the Committee would also suggest that there should be full co-ordination between the Forest Research Institute, Dehra Dun, and the Naval Dockyard, Bombay in the matter of supply of timber in order that the existing forest wealth could be utilised to the maximum possible extent for the requirements of the Navy, as a whole and the Dockyard, in particular.
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- 37 46 In view of the general delay in the supply of the stores, the Committee cannot help the conclusion that the categorisation is not correctly made in all such cases. Since the procurement of the stores categorised as 'operational' and 'urgent' costs much more than ordinary stores, the Committee would recommend that immediate steps should be taken to ensure that indents for stores are not classified without sufficient justification as 'operational' and 'urgent'. They would also suggest that a periodical review of the classification in a few cases should be made to judge the correctness of the classification.
- 38 47 The Committee suggest that the so-called surplus stores should be carefully reviewed to separate the really surplus items and to dispose them of very early, so that they may not unnecessarily occupy storage space and entail storage charges.
- 39 48 The Committee feel that the staff strength has increased out of proportion to the total output of the Dockyard as a whole.
- 40 49 From the statement furnished to the Committee showing action taken on the recommendations of the Chief Cost Accounts Officer, Ministry of Finance, they found that an assessment of strength 'is being done' but it is not evident whether any job analysis in respect of ministerial staff has been undertaken. The Committee desire that they should be furnished detailed information on the steps so far taken and the results thereof.
- The Committee would also suggest that a Technical Committee consisting of Engineers, Cost Accountants and trained Administrators should be asked to examine the workload and strength of the staff of all categories including industrial, non-industrial, technical, non-technical, clerical and supervisory in the various departments of the Dockyard.
- 41 50-51 The Committee understand that about 80 Apprentices have left the service after completion of their apprenticeship or during apprenticeship period during the last three years. This wastage amounts to 40 per cent of the total. The Committee feel unhappy that this high rate of wastage occurs when the Dockyard is experiencing shortage of trained technicians and craftsmen. They would recommend that a comprehensive enquiry should be made into the causes of the defection of the

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apprentices. The enquiry should include all aspects such as the terms and conditions of service of the apprentices and tradesmen, their prospects in the Dockyard, the method of selection etc. They suggest that the authority conducting the enquiry should also take note of similar problems solved in other industries in the country and also in other countries.

- 42 52 In view of the shortage of men required to meet even the current requirements and the necessity to train technicians and craftsmen for the proposed second Dockyard, the Committee would suggest that the feasibility of arranging double shift in the Dockyard Apprentice School to augment the strength of this class of personnel may also be considered.
- 43 53 The Committee consider the position regarding non-recovery of security money from the Apprentices who have left service, as unsatisfactory. They recommend that the condition regarding recovery of security bond money should either be strictly enforced on deserting Apprentices or deleted altogether taking suitable alternative measures to prevent the wastage.
- 44 54 The Committee consider that the system of overtime tends to create a tendency to go slow among the workers with a view to earning overtime. They are unable to agree that the employment of additional workers is the necessary solution for reduction in overtime. As already stated by them, the workload and labour strength should be carefully assessed. They would also recommend that the reason for working overtime in each case should be examined and efforts should be made to keep overtime to the minimum.
- 45 55 The Committee do not consider the existing provision of accommodation to the Dockyard workers adequate. They understand that there is a proposal to provide additional accommodation to Dockyard employees by undertaking subsequent phases of construction. The Committee recommend that early action should be taken to complete the construction programme of residential accommodation for the employees.
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56 The Committee were informed that the Doctors employed in the hospital and various dispensaries in the Dockyard hold only normal medical qualifications and are not trained in industrial medicine. The Committee suggest that in the light of modern developments in industrial medicine the need to give the doctors attached to industrial concerns proper training in industrial medicine should be kept in view.

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