C. P. U. No. 244

COMMITTEE ON PUBLIC UNDERTAKINGS (1973-74)

(FIFTH LOK SABHA)

FORTY-THIRD REPORT

[Action taken by Government on the Recommendations contained in the Twenty-First Report of the Committee on Public Undertakings (Fifth Lok Sabha)]

BHARAT HEAVY ELECTRICALS LIMITED

(Ministry of Heavy Industry)

LOK SABHA SECRETARIAT
NEW DELHI
December, 1973/Agrahayana, 1895 (S)
Price: Rs. 2.25

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CORRIGENDA

FORTY THIRD REPORT OF THE COMMITTEE ON PUBLIC UNDERTAKINGS (1973-74) ON ACTION TAKEN BY GOVERNMENT ON THE RECOMMENDATIONS CONTAINED IN THE 21ST REPORT OF THE COMMITTEE ON PUBLIC UNDERTAKINGS (5TH LOK SABHA) ON BHARAT HEAVY ELECTRICALS LIMITED

Page	Line	For	Read
Con-tent Page	10	After the word 'in' add the word 'respect'	
5	19	grears	gears
6	9	disposal off	disposed off
9	21	Plan	Plant
9	27	Instructions	Infractuous
11	18	betwee	between
11	21	permisible	permissible
24	2 from bottom	for the word 'of' occuring after the word 'capacity' read 'or'	
24	last line	seen	soon
29	25	implemi-cation	implication
29	27	care	cares
29	28	with in	within
30	19	were	was
34	12	After the words 'had set' add the word 'a'	
34	12	production	produce one
34	18	hampared	hampered
85	19	proceeded	preceeded
39	bottom	desings	designs
42	9	delete the word 'of' occuring after the word 'working'	
43	7	that	the
44	21	still	steel
45	3	streamlines	streamline
46	9	have	has
46	20	Statement	Stalement

Page	Line	For	Read
46	13	payment	payments
46	21	effect	affect
48	7	wing to	owing to
48	12	(i) Add the word 'be' after the word 'would'	
		(ii) complete	completed
48	19	accesseries	accessories
50	5	delete 'a' occuring after the word 'with'	
50	27	aljusted	adjusted
50	30	as	was
51	6 from bottom	reduce	reduced
54	7	amount	amounting
55	15	procur	procured
55	22	procurred	procured
55	24	feeel	feel
55	29	know	known
57	25	term	terms
60	25	'index and group completion) with retrospective effect from 1.4.1971	Ministry of Heavy Industry O.M. No. 6-3/72-HEM
61	9	attaint	attain
61	6 from bottom	convers	covers
61	5 from bottom	Board	broad
67	11	is	as
67	24	less	loss
70	1	contained	continued
71	30	far	for
77	8	cummulative	comulative
74	11-16	Lines 11 to 16 under the heading 'Reply of Govt'. may be read as follows:- 'Itis confirmed that BHEL will be able to build up the expertise necessary for running the plants independently. There are no experts in Tiruchy Plant for production of 60 MW, 100 MW and 110 MW sets. Similarly, the number of experts are being gradually reduced in the other plants also. The figures given below illustrate the point:-	

CONTENTS

COMMITTEE ON PUBLIC UNDERTAKINGS

(1973-74)

CHAIRMAN

Shrimati Subhadra Joshi

MEMBERS

2. Shri Dinen Bhattacharya
3. Shri T. H. Gavit
4. Shri K. Gopal
5. Shri J. Matha Gowder
6. Dr. Mahipatray Mehta
7. Dr. Sankta Prasad
*8. Shri Nawal Kishore Sharma
9. Shri Ramavatar Shastri
10. Shri R. P. Yadav
11. Shri M. S. Abdul Khader
12. Shri Lal K. Advani
13. Shri U. N. Mahida
14. Shrimati Purabi Mukhopadhyay
15. Shri Suraj Prasad

SECRETARIAT

Shri M. A. Soundararajan—Deputy Secretary.

Shri M. N. Kaul—*Under Secretary.*

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*Appointed to act as Chairman from 16-5-73 to 11-7-73 during the absence abroad of Shrimati Subhadra Joshi.

COMPOSITION OF THE STUDY GROUP ON ACTION TAKEN REPORTS AND GENERAL MATTERS

1. Shrimati Subhadra Joshi—*Chairman.*
2. Shri Nawal Kishore Sharma—*Alternate Convener.*
3. Shrimati Purabi Mukhopadhyay.
4. Dr. Mahipatray Mehta
5. Shri Lal K. Advani
6. Shri U. N. Mahida

INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to present the Report on their behalf present this Forty-Third Report on the Action Taken by Government on the recommendations contained in the Twenty-First Report of the Committee on Public Undertakings (Fifth Lok Sabha) on Bharat Heavy Electricals Limited.

2. The Twenty-First Report of the Committee on Public Undertakings (Fifth Lok Sabha) was presented to Lok Sabha on the 28th April, 1972. Replies of Government to recommendations contained in the Report were received in batches during the period from 21st March, 1973 to 17th July, 1973.

3. The replies furnished by the Government were considered by the Committee on Public Undertakings (1973-74) at their sitting held on the 30th July, 1973. The Committee desired further information on certain replies and the same was received from the Government on the 10th August, 1973.

4. The replies of Government to the recommendations contained in the aforesaid Report were again considered by the Committee on Public Undertakings on the 20th November, 1973. The Committee authorised the Chairman to finalise the Report on the basis of the decisions of the Committee, and present it to Parliament.

5. The Report has been divided into the following Chapters:—

(i) Report.

(ii) Recommendations that have been accepted by Government.

(iii) Recommendations which the Committee do not desire to pursue in view of Government's replies.

(iv) Recommendations in respect of which replies of Government have not been accepted by the Committee.

(v) Recommendations in respect of which final replies of Government are still awaited.

6. An analysis of the Action Taken by Government on the recommendations contained in the Forty-Third Report of the Committee is given in Appendix VI. It would be observed therefrom that out of the total number of recommendations made in the Report, 57 per cent have been accepted by Government. The Committee do not desire to pursue 21 per cent of the recommendations in view of Government's replies. Replies of Government in respect of 22 per cent of the recommendations have not been accepted by the Committee.

NEW DELHI;
December 19, 1973.
Agrahayana 28, 1895 (*S*).

SUBHADRA JOSHI,
Chairman,
Committee on Public Undertakings.

CHAPTER I

REPORT

A. Rated Capacity, Heavy Electricals Equipment Plant, Hardwar

Recommendation No. 6 (Para 2.54)

The Committee in para 2.54 of their 21st Report observed that though the Project Report for Hardwar Plant did not contain any time bound programme for attaining the capacity from year to year, it gave an indication that the Plant would attain its 'Rated Capacity' in the 8th Year of production. The rated capacity as envisaged in the Report was 515 MW for medium and heavy electric machines, 1500 MW for steam turbines and turbo generator and 1200 MW for Hydro turbines and generators. The Committee also observed that a 10-year Plan called the "Decade Plan" had been drawn up for development of power generation in the country. The Committee, therefore, felt that it should now be possible for Government to give a clear picture to the Management as to what orders it was expected to plan for and execute during the next 10 years. The plant had at the moment orders for thermal sets only upto 1975-76 and did not have adequate orders for motors.

2. The Ministry in their reply (July, 1973) stated that the decade plan, which had been prepared by the Ministry of Irrigation and Power would cover the Hydro and Thermal Schemes proposed to be commissioned during the decade 1971—81. A broad division list had been prepared for equipment that could be delivered by the different manufacturing units and the respective Electricity Board and CWPC|MIP were being approached to finalise the orders. Attempts were being made to secure firm orders by approaching the concerned executing agency.

As regards the Industrial Drives *i.e.* heavy duty motors for Steel Plant and other heavy engineering Plant, the order book would depend on the setting up of more steel Plants, demands for replacement drives etc. At present, Hardwar Plant had orders for the manufacture of those electrical machines upto 1974-75.

3. The Committee feel that unless firm orders are secured by the Company, the decade plan worked out by the Ministry of Irrigation and Power may not be ultimately fulfilled. Even in respect of industrial drives the Company should make all out efforts to secure

orders immediately for the manufacture of machines beyond 1974-75 keeping in view the time required for the manufacture of such items. The Committee, therefore, reiterate their earlier recommendations.

B. *Built-up capacity and projections and utilisation thereof—Heep Hardwar*

Recommendation No. 10 (Para 2.82)

4. Earlier the Committee observed that in December, 1969 an experts delegation from USSR studied the capacity development of Hardwar Plant and estimated that Hardwar Plant's capacity could be developed to 1603 MW by 1974-75 provided orders for 6 turbo sets of 200 MW each and 2 turbo sets of 100 MW *i.e.* 1400 MW were received within the IV plan period and production Sector Tool Room and Design Division were strengthened. The Committee understood that Hardwar Plant had firm orders for 5 sets of 200 MW and letters of intent for 3 more. The Plant was thus fully booked for turbo sets of 200 MW upto 1974-75 for Hydro sets upto 1974-75 and for machines upto 1972-73.

5. In their reply (July, 1973) the Ministry intimated that the order position was further improved and the capacity booked was as under:—

(i) Thermal sets . .	Booked upto 1974-75 with 7 × 200MW sets.
(ii) Hydro .	Booked upto 1975-76 and partial booked for 1976-77 with the present orders of 34 generating units.
(iii) Motors . . .	Booked upto 1974-75.

The Ministry and the Planning Commission had suggested that production of the standard 200 MW Units might be proceeded with even if there be delay in the placing of the orders by the State Electricity Boards. As regards the imprest order for 110 MW the proposal was stated to be still under Government's consideration.

6. The Committee find that orders for thermal sets and motors were secured only upto 1974-75. The Committee need hardly stress that BHEL should take effective steps to secure orders for Thermal sets and Motors beyond 1974-75 so that there is an even flow of orders and the Plant is not idle. The Government should also take an early decision on the proposal regarding the imprest order for 110 MW.

C. *Built-up capacity and projections and utilisation thereof, Heep, Hardwar.*

Recommendation No. 11 (Para 2.83)

7. The Committee in their Twenty-first Report (Paragraph 2.83) found that in the Mid-term Plan Appraisal it was stated that "As against the targetted capacity of 23 million KW, it is now reasonably certain that 21.2 million KW may be achieved in 1973-74." "The reduction is mainly due to slow progress and delay in delivery of plant and equipment from the public sector manufacturing units." Under the heading "Long-term measures" it had been stated by the Planning Commission that it was proposed to monitor manufacture of plant and equipment and delivery according to schedule.

8. The Committee also observed that while on the one hand, mid-term Plan Appraisal placed the blame for shortfall in the installation of additional generating capacity on late delivery of plant and equipment by public undertakings, the BHEL emphatically stated before the Committee their difficulties arising out of the non-receipt of firm orders for generating sets and equipment even though they had the capacity, the know-how and the skill to manufacture them. The Committee felt that this difficulty could have been easily got over by having an integrated plan for manufacture of generating sets and their delivery schedule to match the plan requirements. The Committee considered that it should not have been beyond the ingenuity of the Planning Commission|Central Government|State Electricity Boards|Public Undertakings to find means by which firm orders were placed for generating sets and equipment a few years in advance so as to ensure timely delivery as well as full utilisation of manufacturing capacity developed in the public sector.

9. In their reply (March, 1973)*, the Ministry stated that a subsequent review conducted by the Planning Commission had revealed that out of the actual shortfall of 3 million KW, 1.881 million KW would be due to delay in civil works and implementation of schemes, only 0.664 million KW would be due to delays in delivery of equipment and 0.72 million KW would be on account of delay in civil works and implementation of schemes for which plant and equipment would also not be forthcoming in time.

10. The Ministry in their further reply* (August, 1973), informed the Committee that "efforts are being made by BHEL to improve the delivery position by close periodical review of production."

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*Not vetted by Audit.

11. The Committee are not satisfied with the reply of the Ministry. The Committee fail to understand why it was not possible to have an integrated plan for the manufacture of generating sets and the delivery schedule to match their plan requirements. The Committee would, therefore, like that reasons for the delay should be investigated and remedial action taken to ensure that such delays are avoided and the targets are adhered to.

D. *Material Management and Inventory Control, Heep, Hardwar.*

Recommendation No. 14 (Para 2.104)

12. The Committee noted that the Hardwar Plant had finished stock worth Rs. 212.10 lakhs as on 31st December, 1971. The Committee were informed that sometimes customers refused to lift the motors after placing letters of intent (in the case of Flame Proof Motors valued at Rs. 16.91 lakhs not lifted by MAMC) or revise the delivery schedule as in the case of Excavator Electrics manufactured for HMBP, Ranchi. The Committee, therefore, recommended that agreement with customers should be revised with a view to see whether the terms of conditions could be suitably modified to avoid such contingencies.

13. In their reply (July, 1973) the Ministry stated that "BHEL conditions of sale provide for recovery of storage charges from customers if they are unable to accept their items at the contracted dates. This provision of Contract is now being enforced and is calculated to act as a stern deterrent against delayed lifting of store offered for delivery against orders placed earlier. In the case of Giribata set where the customer asked Hardwar Unit to store it for them, the question of payment of storage charges has been taken up with the appropriate authorities. The matter has, however, not yet been settled."

14. The Committee are not satisfied with the reply of the Ministry. The Committee, therefore, recommend that further agreements to be entered into with the customers should, in future, contain such terms and conditions which may bind them to take delivery within a stipulated time failing which the BHEL would be empowered to take suitable action to levy penal interest or have a right to realise damages for failure to lift the machines.

E. *Pricing Policy—Sales Performance, Heep, Hardwar*

Recommendation No. 24 (Para 2.189)

15. The Committee noted that BHEL took up the manufacture of flame proof electric motors without settling the terms and conditions

of the sale and without obtaining a firm order from the MAMC. The result had been that there was avoidable import of components for these motors from USSR and there was blocking up of funds to the extent of Rs. 24.39 lakhs (as on 31st March, 1969) and loss of interest thereon.

The Committee also failed to understand the reasons for which the Ministry instead of asking the MAMC to accept the motors which had been specifically manufactured for them, advised the Company to dispose of the motors (out of 65 motors, 49 motors were not disposed of). The Committee recommended that the entire deal with MAMC should be investigated in detail and the results thereof intimated to them.

16. The Committee also recommended that BHEL should at least take a lesson from this transaction not to proceed with the execution of any demands on simple letters of intents without settlement of terms and conditions and specifications. The Committee had stated that they would like to be kept informed about the disposal of the remaining motors and the ultimate settlement made with MAMC in regard to the 16 motors supplied (with 9 control grears), and still lying with them.

17. The Ministry in their reply* (March, 1973) stated as under:—

> "The recommendations of the Committee have been noted carefully for future guidance. It may, however, be stated that normally, action for manufacture is taken only on receipt of the firm orders from the customers but in case of standard products and|or where the time in procurement of raw materials and components is considered to take fairly long time, advance action may have to be taken, based on the letter of intent or on forecast of likely orders so as to offer the customers reasonable delivery schedule.
>
> 13 out of the 49 motors lying in stock have since been sold off.
>
> The undertaking is exploring other avenues for the disposal of the remaining motors."

18. The Ministry of Heavy Industry in their further* reply (August, 1973) have stated that "when BHEL reported to us about this deal that MAMC are not making the payment, this Ministry took up the matter with the Department of Steel. It was reported

*Not vetted by Audit.

by the Department of Steel that MAMC cancelled the letter of intent because BHEL could not submit quotation for long and that they were not able to make the use of motors due to the change of standard. There was nothing to be investigated further because such contigency can arise in any commercial dealing. The only way now was to find out some other customers, for the motors and that course of action has already been adopted by BHEL. BHEL have been successful in securing orders for 16 motors out of the 49 motors. This leaves only 33 motors to be disposal off by BHEL now."

19. The Committee are surprised that even after a lapse of more than four years, the BHEL has not been able to dispose off the entire stock of motors and as many as 33 motors are still lying undisposed off with them. The Committee hope that the disposal of the remaining motors would be expedited. The Committee also reiterate their earlier recommendation that the entire deal with MAMC should be thoroughly investigated.

F. *Recovery of Liquidated Damages, Heavy Power Equipment Plant, Hyderabad.*

Recommendation No. 28 (Para 3.10)

20. The Committee noted that "there have been delays in the completion of supplies of machinery, equipment etc. in respect of 19 out of 32 contracts entered into by the Company with M|s. Technoexport (later designated as Skodaexport) from July, 1963 to February, 1969. The contracts with the suppliers provided for recovery of liquidated damages for delay in the supply at 1 per cent of the F.O.B. price of equipment and machinery. The Committee found that against a claim of Rs. 4.41 lakhs recoverable as liquidated damanges for the delay, the Hyderabad Plant preferred a claim in June, 1967 on the supplier for recovery of liquidated damages amounting to Rs. 0.54 lakhs only in respect of the Main Contract of July, 1963 and Addendum 1 of 18th November, 1964. In addition, the plant preferred certain other claims but without indicating any value "with the purpose of ensuring that they were not time-barred." The Committee were surprised to find that claims for liquidated damages had been filed without indicating the value thereof and without the extent of production loss having been determined. It was stated by the Management (April, 1972) that "the extent of production loss, if any, only due to delayed supplies from Skodaexport is being investigated." The Committee were surprised at the dilatory manner in which the plant had taken 5 years to determine the value of production loss due to delayed supplies of machinery, equipment, etc. for supporting the

claim and observed the non-maintenance of suitable records in this connection.

21. The Committee, therefore, recommended that the Plant should lose no time in working out the details and completing the formalities expeditiously. The Committee also recommended that a suitable system should be devised and records maintained whereby production loss due to each factory or group of factories could be readily assessed and claims where necessary were filed in time with complete details and followed up till the amounts due were recovered.

22. In their last reply* (April, 1973), the Ministry stated that "against the liquidated damages of Rs. 4.41 lakhs to be recovered from M|s Skodaexport, a claim has been made for Rs. 76,663|-. However, M|s. Skodaexport have stated that essential components have been delivered in time and therefore they have fulfilled Article 4(2) of the agreement which provides specifically that the delivery time shall be deemed to have been met if the last substantial part of the components necessary for putting the same into operation shall be at the place of fulfilment at the latest on the last date of the delivery time. As BHEL are not in a position to establish that M|s Skodaexport have not supplied substantial part of the components in time, legal opinion that they have received is to the effect that the delays are not covered by the Clause in the agreement for the liquidated damages. It is, therefore, proposed not to pursue the claim."

23. The Committee are surprised to find that, while it was intimated earlier that there was delay in the completion of supplies in respect of 19 contracts and the liquidated damages recoverable worked out to Rs. 4.41 lakhs against which the Plant preferred a claim for Rs. 0.54 lakhs only in respect of Main contract of July, 1963 and Addendum 1 of 18th November, 1964, in the reply now furnished, the Ministry have stated that "as BHEL are not in a position to establish that M|s. Skodaexport have not supplied substantial part of the components in time, legal opinion they have received is to the effect that the delays are not covered by the clause in the agreement for the liquidated damages. It is, therefore, proposed not to pursue the claim." The Committee are surprised at the apparent contradiction between the two statements and strongly urge that the matter should be thoroughly investigated with a view to assessing the production loss on account of delayed supply and prefer a claim for liquidated damages for the correct amount.

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*Not vetted by Audit.

24. The Committee also note that the Government have not indicated the action taken by them to improve the system and for maintaining proper records whereby the production/losses can be readily assessed and claims preferred in time. The Committee would like Government to take steps to streamline the procedure for maintenance of appropriate records to enable the Company to assess the production losses and file claims therefor, in time.

G. Profitability of HEEP, Hyderabad

Recommendation No. 35 (Para 3.42)

25. The Committee found that according to the exercise done by the Undertaking in December, 1969, on the basis of the price under discussion by HN Ray Committee, Hyderabad Plant was expected to incur loss (at landed cost) of Rs. 134 lakhs in 1969-70, profit of Rs. 81 lakhs in 1970-71 and loss of Rs. 516 lakhs in 1971-72. As against this, the Project had actually incurred net losses of Rs. 331.01 lakhs in 1969-70 and Rs. 101.00 lakhs in 1970-71. The Committee, therefore, recommended that the reasons due to which the Project had continued to incur losses even though consultants had forecast losses upto the 4th year from the commencement of production should be thoroughly investigated. The production in Hyderabad project commenced in 1965-66 and accordingly there should have been no losses in the year 1969-70 and thereafter.

The Committee also urged the Government to settle without further delay the price which the undertaking was to be allowed to charge for their 110 MW generating sets and other plants and equipments.

26. The Ministry in their reply (in July, 1973) stated that "even though the consultants had forecast losses only upto the end of 4th year from commencement of production the investigation made reveals that for reasons set forth below the Project had to incur losses during 1969-70 and 1970-71:—

1969-70:

(i) Non-availability of critical raw materials such as forgings, castings, press tools etc.;

(ii) Non-attainment of expected labour efficiency;

(iii) Non-receipt of certain materials from abroad; and

(iv) Disturbances in the State and power failure in Kothagudem and heavy absenteeism during the bund days in Hyderabad and Secunderabad.

1970-71.

(i) Non-receipt of critical raw material such as castings, forgings, press tools, components etc. from indigenous and foreign sources;

(ii) Non-attainment of working efficiency by the direct labour to the set target; and

(iii) Labour disturbances and lockout in production blocks in the months of December, 1970-71 and January, 1971.

As a result of the shortfall in production, the losses continued during 1969-70 and 1970-71. Due to sustained efforts made by the Unit, there was a marginal profit of Rs. 1.02 crores in 1971-72.

For 1972-73 BHEL had budgeted for HPEP a total production of Rs. 22.73 crores with an estimated net profit of Rs. 2.97 crores. According to the provisional estimates the value of production during the year 1972-73 has been Rs. 19.55 crores with a profit of Rs. 1.45 crores."

27. The Committee find that the Ministry had not mentioned any thing about the price to be charged by the Hyderabad Plan. for 110 MW generating sets and other plants and equipment. The Committee reiterate their earlier recommendation that Government/Undertaking should take steps to reduce the incidental expenses and develop competitive prices for the products so as to produce better financial results.

H. *Instructions Expenditure, High Pressure Boiler-Plant, Tiruchy.*

Recommendation No. 45 (Para 5.14)

28. The Committee observed that Tiruchy Plant obtained in October 1967 "project documentation" from M|s. Skodaexport, Czechoslovakia for the expansion of the Plant from 750 MW to 2,000 MW. The Plant paid a fee of Rs. 14.58 lakhs to the supplier and incurred an expenditure of Rs. 1.09 lakhs on travelling allowance and other miscellaneous items in connection therewith. Earlier, BHEL were of the view that though the expansion did not take place, the expenditure of Rs. 15.67 lakhs incurred towards documentation, travelling allowance etc. could not be regarded as infructuous because detailed study undertaken jointly by the Indian Engineers and CSSR Experts had helped the Company "to plan its activities of production more

confidently anticipating areas of bottlenecks and maximising production in work centres which are found to have the heavy potential". The Committee were unable to share this view and they felt that had the Technical Examination of outlook for power generation been done earlier and the demand assessed correctly, the expenditure of Rs. 15.67 lakhs could have been avoided. The Committee stressed the clear need for greater coordination between the Ministries|Departments to ensure that Plans and Programmes for power generation in the country were based on some firm indications.

29. The Ministry have now stated that "due to severe stresses in the economy as an aftermath of the hostilities of 1965, the droughts of 1965-66 and 1966-67 and the effect of devaluation of Rupee in June 1966, the Fourth Plan could not be brought on course. The Planning Commission which was reconstituted in September, 1967 came to the conclusion that many estimates of the draft outlines were no longer valid. This was accepted by the National Development Council in December, 1967 and it was decided that the Fourth Plan would start only w.e.f. 1969-70. The period between 1966 and 1969 was thus covered only by annual plans. The revised outlook obtaining in September, 1968 could not have been foreseen in late 1966. The action taken in January, 1967 could not, therefore, have been avoided taking all the circumstances into account. In any event, the exercise on expansion done in 1967 cannot be regarded as wholly infructuous, since it helped in achieving greater production from the existing Plant itself and also made it easier to plan and execute the expansion more fruitfully when it was put through with the new Collaboration (now under way) with M|s. Combustion Engineering Inc."

30. The Committee are not convinced with the reply of the Government and thus reiterate their earlier recommendation and stress the need for greater coordination between the Ministries| Departments and Undertakings to ensure that plants and programmes for power generation in the country are based on some firm indication and demand for power assessed correctly and in time.

I. *Costing System and Cost Analysis, HPBP, Tiruchy*

Recommendation No. 53 (Para 5.68)

31. The Committee found that for some time past the costing system followed by Tiruchy Plant suffered from deficiencies like absence of norms of rejection|loss in different processes of manufacture, absence of record showing percentage of utilization and idle time of machines, absence of comparative study of actual consumption or materials and labour with pre-determined estimates.

It was stated by the Management that "norms of rejection will be fixed based on experience of the new processes." The Committee observed that the Tiruchy Plant which went into production of Boilers in 1965 did not upto 1971 consider fixing norms for rejections| losses in different processes. The Committee, therefore, recommended that the Unit should on the basis of the experience gained so far fix norms for rejections|losses for different processes of manufacture and review and revise them, if necessary on the basis of such changes in the manufacturing processes that may be made from time to time. The Committee also recommended that the Management should maintain suitable cost records for ascertaining actual labour costs and consumption of materials as compared to estimates in order to ensure effective cost control and correct fixation of prices of products.

32. In their reply, the Ministry have stated that a close watch was being kept by the plant on the level of rejection|rework in the production processes of each development. It might be observed that the percentage of rejection varied betwee 0.32 and 1.04 (About 70 per cent of the rejections took place in spacers, washers fins, etc. the value of which were insignificant). In a heavy engineering fabrication industry, generally, the permisible* limits for rejection and re-work were placed at 1 per cent and 5 per cent respectively. In the light of this, the percentage of rejection and rework obtaining in this plant did not appear to be considered excessive. While an overall check on rejection and re-work had always been kept, what was submitted to the Committee was that in individual shop processes rejection and re-work standards had not been set so far and it was suggested that, since the manufacturing processes of the boilers was undergoing a wholesale change involving modern design and manufacturing know-how obtained from Cumbustion Engineering, individual process norms may necessarily have to wait till the switch over of technology took place,—

Regarding the lack of data on machine utilisation a beginning had been already made with Building No. 1 data for which were furnished to the Committee. Now the details were received for all machines in all the work spots with effect from June, 1972.

33. In regard to the comparison of consumption of materials and labour with pre-determined estimates, it was true that with the present job work order system, automatic comparison of this kind was not possible, though in individual cases such as exercise of com-

*Not vetted by audit

parison could always be made by special effort. However, a beginning had been made to lay down a system of standard costing on a scientific basis which would ensure that the cost of each individual component going into a work order was predetermined on a scientific basis and subsequently the actual compared therewith. To this end, a revised system of costing had been drawn up in consultation with one of the leading Management Consultants in the country. The preliminary steps for the introduction of the new system were expected to be completed in 1972-73 and new system introduced (possibly in two phases) in 1973-74. This would eventually lead to the assessment of standard costs production-centre-wise, reasonable forecasting of all cost trends and comparison of actuals with forecasts in details.

34. The Committee note that an overall check on rejections and re-work has not yet been fixed. The Committee would like BHEL to fix suitable norms|losses for different processes on the basis of experience gained so far for improving efficiency and quality control.

The Committee also hope that the system of standard costing will be introduced as early as possible.

J. Foreign Personnel

Recommendation No. 55 (Para 6.11)

35. The Committee noticed that necessary measures had been taken by the different units of BHEL to replace the foreign personnel by Indians, for which purpose the Indian Engineers|Technicians were attached to the Foreign experts for picking up work and thereby gain confidence. The Committee hoped that the Undertaking would soon be able to build up the expertise necessary for running the plants independently.

From the reply* received from the Ministry in July, 1973, it has been found that in Hardwar Plant against 103 Foreign Experts working at the end of 1969-70, 87 foreign experts were working by the end of January, 1973 and also in Hyderabad Plant against 38 Foreign Experts working in 1969-70, 23 were working upto January, 1973.

36. The Committee expect that the training programme should be suitably intensified so as to build up the necessary expertise to

*Not vetted by audit

run the plants independently and to reduce the foreign experts in both the plants of BHEL expeditiously.

K. *Administrative Ministry*

Recommendation No. 57 (Para 6.26)

37. The Committee had felt that since the Ministry of Irrigation and Power were responsible for the development of power in the country according to the targets envisaged in the Fourth Plan and since the BHEL was engaged mainly on manufacturing machinery and equipment which were primarily needed by the State Electricity Boards and other similar organisations engaged in generation, transmission and distribution of power, it was essential that there should be a close liaison between these undertakings and a sense of participation and involvement in the planned development of the country. The Committee, therefore, recommended that the views of the Ministry of Irrigation and Power might be ascertained and the question considered carefully from all angles with a view to ensuring coordinated development of generation, distribution and transmission of power in the country.

38. Earlier it was stated by the Ministry of Industrial Development that they had issued a circular to all the Heads of State Electricity Boards to find out their anticipated requirements to enable BHEL to review their production programme with a view to making adjustments for meeting the requirements envisaged. It was also intimated by the Ministry of Heavy Industry that they had received a detailed note* from the Ministry of Irrigation and Power suggesting that control of BHEL/HEIL may be transferred to them. The note was considered by the Ministry of Heavy Industry and a reply sent not accepting their suggestion.

39. The Committee note that the Government is already seized of the matter. They would like Government to take an early decision since the matter has been pending for long.

L. *Financial Results*

Recommendation No. 60 (Para 7.26)

40. Earlier, the Committee observed that Heavy Pressure Boiler Plant, Tiruchy in whose case capital expenditure upto March, 1971 was Rs. 24.33 crores had earned cumulative profit of Rs. 9.00 crores, they were rather distressed to find that the other two plants of

*Not vetted by Audit.

BHEL had not shown encouraging financial results. Heavy Power Equipment Plant, Hyderabad and Heavy Electrical Equipment Plant, Hardwar had incurred cumulative losses to the extent of Rs. 15.10 crores and Rs. 11.59 crores as on 31st March, 1971 respectively. The Committee recommended that Government should satisfy themselves that Hardwar Plant had incurred losses for the years and to the extent indicated in the DPR and not more. If the quantum of losses had been more or if the period for which these losses were incurred was excessive as compared to DPR estimate, the reasons should be investigated. Concerted efforts should be made to see that Hardwar and Hyderabad Plants not only break-even but also are able to wipe out the cumulative losses.

41. In their reply* (April, 1973) the Ministry have stated that in the DPR of Hardwar Plant prepared by the collaborators, yearwise profitability or production programme was not given but it envisaged that after attaining full rated capacity the plant would pay back the investment in about 8 years. However, economic and financial analysis were prepared by the HEIL (composite company before bifurcation). A direct comparison with the DPR projections would not be realistic because of the change in the pattern of flow of orders on the plant from year to year and also the product-mix. Till the second half of 1970, there were no orders on the Hardwar Plant beyond the first 6 sets of 100 MW turbo sets which affected the growth of capacity for turbo sets. The lesser output had to absorb the fixed overheads and liability for interest charges, from loan capital was also higher than that anticipated. The main products, Turbo sets and Hydro sets, were taken up for production in 1968-69 and 1969-70. The capital cost of the plant is also higher than the earlier estimates partly because of the devaluation of the Rupee and partly because of increase in customs tariffs. Consequently the fixed overheads on account of interest and depreciation were also higher and the lesser outputs had to absorb the higher fixed overheads. Even otherwise the plant was expected to break-even in the 6th year from the commencement of production in accordance with the earlier study. For the reasons stated above, the plant was now expected to break-even in the 8th year from the commencement of partial production or the 7th year from the commencement of production of major products. According to the forecast, the cumulative loss till the break-even point was to be Rs. 16.88 crores—actual cumulative loss till the break-even point was now expected to be Rs. 20.19 crores. The performance of Hardwar Plant was, however, under constant review by the Management.

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*Not vetted by Audit.

42. The Hyderabad plant had shown a profit in the year 1971-72. It was expected that the Hardwar Plant might break-even in 1974-75. The cumulative losses of the Hyderabad and Hardwar Plants were expected to be wiped out in the year 1974-75 and 1977-78 respectively.

The Committee hope that with the concerted efforts which are now stated to be taken by the Management/Ministry it should be possible for BHEL to improve the production performance of the Hardwar Plant and reduce the cumulative losses of the Company.

M. *Revolving Fund*

Recommendation No. 61 (Para 7.29)

44. The Committee observed that Government were considering the question of setting up a "Revolving Fund" for Bharat Heavy Electricals Ltd. so that it could go ahead with its manufacturing programme. There would be no doubt that if adequate orders were not forthcoming the Company would find itself in a predicament inasmuch as its inventory of raw materials, components and finished stocks would go up.

If utilisation of spare capacity lead to high inventory, it would be a remedy which would be worse than the disease. The Committee, therefore, recommended that Government should see that adequate orders from State Electricity Boards were placed so that concept of "Revolving Fund" would develop into a success.

45. In their reply* (Received in March, 1973), the Ministry of Heavy Industry had stated that the Government had kept the proposal of "Revolving Fund" in abeyance because revised terms of payment of Electricity Boards to BHEL|HEIL had been worked out. According to these terms the Electricity Boards would pay 10 per cent advance with the order, 88 per cent of the price against despatch documents and the balance 2 per cent twelve months after installation of set. The working capital requirements of BHEL|HEIL to meet the situation created by these latest terms of payment were still being worked out and these would be finally sorted out in consultation with the Ministry of Finance.

46. In their subsequent* reply (August, 1973), the Ministry of Heavy Industry have stated that M|s. BHEL have worked out the additional working capital that would be needed as a result of their accepting the revised terms of payment arrived at by the Planning

*Not vetted by Audit.

Commission. The proposal received in this connection is being examined in consultation with the Planning Commission and the Ministry of Finance."

47. The Committee while taking note of the reply, would like to observe that while there is no dearth of orders for BHEL, the Company should take steps to ensure timely execution of the orders and strict adherence to delivery schedules. The Committee would also like Government to take an early decision on the question of setting up a "Revolving Fund" for Bharat Heavy Electricals Ltd.

CHAPTER II

RECOMMENDATIONS THAT HAVE BEEN ACCEPTED BY GOVERNMENT

Recommendation (Sl. No. 2)

The Committee take a serious view of the fact that it took Government more than three years to sanction the estimates submitted by BHEL in December, 1966. It is regrettable that in spite of the recommendation of the Committee on Public Undertakings in their 39th Report (1967), that Government should accord its sanction to the estimates without any delay, no serious efforts were made to expedite the sanction of these estimates. It has been admitted that there was considerable delay on the part of Government in sanctioning these estimates. However, no responsibility has been fixed for this delay as suggested by the Committee in their 16th Report (1967-68). According to the Ministry these revised estimates were examined in consultation with the Ministry of Finance and the Bureau of Public Enterprises which took some time. As no particular officer was responsible for the delay the question of punishing any delinquent officer in this connection does not arise.

The Consultation among the various departments of the Government of India can hardly justify the delay of more than three years in sanctioning the estimates. The Committee, therefore, consider that the procedure should be streamlined to avoid such delays in sanction of the estimates. (Paragraph 2.26).

***Reply of Government**

Procedure have been streamlined and such delays have not been since recurring in according sanctions.

(Ministry of Heavy Industry O.M. No. 6-3|72-HEM dated 21-3-1973)

Recommendation (Sl. No. 3)

The Committee also regret to note that as against the first estimates of Rs. 63.43 crores for the project prepared by the Undertakings/Government the project is estimated to cost Rs. 98.13 crores an increase of Rs. 34.70 crores about 55 per cent of the first estimates. The Committee have repeatedly observed that frequent

*Not Vetted by Audit.

revisions and large increase in estimates of project vitiates parliamentary control. The total commitments on a project should be prepared as realistically as possible in the beginning and should be available to Parliament before a project is approved, instead of making them commit to a project on piece-meal basis from year to year without giving them a true and realistic picture of the project.

The Committee feel that where the economics of the project are adversely affected as a reshlt of revised estimates. Parliament should be specifically informed of it in time with supporting details. (Paragraph 2.27).

***Reply of Government**

Observations of the Committee are noted. The revision in the Estimates were mainly due to the devaluation of the Rupee and revision in the customs tariff which affect the cost of the bigger projects, the construction of which extends over 3 to 4 years.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dt. 21.3.73].

Recommendation (Sl. No. 5)

The Committee are unhappy at the frequent revision in the date of completion of project and are particularly distressed by the fact that equipment to the tune of Rs. 70 lakhs had not been installed. The Committee feel that had the Management remained alert to their duties towards the Nation, and adopted modern techniques for planning, installation and commissioning of the machinery in the project, such delays could have been obviated. The Committee can not too strongly stress the need for more scientific and rational procedure in placing the orders for machinery and equipment two or three years in advance according to schedule so that they are received and installed in proper sequence to yield the best production results at the earlier. (Paragraph 2.46).

Reply of Government

Noted.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dt. 21.3.1973].

Recommendation (Sl. Nos. 7 & 8)

The Committee find that there has been shortfall in production of electric machines, turbo sets and steam turbines in the Heavy Elec-

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*Not vetted by Audit.

tricals Equipment Plant, Hardwar which went into partial production in January, 1967. The Committee were informed that the main problem standing in the way of achievement of the targeted production was delay/defective supply of castings and forgings from indigenous and foreign suppliers and non-availability of good quality castings and forgings. Since the problem is faced by the Management year after year, the Committee are surprised that no satisfactory arrangement has been made in this direction by them and due to that the power generation in the country is greatly hampered. The Committee recommended that the Government and the Management of BHEL should tackle this problem urgently and evolve a procedure by which the sustained and dependable supply of casting and forgings is ensured.

The Committee find that production and delivery schedule of Hardwar Plant has suffered set backs in the past. According to indications given to the customers the Plant was to deliver 3rd set in July, 1971, 4th in September, 1971, 5th in December, 1971 and 6th in March, 1972. While the Plant delivered the third set, it hoped to deliver the 4th and 5th sets by the end of March, 1972 and the 6th set by June, 1972. The Committee have been informed that the delivery of these sets had been delayed mainly due to the delay in receipt of castings and forgings from indigenous and forging suppliers". Castings and forgings were so defective that either they had to be rejected or rectified. The Committee recommended that this problem of castings and forgings should be tackled expeditiously in coordination with the Heavy Engineering Corporation as otherwise, it will not only seriously affect the plants build up of capacity to the optimum level but impair the Plant's prospects of attracting more orders for sets. (Paragraphs 2.59 & 2.80).

***Reply of Government**

The Government has taken into cognisance the difficulty regarding procurement of forgings and castings from private/public enterprises, faced by BHEL. As a long term measure to overcome the difficulty on this account, a proposal for captive foundry for the electrical industry has been taken up for consideration. BHEL prepared feasibility report for the setting up of a Central Foundry Forge Project at Hardwar at a cost of Rs. 22.40 crores. The feasibilty report was examined by DGTD, Planning Commission and various divisions of the Ministry of Finance. They approve the pro-

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*Not vetted by Audit.

posal. The Public Investment Board also considered the proposal on the 7th July, 1973. The Minutes of the Meeting are awaited.

Steps have been taken for obtaining supplies of castings and forgings from well established concerns. All BHEL requirements of steel castings and forgings are referred to Heavy Engineering Corporation, Ranchi. Orders for castings and forgings which fall within the manufacturing range of HEC are placed on them where deliveries and prices are found acceptable. One of BHEL Engineer has been posted at HEC Ranchi w.e.f. May, 1972 for chasing of the orders, inspection and liaison work.

[Ministry of Heavy Industry O.M. No. 6-3/73-HEM dt. 17.7.1973]

Recommendation (Sl. No. 9)

The Committee find that capacity likely to be developed at Heavy Electricals Equipment Plant, Hardwar, was determined in October, 1963, but subsequently it was revised as many as four times during a period of two years i.e. in January, and July, 1968 and April and December 1969, generally in a downward manner. Unless the capacity determined in early stages was based on incorrect assumptions, the Committee do not see any other justification for such frequent revisions of capacity likely to be developed. The Committee were informed that the assumptions underlying the studies of development of capacity were order book position, availability of material and components and absorption of skills. Government admitted that the original estimates were more "ambitious" than realistic. The Committee recommended that Hardwar Plant should, therefore, prepare a realistic programme of build up of capacity to end uncertainty and obviate the need for frequent revisions. (Paragraph 2.81).

***Reply of Government**

As desired by the Committee, projections of build up of capacity are indicated in the table below:—

	72-73		73-74		74-75		75-76	
	No.	MW	No.	MW	No.	MW	No.	MW
Thermal Sets .	1	100	3 (1 TG)	580	5 (1 TG)	1080	7	1400

*Not vetted by Audit.

Hydro Sets	2	60	4	35	7	290	10	625
Electrical Machines (to Rotor Armatures)	73	23	339	146	540	250	870	450

The figures for 1972-73 are based on actuals for 1973-74 on Budget Estimates and for 1974-75 and 1975-76 as per the PERT CHART.

The assumption taken into account in the projections of the build up capacity are as follows:—

(i) The efficiency of the workers will rise considerably in next 3 years to fulfil the targets as envisaged in the build up capacity from the existing level of efficiency.

(ii) The supply of material and components particularly critical items such as castings, forgings, mica tape, electro technical sheets etc. will be available from indigenous/ foreign suppliers as per the schedule.

(iii) Favourable industrial climate.

[Ministry of Heavy Industry O.M. No. 6-3/73-HEM dated 17-7-1973].

Recommendation (Sl. No. 12)

The Committee note that percentage of idle machine hours has increased from 24.43 (average of percentage in Blocks I to IV and Tool Room) in 1968-69 to 41.66 in 1969-70 and came down to 21.6 in 1971-72. Percentage of idle labour hours has gone up from 5.3 in 1968-69 (average of Blocks I & III) to 5.6 in 1971-72 although it was only 3 per cent in 1969-70. The main reasons for idleness of machinery were stated to be want of load and want of operator. The Committee find that Hardwar Plant has neither worked out its financial loss on account of idle hours nor has it developed norms of maintenance for different types of machines in various blocks.

The Committee view this very seriously and recommended that Management should without further loss of time evaluate the fiinancial loss due to idle capacity of men and machinery and assess its effect on the working results. The Undertaking should also fix realistic norms of maintenance of utilisation of machinery. (Paragraph 2.91).

***Reply of Government**

Norms of maintenance for different types of machine tools have been established depending upon the repair complexities and repair cycle of the equipment. Schedules of annual/monthly preventive maintenance are being drawn according to these norms with effect from 1st July, 1968.

Hardwar Plant is still passing through a developing stage. Technology has not yet been mastered completely and the workmen are yet to attain the desired level of efficiency. Under the circumstances, norms of utilisation of machines is difficult to be fixed at present. A suitable basis for evaluation of loss due to idle time will be evolved after the production is established. Pending that loss arising from idle time is being evaluated in terms of depreciation w.e.f. 1st April, 1972.

[Ministry of Heavy Industry O.M. No. 6-3/73-HEM dated 17-7-1973].

Recommendation (Sl. No. 13)

The Committee note that in January, 1969 the Bureau of Public Enterprises (Ministry of Finance) advised the Public Sector Undertakings to consult the Finance Branch in case of Purchases where difference between the accepted and lowest tender was more than 5 per cent subject to overall limits. The Committee find that instructions to give effect to the Bureau's circular were issued by the Company in August, 1971 *i.e.* after a period of more than 2½ years. The Committee recommend that reasons for this inordinate delay in giving effect to instructions issued by the Bureau should be investigated and Committee kept informed. The Committee also recommend that Ministry/Bureau of Public Enterprises should ensure through periodical reports that instructions issued by them are being implemented by the Undertakings faithfully. (Paragraph 2.95).

***Reply of Government**

BHEL's purchase procedures were in line with the guide-lines suggested in the Bureau's circular of January, 1969 which was received by BHEM in August, 1969. This circular was considered in the H.O. as well as in the units.

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*Not vetted by Audit.

Para 2 (ii) (b) of the Bureau's circular stipulated that financial concurrence should be obtained where the lowest offer was higher than the last purchase price by 5 per cent. It was felt that prescribing any limit in this behalf might not be very necessary in as much as the past purchase price might not always be linked with the present price which was generally based on prevailing market conditions.

As regards para 2(ii) (c), according to the then existing instructions, the cases were to be referred to Finance where the accepted tendered cost exceeded by 10 per cent of the lowest tender irrespective of whether it was technically acceptable or not. According to the Bureau's circular the lowest tender if not found technically acceptable, were to be ignored and the cases were to be referred to Finance only when there was a difference of more than 5 per cent between the lowest technically acceptable and accepted offer. In this sense the standards adopted were slightly stiffer in certain respects than the guidelines contained in Bureau's letter of January 1969—Paras 2 (ii) (c). However, to bring parity in procedure prevailing in other units, the Company's letter No. BHE|C|CPU|5|2|2617 dated 27th July, 1971 was issued.

The matter was brought to the notice of Bureau and Ministry vide Company's letters Nos. BHE|C|CPU|20408 dated 24th December, 1969 and BHE|C|CPU|5|2|17899 dated 21st December, 1970 (replies awaited).

These instructions have been reiterated by BPE vide their O.M. No. 21|2|72-BPE|MM dated 7th August, 1972 (Appendix II). These have been brought to the notice of BHEL.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 17-7-1973.]

Recommendation (Sl. No. 16)

The Committee note that stores worth Rs. 42.68 lakhs have been declared surplus to requirement. The management have stated that though the list of surplus stores was circulated to other public undertakings and advertised in Lok Udyog the response was not encouraging and fresh tenders were being invited. The Committee recommend that since non-disposal of surplus stores blocks the capital, vigorous efforts should be made by the Management to dispose of such stores early. But it should not be distress sale. The Committee also recommend that continuous review of stores should be made to identify the surplus and suitable action taken to divert them for alternate purposes. (Paragraph 2.106).

***Reply of Government**

Out of Rs 42.68 lakhs of inventory, material worth Rs. 13.72 lakhs was retained for alternative purposes which is now being put to use. Material worth Rs. 5.69 lakhs has already been utilised for alternative purposes. Material worth Rs. 72,000/- has been disposed off to a Public Sector Undertaking and for the balance efforts are being made to dispose them off.

Periodical review of the stores item is made to ascertain surpluses, if any, and initiate action for their disposal.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 17-7-1973.]

Recommendation (Sl. No. 17)

The Committee note that the Hardwar Plant has made a beginning in export promotion by submitting quotations for global tenders. The Committee need hardly stress that what is more important is attainment of perfect standards of quality, development of competitive price, standardisation of products to suit international specifications adherence to delivery schedules which alone will help the plant to secure orders and earn suitable foreign exchange. The Committee also recommend that the assistance of Research and Development Organisations in the field should be taken in developing the appropriate and adequately qualitative indigenous substitutes for imported content of the products. The Committee feel that the first charge on Hardwar Plant should be that of Electricity Boards of the country which should not suffer in the event of the Plant accepting the global orders. (Paragraph 2.119).

Reply of Government

Noted for further action.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 21-3-1973.]

Recommendation (Sl. No. 18)

The Committee note that the Hardwar Project has so far undertaken three profitability studies in March, 1969, June, 1969 and September, 1970. The Committee regret to observe that none of them could actually come true either due to under utilisation of developed capacity of fixation of ad hoc selling prices. The project intends to undertake another study seen, "taking into account the work load

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*Not vetted by Audit.

on hand, anticipate production during 1972-73, 1973-74 and 1974-75 and prices likely to be received for Company's products". The Committee hope that a more realistic position would emerge as a result of proposed study and the unit would make all out efforts to procure firm orders for the utilisation of the developed capacity and fix reasonable selling prices competitive, but consistent with production costs. (Paragraph 2.135)

***Reply of Government**

As stated in para No. 2.81 the profitability studies made were with reference to the picture of the order book position that was available at each stage and not for the same quantum of orders on the plant. In regard to the value of production also prices subsequently settled with the customers and by the Pricing Committee, were adopted from time to time. Revised profitability study has since been completed. The Committee's recommendations are noted.

[Ministry of Heavy Industry O.M. No. 6-3/73-HEM dated 17-7-1973.]

Recommendation (Sl. No. 19)

The Committee are not happy at the way the planning for setting up a stamping unit which was considered so essential to the Unit, was handled. The Committee find the proposal to set up a stamping unit as part of Hardwar Project was mooted by the Consultants in October, 1963, estimates of expenditure (revised) were approved by Government in October, 1968, agreement for supply of Plant and machinery was executed in July, 1970 and the Unit was expected to go into production in March, 1972. It is really a sad commentary that it should have taken more than 8 years to set up and commission this Unit which was so essential and was conceived as early as in 1968.

According to the estimates prepared by the Management in October, 1965, the Stamping Unit with a capacity of 10,400 tonnes of stamping per year was to involve investment of Rs. 155 lakhs. On receipt of Project Report from the Consultants, the estimates were revised to Rs. 265.23 lakhs in February, 1968 on account of devaluation and provision of certain additional facilities. These estimates were again revised to Rs. 323.11 lakhs in April, 1968 to include estimated increase in cost of plant and machinery, civil works, contingencies, incidental expenses during construction and to provide cost

*Not vetted by Audit.

of the Project Report and working drawings which were not provided for earlier. The Unit was planned on the basis of requirement of 10,400 tonnes per annum but according to estimates based on minimum expected orders it was clear that the requirement which would be 75 tonnes in 1969-70 which may rise to 2,260 tonnes only by 1973-74. Consequently the Unit is now proposed to be set up in two phases, the first phase being of 4,000 tonnes capacity and the second phase to be undertaken if and when necessary.

The Committee have been informed that economics of the Unit will be worked out after the assessment being made for Fourth Plan of anticipated requirement of the stampings on the basis of the orders now received is completed.

The Committee recommend that such delays which result in increase in estimated cost and thereby add to the financial burden of the Undertaking as has happened in this case should be avoided in future. (Paragraph 2.148).

***Reply of Government**

The Committee's recommendations are noted for future guidance. However, it may be observed that phasing of the programme of setting up facilities was for optimal use of capital investment. Economics of the Stamping unit with respect to the proposed phasing has been worked out.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 17-7-1973.]

Recommendation (Sl. No. 20)

The Committee are also surprised to find that common items like cost of the Project Report, working drawings and incidental expenses during construction which are usually included in any Project Estimates, had been omitted from the Project Estimate and the estimates had to be revised on this account.

The Committee regret to note that even without working out economics of the Plant, not only a decision was taken to erect the bays but imported equipment and machinery worth Rs. 19 lakhs (Appx) was purchased and orders for Rs. 98 lakhs worth of machinery were placed with HMT.

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*Not vetted by Audit.

The Committee recommend that in matters of planning or purchasing, the Plant should prepare realistic estimates of costs and benefits before making any investment. The Committee also recommend that the Plant should quickly assess its requirements of Stampings to ensure that the capacity of the first phase of this plant is fully utilised. (Paragraph 2.149).

***Reply of Government**

While it is true that incidental expenses during construction were not included in the original estimate for Rs. 265.23 lakhs, but in the revised estimate of Rs. 323.11 lakhs a provision of Rs. 41.44 lakhs was made. Interest during construction was not provided for in the original estimate for this plant, as well as for other plants, as the expectation was that initially equity funds would be available and even before the completion of the project, the plant would go into production to an adequate extent and the interest charges, if any, would be absorbed by the production expenses. A decision was taken later and in the prevailing circumstances not to burden the revenue accounts with the interest charges which were legitimate charge to Capital. Economics of the Plant at full rated capacity was worked out and submitted to the Government on 25-5-1968.

The requirement of stampings has been reassessed and is expected to be around 5800 tonnes at the maximum level of production instead of 10,500 tonnes. The requirement in the ensuing years would be as under:—

1973-74	1430 tonnes
1974-75	2360 tonnes
1975-76	3080 tonnes
1976-77	3890 tonnes
1977-78	5800 tonnes.

The Capacity in the first phase is expected to be utilised fully.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 17-7-1973.]

Recommendation (Sl. No. 21)

The Committee find that it was first decided to set up a foundry forge Plant consisting of Presses of 1,000 tonnes and 4,000 tonnes capacity at a capital cost (revised) of Rs. 28.36 crores. In January,

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*Not vetted by Audit.

1967 the Planning Commission indicated that there would be little justification for adding a 4,000/5,000 tonnes press at Hardwar. NIDC, however, was of the view that the Plant should go ahead as planned except for light castings bays which should be put up after the financial benefits are worked out. In the meeting of the Planning Commission held on 12th February 1969, it was *inter alia* decided that "the entire scope of the Central Foundry Forge Project, Hardwar may be deferred for the present." The position was reviewed in meeting between the Chairman, BHEL and HEC on 13-5-1969 and it appeared that Foundry Forge Plant at Hardwar would not be required in the next 10 years or so. On the basis of a Report of the Committee constituted to assess the capacity of HEC, Ranchi, the Planning Commission decided on 3rd January, 1970 that case for setting up a Foundry Forge Plant at Hardwar must be deferred. Meanwhile, the Project paid Rs. 51.76 lakhs to the collaborater on account of instalments due for providing expenditure of Rs. 36.62 lakhs on the preparation of engineering and technical services. It also incurred on construction site, factory works, land improvement, administration, etc. upto 31st March 1969. Government consider that "it would be too early to say that expenditure has been infructuously incurred. It is hard for the Committee to believe that the surplus capacity available at the FFP of HEC was not known to Government when it gave a green signal for the setting up of Foundry Forge Plant at Hardwar. It is also not clear why Planning Commission was not consulted in the beginning itself so that their views were available to Government before coming to a decision. The Ministry of Industrial Development have stated that a case with detailed justification for setting up the Foundry Forge Plant has been prepared and sent to the Planning Commission. The Committee would like to be kept informed of the final decision of the Planning Commission in the matter. (Paragraph 2.162).

***Reply of Government**

As has been observed by the learned Committee in para 3.24 below, the problem of non-supply of forgings/castings which continues to be the major bottleneck in achieving production targets, would require to be tackled. In this context, demands for the forgings and castings likely to arise in the Fifth Plan Period, are being examined *viz-a-viz* the capacity of the Foundry Forge Plant of HEC. The Planning Commission will take a decision on the question of setting

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*Not vetted by Audit.

up the Central Foundry Forge Plant at Hardwar shortly. The Committee will be informed of the final decision of the Planning Commission as soon as decision is taken in the matter.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-1973.]

Recommendation (Sl. No. 22)

The Committee find that in March, 1969 a high powered Committee was set up by Government to go into the pending cases of price fixation of hydro and steam generating sets. Only one out of nine pending cases was referred to that Committee up to February, 1970. The Committee settled the price of 100 MW set only on 23rd April 1971. It thus took Government two years to settle the sale price of a 100 MW set. Further the Committee are not aware of the position regarding the fixation of price in respect of remaining 8 sets. Hardwar Project even undertook manufacture of 65 flame proof electric motors without settling the price.

If Hardwar Project is to improve its sales performance and create a favourable image inside the country and abroad to be successful to give global tenders, it must see that price of all ranges of its products are determined and are available with them.

The Committee recommend that the Government should issue clear guidelines for the fixation of prices in cases which are not covered by the existing guidelines in order to enable the Company to settle the prices with the customers before undertaking the jobs so as to avoid disputes later on or uncretainty regarding financial implemication thereof. Where the fixation of prices cannot be brought under the guidelines already laid or to be laid down, Committee recommended that such case should be settled if necessary in consultation with expert bodies in the field with in a fixed time limit so that neither the customer nor the manufacturer remains in dark in regard to its liability/entitlements. (Paragraph 2.171).

***Reply of Government**

Prices in three cases (2 cases 100 MW Thermal Sets 6 in number and one case of Hydrosets for Chenani Project—2 sets of 4.6 MW each) have been settled. Prices of Giribata sets (2 in number) are under examination of the Pricing Committee. Regarding flame proof motors question in dispute is not of prices but of the acceptance of motors by the customers.

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*Not vetted by Audit.

Guidelines for fixation of prices have been issued by the Government and in accordance with those guidelines, disputed cases have been|are being referred to a Committee constituted for this purpose. The guidelines are set out in Ministry of Finance BPE circular No. BPE|46|Adv-Fin|68|25 dated 27-12-68. (Appendix III). Whenever a Committee is appointed in terms of these guidelines in future, it will be useful to fix some time limit for the settlement of prices as recommended by the CPU.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM dt. 17-7-73]

Recommendation (Sl. No. 23)

The Committee note that out of 650 enquiries received for electrical machines during June, 1969 to January, 1972 only 80 percent turned into firm orders. The Committee also note that out of 250 enquiries from Government|Public Undertakings, 226 enquiries did not materialise. According to the management one of the reasons for non-finalisation of cases was that the price quoted by the project for low voltage motors were high. The Committee are surprised at the statement that there were no specific case where Government|Public Undertakings had not placed orders because of high prices only. The Committee were informed that the plant had started taking certain steps to increase the sale of their products *e.g.* assessment of market requirements market surveys, modification of certain existing design to meet customers specifications etc. The Committee recommend that the Government should undertake a comprehensive study in depth to identify the causes for the poor sales performance and to devise ways and means for formulating designs with reference to market requirements and adopt a suitable pricing policy. (Paragraph 2.178).

Reply of Government

It may be clarified that the number of enquiries converted into firm order is not the true index of sales performance since most of the enquiries received by Bharat Heavy Electricals Ltd., are for one or two odd motors and not for economic batch of motors of a particular type. The total number of motors for which orders were booked during a period will be a more reasonable index. In this connection the details of orders booked during June, 1969-January, 1972 are as follows:—

(a) 572 Nos. Industrial Electric Machines valued at about Rs. 1452 lakhs.

(b) 86 sets of traction machines (774 Nos.) valued at about Rs. 650|- lakhs.

Generally an order has not been lost due to a single factor such as price but because of combination of reasons such as delivery, technical specifications and price etc. BHEL are carrying out periodic market surveys to identify the requirements of market; design development work on a number of series of motors is in hand, with view to incorporate such features as are required by the Indian Market. Steps are also being taken by BHEL to reduce the delivery period by taking procurement action on long lead items on the basis of anticipated orders.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM dt. 21-3-1973.]

Recommendation (Sl. No. 25)

The Committee note that the Management have worked out cost in respect of motors only and in almost all the cases of motor Production, the cost of production is higher than the sale price. The Committee were informed that such higher cost of production, was due to low production in the initial stage and low labour efficiency. The Committee recommend that keeping in view the analysis of cost, the Management should take steps to improve the labour efficiency by stricter control and supervision, proper development of labour of productive purposes and avoiding over staffing (Paragraph 2.199).

Reply of Government

Noted for further action. For improving labour efficiency, training of the workers and closer supervision and guidance from supervisors has been arranged.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM dt. 17-7-73]

Recommendation (Sl. No. 26)

The Committee regret to note that inspite of the recommendation made by the Committee on Public Undertakings in their 15th Report on Financial Management (April 1968) and the instructions issued by the Bureau of Public Enterprices for the Internal Audit to undertake a critical review of the systems, procedures and operations, no such appraisal was conducted. The Committee are constrain-

ed to observe that the internal Audit has not been effective in discharging the functions expected of it and recommend that it should be intensified so that the management can take advantage of the reports in plugging loopholes. (Paragraph 2.203).

Reply of Government

Critical review of systems, procedures and operations as a whole is being regularly conducted by the Finance and Accounts Department. A beginning has been made by Internal Audit with effect from the year 1972-73 in conducting performance appraisals of service units. As regards production units, performance appraisals would be conducted as soon as norms are laid down for individual jobs. The work of fixing norms of operation is in progress.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM dt. 17-7-73]

Recommendation (Sl. No. 29)

The Committee find that though the Hyderabad Plant had submitted revised project estimates to Government as early as April 1969 for approval the same have not been approved till now because the "question whether the revised estimates should be modified to exclude deferred and surplus items of machinery and equipment was also to be considered before the Government could be approached for sanction of the revised estimate". With the improvement in order book position, it was felt that the equipment provided for in the DPR could be made use of and that it would also cater for diversified items of production such as industrial turbines and centrifugal compressors and hence provision made in the revised estimates would be justified. The project is stated to have furnished the viability statement to Government in February, 1972.

The consideration of revised project estimates by Government has thus taken more than three years.

The Committee would like to point out that the project authorities had sent the revised project estimates to Government only in April, 1969, and that too in an incomplete shape only after the actual expenditure (March, 1969) had already exceeded by about Rs. 260 lakhs of the original estimates. The Committee stress that the Plant authorities should have prepared the Revised Estimates complete in all respects, and with full supporting details about their effect on economic viability of the Plant in order to obtain the approval of Government in time before incurring additional expenditure. The

Committee deprecate such inordinate delays in submission and sanction of revised project estimates. (Paragraph 3,14).

***Reply of Government**

The actual expenditure has exceeded the original estimates by Rs. 260 lakhs only due to devaluation and statutory increase in customs duty and freight charges and not expenditure on any avoidable items. The revised estimates have been approved by the Government. However, the Committee's comments have been noted.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 17-7-1973.]

Recommendation (Sl. No. 30)

The Committee note that the Detailed Project Report did not indicate the scheduled dates of construction of various works of the project as the profile for manufacturing programme had undergone change. However, the management had fixed some target dates for completion of civil works and with reference to such schedules, there has been delays in completion of the civil works of shops ranging from 6 to 28 months. It is a moot point whether the works have been completed in all respects even now as no technical completion report has been finalised. The Committee need hardly stress the importance of preparing and finalising the completion Reports without loss of time for ascertaining the technical deviations and financial excesses. The Committee also find that erection of plant and machinery in the main production blocks of factory ran behind schedule. These delays are stated to have occurred due to non-receipt of steel in time, foreign exchange restrictions, belated receipt of 100 MW study necessitating re-examination of machine loading and processes, delay in execution of work by Contractors/sub-contractors and inadequacy of equipment with contractors. The Committee recommend that Government should allocate high prority for steel to important development projects and ensure adequate and timely supply of steel either from indigenous plants or by imports so that civil works and schedule for erection of plant and machinery do not suffer a set-back. The Committee need hardly point out that delay for manufacture of capital goods has wide and far-reaching effects on the programme for development envisaged in the plan. (Paragraph 3.18).

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*Not vetted by Audit.

Reply of Government

The works have been completed in all respects and only the technical completion reports as prescribed in BPE's O.M. No. 1809-Adv (E)Cir-57|69 dated 24-11-1969 are under preparation.

The work of finalisation of the completion reports is under progress and is expected to be completed in a couple of months.

The comments of the Committee regarding allocation of steel have been noted.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 21-3-1973.]

Recommendation (Sl. No. 31)

The Committee find that in the year 1966-67, Hyderabad Plant had set target to production set of 12 MW but produced none. During 1967-68 it produced one set of 12 MW against the target of 2 sets of 60 MW. In 1968-69, the target was for 3 sets of 60 MW each but the actual production was 2 sets of 60 MW each. The Plant failed to achieve targets of production in the subsequent years as well. The Committee find that by and large the same deficiencies and obstacles, which hampared the production in the previous years, had continued to prevail during the year 1969-70 to 1971-72 *viz.*, delays in the supply of alloy steel castings and forgings, both indigenous and imported and non-attainment of expected labour efficiency. The Committee are surprised that non-supply of forgings|castings continues to be the major bottleneck in many of the Undertakings in achieving their production targets. The Committee feel that unless this problem is tackled with all seriousness and promptitude, the production performance of the Undertakings dependent on such castings and forgings, cannot be expected to improve. The Committee recommend that Government should find out a solution by deploying a high power Task Force of technical experts so that this difficulty is overcome. (Paragraph 3.24).

Reply of Government

Short-term solution by placing advance orders on indigenous as well as foreign suppliers on the basis of the indications of the likely orders on the Plant with reference to the Decade plant for power development is being tied up. As stated in our comments against para 2.162 on Hardwar Plant, the setting up of a Foundry Forge Plant is under consideration.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM
Dt. 21-3-1973]

Recommendation (Sl. No. 34)

The Committee note that percentage of idle hours to available hours at Hyderabad Plant was 18.8 in 1967-68, 10.3 in 1968-69, 8.7 in 1969-70 and 15.1 in 1970-71. The cost of total idle hours was Rs. 1.68 lakhs in 1967-68, Rs. 2.89 lakhs in 1968-69 and Rs. 3.76 lakhs in 1969-70. The Committee were informed that the main reasons for labour remaining idle for want of work in certain work centres when there were several orders on hand were the defects noticed in the castings and forgings during the course of machining, delay in receipt of critical castings and forgings and other materials with consequential delay in the flow of assemblies from one work centre to another and that in the initial stage of manufacture a certain amount of deviations in the manufacturing techniques and tooling was inevitable. Normally as the plant grows in experience and absorbs new skills, labour utilisation should improve. The Committee however, find that Hyderabad Plant idle labour hours have increased from 8.7 per cent in 1969-70 to 15.1 per cent in 1970-71. This steep increase has been attributed by the Management to strike and lock-out proceeded by go-slow tactics by employees.

The Committee stress the need for coordinated action by Management specially in the field of procuring orders well in advance and arranging the supplies of materials and quality castings and forgings so as to make for optimum utilisation of labour and machinery and reducing the percentage of idle hours to available hours of work.

The Committee have made horizontal studies on Personnel Policies and Labour Management Relation in Public Undertakings. The Committee have no doubt that if implementation of recommendations contained in that Report is done in letter and spirit, will promote healthy relation with labour and avoid strikes and lock-outs in future. (Paragraph 3.38).

Reply of Government

The percentage of labour idle time to total available hours during 1971-72 is 7.4 per cent. It would be seen from the year-wise percentage of idle time furnished in this para that there has been a decreasing trend in the labour idle time from year to year (Except during 1970-71) resulting in the improvement of labour utilisation. The increase in idle time during 1970-71 as compared to the idle time in 1969-70 was due to strike and lock-out during that year. During 1970-71 the percentage of idle time excluding idle time due to strike, lock-out and go slow tactics works out to only 9.4 per cent of the available hours.

BHEL'S Inspection Department has been instructed to resort to as much of non-destruction testing as is practicable to eliminate defective castings before they are taken up for machining. It is, however, pointed out that complete 100 per cent non-destruction tests are not practicable and owing to the very complicated nature of the type of castings required in turbine manufacture, it is not uncommon to find that defects|deficiencies are revealed only after machining. This aspect is aggravated by the fact that very few suppliers are willing to supply the castings in a proof-machined condition. BHEL are exploring possibilities of offloading the proof-machining work on castings. Loading of such castings on their own production machines would only result in wear and tear of higher quality machines which are not required for such proof-machining.

Orders for turbo sets of 60 MW and 110 MW ratings are received only from various Electricity Boards, who generally issued orders only after the scheme is finalised by Planning Commission and necessary arrangements for funds are made. However, BHEL have been keeping in touch with various Electricity Boards for knowing their requirements in advance. But the actual orders have been issued only after the schemes had been approved by all concerned.

The orders for the small castings for the 1st to 7th sets of 110 MW were placed on the indigenous firms based on the recommendations given by BHEL collaborators. Some of the orders were processed on HEC, Ranchi, for the small forgings. The deliveries from both the sources were delayed though the orders were placed on them with a lead time of 2|1|2 to 3 years. During this period the necessary technical assistance was given to these firms from time to time with a hope that these firms will improve in quality and delivery. Since the progress was discouraging it was decided to import these small castings and forgings for 10 sets from third countries to cover the requirements for set No. 8 to set No. 17 for 110 MW. With this ordering it is envisaged that sufficient cushion has been made to avoid the loss of production for want of castings and forgings.

In case of small sets to be delivered piecemeal—say one or two pieces of each capacity, BHEL are experiencing difficulties since the collaborator is not willing to make offers for this item. The quantities being so small even third countries are not interested and therefore, efforts are being made to procure the same from the indigenous market.

Close liaison is being maintained by casting inspectors and exchange of visits to this firms so as to get the castings delivered vith-

out any delay. With HEC, Ranchi, also a close liaison is being maintained at all levels ranging from Shop Superintendent to the Managing Directors in appraising the hold ups in advance and pursuing the deliveries.

The Committee's recommendations as a result of their horizontal studies on personnel policies and labour management relations in public undertakings are noted for implementation wherever practicable.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-1973.]

Recommendation (Sl. No. 37)

The Committee note that the Detailed Project Report had not given any indication of the phased development of indigenous manufacture and the plant has been regulating the import of components and raw material according to certain levels based on the Agreement entered with M|s. Skoda Export in April, 1967. The Committee have been informed that indigenous work content as measured in Czech standard Hours for each set has been steadily increasing so that the Plant would be able to achieve self-sufficiency soon. The Committee recommend that the plant should intensify its efforts to identify indigenous manufacturers who could feed the plant with components|raw materials of required specifications in substitution of the imported components and raw material. (Paragraph 3.50).

Reply of Government

The Company has successfully developed and utilised the workshop facilities available in and around Hyderabad City in respect of Switchgear items.

Efforts are now being made to offload such items of work as can be got done outside the factory. It is hoped that in due course, BHEL would be able to offload approximately 10 per cent to 15 per cent of their annual output to ancillary industry. Plans are also in hand to establish a suitable ancillary cell which can handle a variety of work connected with such offloading.

Similarly ancillary industry for turbo sets manufacture is also being developed.

Power plant equipment was imported in the past. Their manufacture at Hyderabad now constitutes direct substitution of imported items. Off-loading of components for manufacture by ancillary industry does in itself contribute to import substitution.

Offloading is resorted to increase the factory's capability of manufacturing the more complicated items which cannot be normally attempted by smaller firms. Since the items offloaded are parts of power plant that are being now manufactured in India and which were hitherto being imported, it results in import substitution.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM Dt. 17-7-1973]

Recommendation (Sl. No. 38)

The Committee note that out of surplus machinery worth Rs. 51.81 lakhs only machinery of the value of Rs. 12.49 lakhs was awaiting disposal in July, 1970. The Committee would like to be kept informed of the latest position. The Committee also recommend that a review of the inventory of machinery should be done periodically with a view to identifying surpluses and to deploy them in other fields suitably. The Committee also recommend that management should ensure that purchase of machinery is undertaken only after a thorough assessment of anticipated power load in close coordination with the Government. (Paragraph 3.60)

***Reply of Government**

The 2 machines viz. Central Lathe SR 2000|6000 and Bailing press are valued at Rs. 12.40 lakhs. On a reappraisal of the requirements of Hyderabad Unit in the context of increased orders on the plant for turbo sets and also for Centrifugal Compressors, it is found that both these machines would be required, Central Lathe for the machining of certain coolers for the compressors and rotors of turbosets and Bailing Press for the Foundry. The Central Lathe SR 2000|6000 is under erection. In view of this, the question of disposal of these machines does not arise at this stage.

Hyderabad Unit has introduced the system of Quarterly Review of the Machinery awaiting erection from 1st January, 1971. Similar reviews will be called for from the plants regarding equipment being procured for expansion|diversification etc., which will inter-alia comply with the Committee's recommendations.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM Dt. 17-7-1973]

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*At the time of factual verification Audit have stated as follows :—

"According to the revised reply of the Management submitted to the Principal Audit officer and the Ministry's earlier reply two machines were valued at Rs. 12·49 lakhs as against the figure of Rs. 12·40 lakhs mentioned in the present reply."

Recommendation (Sl No. 39)

The Committee hope that the Management will conduct performance appraisal on the same lines as indicated in their 15th Report on Financial Management.

The Committee need hardly stress that internal audit report being an indicator to the Management about the efficiency or otherwise of the working of the undertaking should receive adequate and prompt attention so that deficiencies and lapses are rectified in time and the working of the undertaking toned up. (Paragraph 3.63)

Reply of Government

The scope of Internal Audit as envisaged in the 15th Report is being followed. The critical review of systems, procedures and operations in Internal Audit requires the association of technically qualified persons with internal audit which is now being planned.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM Dt. 17-7-1973]

Recommendation (Sl. No. 40)

The Committee find that at present Air Plasts of 220 MW are being manufactured both at the Heavy Electricals (I) Ltd., Bhopal and Switchgear Unit, Hyderabad. The Committee are not happy that manufacture of the same type of products should be undertaken in two different undertakings in the public sector. Overlapping in the product-mix involves creation of production facilities at two different centres, leads to economy of scale. The Committee, therefore, recommend that Government should explore the possibility of restricting the manufacture of the Air Plasts to the Undertakings most suited to it in order to secure uniformity of quality and derive maximum benefit from economics of scale. (Paragraph 4.4)

***Reply of Government**

220 KV air plast circuit breakers manufactured at Bhopal and Hyderabad are of different designs having different performance characteristics. Each has its utility in the power system. Moreover, with the rapid technological development at national as well as international level, the minimum air circuit breakers may have to be adopted in our country in this voltage range, which will replace the existing airblast desings to a very great extent.

*Not vetted by Audit.

Keeping this and other aspects in view, efforts are being made to rationalise production at Bhopal and Hyderabad. With the proposed integration of management of HE(I)L and B.H.E.L. such rationalisation is possible and will be carried out.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 21-3-1973.]

Recommendation (Sl. No. 42)

The Committee find that no specific targets for completion of the switchgear project were laid down. The Project, however, went into production in October, 1966. During 1966-67 the Project had fixed a target to produce 40 Air Blast Circuit Breakers. This target was reduced to 20 breakers out of which 10 breakers were to be imported in completely knocked down condition. The Committee note that the Project however, actually produced only 3 breakers due to short receipt of the breakers in completely knocked down condition and delay in indigenous assembly due to non-receipt of test equipment. The production performance during 1967-68 however, improved but the position deteriorated during 1968-69 and 1969-70 due to lack of inadequate orders. During the 1970-71 and 1971-72 targets could not be achieved due to strikes and lock-outs etc. and delay in establishing indigenous castings. Though the unit has been able to secure orders upto 1973-74 enough to utilise the full capacity of the plant, the Committee note that the Unit could produce only upto 70 per cent of the rated capacity. (Paragraph 4.18)

†Reply of Government

Comments of the Committee are noted. Action is being taken to ensure that the existing plant capacity is fully utilized.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 21-3-1973.]

Recommendation (Sl. No. 43)

The Committee recommend that, since the unit is in a position to book orders regularly, steps should be taken to gear up the machinery to full working capacity by ensuring timely supply of indigenous forgings and castings through sister undertakings like HEC etc. (Paragraph 4.19)

Reply of Government

The Committee's observations are noted and every effort will be made to optimise production

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 21-3-1973.]

Recommendation (Sl. No. 43A)

The Committee note that percentage of idle machine hours to available hours has been increasing from 27.15 in 1967-68 to 27.9 in 1970-71 and touched a peak in 1969-70 to 29.76 per cent. The Committee are concerned to note that there has been no significant improvement in this direction. The idle machine hours due to lack of load worked out to 34 per cent of the total machine hours in 1967-68 and 1968-69 and 20 per cent in 1969-70. Since the Committee has been informed that the order book is now complete up to 1973-74, it should be possible for the Unit to work to full capacity and ensure that all measures are taken to avoid both idle labour hours and idle capacity in machinery. (Paragraph 4.25)

Reply of Government

The Total available machine and labour hours and the total idle machine and idle labour hours for the years 1969-70 to 1971-72 are as under:—

	1969-70	1970-71	1971-72
1. (a) Total available machine hours	2,50,383	[illegible]2,94,098	3,90,56-
(b) Total idle machine hours .	74,504	82,055	78,440
(c) % of idle hours to available hours	29·76%	27·90%	20·08%
. (a) Total available labour hours .	1,96,511	[illegible]3,23,670	[illegible]4,76,362
(b) Total idle labour hours . .	20,608	33,323	39,89[illegible]
(c) % of idle hours to available hours	10·49%	10·29%	8·38%

It will be seen from the above that both the idle machine hours and the idle labour hours as a percentage to the respective available hours are coming down gradually year after year. Action is being taken to reduce the idle hours to the barest minimum.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-73]

Recommendation (Sl. No. 44)

The Committee understand that profitability studies were undertaken from time to time and according to the latest report in December, 1969, full utilisation would be achieved by 1973-74 resulting

in profits from 1970-71. If the anticipations according to profitability studies are to be achieved, it is necessary that adequate orders are booked by the Unit from now onwards. The Committee recommend that the Project should make all-out efforts to ensure an even flow of orders according to the anticipations in the profitability study report. (Paragraph 4.34)

Reply of Government

BHEL have already reached the break-even point in 1970-71 and are working of profitably in 1971-72 also.

They are booking the orders on a sustained basis as would be seen from the fact that the order book position is encouraging.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-73]

Recommendation (Sl. No. 50)

The Committee are glad to note that the Tiruchy Plant of BHEL has been able to secure large orders totalling over Rs. 11 crores for export of boilers to Malaysia. The Committee would like BHEL and Indian Consortium for Power Projects to intensify their exports efforts so as to secure larger orders, from Malaysia and other developing countries. The Committee have no doubt that Government would extend all necessary assistance to BHEL in order to sustain and step up the exports.

As regards valves, the Committee are glad to note that some orders have been secured from such advanced countries as Germany. The Committee would like BHEL/Government to explore the possibility of stepping up exports of valves. (Paragraph 5.39).

Reply of Government

It may be mentioned that BHEL has been regularly participating in all recent tenders for power projects in under-developed countries, both on their own and through the Indian consortium for power projects. After BHEL sucessfully completes the order for 5 boilers to be exported to Malaysia and these boilers perform successfully in actual operation, the acceptability of BHEL boilers would,

it is hoped, be further enhanced and the export field is bound to enlarge. As regards valves, the possibility of opening Sales Centres and warehouses abroad to push up valve sales is under consideration.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-1973]

Recommendation (Sl. No. 51)

The Committee note that efforts made by Tiruchy Unit to bring down their inventory from 21.8 months consumption in 1968-69 to 11.4 months in 1970-71. The Committee also note that the stock of slow moving stores had been reduced from Rs. 92.04 lakhs on 31-3-1970 to Rs. 58.14 lakhs on 31-3-71 by disposal and by transfer back to stores for utilisation with suitable re-design of boilers. It has however, been admitted by the Management that there has been no significant improvement in the stock of Rs. 2.58 lakhs representing construction stores items. The Committee recommend that Management should keep the level of inventory under check and concentrate on exploring avenues for disposal of construction stores item.

The Committee note that the Unit was having Rs. 92.04 lakhs worth slow moving stores including Rs. 53 lakhs of seemless tubes. The Committee deprecate that seemless tubes had been procured and lying surplus due to non-receipt of orders for Faridabad-I and II and Amarkantak Power Stations. Since orders for Faridabad Plant had been received, the Committee hope that surplus seemless tubes would now be diverted to profitable use. (Paragraph 5.50)

Repiy of Government

Special steps are proposed to be taken by the Plant to clear the surplus construction stores during 1972-73 and significant improvement in the position is expected by March, 1973.

Regarding the Rs. 53 lakhs of seemless tubes referred to by the Committee, these are now being utilised for the Faridabad-I and II Boilers for which orders have since been brought down to Rs. 15 lakhs on 31-7-1972.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-73]

Recommendation (Sl. No. 52)

The Committee note that in the detailed project report Consultants had forecast that Tiruchy Plant would incur losses upto the

4th Year from the commencement of production (i.e. upto 1968-69). The Committee find that the Plant started earning profit even from 1967-68, the 3rd year of production and the profit earned upto 1968-69 was Rs. 3.06 crores. The Committee hope that a close watch will be kept on factors which tend to raise the cost of production and effect economies wherever necessary to improve the profitability of the plant in the years to come.

The Committee also note that on the basis of the profitability study made in October, 1970, the unit is likely to make profit upto 1973-74. While this position may be feasible with reference to the orders for Boilers on hand the Committee feel that the same cannot be said in regard to valves. At present the orders outstanding on 31-3-71 were only for Rs. 230 lakhs which may cover only one year i.e. upto 1971-72. The Committee, therefore recommend that the unit should make all-out efforts to procure more orders for valves which would ensure full utilisation of the machinery and the anticipated result according to the profitability studies. (Paragraph 5.62)

Reply of Government

Regarding the factors tending to raise the cost of production it may be stated that the materials cost has been continuously causing anxiety. The main raw-material is still and the unsatisfactory supply position from indigenous steel plants has forced BHEL to buy critical steel materials in open market paying at times about 100 to 200 per cent more than the JPC prices to overcome production bottlenecks. Further on the advice of the Steel Plants imports had to be resorted to which were often costlier to the extent of about 50 to 80 per cent compared with the indigenous prices.

These factors, which are beyond the control of the plant management, make it difficult to check the increase in cost of production from year to year. However, in all other respects, the Management has been continuously watching the cost trends and taking steps to effect economics through standardisation, variety reduction, design improvements, etc.

As regards the second point regarding the order book for valves, a reference is invited to the comments under para 5.32.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-73.]

Recommendation (Sl. No. 54)

The Committee regret to note that it should have taken Tiruchy Unit so long to streamlines the procedure for internal Audit and bring it in the form of a Manual. The Committee are surprised to find that the Management have not cared to conduct any appraisal of the performance of the Unit till 1970 and note that a beginning has been made only in August 1970 that too in respect of the Department. The Committee hope that the Internal Audit Cell of the Plant would be activised to discharge the functions and responsibilities expected of it so that the Management can take advantage of the reports of Internal Audit to setting right the defects in working and improving its efficiency. (Paragraph 5.72).

Reply of Government

A complete Internal Audit Manual has been compiled. Appraisal Audit of the performance of the Unit as a whole has been made. Inter firm comparisons have also been made. Steps are also being taken to strengthen the Internal Audit Wing with suitable experienced personnel.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-73.]

Recommendation (Sl. No. 58)

The Committee note that the existing debt equity ratio of Bharat Heavy Electricals Ltd. is 1.72:1 (as on 31-3-71). The Company have pointed out that the main reasons why the debts of the Company were on the high side was that the 50 per cent of the Project cost was financed by Government in the form of loans. Thus the project was burdened with heavy interest on loans before it could even attain full production. This liability increased with the passage of time and cash losses in the initial year were also met from Government loans. In para 1.13 of their 15th Report on Financial Management in Public Undertakings the Committee had referred to this problem and suggested, "an arrangement which appeals to the Committee is to capitalise interest liability during the construction period and to write it off from profits into later years." The Committee hope that while considering the question of reconstructing the capital structure of the Company, Government would show greater awareness of the problems of capital intensive companies with long gestation period in the initial years of production so that a company which takes a heavy loan to cover a part of its project cost does not

find itself in a difficult position of having to pay interest even before commencement of production because such interest leads to further losses. (Paragraph 7.6).

Reply of Government

Government have already considered the question of reconstruction of the capital structure of some of the heavy engineering industries and have also authorised reliefs to some of the industries like HEIL, BHEL by reducing the interest burden through maratorium etc. The Committee's suggestion have been noted.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-73.]

Recommendation (Sl. No. 59)

The Committee note that as on 20-11-1971, the advance and progress payment amounting to Rs. 29.96 crores are due from State Electricity Boards. The Committee find that on the one hand the State Electricity Boards seem to be unable to settle those outstandings for want of funds and on the other hand the Company have written to the State Electricity Boards that 'If they do not make advance and progress payments as due, their sets will not be progressed further'. If this warning is carried out, the Committee feel, it will create an avoidable statement which in turn was bound to effect the programme for development of power generation in the country. The Committee recommend that Government should tackle this problem at the highest level in order to find an acceptable solution. (Paragraph 7.16).

***Reply of Government**

The Committee's recommendation have been under consideration of the Government and the Planning Commission. The issue regarding the payment of the cost of generating equipments by the State Electricity Board was discussed at a meeting attended by the representatives of the Planning Commission, Ministry of I&P, Finance and this Ministry and also representatives of various State Electricity Boards and Chairmen of the manufacturing Units. Revised terms of payment have been arrived at to suit financially the State Electricity Boards. The revised and earlier terms of payment are also enclosed (Appendix V).

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 17-7-73.].

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*Not vetted by Audit.

CHAPTER III

RECOMMENDATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF GOVERNMENT'S REPLIES

Recommendation (Sl. No. 1)

The Committee note that the delivery schedules were not strictly followed by the collaborator with the result that there was delay in erection of equipment and going into production. The delay ranges from six months to three years and naturally has caused concern to the Committee. The Committee also find that as is usual in such agreements with Russian collaborators, penalty clause was provided for delay in supply of equipment. One of the reasons advanced for non-provision of the penalty clause is that the Russians desired to have counter-penalty clause if there was delay in opening of letter of credit. The Committee could suggest that Government may examine the matter in all its aspects to ensure that delays of the nature that occurred in the present undertaking do not recur. (Paragraph 2.17).

Reply of Government

The matter has been examined in all its aspects as desired by the Committee. It is reiterated that non-provision of the penalty clause is not due to hesitation on the part of BHEL to accept a counter penalty clause, but the reluctance of the Russians Collaborators to accept this penalty clause on a point of principle. It will be BHEL's constant endeavour to ensure that avoidable delays to not recur.
[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM dated 21-3-73.]

Recommendation (Sl. No. 4)

The Committee note with regret that Heavy Electrical Equipment Plant, Hardwar which according to the tentative time schedule drawn up in October, 1963 for construction of the project should have been completed by the end of December, 1966, has not been completed till now. During evidence, the Committee were informed that so far 95 per cent of the project has been completed. In other words, there has been a delay of more than five years in the completion of this project. In July, 1964 the construction schedule was revised.

Another revision was made during December, 1966 to May 1967 when the date of completion of project (excepting installation of Heavy, Unique, special and non-standard equipment) was revised to December, 1968. In December, 1967 the Management again revised the time schedule and indicated that 99 per cent of the blocks would be completed by the end of March 1969. This revision became necessary wing to the delay on the part of the suppliers to despatch working drawings and equipment (imported and indigenous). During evidence of Undertaking/Ministry, it is transpired that out of Rs. 380.75 lakhs of equipment, equipment of the value of Rs. 70 lakhs had not been installed. The Committee were assured that the installation of this equipment would complete by March, 1973.

(Paragraph 2.45)

Reply of Government

Out of the equipment of Rs. 70 lakhs, machinery and equipment worth Rs. 62.92 lakhs have been erected and commissioned-machinery worth Rs. 44.87 lakhs by March, 1972 and Rs. 18.05 lakhs by September, 1972. Items valued at Rs. 1.173 lakhs are of the nature of spares and accesseries and do not require erection. The details of the balance of equipment|machinery worth Rs. 5.35 lakhs are as under:—

(i) Equipment/Machinery (Imported) Rs. 4.00 lakhs.

(ii) Equipment/Machinery (Indigenous) Rs. 1.35 lakhs.

Rs. 5.35 lakhs

Out of the equipment worth Rs. 4.00 lakhs (imported) equipment worth Rs. 1.35 lakhs have since been capitalised (Rs. 0.87 lakhs)|commissioned (Rs. 0.48 lakhs) equipment worth Rs. 0.42 lakhs are planned to be drawn next year; machinery worth Rs. 1.80 lakhs relating to cast Iron Foundry are to be erected in 1973-74 as per erection schedule and items value at Rs. 0.43 lakhs are of the nature of spares to be drawn according to requirements.

Machinery and equipment worth Rs. 0.97 lakhs out of indigenous equipment (Rs. 1.35 lakhs) have since been capitalised equipment worth Rs. 0.33 lakhs is planned for erection during 1973-74 and the balance of Rs. 0.05 lakhs are electrical maintenance items.

(Ministry of heavy Industry O.M. No. 6-3|72-HEM date 17-7-1973)

Recommendation (Serial No. 15)

The Committee are surprised to find that alley steel valued at Rs. 17.89 lakhs was imported for the manufacture of special type of tools and hot forgings dies etc., on "ad-hoc basis". It was stated that the

actual requirement was not known at the time of procurement The Committee are unable to appreciate why this import of alloy steel was made by Hardwar Plant and authorised by Government on ad-hoc basis and that too when even the actual requirements was not known. The result of this hasty procurement action has been that alloy steel of the value of Rs. 10.00 lakhs is lying surplus to requirements of the Plant. The Committee feel that responsibility for making this ad-hoc purchase involving foreign exchange should be fixed and the Committee informed of the action taken. (Paragraph 5.105)

Reply of Government

Being a new Plant and the products being also new, the Unit has to go by the advice of the Consultants. The Collaborators, M|s. Prommashexport had suggested import of about 408 tons tool steel for Tool and Gauge Shop but the orders were placed for only 236 tons. Major portion of the steel was intended for making hot forging dies and dies for electrical machine components for which manufacturing facilities have not yet been established and hence the steel could not be utilised. With the start of stamping shop in the year 1973-74, it is expected that surplus quantity of tool steel will be utilised. In view of the above, the question of fixation of responsibility on foreign collaborators does not arise.

The observations of the Committee have, however, been noted for future guidance.

(Ministry of Heavy Industry O.M. No. 6-3|72-HEM dated.17-7-73)

Recommendation (Serial No. 27)

The Committee find that a sum of Rs. 130 lakhs was paid to the collaborators for the technical documentation for manufacture of 12,60 and 110 MW turbo-generator sets for expanding the capacity of the Hyderabad plant, over and above a sum of Rs. 52 lakhs paid to them for the preparation of Detailed Project Report in connection with the manufacture of 12 MW and 25 MW turbo-generator sets. A sum of Rs. 93,000 was paid for design documentation for 25 MW sets. The Committee note that the plant has not received any order for the manufacture of 25 MW sets, and there is hardly any likelihood of the plant receiving any such order because the present trend all over the world appears to be for turbo sets of higher capacity. The expenditure of Rs. 93,000 incurred on obtaining documentation of 25 WM sets has proved to be infructuous. The Committee would like to reiterate

their earlier conclusion given in para 35 of 39th Report of Committee on Public Undertakings (March, 1967) that there was no crystalised thinking regarding the range of the equipments to be manufactured and the project was conceived and proceeded without basic data or exact knowledge. The Committee note with a concern the undue haste in taking important decisions on such projects for manufacture of capital machinery without a proper demand survey and without carefully analysing and understanding the design trends in the size of turbo-generators which have such vital bearing on the economics of generation of power. (Paragraph 3.6)

***Reply of Government**

The sum of Rs. 52 lakhs was paid to the collaborators for preparation of the Detailed Project Report which relates only to advice regarding the facilities, machinery, equipment building etc., required for setting up the plant for manufacturing turbo sets. The amount of Rs. 130 lakhs on the other hand represents payment for training of Indian Engineers and passing on know-how and technical documentation for the manufacture of 12 MW, 60 MW and 110 MW sets in the form of design and manufacturing documentation and permission to exploit their patents and know-how. This letter includes a sum of Rs. 93,000|- relating to partial documentation for 25 MW turbo sets prepared by the collaborators. Thus even if the manufacturing pattern had not been changed from 12 MW and 25 MW to 60 MW, and 110 MW, a separate amount would have had to be paid for the manufacturing documentation for the smallar sizes of sets. As the sum of Rs. 93,000/- paid for the partial documentation for 25 MW has been agreed to be aljusted in future negotiations there has been no infructuous expenditure.

The question of establishing the plants at Hyderabad and Hardwar as finalised after an appraisal of the demand for power in the country and taking into account the capacity of Bhopal Unit. The need for the plants was clearly established. Only the product-mix and the range of sizes was reviewed taking into account the rapidly changing trends in the power development requiring larger units instead of the smaller sizes originally envisaged. Such changes in the sizes of units are inevitable in the context of development of technology and greater demand for power.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM Dt. 21-3-1973]

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*Not vetted by Audit.

Recommendation (Serial No. 32)

The Committee note that Hyderabad plant had not been able to adhere to dates of delivery of sets quoted by it to its customers. While the Committee appreciate that certain delays are inevitable due to the customers not being ready to receive the sets on account of delays in Civil Engineering works at the site or lack of handling facilities etc., the Committee stress that the plant should strictly adhere to the delivery schedules accepted by it. The Committee need hardly impress that non-adherence to due dates of the delivery and consequential delays have far reaching implications inasmuch as they accentuate the power shortage which adversely affects the industrial development. (Paragraph 3.29)

Reply of Government

The Plant has been constantly endeavouring to see that the delivery dates of the customers are met with. However there have some serious difficulties in the past due to non-supply of critical items of castings and foregings and delayed|non-finalisation of the project layouts by the customers/their consultants.

With the long range power requirements indicated by the Irrigation and Power Ministry in their decade plan, the materials have been ordered to suit the sequence of requirements and the matter regarding the finalisation of the project layouts has been taken with the CWPC so that they could recommend standard layout schemes for the various Thermal Stations, thereby helping the units in manufacturing them to meet the customers' requirements.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM
Dt. 21-3-1973]

Recommendation (Serial No. 33)

The Committee note that according to studies made by the Management in April, 1969, capacity expected to be utilised at the Hyderabad Plant during 1969-70 and 1970-71 was 300 MW and 475 MW respectively, but in the study made in December, 1969, the capacity expected to be utilised was reduce to 230 MW and 390 MW respectively, even though there was no paucity of orders to be executed during these years. A further study made in September, 1970, revealed that the Plant plans to utilise capacity to the extent of 390 MW (3x 110 MW and I x 60 MW) in 1971-72, 440 MW (4 x 110 MW) in 1972-73 and 560 MW (5x 100 MW and I x 60 MW) in 1973-74.

The Committee were informed that utilisation of capacity depended on three main factors viz. (I) order book position (ii) availability of special castings and forgings and (iii) development of skills. The Committee find that though Hyderabad Plant went into production in 1965-66 and had more than 6 years experience in the line yet inadequate development of skill continue to be advanced as one of the factors coming in the way of fuller development and utilisation of capacity. This means adequate efforts have not been made in this direction so far. The Committee, therefore, recommend that Management should draw up a well co-ordinated and time bound training programme for development of skills at all levels of workers and supervisors, in order to utilise the capacity of the plant at optimum level.

The Committee have elsewhere made recommendation for an advance coordinated planning for the supply of forgings and castings by the indigenous manufacturers both in the Public and Private Sectors. (Paragraph 3.34A)

Reply of Government

The development of the skills to the standards of the collaborators---Czechs|Russians, etc. is achieved by the actual handling of machines in the manufacture of the sophisticated equipment. The absorption of the technology and the development of skills is related to the quantum of production which in turn depends on the availability of critical casting and forgings. The delay in the delivery of the critical materials affected the quantum of production resulting in delays in the rapid development of skills and therefore the building up of the real capacity of the plant. Even on international norms, it takes about 6 to 7 years to reach the desired levels of skills.

The detailed Project Report did not give any yearwise break-up of the development of skills as compared to the collaborators working standards. However, a broad guideline indicating at the installed capacity of the plant, which is for the manufacture of 900MW comprising of 67 110 MW and 4 x 60 MW sets is to be achieved progressively in 5 to 6 years time from the commencement of production of turbine and alternator each of the products. Based on this, the recommendation of collaborators on the computation of efficiency of Indian workers *vis-a-vis* Czechoslovak workers was that, it should be reckoned as 1:5 for a fresh Indian worker progressively increasing and reaching a level of I:I as above to meet the rated capacity. Looking into the conditions obtaining in the country such

as climate and the level of skills now available and also the growth rates of skills for this type of sophisticated manufacture, physical fitness etc., the optimum efficiency that could be ultimately reached is reckoned as 1.12. The present level of overall efficiency as at the end of December, 1972 is I:I.89. The progress of efficiency of direct workers is more or less in the pattern as broadly indicated by the collaborators.

[Ministry of Heavy Industry O.M. No. 6-3/73-HEM dt. 17-7-73.]

Recommendation (Serial No. 36)

The Committee are surprised to find that though as far back as in July, 1970 it was stated by the Ministry that the introduction of machines hour rates was under active consideration. The same had not been introduced as yet in the Hyderabad Plant. The Committee were informed by the Management in April, 1972 that this matter was 'still under active consideration'. The Committee recommended that a decision on this question should be arrived at early date and the Management should ensure that scientific system of cost control is adopted by the Unit. (Paragraph 3.46)

***Reply of Government**

The introduction of an effective system of cost control has been engaging the attention of Management. The main constraint, however, in this regard had been the lean order book position of this Unit in the past vitiating the study regarding norms. The tempo of production is picking up and is expected to gain momentum in 1973-74. The question of introduction of standard costing in Hyderabad Unit is being examined in consultation with the Chief Cost Accounts Officer, Ministry of Finance, Government of India. A team of consultants has also been entrusted with the task of recommending the most suitable and detailed system of standard costing procedures for this Unit. The utility of machine hour rate in the context of standard costing therefore will be considered by the consultants in all its perspective and their recommendations regarding machine hour rates will be taken into account by the Management. It is expected that the revised system will be introduced by 1973-74.

(Ministry of Heavy Industry O.M. No. 6-3/73-HEM dated 28-4-1973)

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*Not vetted by Audit.

Recommendation (Serial No. 41)

The Committee note that though the Unit entered into a collaboration agreement with M|s. ASEA of Sweden in April, 1965 for setting up a Switchgear Unit for the manufacture of 145, 345 and 420 air-blast circuit breakers, the Company had not been able to secure orders for the last 6 years for HVH 420 breakers in respect of which a technical fee amount to Rs. 4.41 lakhs had been paid to the collaborators. It has been explained that inclusion of these breakers in the licence agreement was based on the "overall power plan in the country made by the CWPC which envisaged 400 KV transmission grids in the country. This did not materialise due to general scaling down of the power plant in the country due to pruning of the plan targets".

The Committee have, however, been assured that BEAS design Directorate might place an order with BHEL for 8 breakers from January, 1975. The Committee regret to note the undue haste in widening the scope of the Unit to include manufacture of 420 Air Blast Circuit Breakers without a proper demand survey for the products to be manufactured and hope that in future Government would exercise utmost care before entering into such financial commitments with foreign collaborators. (Paragraph 4.8)

***Reply of Government**

400 KV air blast circuit breaker was included in the list of items to be manufactured under collaboration with M|s. ASEA of Sweden, since at that time it was strongly felt by CWPC and Irrigation and Power Ministry that 400 KV should be adopted as the next higher transmission line voltage for the inter-connected grids system and also to transfer bulk power from remotely located large power stations to various load centres. As a mater of fact, a letter of intent was placed on BHEL by West Bengal State Electricity Board for 18 nos. 400 KV air blast circuit breakers in the year 1966 in connection with their Santaldih project. Later the order was cancelled by the customer as they dropped their programme of having 400 KV transmission line from Santaldih. The delay in the implementation of the 400 KV transmission system in 1968-69 was due to the general recession in the country. There was nothing wrong in including the 400 KV breakers in the scope of collaboration with ASEA.

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*Not vetted by Audit.

The country is now likely to go ahead with the 400 KV transmission line system and BHEL have received enquiries from Beas Project and UPSEB and Maharashtra Electricity Board.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM Dt. 21-3-1973]

Recommendation (Serial No. 46 and 47)

The Committee note that the production in the H.P. Boiler Plant in Tiruchy fell short of physical targets by 52.9, 53.9 4.8, 10.5 and 9.75 per cent in the years 1965-66 to 1969-70. The Committee were informed that the reasons for shortfall in production were the difficulties in procurement of raw materials, particularly seamless steel tubes, quality sheet steel and piping billets etc. The Committee are surprised to find that while the Management complained about the difficulties of procurement of seamless tubes it had not cared to verify whether the seamless tubes procure by them were of proper quality and specifications. The defects in seamless tubes came to the notice of the management in the first quarter of 1968-69 almost after one year of its procurement. Because of the inability of the Management to retrieve the position, alternate action had to be taken by the Management to import the pipes in March, 1969. The Committee would like to be kept informed as to how the seamless tubes which were procurred through indigenous manufacturers were utilised and if not utilised whether they had been disposed of in the best interest of the Unit. The Committee feeel that the Unit should have made use of sister undertakings like HEC etc. to procure indigenous seamless tubes for their use.

The explanation of the Management for the shortfall in production that the targets were pitched deliberately high even though it was know that the targets could not have been fully achieved is not very convincing. The Committee recommend that the Management should take steps to fix realistic targets for production consistent with the production capabilities of the Plant and the known demands for the products.

(Para 5.22 & 5.23)

Reply of Government

It may be pointed out that first consignment of Indian Tube Company started coming in February 1968. These Tubes were accompanied by the inspection Certificate granted by the Chief Inspector of Boilers of Bihar State before despatch. The works test certificates were also countersigned by the Chief Inspector of Bihar. As

per the boiler regulations, therefore, they are deemed to be suitable for use and are to be accepted. Even so the tubes were physically inspected (the first consignment was inspected on 13|2|1968) and found to be containing mix-ups and lapse in colour coding. These were notified (17.2.1968) to I.T.C. immediately. Samples were also selected and tested for mechanical properties in the Laboratory between 13.4.1968 to 22.4.1968. The discrepancies noticed were intimated to the supplier in the last week of April 1968 by the Purchase Officer personally.

Some samples were found to have less tensile strength than the required minimum and some failed in flattening test. This was reported to I.T.C. on 22.4.1968. I.T.C. sent their representatives who segregated the tubes properly. Further tests were carried out on the tubes segregated. Since I.T.C's representatives wanted to be present and witness the tests, these tests were again repeated on samples selected by them. The tests confirmed BHEL's findings and were accepted by ITC's representatives in the discussions held from 24.6.68 to 29.6.68. As agreed to by them, ITC representatives again came in July 1968 to review the further test results. Since the tests continued to show failures, it was agreed by ITC that instead of a sample test, 100 per cent flattening test for all the sizes which have failed in the sample test may be carried out.

ITC also agreed that high temperature tensile test may be carried out to check on the tensile strength. Based on these further tests were done and only tubes which passed the mechanical properties tests were accepted during the last quarter of 1968. However, very shortly thereafter, in January 1969, when the tubes were hot manipulated in the shops some cracks were found on the hot-bent and normalised tubes. Upon this same samples were taken from the tubes and hot etched to remove the greasy cover. It was then found that clear and deep cracks were present in the tubes. On 1.2.69, ITC were asked to send their representatives once again. Their representatives were then shown the cracks which were developing in the tubes and were asked to investigate. Because of the earlier failure in flattening and tensile tests and subsequent failure during shop manipulation, ITC accepted total failure of the tubes and agreed to take back the entire quantities of the tubes rejected during the meetings held from 9.6.69 to 14.6.1969.

The above history of the case would show that right from the first consignment Management was alert in detecting the defects and was not taken by surprise one year later as mentioned.

Regarding the point about disposal above, it may be mentioned that the entire rejected castings were returned to the supplier at their cost except for a small value of Rs. 0.13 lakhs worth of tubes which were used by BHEL. Full refund was received.

Regarding the point about making use of HEC and other Public Undertakings it may be mentioned that the only indigenous manufacturer for seamless steel tubes is M/s. Indian Tube Co. This is not a product falling within the range of manufacture of HEC or other sister undertakings. Regarding the Committee's comment in regard to production targets it is a matter of management philosophy whether at least in initial years when a rapid build-up of production has to be achieved without set procedures having been evolved, the motivation of a higher target should not be used to gear up all round effort towards achievement. BHEL Tiruchy's management believed in this philosophy as appropriate for the years of rapid build-up of production. A reading of the figures would show that when relative stability was reached in the years 1969-70, the gap between targets and achievements was narrow indicating that target-setting was not used as the prime motivating factor but was reduced to a normal forecasting exercise.

(Ministry of Heavy Industry O.M. No. 6-8|72-HEM dated 21.3.1973)

Recommendation (Sl. No. 48)

The Committee note that in Tiruchy Plant 'Idle Time' due to 'lack of materials' has increased from 2.7 per cent in 1966-67 to 7.4 per cent in 1968-69 in term of total idle time (available) hours. Idle time due to 'other causes' such as non-availability of cranes, electrodes, gas and|or compressed air, waiting for clarification from Production Engineering, Designs, Inspection lack of special and standard tools, etc. had also increased from 16.7 per cent in 1966-67 to 68 per cent in 1969-70. The Committee find that 'Other causes' have been the major contributory factor for idle hours. The Committee were informed that the percentage of idle time due to other causes to total idle time has decreased from 68 per cent in 1969-70 to 88 per cent in 1971-72. The Committee feel that the elements constituting 'other causes' are such as could be controlled by the Management with proper planning and adequate preventive maintenance and stricter inspection. The Committee also feel that idle time due to 'lack of materials' should be minimised by more efficient material planning and management.

(Paragraph 5.26)

***Reply of Government**

It may be stated that:

Regarding idle time due to lack of materials the position has vastly improved after 68-69. The number of idle hours on this account amounted to 4,345 in 69-70, 1,745 in 70-71 and 1,631 in 71-72 compared with earlier levels of 10,636 in 67-68 and 12, 729 in 68-69. It could thus be seen that idle time due to lack of materials has been progressively minimised from year to year.

In furtherance of the reduction achieved in the percentage of idle time due to other causes from 68 per cent in 1969-70 to 58 per cent in 1971-72 the management is making every effort to exercise an effective control over this element.

(Ministry of Heavy Industry O.M. No. 6-3|72-HEM dated 21.3.1973)

Recommendation (Sl. No. 49)

The Committee note that while on the basis of orders upto 1973-74, the developed capacity of the Boiler Plant would be utilised in the case of Boiler fittings valves, it is not so. Although the management have planned for utilisation of the capacity except for four automatic machines on the basis of market surveys, the Committee are not aware of the extent of orders firmly secured to ensure full utilisation of the machinery. The Committee would like to be kept informed of this and recommend that the Management should arrange to secure long term and firm orders for valves production so that no portion of the developed capacity may remain idle.

(Paragraph 5.32)

***Reply of Government**

Most of the customers for valves want to buy the valves "off the shelf" or on urgent delivery basis of 4 to 6 months. Only a few large construction projects like Bokaro Steel Plant, are able to give a longer delivery period, but, even here, the lead time does not exceed 8 to 12 months. In the circumstances it is difficult to secure orders for this product much in advance of delivery dates. Yet another factor worthy of note is that BHEL have a captive market for valves for their own boiler manufacture which mean that a good proportion of the valves manufactured are used up as components for boilers supplied by this unit. The proportion of valve

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*Not vetted by Audit.

production taken up to meet the boiler require ment, amounted to as much as around 20 per cent in 1969-70, 27 per cent in 1970-71 and 30 per cent in 1971-72. In monetary terms this amounted to approximately Rs. 20 lakhs in 1969-70, Rs. lakhs in 1970-71 and Rs. 95 lakhs in 1971-72. In view of the expansion in the boiler manufacture projected over the next few years (consequent on the increase in capacity from 700-800 MW to 1000|1100 MW and the proposed further expansion to 2300|2500 MW), the off-take of valves for BHEL's own boilers would go up proportionately. This will give a steady base load at all times to the valve shop.

Thanks to the gradual realisation in the country of the marked superiority in quality of BHEL valves over that of private sector competitors, the order book for the valves has been going up. The orders booked during 1970-71, 71-72 and during the 5 months of 1972-73 amounted to Rs. 100 lakhs, Rs. 158 lakhs and Rs. 90 lakhs respectively. Enquiries also continue to be received from overseas sources. The percentages of developed capacity for valves utilised| likely to be utilised on production on the basis of orders received and for stock purposes (including production to meet internal requirement) in the years 1971-72, 1972-73, 1973-74 and 1974-75 are 60, 56, 61 and 68 respectively. All in all, the position today is that the order book is no longer a restricting factor on valve production.

(Ministry of Heavy Industry O.M. No. 6-3|72-HEM Dt. 21-3-1973)

Recommendation (Sl. No. 56)

The Committee note that in Tiruchy Unity of BHEL, no incentive scheme has yet been introduced. The Committee consider that as incentive schemes offer inducement to workers to give better individual and group performance, and is one of the important factors motivating workers to increase production, the Tiruchy Unit of BHEL should devise a suitable incentive scheme with realistic parameters after making an expert study and in consultation with the workers. The Committee have no doubt that if the incentive scheme is properly devised and implemented, it would result in greater production by the willing participation and co-operation of workers.

(Paragraph 6.22)

Reply of Government

While humbly agreeing to the Committee regarding the utility of incentive schemes, it may be observed that care has to be exercised regarding the time chosen for the introduction of any such

scheme. The production in Tiruchy Unit has been going up steadily from year to year, the increase over previous year being 21 per cent in 1969-70, 23 per cent in 1970-71, 21 per cent in 1971-72. The expected increase in 1972-73 is around 30 per cent. There has been only small addition to the work force in these years and the production increases are the combined result of progress made by the workers on the Learning Curve in regard to skills, increased efficiency in Management both in spot-management (middle and lower) leaves and in strategic-decision-making (higher) levels. A further steep rise in productivity is expected to take place over the next 2 to 3 years because of the switching over from the existing technology to the new technology to be absorbed from M/s. Combustion Engineering Inc. When a stable level of productivity is reached as a cumulative result of all these factors, it would form a reliable base for considering the introduction of work-based incentives for giving a fillip to further increase in productivity. Any premature introduction of individual or group incentive based on exact work measurement is likely to be counter-productive, if introduced at the wrong time. On account of these reasons, introduction of incentive schemes based on work measurement has to be ruled out in the next two years. However, the Management has entered into an agreement with the Employees' Union on 14-1-1973 for introducing a Production-oriented Bonus Scheme (based on annual performance index and Group Completion) with retrospective effect from 1-4-1971.

index and Group Completion) with retrospective effect from 1-4-1971.

Dt. 21-3-1973]

CHAPTER IV

RECOMMENDATIONS IN RESPECT OF WHICH REPLIES OF GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

Recommendation No. 6

The Committee note that though the project report for Heavy Equipment Electrical Plant, Hardwar, did not contain any time bound programme for attaining the capacity from year to year, it gave an indication that the plant would attaint 'Rated Capacity' in the 8th year of production. The rated capacity as envisaged in the report was 515 MW for medium and heavy electric machines, 1500 MW for steam turbines and turbo generators and 1200 MW for Hydro Turbines and generators. During evidence the Committee were assured by the representative of BHEL that full capacity for generators and hydro turbines was expected to be achieved in the 8th year of production but as Heavy Electrical Industry is a sophisticated one this achievement would, however, depend on order book position and absorption of skill. The Committee also note that a 10 year Plan called the 'Decade Plan' has been drawn up for development of power generation in the country. The Committee feel that it should now be possible for Government to give a clear picture to the management as to what orders it was expected to plan for and execute during the next 10 years. The plant has at present orders for thermal sets only upto 1975-76 and do not have adequate orders for motors. The Committee hope that all out efforts would be made to produce sufficient orders to ensure the achievement of the full rated capacity of the Plant.

(Paragraph 2.54)

*Reply of Government

The decade Plan, which had been prepared by the Ministry of Irrigation & Power, convers the Hydro and Thermal Schemes proposed to be commissioned during the decade 1971—81. A Board division list has been prepared for equipment that can be delivered by the different manufacturing units and the respective Electricity Boards and C.W.P.C./M.I.P. are being approached to finalise the orders. Copies of the broad division list of projects for which

*Not vetted by audit

equipment could with advantage be supplied by the Hardwar Plant for meeting targets for the decade plan are encolsed. (Appendix I). Attempts are being made to secure firm orders by approaching the concerned executing agency. This is important in that unless firm orders are placed in advance *i.e.* 36 months for Turbo sets and 48 months for Hydro sets, it may be difficult to match with the commissioning programme projected in the 'Decade Plan'.

As regards the Industrial Drives *i.e.* heavy duty motors for Steel Plant and other heavy engineering plants, the order book depends on the setting up of more steel Plants, demands for replacement drives etc. At present BHEL, Hardwar, has orders for the manufacture of these electrical machines upto 1974-75.

[Ministry of Heavy Industry O.M. No. 6-3/73-HEM dated 17-7-73]

Comments of the Committee

Please see paragraph 3 of Chapter I of the Report.

Recommendation (Sl. No. 10)

The Committee note that in December, 1969 an experts delegation from USSR studied the capacity development of Hardwar Plant and estimated that Hardwar Plant's capacity can be developed to 1603 MW by 1974-75 provided orders for 6 turbo sets of 200 MW each and 2 turbo sets of 100 MW *i.e.* 1400 MW are received within the IV plan period and production Sector Tool Room and Design Division are strengthened. The Committee understand that Hardwar Plant has firm orders, for 5 sets of 200 MW and letters of intent for 3 more. The Plant is thus fully booked for turbo sets of 200 MW upto 1974-75. The Plant is also booked for Hydro sets upto 1974-75 and for machines upto 1972-73. During evidence the Committee were informed that as supply of components for those sets took about 1½ to 2 years and it took 3 years on the shop floor to manufacture a set, it was high time that the Plant had more orders to plan and go ahead with pre-production preliminaries. In this connection the Committee were also informed that Government were considering the question of providing an imprest order for four 200 MW and four 100 MW sets, so that even if at any point of time the plant did not have definite allocation it could go ahead with making preliminary arrangements.

(Paragraph 2.82)

Reply of Government

The order position has further improved and the capacity booked is as under:—

(i)	Thermal sets .	Booked upto 1974-75 with 7x200 MW sets.
(ii)	Hydro . .	Booked upto 1975-76 and partial booked for 1976-77 with the present orders of 34 generating units.
(iii)	Motors	Booked upto 1974-75.

This Ministry and the Planning Commission have suggested that production of the standard 200 MW units may be proceeded with even if there be delay in the placing of the orders by the State Electricity Boards.

As regards the imprest order for 110 MW the proposal is still under Government's consideration. M/s. BHEL are however, taking procurement|manufacturing action for standard components for ensuring fuller utilisation of capacity for the next 2-3 years and also to match indications of the power development programme obviating the need at this stage for an "imprest" order as such.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM dated 17-7-73]

Comments of the Committee

Please see paragraph 6 of Chapter I of the Report.

Recommendation (Sl. No. 11)

The Committee find that in the Mid-term Plan Appraisal it has been stated that "As against the targetted capacity of 23 million KW, it is now reasonably certain that 21.2 million KW may be achieved in 1973-74". "The reduction is mainly due to slow progress and delay in delivery of plant and equipment from the public sector manufacturing units." Under the heading "long-term measures" it has been stated by the Planning Commission that it is proposed to monitor manufacture of plant and equipment and delivery according to schedule.

(Paragraph 2.83)

Reply of Government

A subsequent review conducted by the Planning Commission has revealed that out of the actual shortfall of 3 million KW, 1.881 million KW would be due to delay in civil works and implementation of schemes only 0.664 million KW would be due to delays in delivery of equipment and 0.72 million KW would be on account of delay in civil works and implementation of schemes for which plant and equipment would also not be forthcoming in time.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 21-3-1973]

Further Information called for by the Committee

Please state about the further orders. Whether the orders received so far by them would meet demand for the decade plan.

[Lok Sabha Sectt. O.M. No. 12-PU/70 dated 13-6-73]

***Further Reply of Government**

Efforts are being made by BHEL to improve delivery position by close periodical review of production.

[Ministry of Heavy Industry D. O. letter No. 6—3|72-HEM dated 10.8.73]

Comments of the Committee

Please see paragraph 11 of Chapter I of the Report.

Recommendation (Sl. No. 14)

The Committee note that the closing stock of stores in terms of months consumption held by Hardwar Plant has been brought down from 23.8 in 1966-67 to 10.3 in 1969-70. The Committee expect that this will be further brought down in the near future to avoid blocking of funds. The Committee also note that the plant had finished stock worth Rs. 212.10 lakhs as on 31st December, 1971. It has been stated that sometimes customers refuse to lift the motors after placing letter of intent (in the case of Flame Proof Motors valued at Rs. 16.91 lakhs not lifted by MAMC) or revise the delivery schedule as in the case of Excavator Electrics manufactured for HMBP, Ranchi. The Committee recommend that agreements with customers should

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* Not vetted by Audit.

be reviewed with a view to see whether the terms and conditions can be suitably modified to avoid such contingencies.

(Paragraph 2.104)

Reply of Government

BHEL conditions of sale provide for recovery of storage charges from customers if they are unable to accept their items at the contracted dates. This provision of Contract is now being enforced and is calculated to act as a stern deterrent against delayed lifting of stores offered for delivery against orders placed earlier. In the case of Giribata set where the Customer asked Hardwar Unit to store it for them, the question of payment of storage charges has been taken up with the appropriate authorities. The matter has, however, not yet been settled.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM dated 17-7-73]

Comments of the Committee

Please see para 14 of Chapter I of the Report.

Recommendation (Sl. No. 24)

The Committee regret to note that the BHEL took up the manufacture of the flame proof electric motors without settling the terms and conditions of the sale and without obtaining a firm order from the MAMC. The result has been that there was avoidable import of components for these motors from USSR and there was blocking up of funds to the extent of Rs. 24.39 lakhs (as on 31st March, 1959) and loss of interest thereon.

The Committee also fail to understand the reasons for which the Ministry instead of asking the MAMC to accept the motors which had been specifically, manufactured for them, advised the Company to dispose of the motors. (Out of the 65 motors, 49 motors have not been disposed of so far). The Committee recommend that the entire deal with MAMC should be investigated in detail and the results thereof intimated to them.

The Committee also recommend that BHEL should at least take a lesson from this transaction not to preceed with the execution of any demands on simple letters of intents without settlement of terms and conditions and specifications. The Committee would also like to be kept informed about the disposal of the remaining motors and the ultimate settlement made with the MAMC in regard to the 16 motors supplied (with 9 control gears) and still lying with them.

(Paragraph 2.189)

***Reply of Government**

The recommendations of the Committee have been noted carefully for future guidance. It may, however, be stated that normally, action for manufacture is taken only on receipt of the firm orders from the customers but in case of standard products and/or where the time in procurement of raw materials and components is considered to take fairly long time, advance action may have to be taken, based on the letter of intent or on forecast of likely orders so as to offer the customers reasonable delivery schedule.

13 out of the 49 motors lying in stock have since been sold off. The undertaking is exploring other avenues for the disposal of the remaining motors.

[Ministry of Heavy Industry O.M. No. 6-3/72-HEM dated 21-3-1973]

Further Information called for by the Committee

"It has not been intimated by the Ministry as to whether the entire deal with MAMC has been investigated. The present position about the disposal of MAMC has been investigated. The present position about the disposal of the remaining motors may also be stated."

[Lok Sabha Sectt. O.M. No. 12-PU/70 dt. 3-7-1973]

***Further Reply of Government**

When BHEL reported to us about this deal that MAMC are not making the payment, this Ministry took up the matter with the Department of Steel. It was reported by the Deptt. of Steel that MAMC cancelled the letter of intent because BHEL could not submit quotation for long and that they were not able to make the use of motors due to the change of standard. There was nothing to be investigated further because such contingency can arise in any commercial dealing. The only way now was to find out some other customers for the motors and that course of action has already been adopted by BHEL.

BHEL have been successful in securing orders for 16 motors but of the 49 motors. This leaves only 33 motors to be disposed off by BHEL now.

[Ministry of Heavy Industry D.O. letter No. 6-3/72 HEM dated 10-8-73].

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* Not vetted by Audit.

Comments of the Committee

Please see paragraph 19 of Chapter I of the Report.

Recommendation (Sl. No. 28)

The Committee note that there have been delays in the completion of supplies of machinery, equipment etc., in respect of 19 out of 32 contracts entered into by the Company with M/s. Technoexport (later designated as Skodaexport from July 1963 to February 1969). The contracts with the suppliers provided for recovery of liquidated damages for delay in the supply at 1 per cent of the FOB price of equipment and machinery. The Committee find that against a claim of Rs. 4.41 lakhs recoverable is liquidated damages for the delay, the Hyderabad plant preferred a claim in June, 1967 on the supplier for recovery of liquidated damages amounting to Rs. 0.54 lakhs only in respect of the Main Contract of July, 1963 and Addendum 1 of 18th November, 1964. In addition, the plant preferred certain other claims but without indicating any value "with the purpose of ensuring that they were not time-barred". The Committee are surprised to find that claims for liquidated damages had been filed without indicating the value thereof and without the extent of production loss having been determined. The Management stated (April 1972) that "the extent of production loss, if any, only due to delayed supplies from Skodaexport is being investigated". The Committee are surprised at the dilatory manner in which the Plant has taken 5 years to determine the value of production less due to delayed supplies of machinery, equipment, etc., for supporting the claim and regret to note the non-maintenance of suitable records in this connection.

The Committee recommend that the Plant should lose no time in working out the details and completing the formalities expeditiously. The Committee also recommend that a suitable system should be devised and records maintained whereby production loss due to each factory or group of factories can be readily assessed and claims where necessary are filed in time with complete details and followed up till the amounts due are recovered.

(Paragraph 3.10)

***Reply of Government**

The Committee's recommendation that the formalities should be completed expeditiously and records should be maintained in a suitable manner have been noted by BHEL and action is proceeding

* Not vetted by Audit.

accordingly. Against the total liquidated damages of Rs. 4.41 lakhs to be claimed from M/s. Skodaexport, a claim has been made for Rs. 76,663. Regarding the balance amount, the case is being examined by BHEL further in detail and legal advice obtained to establish delays in supplies and loss in production.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM dated 21-3-1973]

***Further Reply of the Government**

Against the liquidated damages of Rs. 4.41 lakhs to be recovered from M/s. Skodaexport, a claim has been made for Rs. 76,663. However, M|s. Skodaexport have stated that essential components have been delivered in time and therefore they have fulfilled Article 4(2) of the agreement which provides specifically that the delivery time shall be deemed to have been met if the last substantial part of the components necessary for putting the same into operation shall be at the place of fulfilment at the latest on the last date of the delivery time. As BHEL are not in a position to establish that M/s. Skodaexport have not supplied substantial part of the components in time legal opinion they have received is to the effect that the delays are not covered by the Clause in the agreement for the liquidated damages. It is therefore proposed not to pursue the claim.

[Ministry of Heavy Industry O.M. No. 6-3|72-HEM dt. 28-4-73].

• Comments of the Committee

Please see paragraph 23 of Chapter I of the Report.

Recommendation (Sl. No. 35)

The Committee find that according to the exercise done by the undertaking in December, 1969, on the basis of the price under discussion by H. N. Ray Committee, Hyderabad Project was expected to incur loss (at landed cost) of Rs. 134 lakhs in 1969-70, profit of Rs. 81 lakhs in 1970-71 and loss of Rs. 516 lakhs in 1971-72. As against this, the Project has actually incurred net losses of Rs. 331.01 lakhs in 1969-70 and Rs. 101.00 lakhs in 1970-71. The Committee recommend that the reasons due to which the Project had continued to incur losses even though Consultants had forecast losses upto the 4th year from the commencement of production should be thoroughly investigated. The production in Hyderabad Project commenced in 1965-66 and accordingly there should have been no losses in the year 1969-70.

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*Not vetted by Audit.

The Committee are surprised at the statement that "in view of the uncertain position of the utilisation of capacity and the manufacturing programme, no definite idea as to the extent of loss likely to be sustained on account of non-utilisation of the developed capacity can be formed." When the undertaking has already worked out the programme of production and utilisation of capacity to end of 1973-74, the Committee feel that it is high time that the management apply their mind to this important question, estimate the losses/profits and accordingly take adequate precautionary measures and reduce their standing expenses with a view to develop competitive prices for the products and reach breakeven point at the earliest. The Committee would also like Government to settle without further delay the price which the undertaking is to be allowed to charge for their 110 MW generating sets and other plants and equipment. (Paragraph 3.42).

Reply of Government

Even though the consultants had forecast losses only upto the end of 4th year from commencement of production the investigation made reveals for reasons set forth below the Project had to incur losses during 1969-70 and 1970-71:—

1969-70

(i) Non-availability of critical raw materials such as forgings, castings, press tools etc.

(ii) Non-attainment of expected labour efficiency;

(iii) Non-receipt of certain materials from abroad;

(iv) Disturbances in the State and power failure in Kothagudem and heavy absenteeism during the bundh days in Hyderabad and Secunderabad.

1970-71

(i) Non-receipt of critical raw material such as castings, forgings, press tools, components etc., from indigenous and foreign sources.

(ii) Non-attainment of working efficiency by the direct labour to the set target;

(iii) Labour disturbances and lockout in production blocks in the months of December 1970-71 and January 1971.

As a result of the shortfall in production, the losses contained during 1969-70 and 1970-71. Due to sustained efforts made by the Unit, there was a marginal profit of Rs. 1.02 crores in 1971-72.

For 1972-73 BHEL had budgeted for HPEP a total production of Rs. 22.73 crores with an estimated net profit of Rs. 2.97 crores. According to the provisional estimates the value of production during the year 1972-73 has been Rs. 19.55 crores with a profit of Rs. 1.45 crores.

[Ministry of Heavy Industry, O.M. No. 6-3/72-HEM Dt. 17-7-1973]

Comments of the Committee

Please see paragraph 27 of Chapter I of the Report.

Recommendation (Sl. No. 45)

The Committee note that Tiruchy Plant obtained in October, 1967 "project documentation" from M|s. Skoda Export, Czechoslovakia for the expansion of the Plant from 750 MW to 2,000 MW. The Plant paid a fee of Rs. 14:58 lakhs to the supplier and incurred an expenditure of Rs. 1:09 lakhs on travelling allowance and other miscellaneous items in connection therewith. In March, 1969 a Technical Committee after a study of report submitted by M|s. Combustion Engineering, Inc. of USA in connection with the survey for setting up another boiler manufacturing plant concluded that the revised outlook for power generation did not warrant the expansion of the Plant to 2,000 MW. BHEL, are of the view that though the expansion did not take place, the expenditure of Rs. 15:67 lakhs incurred towards documentation, travelling allowance etc., cannot be regarded as infructuous because detailed study undertaken jointly by the Indian Engineers and C.S.S.A. Experts had helped the Company "to plan its activities of production more confidently anticipating areas of bottlenecks and maximising product in work centres which are found to have the heavy potential." The Committee are unable to share this view. The Committee feel that had the Technical Examination of the outlook for power generation been done earlier and the demand assessed correctly, the expenditure of Rs. 15:67 lakhs could have been avoided. The Committee would hardly stress the clear need for greater co-ordination between the Ministries|Departments to ensure that Plans and Programmes for power generation in the country are based on some firm indications.

(Paragraph 5.14)

Reply of Government

It may be pointed out that the Fourth Plan was to have commended in 1966 and the draft outline for the Fourth Plan was brought out in August 1966. The outlook for Power at that time was quite encouraging and the step taken to obtain project documentation for expansion in January, 1967 is to be viewed in this context.

Unfortunately, due to severe stresses in the economy as an aftermath of the hostilities of 1965, the droughts of 1965-66 and 1966-67, and the effect of devaluation of the Rupee in June 1966, the Fourth Plan could not be brought on course. The Planning Commission, which was reconstituted in September, 1967 came to the conclusion that many estimates of the draft outline were no longer valid. This was accepted by the National Development Council in December, 1967 and it was decided that the Fourth Plan would start only with 1969-70. The period between 1966 and 1969 was thus covered only by annual plans. The revised outlook obtaining in September, 1968 could not have been foreseen in late 1966. The action taken in January 1967 could not, therefore, have been avoided taking all the circumstances into account. In any event, the exercise on expansion done in 1967 cannot be regarded as wholly infructuous since it helped in achieving greater production from the existing plant itself and also made it easier to plan and execute the expansion more fruitfully when it was put through with the new Collaboration (now under way) with M|s. Combustion Engineering Inc.

(Ministry of Heavy Industry O.M. No. 6-3|72-HEM dated 21-3-73).

Comments of the Committee

Please see paragraph 30 of Chapter I of the Report.

Recommendation (Sl. No. 53)

The Committee find that far sometime past the costing system followed by Tiruchy Unit suffered from deficiencies like absence of norms of rejection|loss in different processes manufacture, absence of record showing percentage of utilisation and idle time of machines, absence of comparative study of actual consumption of materials and labour with pre-determined estimates. It has been stated by the Management that in March 1971 the Company has entered into a collaboration agreement with M/s. Combustion Engineering Inc. of USA and processes of manufacture are expected to undergo changes in the near future. It has also been stated that

norms of rejection will be fixed based on experience of the new processes." The Committee are surprised to find that the Tiruchy Plant which went into production of Boiler in 1965 did not upto 1971 consider fixing norms for rejections|losses in different processes. The Committee do not see why the question of evolution of norms of rejection|loss should be deferred till new processes emerge.

In these days of rapid advancement of technology processes of manufacture undergo changes every now and then and therefore this can be hardly accepted as a valid plea for putting off the question of evolving norms of rejection and loss. The Committee recommend that the Unit should on the basis of the experience gained so far fix norms for rejections/losses for different processes of manufacture and review and revise them if necessary on the basis of such changes in the manufacturing processes that may be made from time to time. The Committee also recommend that the Management should maintain suitable cost records for ascertaining actual labour costs and consumption of materials as compared to estimates in order to ensure effective cost control and correct fixation of prices of the products.

(Paragraph 5.68)

***Reply of Government**

It may be stated that a close watch is being kept by the plant on the level of rejection|re-work in the production processes of each department.

For instance, taking the major department of Boiler Production (Bldg. I), the percentages of rejection and re-work for the years 1968-69 to 1971-72 were as follows:—

	Rejection	Re-work
1968-69	0·34%	3·95%
1969-70	1·03%	3·10%
1970-71	0·32%	2·79%
1971-72	1·04%	3·31%

It might be observed that the percentage of rejection varied between 0.32 and 1.04. (About 70 per cent of the rejections took place in spacers, washers, fins, etc. the value of which are insignificant.). In a heavy engineering fabrication industry, generally the permissible limits for rejection and re-work are placed at 1 per cent and

*Not vetted by audit.

5 per cent respectively. In the light of this, the percentages of rejection and re-work obtaining in this plant do not appear to be considered excessive. While an overall check on rejection and re-work has always been kept, what was submitted to the Committee was that in individual shop processes rejection and re-work standards have not been set so far and it was suggested that, since the manufacturing processes of the boilers are undergoing a wholesale change involving modern design and manufacturing know-how obtained from Combustion Engineering, individual process norms may necessarily have to wait till the switch over of technology takes place.

Regarding the lack of data on machine utilisation a beginning had been already made with Building No. 1 data for which were furnished to the Committee. Now the details are received for all machines in all the work spots with effect from June, 1972.

Regarding the comparison of consumption of materials and labour with pre-determined estimates, it is true that with the present job work order system, automatic comparison of this kind is not possible, though in individual cases such as exercise of comparison can always be made by special effort. With such a special effort the details of the amount of materials consumed sub-assembly-wise have been compared in respect of three industrial boilers *viz* MFL, HOC Rasayani, FCI Durgapur. In respect of Kathagudam power boiler Ennore-I & II, Harduaganj-I, II and Delhi-C boilers details have been collected for sun lar comparison. However, a beginning has been made to lay down a system of standard costing on a scientific basis which will ensure that the cost of each individual component going into a work order is pre-determined on a scientific basis and subsequently the actuals compared therewith. To this and, a revised system of costing has been drawn up in consultation with one of the leading Management Consultants in the country. The preliminary steps for the introduction of the new system are expected to be completed in 1972-73 and the new system introduced (possibly in two phases) in 1973-74. This will eventually lead to the assessment of standard costs production centre-wise, reasonable forecasting of all cost trends and comparison factuals with forecasts in details.

(Ministry of Heavy Industry O.M. No. 6-3|72-HEM dated 21-3-73).

Comments of the Committee

Please see paragraph 34 of Chapter I of the Report.

Recommendation (Sl. No. 55)

The Committee understand that necessary measures have been taken by the different units of BHEL to replace the foreign personnel by Indians, for which purpose the Indian Engineers/Technicians are attached to the Foreign experts for picking up work and thereby gain confidence. The Committee hope that the Undertaking will soon be able to build up the expertise necessary for running the plants independently.

(Paragraph 6.11)

Reply of Government

It is confirmed that BHEL will be able to build up the expertise necessary for running the plants independently. There are no extra perts in Tiruchy plant for production of 60 MW, 100 MW and 110 MW sets. Similarly, the number of experts are being gradually reduced in the other plants also. The figures given below illustrate the point:—

**Hardwar Plant* :		
1. Russian Experts working at the end of the year 1969-70		103
2. Russian Experts working at the end of the year 1970-71		95
3. (*i*) Russian Experts working at the end of the year 1971-72	90	95
(*ii*) Polish Experts came during the year 1971-72	5	
4. (*i*) Russian Experts working at the end of January 1973	81	67
(*ii*) Polish Experts working at the end of January 1973	5	
(*iii*) Hungarian Experts as on the same date	1	

Hyderabad Plant Year	No. of experts	
1. 1969-70	Czech	32
	Swedish	6
2. 1970-71	Czech	30
3. 1971-72	Czech	28
4. 1972-73 (Upto Jan. 73)	Czech	23

[Ministry of Heavy Industry O.M. No. 6-3/72 HEM dated 17-7-73].

Comments of the Committee

Please see paragraph 36 of Chapter I of the Report.

*At the time of factual verification Audit have pointed out as follows :—

"(*a*) According to the Principal Audit Officer, the number of Russian experts at Hardwar as per the monthly return of Russian Consultants ending 31-3-1972 works out to 92 number. The invoice for the Quarter ending 31-3-72 received from M/s. Promashexpert gives the number of Russian Experts at 91. In reply only 5 Russian experts have been stated at the end of 31-3-1972.

Recommendation (Sl. No. 57)

The Committee feel that since the Ministry of Irrigation and Power is responsible for the development of power in the country according to the targets envisaged in the Fourth Plan and since the BHEL is engaged mainly on manufacturing machinery and equipment which are primarily needed by the State Electricity Boards and other similar organisations engaged in generation transmission and distribution of power, it is essential that there should be a close liaison between these Undertakings and a sense of participation and involvement in the planned development of the country. The Committee recommend that the views of the Ministry of Irrigation and Power may be ascertained and the question considered carefully from all angles with a view to ensuring coordinated development of generation, distribution and transmission of power in the country.

(Paragraph 6.26).

Consolidated reply to Recommendation 14 of 19th Report of CPU (5th Lok Sabha) on Heavy Electricals (India) Ltd., Bhopal and Recommendation No. 57 of the 21st Report of CPU (5th Lok Sabha) on BHEL.

"Recommendation (Serial No. 14) of 19th Report of CPU on HE(I) Ltd.

The Committee also recommended that since Heavy Electricals (India) Ltd. is engaged in manufacturing heavy equipment for the power generating projects under the administrative control of Ministry of Irrigation and Power, Government may consider the advisability of transferring the administrative control of the Undertaking from the Ministry of Industrial Development to the Ministry of Irrigation and Power which is responsible for generation, transmission and development of power in the country."

(Paragraph 4.60)

***Reply of Government**

It has already been stated that it has not been found possible to accept this recommendation. We had promised to send a detailed Note indicating the reasons for not accepting this recommendation. On this point we had received a detailed note from Ministry of Irrigation and Power suggesting that control of BHEL/HEIL may be transferred to them. This note was considered by this Ministry

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*Not vetted by audit.

and a reply sent meeting the points raised in the note. A copy of this reply along with its enclosure is submitted for the Committee's perusal. (Appendix IV).

[Ministry of Ind. Dev. U.O. No. 16-3|72—HEM dated 19-12-72].

***Further Reply of Government**

There can be no two opinions regarding a close liaison between the manufacturing undertakings and the State Electricity Boards. BHEL are taking all necessary steps to ensure a sense of participation and involvement in the planned development of power facilities of the country.

This Ministry has issued a circular to all the heads of the State Electricity Boards to let us know their anticipated requirements of Generating equipments, so as to enable M/s. BHEL to review their production programme with a view to making adjustments for meeting the requirements envisaged. The proposals so received will be further discussed with the Planning Commission and the Ministry of Irrigation and Power and the final conclusions arrived at will be communicated to M/s. BHEL for necessary action.

[Ministry of Heavy Industry O.M. No. 6-3/72 HEM dated 21-3-73].

Comments of the Committee

Please see paragraph 39 of Chapter I of the Report.

Recommendation (Sl. No. 60)

While the Committee are happy to note the Heavy Pressure Boiler Plant, Tiruchy in whose case capital expenditure upto March, 1971 was Rs. 24.33 crores had earned cumulative profit of Rs. 9.00 crores, they are rather distressed to find that the other two plants of BHEL had not shown encouraging financial results. Heavy Power Equipment Plant, Hyderabad and Heavy Electrical Equipment Plant, Hardwar had incurred cumulative losses to the extent of Rs. 15.10 crores and Rs. 11.59 crores as on 31st March, 1971 respectively. The Committee agree that as Heavy Electrical Equipment Plant is a sophisticated industry with a long gestation period, absorption of technology and acquisition of skill took some time. The Committee were assured during evidence that Hyderabad Unit is expected to make a profit in 1971-72 and that Hardwar Plant would make a profit in 1975-76. The Committee recommend that Govern-

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*Not vetted by Audit.

ment should satisfy themselves that Hardwar Plant had incurred losses for the years and to the extent indicated in the Detailed Project Report and not more. If the quantum of losses had been more or if the period for which these losses were incurred was excessive as compard to DPR estimate, the reasons should be investigated. Concerted efforts should be made to see that Hardwar and Hyderabad Plants not only break-even but also are able to wipe out the commulative losses.

(Paragraph 7.26).

***Reply of Government**

In the DPR prepared by the collaborators, year-wise profitability or production programme was not given, but it envisaged that after attaining full rated capacity, the plant would pay back the investment in about 8 years. However, economic and financial analysis as per figures given below were prepared by the HEIL (composite company before bifurcation). The figures in columns 2 and 3 were prepared by HEIL taking into account the prevalent conditions regarding the cost of various inputs and prices of the finished products. The actual production and profit/loss made by the Hardwar Unit year-wise had been indicated in columns 4 and 5 as against the figures compiled by HEIL:—

(Rs. in crores)

Year	Figures compiled by HEIL		Actuals	
	Value of Production	Profit/ Loss	Value of Production	Profit/ Loss
(1)	(2)	(3)	(4)	(5)
1965-66	0·55	(—) 1·94	..	..
1966-67	3·81	(—) 4·28	0·27	(—) 0·63
1967-68	9·46	(—) 4·92	0·58	(—) 1·41
1968-69	16·30	(—) 4·05	5·43	(—) 1·98
1969-70	23·22	(—) 1·69 (—) 16·88	9·44	(—) 3·39
1970-71	28·17	(+) 0·39	10·79	(—) 4·1
1971-72	34·47	(+) 3·55	13·12	(—) 4·36
1972-73	38·97	(+) 6·03	20·37(RE)	(—) 3·94
1973-74	38·97	(+) 6·03	38·28(BE)	(—) 0·30
				20·19

*Not Vetted by Audit.

A direct comparison with the DPR projections would not be realistic because of the change in the pattern of flow of orders on the plant from year to year and also the product-mix. Till the second half of 1970, there were no orders on the Hardwar Plant beyond the first 6 sets of 100 MW Turbo sets, which affected the growth of capacity for Turbo sets. The lesser output had to absorb the fixed overheads and liability for interest charges from loan capital was also higher than that anticipated. The main products, Turbo sets and Hydro sets, were taken up for production in 1968-69 and 1969-70. The capital cost of the plant is also higher than the earlier estimates partly because of the devaluation of the Rupee and partly because of increases in customs tariffs. Consequently the fixed overheads on account of interest and depreciation were also higher and the lesser outputs had to absorb the higher fixed overheads.

Even otherwise the plant was expected to break-even in the 6th year from the commencement of production in accordance with the earlier study. For the reasons stated above, the plant is now expected to break-even in the 8th year from the commencement of partial production or the 7th year from the commencement of production of major products. According to the forecast, the cumulative loss till the break-even point was expected to be Rs. 16.88 crores actual cumulative loss till the break-even point is now expected to be Rs. 20.19 crores. The performance of Hardwar Plant is, however, under constant review by the Management.

The Hyderabad Plant has shown a profit in the year 1971-72. It is expected that the Hardwar Plant may break even in 1974-75. The cumulative losses of the Hyderabad and Hardwar Plants are expected to be wiped out in the years 1974-75 and 1977-78 respectively.

[Ministry of Heavy Industry O.M. No. 6-3/72 HEM dated 28-4-73].

Comments of the Committee

Please see paragraph 43 of Chapter I of the Report.

Recommendation (Sl. No. 61)

The Committee note that Government are considering the question of setting up a revolving fund for Bharat Heavy Electricals Ltd., so that it could go ahead with its manufacturing programme. There is no doubt that if adequate orders are not forthcoming, the Company would find itself in a predicament in as much as its inventory of raw materials, components, and finished stocks would go up.

If utilization of spare capacity leads to high inventory, it would be a remedy which would be worse than the disease. The Committee, therefore, recommend that Government should see that adequate orders from State Electricity Boards are placed so that concept of Revolving Fund develops into a success.

(Paragraph 7.29).

***Reply of Government**

The Government have kept the proposal of revolving fund in abeyance because revised terms of payment of Electricity Boards to BHEL/HEIL have been worked out. These have been accepted by this Ministry. According to these terms the Electricity Boards would pay 10 per cent advance with the order, 88 per cent of the price against despatch documents and the balance 2 per cent twelve months after installation of set. The working capital requirements of BHEL/HEIL to meet the situation created by these latest terms of payment are still being worked out and these would be finally sorted out in consultation with the Ministry of Finance.

[Ministry of Heavy Industry O.M. No. 6-3/72 HEM dated 21-3-73]

Further information called for by the Committee

Please state the latest position in the matter.

[Lok Sabha Sectt. O.M. No. 12-PU/70 dated 3-7-73].

***Further reply of Government**

M/s. BHEL have worked out the additional working capital that would be needed as a result of their accepting the revised terms of payment arrived at by the Planning Commission. The proposal received in this connection is being examined in consultation with the Planning Commission and the Ministry of Finance.

[Ministry of Heavy Industry D.O. No. 6-3/72—HEM dated 10-8-73].

Comments of the Committee

Please see paragraph 47 of Chapter I of the Report.

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*Not vetted by Audit.

CHAPTER V

RECOMMENDATIONS IN RESPECT OF WHICH FINAL REPLIES OF GOVERNMENT ARE STILL AWAITED

—NIL—

NEW DELHI;
December 19, 1973
Agrahayana 28, 1895 (S).

SUBHADRA JOSHI,
Chairman,
Committee on Public Undertakings.

APPENDIX I

(*Vide* reply to recommendation at S. No. 6)

BHARAT HEAVY ELECTRICALS LIMITED
UNIT: HEAVY ELECTRICAL EQUIPMENT PLANT
RANIPUR (HARDWAR)

List of Thermal sets required to be supplied as per decade Plan 1971-72 *to* 1980-81

Sl. No.	Name of the Project	Total capacity No. Unit Size in M.W.	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Obra T.P.S. . .	3 x 100 M.W.	2/200	1/100									
2	Badarpur T.P.S.	3 x 100 M.W.	2/200	1/100									
3	Obra T.P.S. . .	6 x 200 M.W.		1/200	2/400	2/400				1/200			
4	Ukai T.P.S. (Gujarat)	1 x 200 M.W.				1/200							
5	Koradi T.P.S. . (Maharashtra) .	3 x 200 M.W.				1/200	1/200	1/200					
6	Western U.P. .	1 x 200 M.W.										1/200	
7	Badarpur (Extension)	3 x 200 M.W.					1/200	1/200		1/200			
8	Madhya Pradesh .	1 x 200 M.W.					1/200						

2	3	4	5	6	7	8	9	10	11	12	13	14
9 R.A.P.P. (Extension) Nuclear	2 x 235 M.W.					1/235	1/235					
10 Central Sector (Nuclear) .	3 x 235 M.W.							1/235	1/235	1/235		
11 Central Nuclear (Tarapur) .	2 x 235 M.W.						2/470					
12 Do.	3 x 235 M.W. .							1/235	2/470			
13 Kalapakam (Nuclear)	2 x 235 M.W.			1/235	1/235							
14 Kalapakam Extension	2 x 235 M.W.					1/235	1/235					
15 Srisailam (Nuclear).	3 x 235 M.W.						1/235	1/235	1/235			
16 Andhra Pradesh .	4 x 200 M.W.			1/200	1/200	1/200	1/200					
17 Tamil Nadu . .	1 x 200 M.W.					1/200						
18 Jihar Nanughaf TPS	3 x 200 M.W.							1/200	1/200	1/200		
19 West Bengal . .	5 x 200 M.W.					1/200	1/200	1/200	1/200	1/200		
20 D.V.C. . . .	5 x 200 M.W.				1/200	1/200	1/200	1/200	1/200			
TOTAL .		4/400	3/400	4/835	7/1435	9/1870	10/2175	6/1305	9/1940	3/635	1/200	

Note:—The actual delivery dates would depend upon when the firm order is placed by the customers backed by 10% advance.

ANNEXURE 'B'

BHARAT HEAVY ELECTRICALS LIMITED
UNIT : HEAVY ELECTRICAL EQUIPMENT PLANT
RANIPUR (HARDWAR)

The list of Hydro Sets Required to be supplied as per Decade Plan 1971-72 to 1980-81

Sl. No.	Name of project	Total capacity No. Unit Size in M.W.	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Giri (H.P.) . .	2 x 30 M.W.	1/30	1/30									
2	Kulhal (U.P.). .	3 x 10			2/20	1/10							
3	Chenani (J&K) .	2 x 4.6		1/4.6	1/4.6								
4	Maneri Bhali (U.P.)	3 x 30			1/30	2/60							
5	Lower Jhelam (J&K)	3 x 35					2/70	1/35					
6	Baira Sul (C. project)	3 x 67			1/67	2/134							
7	Salal (C. project) .	3 x 115					1/115	2/230					
8	Shanan (project) .	1 x 50					1/50						
9	Lower Sileru (AP) .	2 x 100				1/100	1/100						
10	Srisailam (AP) .	4 x 115					1/115	1/115	2/230				

1	2	3	5	6	7	8	9	10	11	12	13	14
11	Subernrekha (Bihar)	2 x 65			1/65	1/						
12	Kyrdemkulai (Meghalaya) .	2 x 30				2/60						
13	Lektak (C. Project) .	2 x 35			1/35	1/35						
14	Vaitarna (Maharashtra)	1 x 60		1/60								
15	Bhatgar . .	1 x 16		1/16								
16	Parbati Stage . .	1 x 100							1/100			
17	Narbada Dev. I (MP)	6 x 110								2/220	4/440	
18	Upper Tambarparani (PN) . .	1 x 30 2 x 60						1/30	2/120			
19	Lingaramabhi. (Mysore) .	2 x 55					1/55					
20	Sharanathy Tail Race	4 x 60 .							1/60	2/120	1/60	
21	Upper Sankh (Bihar)	2 x 100 . .							1/100	1/100		
22	Bhira Tail Race (Maharashtra) .	2 x 40					1/40	1/40				
23	Kishau U.P. . .	1 x 100								1/100		
24	Seawa H.P. . .	3 x 35						1/35	1/35	1/35		
25	Kishwar Stage I (J&K)	3 x 110					1/110	1/110	1/110			
26	Loktak Exth. (Manipur) . .	1x35					1/35					

27	Lower Pariyar (Kerala)	2 x 70						1/70	2/70				
28	Lower Silery Extn. (A.P.)	2 x 110						1/110	1/110				
29	Balimela Extn. (Orissa)	2 x 60					1/60	1/60					
30	Kameng (Arunachal)	5 x 50						1/50	1/50	1/50	2/100		
31	Anandpur Saheb Haryana	4 x 27.5						2.55	2.55				
32	Maneribhali Stage II (U.P.)	3 x 70						1/70	1/70	1/70			
33	Tehri U.P.	3 x 200							1/200	1/200	1/200		
	TOTAL		1/30	2/34.6	7/197.6	8/404	11/670	13/885	13/1000	12/1025	10/875	5/500	

APPENDIX II

(*Vide* reply to recommendation at S. No. 13)

No. 21|2|72-BPE|NM

GOVERNMENT OF INDIA
(Bharat Sarkar)
MINISTRY OF FINANCE
(Vitta Mantralay)
BUREAU OF PUBLIC ENTERPRISES
(Sarkari Udyam Karyalaya)

Mayur Bhavan, 7th Floor
New Delhi, the 7th August, 1972.

OFFICE MEMORANDUM

SUB:—*Delays in the implementation of the instructions issued by the Bureau of Public Enterprises regarding purchase procedures etc.*

The Committee on Public Undertakings recently examined one of the Public Sector Unit and have observed that specific instructions issued by the Bureau of Public Enterprises vide O.M. No. 9(28)|FI|67|Cir. Adv (P)|36 dated 31-1-69 and O.M. No. 1450-Adv(c) Cir-56|69 dt. 27.10.69 regarding purchase procedures, did not receive prompt attention. The Committee was surprised that the instructions issued by the BPE as early as January 1969 *i.e.* after a gap of about 7 months. Further, the unit concerned took about a year in obtaining clarifications on circular of 27.10.69 and 7 months to 8 months more were taken in placing the matter before the Board of Directors.

The Committee have desired that public sector undertakings act with greater promptness and earnestness in bringing the general directives issued by the BPE and/or the administrative ministry concerned to the notice of the Board of Directors and implementing the same.

The Committee on Public Undertakings have further observed that in the unit examined, 75 per cent of the total purchases were handled by the purchase Committees where representative of the Finance was present. The Committee desired that a systematic analysis should be made by the unit in respect of the remaining 25 per cent purchases also to see which cases could be brought further

within the purview of the purchase Committee. The procedure governing the purchase should be such as to ensure competitiveness in the rates of suppliers and reasons should be recorded where a lower offer is not accepted or where the difference between the purchase price proposed to be paid and the previous price paid is more than the prescribed percentage.

The Ministry of Industrial Development etc. are requested to advise the Public Sector Undertakings concerned to ensure that—

(a) Prompt action is taken on the directives issued by the BPE and|or Administrative Ministry concerned and they should furnish their reports on the progress of action taken. In case there is any difficulty of the units anticipate any delay, they would furnish interim replies indicating the target date by which they expected to implement the instructions issued;

(b) The delegations of powers to the different officers in the public sector units may be examined with a view to ensure that costly purchases are concurred by Finance.

In this connection instructions issued under B.P.E. circular of O.M. No. 9(28)|FI|67|Cir. Adv. (r)|36 dated 31.6.69 and O.M. No. 1450-Adv (c)|Cir-56|69 dated 27.10.69 (copy enclosed) should be kept in view. Reasons where a lower offer is not accepted or where the difference between purchase prices proposed to be paid and the previous price paid for is more than the prescribed percentage should invariably be recorded.

The Public Sector Undertakings may also be requested to confirm by 31.10.72 that necessary action as indicated above is being taken.

(R. K. RAY)
Adviser (Production)

Encl: As above.

To

(i) Ministry of Industrial Development, New Delhi.
Etc. etc. etc.

No. 9(28)|FI|Cir. Adv. (p)-36

GOVERNMENT OF INDIA

MINISTRY OF FINANCE

BUREAU OF PUBLIC ENTERPRISES

North Block, New Delhi
January 31st, 1969.

OFFICE MEMORANDUM

SUB:—Purchase-References to Finance (Conclusions|Recommendations No. 31, 32 & 33 in Appendix-III of the 40th Report of the Committee on Public Undertakings).

The Committee on Public Undertakings have felt that large number of references to Finance tend to delay in placing purchase orders, reduction of the number of such references without impairing financial control will directly result in reduction of work in both the purchase and finance Branches, simplification of the procurement procedure, shortening of the administrative lead time and diminution in the number of stock outs and emergency purchases, and that for proper budgetary control the purchase Department should be empowered to place purchase orders within the sanctioned budget according to the limits and conditions laid down. The present practice of obtaining financial concurrence for each and every order and notwithstanding the acceptance of the lowest tender is unnecessary and time consuming. The Committee at the same time do not underestimate the need for proper financial control over the Purchase Department and have brought out that it may be necessary to fix certain financial limits over which it may be desirable to refer the case to Finance before placing the purchase order in addition to some other cases such as where ring prices are quoted by the tenders or the lowest offer is higher than the last purchase price by a certain limit etc. In order, however, to ensure that correct and proper procedures are followed by purchase Department there can be a larger percentage of post—audit which could act as a check on the purchase Department without impairing its efficiency in placing purchase orders.

The Ministry of Industrial Development and Company Affairs, etc. are requested ao advise the Public Sector Undertakings for their guidance that:—

(i) It is not necessary to refer each purchase order before finalisation to the Finance regardless of value and that it

is necessary that there should be financial limits over which only it may be desirable to refer the case to Finance.

(ii) The Finance be invariably consulted for finalising purchase orders where:—

(a) Ring prices are quoted by the tenders.

(b) The lowest offer is higher than the last purchase price by 5 per cent; and

(c) The difference between the accepted tender and the lowest technically acceptable tender is more than 5 per cent subject to an overall limit.

The Undertakings may review and suitably modify where necessary, their procedure in the light of the above comments so as to avoid unnecessary consultations, references and cross-references to Finance.

Sd.- P. Govinda Nair
Secretary to the Govt. of India and Director General, Bureau of Public Enterprises.

To

All Ministries|Departments of Govt. of India.

No. 1450|Adv. (B)|Cir.-56|69

GOVERNMENT OF INDIA

MINISTRY OF FINANCE

BUREAU OF PUBLIC ENTERPRISES

New Delhi
27th October, 1969

OFFICE MEMORANDUM

The Committee of Public Undertakings in their 8th Report to township and factory buildings of Public Undertakings have observed "that there are a large number of cases in various projects in which tenders other than the lowest have been accepted and contracts awarded without calling for tenders. Reasons given are in experience of lowest tenders, urgency, extention of work of existing contractors, etc. These cases have generally not been reported to the Board of Directors of the undertakings at any stage as they were within the delegated powers of the General Managers or other

officers. Representatives of the Ministries agreed during evidence that it was desirable to report all such cases to the Board".

In this connection attention of all public enterprises is invited to OM No. 9(28)|Cir|I Adv(P)|36 dated 31st January, 1969, wherein public enterprises were advised to consult the Finance where the difference between the accepted and the lowest tender is more than 5 per cent subject to an overall limit to be prescribed.

The matter has been further considered in the light of the above observations of the Committee on Public Undertakings and all Public Enterprises are advised that where the lowest technically acceptable tender is not accepted, the Board of Directors may consider the introduction of a system according to which the reasons for not accepting the same be recorded in writing and be brought to the notice of next higher authority. All such cases beyond a certain financial limit which will be prescribed by the Board of Directors, may according to this system be regularly reported to the Board at the next meeting after the decision has been taken.

Similarly in respect of all contracts awarded without calling for tenders, the Board of Directors may also consider whether the reasons for not calling tenders should be recorded in writing and reported to the next higher authority and whether all such cases should also be reported to the Board beyond a financial limit which will be prescribed by the Board.

Ministry of Industrial Development, Internal Trade and Company Affairs, etc. are requested to bring this to the notice of the Public Sector Undertakings under their administrative control and to the Directors on the Board of Management thereof for their guidance.

Sd/-A. N. BANERJI,
Additional Secretary to the Govt. of India and Director General, Bureau of Public Enterprises.

APPENDIX III

(*Vide* reply to recommendation at S. No. 22)

No. BPE|46|ADV-F|68|25

BUREAU OF PUBLIC ENTREPRISES

New Delhi, the 27th Dec., 1968

OFFICE MEMORANDUM

SUB:—*Pricing Policies of Public Enterprises.*

The pricing policies for Public Enterprises were recently considered by the Government at the highest level and it has been decided that public enterprises should be economically viable units and an all out effort should be made to increase their efficiency and establish their profitability at the earliest. It was decided that it would not be necessary or advantageous to lay down guidelines in regard to pricing policies to be followed by enterprises which produce goods in respect of which the prices are subject to regulations of a binding type either voluntarily by mutual arrangements or due to domestic or international regulations. It may not also be necessary to prescribe any guidelines for trading organisations like, STC, MMTC, etc.

2. So far as the enterprises which produee goods and services in competition with other domestic producers, the normal market forces of demand and supply will operate and their products will be governed, by and large, by the competitive prices prevailing in the market.

3. It was, however, felt that it would be useful to have suitable guidelines for those enterprises which operate under monopolistic or semi-monopolistic conditions. In regard to pricing policies to be adopted by such enterprises the following guidelines will be useful for the consideration of their Board of Directors:—

(a) The princing of their products should be within the basis of the landed cost of comparable imported goods which would be the normal ceiling (and not on the basis of c.i.f. prices). In calculating the landed cost the normal price of such goods in the country of their origin should be taken into account in cases where exports of such goods

are subsidised on any appreciable scale either directly (or) indirectly.

(b) Within the ceiling of the landed cost, it would be open to the enterprises to have price negotiations and fix prices at suitable levels for their products which would give them a reasonable return on the capital invested. It was also desirable that the prices so fixed should be operative for a period of 2-3 years.

(c) Ordinarily, the landed cost should be regarded as the absolute ceiling, if, however, in assessing the landed cost, there are reasons to believe that imported FOB|CIF prices are artificially low, or in other exceptional circumstances, where our cost of production is very high, it may be necessary to have the prices higher than the landed cost; in such circumstances the matter should be referred to the administrative Ministry concerned for examination in depth in consultation with the Ministry of Finance, Bureau of Public Enterprises etc.

4. The Ministry of Industry etc. are requested to bring the contents of this O.M. to the notice of all undertakings under their control for their guidance.

Sd|- P. GOVINDA NAIR
Secretary to the Govt. of India and Director General, Bureau of Public Enterprises.

APPENDIX IV

(*vide* reply to recommendation No. 57 (Para 6.26)

New Delhi, dated the

My dear,

My attention has been drawn to letter No. 1-12(9)|72-O&M of June 23, 1972 from Shri B, P. Patel to Shri B. B. Lal enclosing a draft note for the Cabinet regarding the transfer of the administrative control of Bharat Heavy Electrical and Heavy Electricals (India) Limited, to the Ministry of Irrigation and Power from the Ministry of Industrial Development.

2. As you are aware, the allocation of business between Ministries is the prerogative of the Prime Minister. I would, therefore, suggest that if you wish to pursue this matter you might first like to discuss it with Prime Minister. We can also have a discussion between ourselves if you think it will be useful.

3. I also enclose a note giving our comments on the substantive points made in the paper prepared by your Ministry. The views expressed in this note should also be taken into account in whatever further action you propose to take.

Yours sincerely,
Sd|- C. SUBRAMANIAM

Dr. K. L. Rao,
Minister for Irrigation & Power,
New Delhi.
Encl:

COMMENTS OF MINISTRY OF IRRIGATION & POWERS NOTE ON BHEL AND HEIL

The paper prepared by the Ministry of Irrigation and Power for consideration of the Cabinet proposes that the administrative control of BHEL AND HEIL should be transferred to that Ministry. The main reasons advanced for such a transfer are:

(i) The Ministry of Irrigation and Power is responsible for the development of power in all its aspects viz. generation, transmission and distribution.

(ii) Demand for power is continuously growing and may reach 52 million KW by 1980-81. The role of BHEL|HEIL in attaining these targets is very crucial.

(iii) The performance of BHEL|HEIL has been very poor and this had led to shortfalls in this sector in the past.

(iv) There is lack of coordination between the manufacturing plants and implementing agencies.

(v) The monopolistic nature of operation of BHEL|HEIL has led to difficulties in settling matters like pricing, delivery schedules, fixing *inter-se* priorities *etc.*

(vi) Organisations under Ministry of Irrigation and Power like CBIP are doing basic research which would be very useful to the manufacturing plants.

(vii) Many other public sector manufacturing organisations are under the administrative control of Ministries who also happen to be the customers for the output.

(viii) The COPU have in their 19th and 21st reports suggested that Government should examine ways and means for establishing close liaison between BHEL|HEIL on the one hand and the State Electricity Boards and other organisations engaged in generation, transmission and utilisation of power.

Ministry of Irrigation and Power's paper quotes many instances about the lack of coordination, poor performance of the public sector undertakings in the past and suggests that all these problems would be solved by a transfer of administrative control to that Ministry.

The issues raised are very important indeed. There can be no two opinions that BHEL|HEIL have a very important role to play in the power sector. 'Industry' continues to be the main user of power and industrial growth is likely to be retarded if there is a shortage of power. As such the Ministry of Industrial Development is equally or more concerned with the slow rate of development of power in the country. To the extent that two public sector undertakings BHEL|HEIL have an important role it is taking steps to ensure that their performance is adequate to meet the needs of this sector. While there are clear signs that these two undertakings are growing in stature and gaining technical competence to meet the challenge, the Ministry of Industrial Development is concerned about various constraints that have impeded the growth of these

undertakings in the past and continue to do so. It may be worth analysing some of the basic issues before a view is taken on the proposal of the Ministry of Irrigation and power.

MAIN ROLE OF MINISTRY OF IRRIGATION AND POWER IN POWER DEVELOPMENT

Power is a concurrent subject. While overall policy for power development is dealt with by the Ministry of Irrigation and Power implementing the power programmes is the direct responsibility of the various State Electricity Boards which will in due course operate as autonomous corporations. As and when their operations became commercially and technically viable they will be able to plan and execute their programme of meeting the growing power needs, within the overall framework of Governmental policies. The near chaotic situation in the power sector is mainly due to the State Electricity Boards being still weak organisationally and financially. Haphasard planning, lack of overall guidance, poor implementation and faculty operation, has contributed to shortfalls in the power sector. A number of reviews of the performance in this sector in the previous plans have revealed that even in period when the equipment needs were met by imports and even when the scale of power development was comparatively small the achievement was not satisfactory. Two expert groups, one headed by Shri K.P.S. Nair formerly Vice-Chairman. CW&PC and the other by Shri K.B. Rao, the then Adviser in the Planning Commission, had examined these aspects. Their findings were that the following causes were mainly responsible:

(i) Lack of adequate investigation of the power projects and pre-construction planning activities:

(ii) Escalation in estimated costs;

(iii) delays in supply of equipment (imported equipments have also been delivered after prolonged delay);

(iv) lack of adequate organisation and capability for executing the schemes.

The main deficiencies in the implementation of Power Programmes have thus been in areas in which the Ministry of Irrigation and Power had the main responsibility even now. Only when the organisations of States level become technically competent, managerially adequate and financially viable would growth in the power sector be satisfactory. As it is the Ministry of Irrigation and Power

have an enormous responsibility and a difficult programme ahead and should concentrate on this Task.

Generation is only one aspect

Generation of power is only one aspect calling for about 50 per cent of the outlay in the power sector. For satisfactory power development, there should be proper coordination of transmission and distribution programmes also. While the major portion of equipment needs for generation are being met by the public sector undertakings, the equipment needs for transmission and distribution are met by a large number of industries under the overall purview of the Ministry of Industrial Development. The more important products in this category are power and distribution transformers high and low voltage switchgear, conductors, instrumentation and controls and protection equipment. Further a fairly large and important portion of power station equipment such as the coal handling and handling equipment, thermal station piping, instrumentation and controls, insulation and refractories, water treatment plant, circulating water system, handling equipment including EOT cranes, protection equipment and outdoor sub-station equipment, also falls within the manufacturing profile of a large number of private industries. If proper coordination of manufacturing activities of all these industries with the overall power programmes is necessary, perhaps, the Ministry of Industrial Development with its technical wing viz. D.G.T.D. is the most suited agency. Installation of power stations does not ensure power availability automatically. Skills have to be developed to maintain these sophisticated equipment and operate the stations satisfactorily. Here the performance of the various Power Station authorities continues to be poor.

Performance of Bhel|Heil

The Ministry of Irrigation and Power have quoted a number of instances of poor and delayed performance of BHEL|HEIL. Ministry of Industrial Development and the Cabinet are well aware of these instances. It would not be correct to attribute all the shortfalls in the power sector to delays in supply of equipment by BHEL|HEIL.

As against a few such instances, a number of other instances could be cited where power stations equipment with important equipment have been delayed. A case study of a typical instance relating to the Ramagundam Power Station in Andhra Pradesh may be cited. This was only a 60 MW unit and is designed to be pit-head power station meant for relieving acute power shortage in Andhra Region.

All equipment needed for this Power Station were covered from one aid or the other. The Project was approved in 1961 and equipment ordered in 1965 from foreign sources but the Station was commissioned in May, 1972. Eleven years from the date of original sanction and 7 years after the date of order of the equipment from foreign sources. Idikki, where equipment were ordered on rush basis in 1966 for completing project in 1970-71, remains incomplete till today and is likely to be commissioned only in 1974-75 and 1975-76. Balimela Hydro Project where equipments were ordered in 1964 for completion in 1969 is still incomplete. The units may be commissioned only in 1973-74 and 1974-75. Lower-Sileru where equipments were ordered in 966-67 from foreign sources is still incomplete and is expected to be commissioned in 1975-76 only. For Pathratu where contracts were concluded with the Soviets in 1960, some units were commissioned only in 1972. It would be useful if the Ministry of Irrigation and Power could analyse the causes for the slippage for these schemes where equipment has been ordered abroad. It is a sage guess that the reasons are the same as have been experienced in schemes where equipment has been ordered on indigenous manufacturers.

As against the above record of achievement with important sets, 60 MW unit ordered by the Tamil Nadu State Electricity Board on Hyderabad and Tiruchy units of BHEL in March, 1966 was commissioned in March, 1970 i.e. within a span of 4 years. The 60 MW unit ordered on Indian manufacturers for the Delhi Thermal Power Station in March, 1967 was commissioned in July, 1971—again in about 4 years. Harduaganj Thermal Power Station extension for which two 60 MW units were ordered on BHEL in February, 1967 was commissioned in March, 1971 and the second unit is expected to be commissioned in July/August, 1972. The 110 MW Kothagudem Thermal Power Station for which orders were placed on BHEL in August, 1967 is expected to be commissioned in September/October, 1972. The 110 MW Guru Nanak Thermal Power Station ordered by PSEB in February, 1969 on BHEL is expected to be commissioned in a record time of 4 years, i.e. by March, 1973. By all international standards and compared to the teething troubles experienced on the imported equipment notably in Pathratu, Nasik, Renukoot, Tarapur, etc., the power units supplied from Indian sources have been functioning very satisfactorily.

The Ministry of Industrial Development firmly believes that the performance of BHEL|HEIL will improve and their output capabilities are continuously growing. In a short period, the manufacturing units have done well in setting up production facilities on par with

many leading international manufacturers. Over 4,000 engineers and technicians have been trained in design, manufacture. This is one of the few sectors of development where indigenous integration is nearly complete, high level Action Committee under the Chairmanship of Shri M. S. Pathak, Member of Planning Commission have reviewed the performance of BHEL|HEIL, and recommended various measures to improve their performance. These are being implemented. The managements of these plants are also drawing up a coordinated plan of action for attaining rated capacity at all plants which will be submitted to the Action Committee shortly. The Ministry of Industrial Development is confident that these objective will be attained. It must be appreciated that there were factors internal and external to BHEL|HEIL that inhibited their growth. The internal inhibiting factors such as acquisition of manufacturing skills and know-how managerial ability and development are being attended to. In eliminating the external factors such as inadequate to advance planning and ordering of equipment, poor management at power station sites, weak design/consultancy organisations, financial constraints of State Electricity Boards, etc., the Ministry of Irrigation and Power's cooperation is very necessary.

In this context the Ministry of Industrial Development would like to draw attention to a deliberate campaign in the press decrying the performance of BHEL/HEIL. Unwittingly, the Ministry of Irrigation and Power has become a party to this campaign. Apart from weakening the report between the manufacturing units and the State Electricity Boards such pronouncements damage the very image of the public sector. Performance of these public sector units is being decried even in such forums as the Federation of Indian Chambers of Commerce and Industry by senior officials of the Ministry of Irrigation and Power. This is hardly conducive to establish 'coordination' in the power sector.

Monopolistic nature of BHEL|HEIL

The Ministry of Irrigation and Power consider that the monopolistic nature of operations of BHEL and HEIL has affected adversely settlement of matters like pricing, delivery schedule etc. Here it is necessary to understand the context in which decisions to set up these plants were taken. Power being a vital sector for overall economic growth a high rate of growth in this infra-structure has to be ensured. Dependence on imports to meet the equipment needs will retard power development. The capital intensive nature of the industry, advanced and fast developing technology

involved, high obsolescence of techniques and processes have inhibited entry of the private sector in this sphere in the past.

It was in such an environment that Government have entered this field. Even so BHEL and HEIL operate in competition with industries in the private sector as far as boilers, industrial drives, switchgear and transformer are concerned. These products constitute a fair portion (nearly 50 per cent) of the output of BHEL|HEIL. What perhaps the Ministry of Irrigation and Power is referring are the somewhat higher prices for the turbo-sets for thermal plants and hydro-sets. It has been complained on a number of occasions at various forms that comparing domestic prices especially in the initial stages of the industry with the so called 'landed costs' can place domestic industry at a disadvantage. There is a well-established mechanism to resolve disputes in such matters. The Ministry of Industrial Development consider that mere transfer of BHEL|HEIL is neither likely to change the monopolistic aspects of manufacture as far as hydro-sets and turbo-sets are concerned, nor contribute to eliminate the disputes regarding prices or other terms of contract.

Ministry of Irrigation and Power have allowed to the stiff payment terms of BHEL HEIL. To set the several straight these were finalised by the Planning Commission in 1968 in consultation with the Ministry of Irrigation and Power. Nor are progress payments for long production cycle items a feature of our country alone. However. in view of the financial difficulties of the State Electricity Boards, BHEL|HEIL have recently agreed in consultation with the Ministry for Industrial Development to very much more liberal payment terms, this will call for much higher working capital for BHEL|HEIL. Ministry of Industrial Development will approach the Ministry of Finance for this shortly after the Fifth Plan Programmes are finalised.

Monopolistic nature of BHEL|HEIL

BHEL|HEIL factories, though essentially meant for manufacturing equipment for power generation, are also designed for the manufacture of a number of allied products required for various other Industries. They include:

(a) motors for steel mills, cement, mills, sugar mills and a variety of other applications where electrical drive are used;

(b) traction motors—for Railways;

(c) Industrial turbo-sets for Refineries, Petro-chemical plants, paper industry, chemical plants, sugar mills etc.;

(d) Turbo compressors for steel plants;

(e) Centrifugal compressors for fertiliser and other applications for gas and air compression;

(f) Control equipment for a variety of industrial applications in steel, aluminium and other major industries;

(g) medium size and other industrial boilers for steel plants, petro-chemical industries, Refineries, Fertilizers and other Chemical Industries;

(h) valves for steam, gas and oil lines;

(i) transformers, switchgear and capacitors for major industries;

(j) marine turbines for Navy;

(k) nuclear steam turbines, turbo alternators and steam generators of Atomic Power Plants; and

(l) pressure vessels for chemical industries.

Capacity that has been built up for these products (other than for power generation) in the BHEL's plants at Hardwar, Hyderabad and Tiruchirapalli, corresponds to an annual production of Rs. 60 crores and that of Bhopal Rs. 15 crores. The manufacture of these industrial equipment have been built into these factories in order to take up products of allied technology and also to make the optimum use of the manufacturing, testing and engineering facilities available in these plants. If Hardwar, Hyderabad, Bhopal and Tiruchirapalli were to be treated as a captive facility for the power generation of programmes, it would result in the additional equipment meant for other vital industries being included under similar captive facilities being set up by the respective sectors with consequent waste and dispersal of efforts and diffusion of technical expertise.

Comparison with captive units of other Ministries

Chittaranjan Locomotive Works, Diesel Locomotive Works or Indian Telephone Industries or Hindustan Aeronautics are all in the real sense captive industries. None of these factories shown under the Ministries of Communication. Railways, Steel and Mines produce equipment for development activities outside the respective

Ministries. These sectors *viz.* Communication, Railways, Steel and Central subjects unlike power which is a State subject. Hindustan Teleprinters or Indian Telephone Industries did not manufacture any equipment outside the requirement of the Ministry of Communications. Similarly the Integral Coach Factory, Chittaranjan Locomotive Works, Diesel Locomotive Works do not produce any equipment which is required outside the Railways.

Firstly all equipment required for power is not manufactured by HEIL and BHEL. Secondly all equipment manufactured by HEIL|BHEL are not used only for power generation. Besides, the power equipment manufactured by HEIL and BHEL are supplied to a large number of State Electricity Boards where the Centre has very little control. In fact the normal commercial operation of these factories will be very much prejudiced if a Ministry coordinating the power development programmes at the Centre woull also hold charge of the manufacturing plants, as very often they may have to sacrifice the commercial aspects to meet the pressure from the State Electricity Boards.

Research and Development Effort

Mention is made of the research effort of the Central Board of Irrigation and Power and other laboratories under the Ministry of Irrigation and Power. Most of these institutions are engaged in basic research relating to civil structures for irrigation systems, fundamental work relating to hydraulic flows, problems of power system, operation etc. While this type of work has its own use and place in the overall scheme, the Research and Development base required by the Industry, has necessarily to be set up within the industry itself. It can and will draw support of existing institutions working in allied fields. But the scope of Research and Development efforts required for BHEL HEIL is such that existing organisations, under the Ministry of Irrigation and Power cannot be of much help.

Recommendations of the COPU

The COPU has essentially recommended that there should be a close liaison amongst all the agencies concerned with power development. Apparently an impression has been left with the COPU that the power development programme in this country has suffered only on account of delays by HEIL BHEL and their general lack of awareness of the importance of the power programmes. It is necessary to improve the liaison between the Electricity Boards and the manufacturers. The Ministry of Industrial Development

has directed the management of BHEL|HEIL to adequately strengthen their wings, for customer service, and is confident that greater rapport will be established. However, an adequate and constructive response from the Ministry of Irrigation and Power is a necessary prerequisite.

Ministry of Industrial Development is equally interested in the orderly development of power in the country. This Ministry fully realises that if this is not achieved, the entire industrial growth in the country would receive a setback. It would also retard the growth of production in BHEL/HEIL.- The Ministry of Irrigation and Power can help us in this task of assisting the State Electricity Boards in preparing a realistic pressure of power development adequate construction agencies both under the Government and outside for power stations has also to be set up in order to ensure that the construction of the various power stations proposed uninterruptedly. The Ministry of Irrigation and Power can also actively pursue possibilities of central generation where State resources would not permit taking up large power stations.

APPENDIX V

(*Vide* reply to recommendation at S. No. 59)

EARLIER TERMS OF PAYMENT

I. *For Boilers and Associated Auxiliaries*

(a) 10 per cent of the F.O.R. value at the time of placing the order.

(b) Balance upto 100 per cent of the F.O.R. Value against the despatch of documents of each consignment at Rs. per ton of equipment, subject to a certificate of a Chartered Auditor or of the FA of HEIL|BHEL. Sales Tax as applicable will be realised extra along with these payments.

(c) Final adjustment shall be carried out in the last 2|3 consignments so as to ensure that 100 per cent of the total agreed price is paid in full subject to a certificate of a Chartered Auditor or of a FA of HEIL/BHEL.

(d) A Bank Guarantee for 5 per cent of the F.O.R. value of the equipment will be given by BHEL which will be valid for one year after the completion of erection and satisfactory commissioning of the boilers.

II. *For Turbo-sets and Associated Auxiliaries*

(a) 10 per cent of the F.O.R. value as advance at the time of placing the order.

(b) 20 per cent of the F.O.R. value to be paid six months from the date of the order subject to a certificate of a Chartered Auditor or of a FA HEIL/BHEL.

(c) 20 per cent of the F.O.R. value to be paid on the expiry of fifteen months from the date of the order subject to a certificate of a Chartered Auditor or of a FA of HEIL/BHEL.

(d) Balance upto 100 per cent of the F.O.R. value to be paid on the despatch of the documents of the last substantial consignment of the Turbo-sets, Associated Auxiliaries

and Feed Pumps, subject to BHEL furnishing a bank guarantee as in (e) below.

(e) A bank guarantee for 5 per cent of the F.O.R. value of the equipment will be given by BHEL towards satisfactory performance of the equipment. The guarantee will be valid for one year after satisfactory commissioning of the equipment or 36 months from the date of supply, whichever is earlier.

III. *For Switchgear and Motors*

(a) 10 per cent of the total F.O.R. value with the detailed letter of intent/order.

(b) 30 per cent of the total F.O.R. value of each item at the expiry of half the delivery period as stated.

(c) 50 per cent of the F.O.R. value against despatch of documents.

(d) Balance 10 per cent of the F.O.R. value within 30 days of receipt of the material at site and in any case not earlier than 60 days from the date of despatch of the material from works.

(e) A Bank Guarantee for 5 per cent of the F.O.R. value of the equipment will be given by the Contractor towards satisfactory performance of the equipment after issue of the final invoice. The guarantee will be valid for one year after satisfactory commissioning of the equipment or 18 months from the date of supply, whichever is earlier.

REVISED TERMS OF PAYMENT AS A RESULT OF DISCUSSION HELD BETWEEN REPRESENTATIVES OF PLANNING COMMISSION, MINISTRY OF IRRIGATION AND POWER, REPRESENTATIVES OF STAFF STATE ELECTRICITY BOARDS AND CHAIRMAN, BHARAT HEAVY ELECTRICALS LIMITED ETC.

(i) 10 per cent of the F.O.R. cost of the equipment along with the order. Cost of the equipment to be made up by way of payment against each consignment to the extent of its value minus 12 per cent on the delivery of the documents of despatch together with a certificate as to the contents and the value of the consignment.

(ii) Upto 98 per cent against proof of despatch of equipment.

Note:

(a) For boilers the existing system of billing cash consignment on a rate per Kg. basis may be continued in view of this, further adjustments necessary will also be made in the last three substantive consignments so as to ensure that payment in excess of 98 per cent of the F.O.R. value is not made for the full supplies.

(b) In the case of turbo-sets and associated equipment, BHEL will work out a practical method of billing individual consignments, either on weight basis or on the basis of individual equipment such as condenser turbine, turbo alternators, feed pumps, heaters, etc. in consultation with the concerned customers.

(iii) Balance of 2 per cent of the F.O.R. value to be paid on completion of satisfactory performance for 12 months after commissioning of the equipment, or on the expiry of 18 months after receipt of the last consignment, whichever is earlier.

APPENDIX VI

(*Vide* Paragraph 6 of Introduction)

Analysis of action taken by Government on the recommendations contained in the 43rd Report of the Committee on Public Undertakings (5th Lok Sabha).

I.	Total number of recommendations	61
II.	Recommendations that have been accepted by Government (*vide* recommendations at Sl. Nos. 2, 3, 5, 7, 8, 9, 12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 29, 30, 31, 34, 37, 38, 39, 40, 42, 43, 44, 50, 51, 52, 54, 58, and 59)	35
	Percentage to total	57%
III.	Recommendations which the Committee do not desire to pursue in view of Government's replies (*vide* recommendations at Sl. Nos. 1, 4, 15, 27, 32, 33, 36, 41, 46, 47, 48, 49, and 56.) .	13
	Percentage to total	21%
IV.	Recommendations in respect of which replies of Government have not been accepted by the Committee (*vide* recommendations at Sl. Nos. 6, 10, 11, 14, 24, 28, 35, 45, 53, 55, 57, 60, and 61) .	13
	Percentage to total	22%
V.	Recommendations in respect of which final replies of Government are still awaited	Nil

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