

# EIGHTY-SEVENTH REPORT

## COMMITTEE ON PUBLIC UNDERTAKINGS

(1983-84)

(SEVENTH LOK SABHA)

CENTRAL COAL WASHERIES ORGANISATION

(MINISTRY OF ENERGY,  
DEPARTMENT OF COAL)



*Presented to Lok Sabha on*

*Laid in Rajya Sabha on*

LOK SABHA SECRETARIAT  
NEW DELHI

*April, 1984/Chaitra, 1906 (S)*

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COMMITTEE ON PUBLIC UNDERTAKINGS  
(1983-84)

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\*Ceased to be a Member consequent on his retirement from Rajya Sabha on 2 April, 1984.

\*\*Ceased to be a Member consequent on his retirement from Rajya Sabha on 9 April, 1984.

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1. **Shri T. R. Krishnamachari**—*Joint Secretary.*
2. **Shri M. K. Mathur**—*Chief Financial Committee Officer.*
3. **Shri G. S. Bhasin**—*Senior Financial Committee Officer.*

**COMPOSITION OF STUDY GROUP II OF COMMITTEE ON PUBLIC UNDERTAKINGS ON NATIONAL THERMAL POWER CORPORATION LTD., CENTRAL COAL WASHERIES ORGANISATION AND PRODUCTIVITY IN PUBLIC UNDERTAKINGS**

1. Shri Satyendra Narain Sinha—*Convener.*
2. Shri Pratap Bharu Sharma—*Alternate Convener.*
3. Shri Harish Kumar Gangwar
4. Shri Ramnath Dubey
5. Shri M. S. Ramachandran.

## INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to present the Report on their behalf, present this Eighty-Seventh Report on Central Coal Washerries Organisation.

2. The Committee's examination of the working of the Company was mainly based on the Report of the Comptroller and Auditor General of India, 1981, Union Government (Commercial) Part VII.

3. The Committee took evidence of the representatives of Central Coal Washerries Organisation/Bharat Coking Coal Ltd. on 15 and 16 July, 1983 and of Ministry of Energy (Department of Coal) on 5 October, 1983.

4. The Committee considered and adopted the Report at their sittings held on 21 and 22 March, 1984.

5. The Committee wish to express their thanks to the Ministry of Energy (Department of Coal) and Central Coal Washerries Organisation/Bharat Coking Coal Ltd. for placing before them the material and information they wanted in connection with examination of the Company. They also wish to thank in particular the representatives of the Department of Coal and the Company who gave evidence and placed their considered views before the Committee.

6. The Committee also place on record their appreciation of the assistance rendered by the Comptroller and Auditor General of India.

NEW DELHI;  
April, 9 1984

Chaitra 20, 1906 (Saka)

MADHUSUDAN VAIRALE,  
Chairman,  
Committee on Public Undertakings.

## CHAPTER I

### TRANSFER OF CCWO TO BCCL

The Central Coal Washeries Organisation (CCWO) consists of 4 washeries—Dugda I, Dugda II, Bhojudih and Patherdih—commissioned between May 1962 and February 1969 at a capital cost of Rs. 32.19 crores. These washeries had been set up by the erstwhile Hindustan Steel Limited (HSL), now Steel Authority of India Ltd. (SAIL) to cater to the requirement of washed prime coking coal of Bhilai and Rourkela Steel Plants as well as the private sector steel plants.

1.2 In June, 1972, a proposal mooted by Bharat Coking Coal Ltd. (BCCL) for transfer of the four washeries to it was agreed to, in principle, by HSL on the consideration that it would ensure better coordination between production of prime coal and supply of washed coal to steel plants. In a meeting held in Ministry of Steel & Mines in January, 1973, it was decided to treat the washeries as an independent entity under the joint ownership of HSL and BCCL and the decision was reserved for Government approval.

1.3 With the concept of integrated development of the coking coal sector, and linked washeries, it was decided that the washeries be put under the management of Bharat Coking Coal Limited instead of the same having to be continued to be managed by Hindustan Steel Limited. In April, 1973 the management of the Central Coal Washeries Organisation washeries was entrusted to the Bharat Coking Coal Limited management, through a Power of Attorney, issued by Hindustan Steel Limited Board, pending the *de jure* transfer of the ownership. Since then, the Bharat Coking Coal Limited, has been managing these washeries. The Department of Coal came into existence in October, 1974 and Bharat Coking Coal Limited was transferred to the new Department. In the new set up, the Department of Coal provided Bharat Coking Coal Limited with the funds for the Capital required of the Central Coal Washeries. Day to day operation and management of the washeries continued with Bharat Coking Coal Limited under the Department of Coal even though the ownership still vested in Steel Authority of India Limited which was under Department of Steel.

1.4 The subject matter of transfer of ownership of the four washeries of CCWO from SAIL to BCCL was also considered by the Committee on

Public Undertakings (1980-81), who had in their 17th Report (1980-81) on Coal India Ltd., *inter alia* observed:—

“Incidentally the Committee heard that there was some rethinking on transfer of ownership of four coal washeries from SAIL to BCCL. Earlier, it was felt that it would be good if the ownership should vest with the company which produced coking coal rather than the one which used. These washeries are now being managed by BCCL and on account of ownership still resting with SAIL there is reportedly uncertainty and delay in investments apart from operational problem. The Committee having been convinced of the advantages of these washeries' ownership vesting with the coal company, recommend that the ownership should be transferred by SAIL forthwith.”

1.5 In their action taken notes of 12 November, 1981 and 9th February, 1982, the Department of Coal informed that the question of transfer of ownership of the Coal washeries from SAIL to BCCL had been taken up with the Department of Steel at the highest level.

1.6 It is seen that under the new arrangement that came into existence in October, 1974, the Department of Coal provided BCCL with the funds for the capital requirement of the Central Coal Washerries. However, SAIL as owner of the washeries had been paying for all operational charges as well as cost of raw materials. Day to day operation and management of the washeries continued with BCCL under the Department of Coal even though the ownership still vested with the SAIL, which was under the Department of Steel.

1.7 In a note submitted to the Committee, the Department of Coal have stated:

“Although discussions had taken place between the Ministries of Steel and Energy, Hindustan Steel Ltd. and Bharat Coking Coal Ltd. about the said proposed transfer, neither any agreement to transfer had been executed yet nor the formal transfer had taken place so far, nor had any consideration passed between the Government of India, the Bharat Coking Coal Ltd. and the Hindustan Steel Ltd.”

1.8 During the course of evidence of the representatives of CCWO/BCCL the Committee enquired about the reasons for delay in taking a final decision to transfer the ownership of CCWO to BCCL even after a lapse

of about 10 years. The Chairman-cum-Managing Director, BCCL, stated as follows:

“The Government have already decided that ownership of Central Coal Washeries Organisation should be with the BCCL. The Department of Steel and also the Steel Authority of India had agreed for the transfer of ownership to BCCL. But the two undertakings had certain difference of opinion about the assets and therefore a Committee has been set up by the Government of India which is an inter-ministerial Committee to make a decision about it. This Committee is supposed to give its final recommendation by the end of August and the Government in the Ministry of Energy have given notification to this effect to all of us.”

1.9 When asked about the reasons for delay in the transfer of the ownership of CCWO to BCCL, the Secretary Department of Coal explained as follows:—

“BCCL was created in January 1972. When BCCL was set up, at that time, it was felt that it would be better if these washeries were managed by this newly established company because it was managing the mines. When the transfer of management took place, then this problem regarding valuation of assets and modalities of transfer arose. One major problem was that the wages of the workers who were working in the washeries over the years were paid according to the wages fixed by the Steel Company and the wages in the coal industry (BCCL) were different.”

1.10 Asked about the steps taken by the Ministry from time to time to transfer the ownership of CCWO in favour of BCCL, the Department of Coal stated in a written reply furnished after the evidence as follows:—

“A series of communications were exchanged between the Department of Coal and the Department of Steel, requesting the latter to transfer the ownership of these washeries to Bharat Coking Coal Ltd. but this was delayed by the Steel Department till February, 1976, when they went up to the Cabinet with proposal for restructuring of Hindustan Steel Ltd. which, *inter-alia* also contained a proposal for transfer of the ownership of Central Coal Washeries to Bharat Coking Coal Ltd. through the Department of Coal with effect from 1st April, 1975. The Cabinet approved the proposal of the Steel Department regarding transfer of CCWO to BCCL w.e.f. 1-4-1975. However, it could not be implemented by the

Steel Department for various reasons. The transfer of coal washeries was again approved by the Cabinet in 1977 as part of the scheme of restructuring of the Public Sector Steel Industry for which the Department of Steel had approached the Cabinet.

As no concrete steps in this regard were being taken by Steel Department, this Department kept on pursuing the matter vigorously. As a result thereof, in April, 1983, the Department of Steel informed that they had issued necessary orders in this regard and that further action would be taken by Steel Authority of India Ltd. in consultation with Bharat Coking Coal Ltd. Subsequently, both Steel Authority of India Ltd. and Bharat Coking Coal Ltd. officials met on more than one occasion to finalise the modalities of transfer but could not come to any mutually agreed terms in the matters relating to transfer of assets and liabilities, such as, stock of middlings and rejects, book debts, contingent liabilities, claims recoveries, township etc.

A Committee was constituted to finalise the modalities quickly with representatives from the Bureau of Public Enterprises, Steel Authority of India Ltd., Bharat Coking Coal Ltd, and the Department of Coal. This Committee went into the various issues connected with the transfer of coal washeries, such as valuation of assets/liabilities, township etc. and submitted its report on 17-9-1983 to this Department. This report was examined by this Department and the recommendations made therein in regard to valuation of washeries etc. were acceptable to it."

1.11 Asked about the latest position in regard to transfer of ownership of washeries, the Department of Coal stated in a post evidence reply that the Steel Department in their letter No. 20(2)/78-SAIL, I dated the 25th October, 1983 addressed to Chairman, Steel Authority of India Ltd. and copy endorsed to the Department of Coal, have informed the Steel Authority of India Ltd. of their decision to transfer the four washeries of Steel Authority of India Ltd. to Bharat Coking Coal Ltd. with effect from 1-10-1983. In the letter, they have also stated that the issue of compensation will be determined in consultation with Secretary, Expenditure. The Bharat Coking Coal Ltd. has been asked to pursue the matter with Steel Authority of India Ltd. to comply with the legal formalities.

1.12 In this connection Secretary, Department of Coal, also stated during the evidence as follows:—

“.....There had been some problems regarding modalities of transfer. Fortunately that process has now been completed and in a meeting which I convened on the 23rd of last month at which the Secretary, Department of Steel, Chairman of SAIL, Chairman of Coal India Ltd. were present, we indicated 'now we are prepared to take over the ownership of these washeries with effect from 1st of October 1983.' Certain calculations about the liabilities and assets have been made. We have said that the washeries should be transferred with effect from 1st October, 1983 and the assets and liabilities can be transferred to BCCL and their valuations finally settled by the Finance Ministry. It is only a transfer from one Government company to another Government company. So, there should be no dispute on that account and we hope that in the next few days final orders will be issued for actual transfer of ownership.”

1.13 The Committee wanted to know about the reasons which prompted the Ministry to take a decision whereby the Chairman-cum-Managing Director, BCCL had to work under Power of Attorney and why ownership of CCWO could not be transferred in the first instance, thereby avoiding the system of power of attorney. The Department of Coal replied in a post evidence reply as follows:—

“When the four washeries Dugda-I, Dugda-II, Bhojudih and Patherdih of Central Coal Washerries Organisation were transferred to BCCL for management under a Power of Attorney, BCCL was also under the administrative control of Department of Steel. BCCL came under the administrative control of the Department of Coal when this Department was formed in October, 1974. BCCL became a subsidiary of Coal India Ltd. in November, 1975 when CIL was constituted as holding company. The Power of Attorney was thought of as an interim arrangement pending finalisation of the final legal transfer.”

1.14 The Committee were informed that pending the transfer of CCWO to BCCL, since the ownership of washeries vested with SAIL, the accounts of CCWO were also submitted and approved by SAIL. The CMD, BCCL, stated in evidence—

“This (accounts) is not presented through the BCCL Board. It is done through the individual. It is for the CMD, BCCL, to present the accounts, not BCCL as a Company.”

He also added :

"Washeries are responsible to Chairman of BCCL and the Chairman has got his power through SAIL and ultimately it is with the SAIL."

1.15 The Committee desired to know what was the mechanism for exercising an effective financial control in the context of the existing dual control of CCWO. The Committee also enquired as to which was the authority actually accountable to Parliament in so far as the activities of CCWO were concerned. In a note, the Department of Coal have stated :—

"Dual control has been abolished and ownership has now been transferred to Bharat Coking Coal Limited. Before this was done, the day to day operations of the washeries were the responsibility of BCCL and the auditors of SAIL used to audit the accounts of washeries. BCCL was responsible for the production of the washeries and the same was monitored as part of the monitoring work of BCCL as a whole. As the legal ownership was with SAIL, Department of Steel were accountable to Parliament in so far as the activities of CCWO were concerned. For revenue expenses, operation budgets were prepared and sent to SAIL for approval. For capital expenses capital budgets were prepared and these were approved by BCCL."

1.16 Asked to whether the Chairman, BCCL under power of attorney has powers to create additional posts, the CMD replied, "I have to go to SAIL".

1.17 To a question about administrative and disciplinary control, CMD, BCCL replied that for executives they could take action under certain procedures and in case of non-executives they were taking action at site.

1.18 The Committee further wanted to know as to who functioned as a Board of Directors. They were informed by CMD, BCCL that Board of Directors of SAIL was functioning as a Board of CCWO and they take decisions on their behalf.

1.19 Asked as to whether, the Chairman, BCCL was required to attend the meetings of Board (SAIL) in regard to matters pertaining to CCWO, the CMD, BCCL replied:—

“They consult us, but for the Board meetings they have not called us. They consult us separately.”

1.20 The Committee enquired whether there were any instances when their (CCWO) recommendations were turned down by the Board. The CMD, BCCL stated as follows:—

‘I don’t think we have had any case where it was turned down.’

1.21 The Committee wanted to know whether the non-transfer of washeries to BCCL had any adverse effect on the working of the washeries. The CMD, BCCL stated:—

“There has been no adverse effect on these. Because of cooperation, there has been smooth running. But certainly there is a feeling of dual control. This dual control is not good. It is better to have one control whichever way it is. But there has been no hindrance as such on this.”

He further stated:—

“The steel wages have been different from the wages in the coal mines. The workers in our coal washeries are governed by the Steel Wages Agreement. In case we want to change for any reason, then there is a problem. The workers would not like to agree. They would say we should have a Steel Agreement and not the coal agreement. So, we allowed the same thing to continue as it was in the SAIL. Now, the Wage Board settlement for Steel has already been made and the coal negotiations are still going on. The workers at the coal washeries have been impatient to say that whatever has been discussed and agreed for steel, should be immediately implemented. Therefore, we had to implement that. This leads to another problem i.e. the workers who are in the coal mines very close to the washeries start feeling that while somebody has got extra money, we have not got it. So, there is a feeling of dissatisfaction in them. Then, we explain to them that their negotiation is going on and as soon as it is finalised, they will get it. This has happened but it has not resulted in drastic stoppage or dislocation. We have occasional things like strike, slow down, but no severe kind of dislocation.”

1.22 Asked by the Committee whether instead of present arrangement, if there was complete amalgamation of CCWO with BCCL with the concentration of power with one Chairman, did they feel the efficiency of CCWO would have been better, the CMD, BCCL replied:—

“If it were completely with the BCCL in all respects I think efficiency would have been still better.”

1.23 The Committee desired to know whether in the view of the Ministry this arrangement of power of attorney was satisfactory. The Secretary, Department of Coal replied:—

“This was not a satisfactory arrangement. This was the only arrangement possible till the ownership could be transferred.”

1.24 The Secretary, Department of Coal also stated, that the problem was about making an investment and long term improvement in the washeries. The long term investment was suffering.

1.25 The Committee pointed out that the workers of CCWO are governed by wage structure of SAIL while the Coal Washeries of BCCL have their own wage structure and there is disparity in the wage structures of the two organisations though the skills required are the same and enquired as to how the Ministry will be able to solve this problem. The Secretary, Department of Coal replied as follows:—

“Definitely this was a major problem earlier. This has been solved partly and now there is no problem really because of the latest revision of Coal Wages which has brought the coal wages almost at par with those in the steel industry. If some workers feel that they are better off in the existing structure and they do not want to go over to the coal wage structure for any reason they will give the option... They can have them.”

1.26 From the information made available to the Committee by the SAIL, it is seen that SAIL was also not satisfied with the arrangement. The following extracts from the correspondence exchanged between SAIL and Department of Steel are relevant in this connection:—

“SAIL is paying for all the operational charges for CCWO as well as cost of raw materials to BCCL but without any effective control on any of such expenditure.”

“According to present arrangement, since all the costs are recovered from SAIL, there appears to be a laxity in the control. To give an example, the overtime bill of CCWO is generally

very high, so much so that in the year 1979-80, two of the non-executives had to be listed in the published accounts alongwith other officers, who were earning above Rs. 36,000 per annum."

"The present system of dual control is leading to inefficient management and thereby increasing the cost of production which is to be borne entirely by SAIL."

**1.27** The Committee note that in June, 1972, a proposal mooted by Bharat Coking Coal Ltd. for transfer to it of four washeries of CCWO which had been set up by the erstwhile Hindustan Steel Ltd. (now SAIL) was agreed to in principle by HSL on the consideration that it would ensure better coordination between production of prime coking coal and supply of washed coal to the steel plants. In April, 1973, the management of the CCWO washeries was entrusted to BCCL under the extraordinary device of a Power of Attorney issued in favour of the CMD, BCCL, which enabled him to manage these washeries pending the de jure transfer of the ownership to BCCL. The peculiar feature of this Power of Attorney was that this vested power of management on the CMD of BCCL and not on BCCL as Company with the result that it was not the Board of BCCL which decided matters about washeries but the Board of SAIL. This created responsibility without authority. Under this arrangement the Department of Coal provided BCCL with the funds for the capital requirements of the washeries, while SAIL continued to pay for all the operational charges for CCWO as well as cost of raw materials to BCCL. This was a very anomalous position and very unsatisfactory state of affairs posing intricate problems of accounting & auditing. Under these circumstances there could not be effective control over management and operations of washeries either of SAIL or of BCCL. Although in the beginning this arrangement, which led to dual control, was made as an interim measure pending formal transfer of CCWO to BCCL, it has continued for more than 10 years affecting adversely the efficient and smooth functioning of the washeries.

**1.28** The Committee are surprised to find that the question of transfer of ownership of CCWO washeries to BCCL was hanging fire for a period of 10 years as the modus operandi for the transfer of the assets and liabilities of one Government Company to another Government company could not be mutually agreed upon for such a long time. This appears all the more strange particularly because the rationale behind the transfer of CCWO from SAIL to BCCL was never in doubt and the proposal had also been specifically cleared not once but twice by the Cabinet; first in 1976 and again in 1977. It is also pertinent to recall that the Committee on Public Undertakings (1980-81) who "having been convinced of the advantages of these washeries' ownership resting with the coal company" had recommended that the ownership be transferred by SAIL to BCCL forthwith. Des-

pite all these, it was only in September 1983 that it was mutually agreed upon to effect the transfer w.e.f. 1st October, 1983. This is a typical case of inordinate delay in implementing a policy decision of the Cabinet by the civil servants. It seems fairly clear that the authorities concerned had shown less than ordinary interest in settling the matter, which cannot but be deprecated by the Committee. In view of the importance of the matter and the neglect that it has suffered so far, the Committee would like Government to ensure that all formalities are completed without further delay.

1.29 The interim arrangement, under which BCCL managed the washeries of CCWO but SAIL, as owner of the washeries, paid for all the operational charges as well as cost of raw materials was admittedly not satisfactory. It led to dual control on the activities of the CCWO which was not at all conducive to efficient functioning of the organisation. Further not only the objectives envisaged in transferring the ownership of CCWO to BCCL had not been realised the continued dual control has had adverse repercussions on long-term investments and improvements in the working of the washeries. The Committee recommend that since the dual control has now ended and ownership has been transferred to BCCL, all necessary measures, short-term and long-term, may be taken to remove the bottlenecks for improved and efficient functioning of the washeries.

## CHAPTER II

### PRODUCTION PERFORMANCE

#### A. Capacity Utilisation

As per project report and notice inviting tenders, the input, output, yield percentage, etc. of the Washerries were projected as follows:—

	Input	Output	Yield	Ash percentage	
	(in lakh tonnes)		(in %)	(in raw coal)	(in clean coal)
Dugda I	24	17.47	72.79	21.30	15.10
Dugda II	24	13.20	55.00	26.00	17.00
Bhojudih	20	17.40	87.00	20.24	17.00
Patherdih	20	14.61	73.05	21.90	15.60

2.2 However, a High Powered Committee constituted in 1970-71 to go into the problems of Washerries, had, after considering the past performance and present deficiencies of the Washerries, recommended (February 1971) the adoption of following input capacities:—

Dugda I	18 lakh tonnes per annum.
Dugda II	20 lakh tonnes per annum.
Bhojudih	17 lakh tonnes per annum.
Patherdih	16 lakh tonnes per annum.

2.3 The factors which led the Committee to recommend lower operating capacities as compared to higher initial installed capacities of these Washerries, were as follows:—

- (i) Deterioration in the quality and size of raw coal fed to these Washerries.
- (ii) Irregular supply of wagons for movement of raw coal to Washerries as well as for despatch of washed products from Washerries.
- (iii) Supply of non-standard wagons which the Washerries were unable to load mechanically.
- (iv) Non-availability of spare parts in time owing to diversity of washing schemes employed in the Coal Washerries to suit

specific sizing and cleaning characteristics of different coking coals.

(v) Irregular off-take of middlings.

2.4 During evidence of the representatives of CCWO, the Committee enquired whether the lower operating capacities as recommended by the High Powered Committee adopted by the Management were accepted by the Government. The CMD, BCCL stated as follows:—

“That lower capacities recommended by the Committee were accepted. We have been working on these capacities. I have not been told whether the Government accepted it or not.”

The witness, however, added:—

“The installed capacity has been envisaged under certain conditions of work and those conditions were not tenable when the actual operations started. And for years, therefore, they could not get the installed capacity. Then the Government decided to have a Committee to go into it to find out what should be the realistic capacity.”

2.5 The actual performance of washeries during the last 3 years was as follows:—

Washery/Year	Installed capacity	Derated capacity	Actual R.G. input	Capacity utilisation	
	Lac tonnes	Lac tonnes	Lac tonnes	Installed	Derated
<i>Dugda 1</i>					
1980-81	24.0	18.0	14.69	61.2	81.6
1981-82	24.0	18.0	16.77	69.9	93.2
1982-83	24.0	18.0	14.88	62.0	92.7
<i>Dugda 11</i>					
1980-81	24.0	20.0	16.48	68.7	82.4
1981-82	24.0	20.0	17.40	72.5	87.0
1982-83	24.0	20.0	15.60	65.0	78.0
<i>Bhojpal</i>					
1980-81	20.0	17.0	17.90	89.5	105.3
1981-82	20.0	17.0	17.73	88.7	105.5
1982-83	20.0	17.0	17.05	85.0	100.3
<i>Patnerdih</i>					
1980-81	20.0	16.0	13.49	67.5	84.3
1981-82	20.0	16.0	13.93	69.7	87.1
1982-83	20.0	16.0	14.30	71.5	89.4

2.6 It is seen from the above table that except for Bhojudih washeries, none of the washeries could attain the rated capacity as per project report etc. in any of the three years. Even the derated capacity was not achieved by these washeries. In earlier years also, the washeries except the Bhojudih washeries could not attain the rated capacity as well as derated capacity.

2.7 The Committee desired to know the reasons for lower capacity utilisation. The CMD, BCCL explained as follows:—

“Firstly, the power has been a very chronic thing. Even today, we have a lot of problems. Secondly, there is the problem in regard to the movement of coal to the site, to the washeries by the wagons. Then there was some raw coal which was not of that good quality that could make the plants operate smoothly. Due to the bad quality of raw coal, there were some breakdowns in our plants. It caused breakdowns because of the aging of the plant. The plant is fairly old. Almost 20-22 years of the plant life has passed. We have to repair and renovate the plants more frequently than what we were doing in the past.”

2.8 To a question whether the labour problem also was one of the causes, the CMD, BCCL replied:—

“The labour problem cannot be said to be such that closed our plants. We had once a spell of go-slow. That was for 6 or 7 days. At another occasion, we had one or two days' strike. Those things are very normal in any industrial undertaking.”

2.9 Asked about the steps taken to remove the production bottlenecks, the CMD, BCCL stated as follows:—

‘As regards deterioration in the quality and size of coal, we have opened up new projects to give better quality coal. Secondly, the sizing is to be done by coal handling plants which have crushers, conveyers and screens to make into different sizes. We are installing these coal handling plants. We have already installed some and more are under installation.

As regards irregular supply of wagons, I must say, even now we are suffering to a great extent on that account. Sometimes the wagons are very good and sometimes they are very bad with the result that they do not match our requirement.”

2.10 The Committee further wanted to know whether the shortage of wagons was only in respect of carrying washed coal from the washeries or

it was also in respect of carrying raw coal to washeries. The CMD, BCCL replied:—

“In fact, we are suffering in both ways. For carrying raw coal also, there is a shortage of wagons. As regards carrying washed coal, I have to keep wagons in the washeries sometimes for a very long time before these are moved out for certain reasons which the Railways have. This has led to stoppage of plants also. Naturally, if there is no off-take, that is what happens. There is the washed coal bunker. If the bunker becomes full, the plant has to be stopped. There is no place to keep washed coal. So, the production goes down. Similarly, if raw coal is not given and there is no stock of raw coal at the washeries, if the wagons do not bring raw coal to the washeries, that also affects the working of washeries. In both ways, we are suffering. Even now, that is a fact. It has not been totally eliminated.”

2.11 On being pointed out by the Committee that the Railway Ministers had been claiming in Parliament that there was no dearth of wagons for supply of coal, the witness stated:—

“Periodically the situation changes. I do not know for which period the hon. Minister has mentioned that : It is true that during some periods, we get very good supply of wagons.”

2.12 Subsequently in a note furnished at the instance of the Committee, CCWO have stated:—

“The shortage of Railway wagons both for carrying washed coal to Steel Plants and Raw Coal from collieries to the washeries has been one of the reasons for low capacity utilisation at washeries. In fact, the actual receipt of Railway wagons has always been less than the number of Railway wagons programmed. (indented). The following tables give the details of Railway wagons indented, supplied, shutdown of the plant on these accounts and loss in the derated capacity utilisation:—

*Supply of wagons for loading of washed Coal/Middlings (in terms of Box type)*

Washery	Year	Av. daily prog. (Indent)	Av. daily receipt	Av. daily short fall	Actual shutdown of the plant on this n.c. in Hrs.	Loss in derated capacity utilisation
Dugda I II	1979-80	101	82	19	156	3.6%
	1980-81	96	75	21	365	8.5%
	1981-82	108	90	18	317	7.5%
	1982-83	101	83	18	103	2.9%
Bhojudih	1979-80	81	67	14	204	5.6%
	1980-81	81	62	19	531	14.4%
	1981-82	72	61	11	309	8.8%
	1982-83	72	59	13	262	7.6%
Patherdih	1979-80	76	60	16	73	1.6%
	1980-81	75	57	18	299	7.0%
	1981-82	71	59	12	161	3.8%
	1982-83	74	64	10	98	2.3%

*Supply of wagons for supplies of raw coal from collieries to washeries (In terms of KC Wagon type)*

Washery	Year	Av. daily prog. (indent)	Av. daily receipt	Av. daily short fall	Actual shutdown of the plants on this account in Hrs.	Loss in derated capacity utilisation
1	2	3	4	5	6	7
Dugda-I	1979-80	213	176	37	51	1.2%
	1980-81	200	169	31	7	0.2%
	1981-82	229	199	30	108	2.6%
	1982-83	215	178	37	229	5.3%
Dugda-II	1979-80	234	171	63	39	0.9%
	1980-81	230	181	49	27	0.3%
	1981-82	233	200	33	15	0.3%
	1982-83	211	186	25	71	1.5%

1	2	3	4	5	6	7
Bhojudih	1970-80	255	212	43	154	4.9
	1980-81	274	208	66	249	6.8%
	1981-82	270	212	58	272	7.7%
	1982-83	251	218	33	345	9.9%
Patherdih	1979-80	197	158	39	49	1.1%
	1980-81	207	154	53	25	0.6%
	1981-82	216	163	53	117	2.8%
	1982-83	218	199	19	132	3.2%

2.13 It can be seen from the above Tables that the loss in derated capacity utilisation in the year 1982-83 stood at as high as 9.1 per cent. in Dugda—I and Dugda—II, 17.5 per cent in Bhojudih and 5.5 per cent in Patherdih Coal Washeries only on account of shortages of Railway wagons."

#### B. Efficiency and Productivity analysis

2.14 The installed capacity of the four washeries was based on 300 working days in a year with 16 hours operation in a day i.e. 4,800 hours per annum. According to the Management, the rated input capacity of these washeries could be achieved within 4,000 effective working hours per annum and the difference was accounted for by the idle time in-built in the operation due to various factors, such as minimum time required for starting, repair etc.

2.15 The table below gives data relating to the actual available hours, hours actually worked and idle hours etc. in respect of all the Washerries for the years 1980-81 to 1982-83:—

Washery	Year	Actual available hours.	Effective load hours	Effective load hours as % of available hours.	Plant shut-down as % of available hours					
					Power failure	Raw coal shortage	Shortage of box empties	Break-down	Total operational troubles	
		(hrs.)	(hrs.)	%	%	%	%	%	%	%
Dugda-I	1980-81	5469	3518	64.3	4.4	0.1	3.7	27.5	35.7	
	1981-82	4826	3809	78.9	2.9	2.4	3.1	12.7	21.1	
	1982-83	4729	3584	75.8	3.5	4.8	0.6	15.3	24.2	
Dugda-II	1980-81	5445	3699	67.9	4.2	0.5	3.0	24.4	32.1	
	1981-82	4743	3832	80.8	2.8	0.6	3.0	12.8	19.2	
	1982-83	4789	3643	76.1	3.5	1.0	1.4	18.0	23.9	
Bhojudih	1980-81	5730	3871	67.6	2.7	4.3	9.3	16.1	32.4	
	1981-82	5586	3835	68.7	2.5	4.3	5.5	18.8	21.1	
	1982-83	5570	3552	63.8	3.5	6.2	4.6	21.9	36.2	
Pathardihi	1980-81	5986	3628	60.6	10.3	0.4	5.0	23.7	39.7	
	1981-82	5242	3647	69.6	4.3	2.5	4.6	19.0	30.4	
	1982-83	4867	3748	77.0	7.5	2.7	1.8	11.4	22.9	

2.16 It is seen from the above that the actuals as regards the effective operating hours on load were always less than the norms because of increased down time/shut down of the plants for various reasons like power failure, shortage of railway wagons for supply of raw coal and despatch of washed products, break-downs (electrical and mechanical) and operational problems arising out of changes in coal characteristics.

2.17 Asked about the reasons for the low utilisation of available hours, the CCWO stated in a written reply as follows:—

“The washeries were designed to achieve the installed capacities by effective operation for 4000 hrs. per annum with the projected hourly raw coal feed rate in the different washeries. The

actual feed rate during the period 1980-81 to 1982-83 has been as follows:—

	Dugda-I	Dugda-II Bhojudih	Pathredih
(i) Designed feed rate	600	600	500
(ii) Derated feed rate	450	500	425
Actual feed rate			
(iii) 1980-81	418	445	462
1981-82	440	435	456
1982-83	415	428	480

The actual hourly feed rates were always less than the originally designed and subsequently derated ones, except in the case of Bhojudih washery.

The main reasons for non-achievement of the norms of feed rate are:—

- (i) Increased arisings of sinks due to deterioration in the quality of raw coal input creating imbalances in the different circuits handling such sinks;
- (ii) Restriction on feed rate due to overloading of fine coal recovery circuit due to increased percentage of fines in the raw coal input, and;
- (iii) Increased presence of dirts/shales in the raw coal input necessitating restrictions on feed rate to avoid overloading of different equipment like Crushers, Jigs, Cyclones, Thickeners, Filters, etc.”

2.18 As to the corrective measures taken for full utilisation of available hours, the CCWO have in a note stated that the following steps have been taken:—

- (i) *Power Outages*—This has been taken up regularly with the power authorities to immunise the power system of the washeries from frequent load sheddings. However, outages still do take place besides load sheddings on account of faults in the distribution system and occasional thefts of overhead conductors specially for Bhojudih Washery which is also being followed up with the concerned State Electricity Board authorities. In respect of Pathredih Washery where the power outages have been very heavy, alternative arrangements have been

made to draw power from Diesel Generating Stations owned by BCCL.

These steps have brought improvement to the extent of saving around 30 per cent of down time during the years 1981-82 to 1982-83 over the period of 3 years during 1978-79 to 1980-81.

- (ii) *Railway wagon shortages*—As for the wagon shortages both for supply of raw coal from the collieries to the washeries as well as despatches of washed products from the washeries, the same are being regularly taken up with the Railway authorities at all levels for necessary relief. However, significant improvement in this regard is still to be achieved.
- (iii) *Breakdowns and Operational troubles*—To minimise breakdowns, preventive maintenance schedules are being reviewed, recasted and followed. Also maintenance crew in all the washeries have recently been augmented and desired improvements are expected. In order to minimise the shut downs arising out of operational problems, technological improvements have been brought in by installing certain balancing facilities e.g. dirty slurry screen with oversize classification cyclones at Patherdih Washery, magnetic separators for the stability of the magnetite medium circuit in Dugda II Washery etc.

2.19 In another note the CCWO have stated that washery-wise the following steps have been taken and/or are in hand to optimise the capacity utilisation of the washeries.

(i) *Dugda—I*

*Upgradation of Small Coal*

There is no provision for washing 6mn—0 size fraction of the raw coal feed in the existing arrangement of this Washery. The ash content of this particular fraction was around 16 per cent when the plant was designed. This has now gone up to about 23-24 per cent due to change in the pattern of raw coal supplies. The fraction constitutes now roughly 30—35 per cent in the raw coal feed and more than 50 per cent in the final washed coal. A scheme was, therefore, prepared for upgradation of this fraction and the construction/installation work of this scheme has recently been completed. This will improve appreciably capacity utilisation of Dugda-I washery.

(ii) *Dugda-II*

*Re-cycling of oversize fraction in the washery feed coal.*

A scheme for providing check screens in the secondary crushing systems for eliminating any oversize particle going to the cyclone washers and recycling of oversize coal particle obtained from the check screens back to the secondary crushers had been prepared. The construction/installation activities in this regard had also recently been completed. With the commercial operation of the system, the hourly throughput will improve which will have better capacity utilisation from the present level.

(iii) *Bhojudih*

In case of this Washery, the major constraints in respect of achieving installed/derated capacity were inadequate supply of raw coal, box empties for loading of washed coal and power outages. Steps have been taken to augment the raw coal supplies and requirements of corresponding box empties. Action has also been taken to immunise the power system of the Washery from frequent load shedding etc.

(iv) *Patherdih.*

Modernisation of Patherdih Washery for improvement of the quality as well as capacity utilisation has been taken up with Soviet collaboration. The detailed Project Report has already been submitted by Soviet Experts which is under examination and further discussion with Soviet Experts are likely to take place soon for finalisation of the Project Report in association with Central Mine Planning & Design Institute Ltd., Ranchi.

**2.20** The Committee find that a high powered Committee constituted in 1970-71 to go into the problems of washeries, had, after considering the past performance and present deficiencies of the washeries, recommended lower operating capacities as compared to high initial installed capacities. However, a review of the actual performance of washeries during the last 3 years reveals that except for Bhojudih washery none of the washeries could attain even the derated capacity in any of the three years. The capacity utilisation has been particularly low in the case of Dugda I and Dugda II washeries during the year 1982-83. The reasons for very low capacity utilisation in these two washeries need to be investigated with a view to taking necessary remedial measures.

**2.21.** In Bhojudih although the capacity utilisation during the last 3 years has been less than the rated capacity as per project report, it was able to achieve a utilisation level which was more than the derated capacity in each of the 3 years. The Committee would be interested to know whether the Bhojudih washery was free from the constraints which affected

the capacity utilisation in other washeries. The Committee need hardly point out that such inter-se comparisons in the matter of capacity utilisation in different washeries under CCWO can, besides providing reliable measure for judging the performance efficiency of each washery, give an insight of constraints in capacity utilisation to the managements and prove useful in finding remedies for short coming. They would urge that steps may be taken to maximise the capacity utilisation in each washery.

2.22 The Committee also find that the reasons given for lower capacity utilisation in CCWO washeries are more or less the same as were adduced in 1971 for derating their installed capacities. These include deterioration in the quality of raw coal, irregular supply of wagons; irregular off-take of middlings, etc. The two additional factors now coming in the way of capacity utilisation are stated to be power shortage and the plant maintenance. Thus, the constraints which inhibited the utilisation of the installed capacity had not been eliminated and allowed to persist even after the lapse of a long period of more than 10 years. The Committee are disappointed at the lack of efforts on the part of authorities to set right the deficiencies affecting the performance of the washeries.

2.23. From the data furnished to the Committee it is seen that the loss in capacity utilisation in the year 1982-83 was as high as 9.10 per cent in Dugda I & II, 17.5 per cent in Bhojudih and 5.5 per cent in Patherdih coal washeries only on account of shortages of railway wagons for loading of washed coal and for supplies of raw coal from collieries to washeries. This is a disturbing state of affairs contrary to the impression that is given from time to time that there was no dearth of wagons for movement of coal. The Committee desire that the matter regarding adequate supply of wagons of requisite type for the washeries should be sorted out at the level of Government.

2.24 The rated input capacity of the washeries can be achieved within 4,000 effective working hours per annum. However, the actuals as regards the effective operating hours on load were always less than the norms because of increased down time shut down of the plants for various reasons such as power failures, raw coal shortages, plant break-downs and operational problems. The total shut down periods due to various reasons ranged between 16 and 28 per cent of the available hours during the last 3 years in all the washeries. Corrective measures to ensure fuller utilisation of available hours are reported to have been taken. These inter alia include provision of captive power supply for Patherdih washery, review of preventive maintenance schedules of plants, taking up of coal up-gradation schemes in Dugda I & II washeries. The Committee would watch with interest the impact of the remedial measures on the capacity utilisation of the washeries.

2.25 **Plan shut-downs on account of break-down of machinery and operational troubles seem to occur frequently. In some of the washeries as much as 13 to 14 per cent of the total shut-downs were on these counts. This is clearly indicative of the fact that plants and machinery are quite old. The Committee, are, therefore, of the view that maintenance and replacement of plant and machinery must receive due priority.**

### C. Quality of Coal.

2.26 For maintaining the efficiency of blast furnaces and avoiding deleterious effect on steel making furnaces, coal with ash content not exceeding 17 per cent (+ 0.5 per cent) is required to be used in the steel plants. The main object of washing coal is to remove its impurities and to separate coal with the desired ash percentage. The poor quality of washed coal leads to poor quality of coke, higher coke rate in the blast furnaces, poor quality of hot metal produced and lower productivity of blast furnaces.

2.27 The table below gives details of the ash percentage in the raw coal and in clean coal in different washeries of CCWO during the last 3 years:—

Dugda:—	Ash percentage as designed in project report	1980-81	1981-82	1982-83
		1980-81	1981-82	1982-83
Ash in raw coal (%) . . . .	21.30	30.5	30.2	30.9
Ash in clean coal (%) . . . .	15.10	22.2	21.8	21.7
<b>Dugda-II</b>				
Ash in raw coal (%) . . . .	26.00	32.4	31.9	33.0
Ash in clean coal (%) . . . .	17.00	22.2	21.6	21.9
<b>Bhojudih</b>				
Ash in raw coal (%) . . . .	20.24	26.3	26.7	29.5
Ash in clean coal (%) . . . .	17.00	18.8	19.0	20.3
<b>Pathardih</b>				
Ash in raw coal (%) . . . .	21.90	29.3	28.9	29.1
Ash in clean coal (%) . . . .	15.60	22.8	22.3	22.1

2.28 It is seen from the above that against the projected norms of 15 to 17 percent of ash content in the clean coal the actuals of ash content in

the clean coal have ranged between 18.8 and 22.8 percent during the last 3 years.

2.29 The Committee enquired as to how often complaints regarding poor quality of the washed coal supplied from the washeries had been received and what action was taken thereon. The CMD, BCCL replied:

"There have been complaints from the steel plants about high ash in the washed coal and in the steel plants there are specific sections which are dealing with this quality. They are the Department of Sampling and Analysis and just like us they also monitor every day. We have got our own laboratories in all these washeries and from them we have found that there have been fluctuations in the quality. In certain cases, ash has been higher than what was stipulated. This has resulted mainly because of the raw feed coal which has gone to the washery from some coal-seams which have high ash."

2.30 It was stated during evidence that one of the main reasons for the poor quality of washed coal was that the quality of the coal supplied to the washeries was very poor. Elaborating on this point, the CMD, BCCL stated:

"The most important aspect of the whole matter is getting that kind of coal which will be easier to wash and which will give better results. One of the jobs we are taking up is to produce more and more coal from those coal-seams which have better quality coal, more amenable to wash. The new methods of mining will give us a little cleaner coal. We are provided by nature also such coal-seams which have high ash inherent in them. For that, R&D work is there so that coal of any kind can be fully utilised."

In reply to a query from the Committee it was stated that the percentage of good quality coal in the total supply of raw coal to washeries came to about 40 per cent while the rest of the 60 per cent of raw coal was of poor quality.

2.31 In regard to the quality of raw coal supplied to the washeries, the Secretary Department of Coal stated in evidence:

"The bigger problem, is that from the mines, the coal now available is of inferior quality. That contains more ash than earlier visualised. Each washery is linked to certain mines. Those mines are not giving such coal as they were giving ten years ago. Good seams have been exhausted in most of the mines. Better seams have been worked first. We have to go to other

seams, start new mines. In the existing mines we cannot get as much good coal as we were getting in the past."

2.32 One of the objectives envisaged in transferring the ownership of CCWO to BCCL was that with the reorganisation/reconstruction of Jharia coal fields the command areas of the washeries would be so rationalised as to give coal of the requisite quality depending upon the technique of the washing in the respective washeries. The SAIL, in a note submitted to the Committee, stated that during the last 10 years, the command area of washeries had been totally disturbed and each washery was receiving coal which was far from requisite quality on which technique of washing had been planned.

2.33 However, the Deptt. of Coal have, in a note on the subject stated as under:—

"Each washery gets its supply of coal from particular command area. The production from the washeries in terms of raw coal input has substantially gone up in the last 10 years. Even though the command area has remained more or less same but availability of better quality of coal in the command area has depleted considerably. As a result of which coals of relatively inferior quality from the lower seams have to be necessarily mined and fed to the washeries to meet the increased demand of the washeries. Since the overall availability of good quality coking coal is considerably depleted, any rationalisation at the present juncture will not help in feed of good quality coal to the washeries. Attempts have been made to identify potential areas in the various existing mines to work better quality of prime coking coal for feeding to the washeries. In some cases the identified areas can be developed with the existing infrastructure and in some other cases fresh infrastructure will have to be planned. Production of prime coking coal from 1977-78 till 1980-81 has been more or less stagnant but there has been increase from 1981-82 onwards and during the period 1982-83 BCCL produced 13.96 million tonnes of prime coking coal and 1.21 million tonnes of medium coking coal and total 15.17 m. tonnes of coking coal. Production of coking coal has been affected due to lesser availability of power. It is not a fact that non-coking coal has been supplied to the washeries. However, prime coking coal of lower seams with relatively inferior washability characteristic have been supplied to the washeries along with the upper seams coal."

2.34 In regard to the reconstruction of Jharia coal fields, which supplies the bulk of raw coking coal to these washeries, the CMD, BCCL, stated as follows:—

“The entire Jharia coalfield is in the process of reconstruction. We had the advantage of having advice from various consultants because this was a very gigantic task to undertake. So, this reconstruction work has been taken up; it is already partly implemented. The whole coalfield will have to undergo a very serious change. We are trying to make the entire coalfield into some blocks of open cast mine and underground mine; and ultimately, it is likely to cost us about Rs. 5000 crores.”

2.35 Asked as to how much time was required to complete the reconstruction programme, the witness stated:

“It will take another 20 years, because it will mean uprooting a lot of population, transforming roadways, removing all railway and putting new railway having new township and power lines.”

2.36 The Committee further enquired whether the reconstruction work was going according to the programme. The CMD, BCCL replied:

“We are going on according to the programme. Two blocks have been taken up. One block we are doing with the help of the Russian experts. The other block we are doing with the help of the World Bank. They have already examined the whole proposal. The plan was prepared with the help of certain people. In the earlier stage of nationalisation, for four years, they gave us a certain idea. In fact, we have been trying to take advantage of the experience and knowledge of people in different parts of the World, because this is one of the largest and complicated jobs that we have to undertake. We have already installed three washeries; we are going ahead with other washeries.”

2.37 Asked about the steps taken for improving the quality of washed coal, Secretary, Department of Coal replied:—

“There are two or three steps which can be taken to improve the quality of coal with these existing four washeries. For example, instead of two-stage washeries, there can be three-stage washeries so that the rejects are reduced. Similarly, when we are washing and producing rejects of coking coal, those rejects can also be washed, middlings can also be washed. What happens is that in the first stage we take out certain good coal with very low ash percentage and at the second stage again

when we wash middlings and rejects, we can get some more coal out of that. If you have say 100 tonnes of coal with 30 per cent ash and you have to supply coal of 17 per cent ash to the steel plant, you can give 17 per cent by washing it thoroughly. But the result would be that you will get very little coal which has 17 per cent ash. Most of the coal will have more ash and, therefore, it will go down as middlings and rejects. Therefore, we would not be able to meet the total requirement of the washed coal by the steel plant. These improvements have to be carried out in the existing washeries and similar new designs have to be incorporated in the new washeries that we are planning so that in future we can tackle this problem."

2.38 The Committee enquired whether there was any R&D cell doing research for reducing the ash content. The CMD, BCCL stated:

"We have a R&D Division and that R&D Division has done a lot of work with the help of the Central Fuel Research Institute on this particular point. They have developed recently one process called oil agglomeration. By this method they can bring down the ash to a very great extent; one pilot plant was set up which has been working for the last two years; now we have made another big plant for the same process. Another item in research which has been taken up is what is called 'de-mineralisation'. The third is bleaching. On these three aspects we have been working with the Central Fuel Research Institute of the CSIR."

2.39 The Committee desired to be furnished with a comprehensive note on the steps taken or proposed to be taken to improve the quality of coal for meeting the total requirement of steel plants in the country. The Department of Coal have in a note stated:

"The coal industry has to fulfill two tasks in respect of meeting the requirement of coking coal by the Steel Industry. These are:

- (i) increasing the production of prime coking coal; and
- (ii) beneficiating the raw coal to reduce the ash content to the stipulated level.

For meeting the first objective, steps are being taken to reorganise the existing mines and to open mines in Jharia coalfield, which is the only source of prime coking coal. As regards to quality aspect, there are 5 (4 CCWO and Lodna) washeries already operating and three more washer-

ies which have been set up are Sudamdh, Barora and Moonidih. In addition, construction of following new washeries is planned to be taken in the coming years:

Name of washery	Raw Coal input capacity
M.dhuband	• 2*5 mt. per annum
Bhalgora .	• 2*5 " "
Pootkee .	• 3*0 " "
Dharmaband	• 2*5 " "
Mukunda I	• 3*5 " "
Mukunda II . . . . .	• 3*5 " "

These steps will lead to establishment of a total washing capacity for prime coking coal of about 11.92 m.t. (raw coal) by 1984-85 and 39.42 m.t. (raw coal) by 1989-90. Besides this medium coking coal washeries whose existing capacity is 8.45 m.t. it will go up to 17.80 m.t. in 1989-90.

The existing washeries which were originally designed to process raw coals of certain ash content, are not able to bring down the ash to the level desired by the steel plants. This is due to increase in the ash in the raw coal, the quality of which has been gradually deteriorating over the years. In order to tackle this problem, some modifications have already been carried out in Dugda I, Dugda II and Patherdh washeries. In addition, suitable steps are being taken to rationalise the linkage of coal mines and washeries so that variations in quality of raw coal can be reduced to the extent feasible."

The Deptt. of Coal has further stated:—

"With regards to the quantitative requirement of different varieties of coking coals by the steel industry an assessment was made by a Committee in February, 1981. The Committee had projected the hot-metal production in 1989-90 as 20.93 m.t. and corresponding requirement of coking coal was estimated as 34.07 m.t. in the year 1989-90. These estimates are presently being revised by the Working Group on Coal and Lignite. Although, firmed up revised estimates are yet to emerge, the order of requirement is around 30 m.t. in 1989-90. A detailed exercise has also been carried out by the Coal India Limited, covering all the mine producing coking coal, including those being planned to open, with a view to meeting demand of steel plants to the maximum extent possible. This exercise also takes into account the requirements of establishment of new washeries as well.

Arising out of this exercise, the position that has emerged indicates that there will be gradual deterioration of raw coking coal which will be mined in the coming years and it will be more difficult to bring down the ash content to a desired level even after washing. As a result, some import of coking coal of low ash content, may not be avoidable for some more years. On the other hand, the Steel Industry will have to make intensive R&D efforts so that a suitable technology can be developed for using relatively higher ash coals in the iron and steel making process."

#### D. Receipt of Prime Coking Coal at Washeries

2.40 The requirements of prime coking coal for the washeries and the quantities actually received during the years 1980-81 to 1982-83 are given below:—

(In lakh tonnes)

Year	Dugda-I		Dugda-II	
	P	A	P	A
1980-81	16.58	14.42	19.03	16.16
1981-82	19.55	16.68	19.16	17.53
1982-83	18.17	14.88	18.48	15.54

Year	Bhojudih		Patherdih	
	P	A	P	A
1980-81	21.49	17.92	15.35	13.45
1981-82	23.33	17.74	18.94	13.93
1982-83	21.80	17.41	18.14	14.38

2.41 Asked about the reasons for the shortfall and steps taken by the Management to improve upon the shortfall in actual receipt of prime coal as compared to quantity programmed, the CMD, BCCL stated during evidence as follows:—

"There have been shortfalls in the prime coking coal supply. The reason is that the coking coal is mostly coming from underground mines. These are all old mines. They were started long ago. Actually, all the mines which are in prime coking coal sector are in Jharia coalfields. Without adequate power it has been always difficult to produce it. We cannot just

manage underground pumping, underground ventilation, underground working of machinery without power. Somehow or other, we are not getting power that we want. It is mainly from the DVC. The DVC supply matters very much to us. If the supply of power is good, we get better results. As soon as they drop it down, we really go very bad often. That is how we have a lot of shortfall in the prime coking coal. Sometimes, we get prime coking coal which is not of good variety. It is on the upper side which open cast mines gives us where there is a lesser requirement of power. But that is not of good quality. So, it does not serve the purpose. That is why we get very badly hit on the prime coking coal side."

2.42 Asked whether the power was the main cause, the CMD, BCCL stated that the effect of power was not always uniform. He further added:

"There are also some other small factors which affect us seasonally. For instance, in May and June, in all coal fields, particularly in Bihar and Bengal, people go away from the coal fields for celebrating the marriages in their families and there is serious absenteeism. 50 per cent of the staff just go home. They would not like to work. Once a year, they want to go and attend to their family affairs particularly weddings. We lose very much during these two months and that affects us again in the total production. Then there are some other factors which occasionally came up in previous years. At one time, we used to have serious shortage of explosives, not now, but in earlier years. In 1980 we suffered from explosive shortage also. The law and order and the industrial relations have also affected us at certain places spasmodically."

2.43 The Committee while pointing out that the prime coking coal was to be supplied by the coal mines under the control of BCCL enquired as to why it could not ensure the availability of the requisite quantity of quality coal to the washeries. The Committee were informed in a written reply furnished after the evidence that the Annual Plan of BCCL provides for the requisite quantity of coal for the washeries. However, due to power shortage and law and order problems, production has been affected and consequently the required quantity of the right quality coal has not been available. The future plan of BCCL provides for increased production from new mines which will take care of the increased requirements in future years.

*Supply of washed coal*

2.44 The quantity of washed coal supplied to steel plants of the SAIL and other parties during the years 1978-79 to 1982-83 was as follows:—

Year	Quantity supplied to SAIL Steel Plants (in lakh tonnes)	Quantities supplied to non-SAIL Steel Plants
1978-79	36.88	2.64
1979-80	38.36	3.15
1980-81	35.55	3.61
1981-82	38.09	4.05
1982-83	31.42	9.14

2.45 During the course of evidence of the representatives of CCWO/BCCL, the Committee enquired about the reasons for lesser supply of washed coal to SAIL Steel Plants over the years. The CMD, BCCL stated as follows:—

“The total steel plant requirement is coordinated by the Coal Controller. His business is to coordinate the supply to all steel plants in the country whether they belong to Steel Authority or to others. Apart from Steel Authority, we have plants of the Tatas as well as we had earlier IISCO, now this is also under Steel Authority. All these are taken into account together and the Coal Controller makes the programme every month as to who should get what coal and the total circuit of steel plant is considered as one whether it is public sector or the private sector and on that basis the coal is distributed. So, depending on whether Tatas or the captive plants of IISCO, captive mines of IISCO have been able to produce enough for these plants, it has become necessary for the Coal Controller to reallocate coal. Although the total production from our washeries has been quite high during the last year, the Steel Authority did not get as much because the quantity had to be increased for others. Otherwise they would have suffered. So, taking the country as a whole, this decision was taken by the Coal Controller’s organisation and we just accept what they decide. Of course they always form a Committee to decide this matter in which our representatives are also there. Our view point has been that taking the entire steel supply into consideration whichever is the best allocation should be made.”

2.46 Asked about the other sources from which SAIL steel plants were getting the coal, the witness stated:—

“Apart from the coal supplied from the washeries, the steel plants get some direct supply without washing, some of the coal which is so good that it does not require any washing. So a portion of the shortfall is supplemented by direct feed to the steel plants. It is mostly from the Jharia coal fields because that coal does not require washing.”

2.47 Asked whether the supplies made to steel plants were adequate to meet their demands, the CMD, BCCL stated that they were not meeting the demand to the tune of 1 million tonnes.

2.48 The Committee enquired about the difficulties in meeting the full demand of steel plants. The CMD, BCCL informed that the main problems were coal production and washing of coal and plans have been made for both things. Government have given the sanction for opening new mines and washeries and by 1987 there would be no shortfall.

2.49 Asked about the steps taken to fill up gap between demand and supply, the CMD, BCCL stated:—

“For wiping out this gap, Steel Authority of India have thought of having imported coal to meet their requirement. This is one step they are taking.

The second thing is that we have requested them to ask the R&D wing of the Steel Plants to see if they can utilise some non-coking coal in steel making.

The third thing is that we are trying to see if we can reduce the coke rate, that is consumption of coal per tonne of steel. At present, there is a certain quantity of coke required per tonne of steel. An effort is being made by the Steel Plants if they can reduce the requirement of coal per tonne of steel.

Another thing that they are doing is to have some change in the process technology. They are trying to go in for sintering plants. Wherever there are sintering plants, the consumption of coal becomes lesser. Then there is a process of stamp charging. If they do that, the consumption of coal becomes lower.

In our country, various steel plants have got different consumptions.

The IISCO has got a very high consumption of coke. Yet, Bhilai and Bokaro have got lower consumption. The Tatas have also lower consumption. So, the steel plants by various

methods are trying to reduce the requirement of coal. In this way, the gap can be reduced."

2.50 During the evidence of Department of Coal, the Committee enquired whether there was any perspective plan to augment the supply of raw coal of adequate quality to the washeries for meeting the requirements of washed coal of the steel plants. The Secretary, Department of Coal stated as follows:—

"We have been making a detailed study in consultation with the Steel Department as well as SAIL regarding the requirement of coal by the steel plants based on their requirements over the years. A number of Committees have been going into the matter. The last Committee which went into it was in the year 1981. It was Chattopadhyay Committee. It was set up in February, 1981. It studied the projections of hot metal by the Steel Plants and the demand of the steel plants for prime, medium and soft coking coal. This has been worked out upto 1989-90. The steel sector had put up plans for expansion. Lately the Steel Departments programme of expansion is undergoing revision. We are all preparing our Seventh Five Year Plan. We are in touch with the Steel Department. Now we have set up a Committee under Shri M. Jha, Director, CIL to review the requirement of coal by the Steel Plants. This Committee has been appointed on the 28th July 1983 and within three months it will give its report.

By the end of the Seventh Plan period, we would be needing about 50 million tonnes raw coking coal against 34 million tonnes now. We shall have to increase production to meet this requirement of raw coal. At present we have fifteen washeries. We have to add a number of washeries to meet washing requirement of 50 million tonnes of coal. We have drawn up a detailed programme of washing and of having new washeries. Some of them are under construction. We hope to meet the full requirement of the steel plants in the next Plan period also."

2.51 The Committee further pointed out that the steel plants were importing 1 million tonnes of coal and wanted to know as to when the country would be self sufficient in the matter of coal for steel plants. The Secretary, Department of Coal stated:—

"Never, for the simple reason that the high quality coking coal is not available. Even after washing, we can meet the quantitative requirements only. The ash content will be high. If certain blast furnace wants coal mix of a certain quality, as

the Chattapodhyay Committee observed, they would not require more than a few million tonnes of imported coal. If you adopt the latest technology, for example, in Vizag Steel Plant and in the biggest blast furnace which is more sophisticated, you may require very carefully mixed quantity of coal, iron ore and other things. There, the ash content is very important. Out of the total coal being used by the steel industry, 99 per cent will be ours and about 1 per cent will be imported."

He further stated:

"The real cause is not the lack of sufficient coal but lack of coal of the required special quality. The type of coal which we cannot produce has to be imported."

The Secretary, Department of Coal added:—

"In quantity, we will be self-sufficient. But in this low ash content coal, we cannot be self-sufficient."

**2.52 For maintaining the efficiency of blast furnaces and avoiding deleterious effect on steel making furnaces, coal with ash content not exceeding 17 per cent (+0.5 per cent) is required to be used in the steel plants.** During the years 1980-81 to 1982-83, as against the projected norms of 15 to 17 per cent of ash content in the clean coal, the ash content in the clean coal produced by CCWO washeries ranged between 18.8 and 22.8 per cent. Admittedly there have been complaints from steel plants about high ash content in the washed coal. According to BCCL the main reason for high ash content in the clean coal was that the raw coal fed in the washeries was coming from lower and deeper seams, which were inherently of poor quality having more of ash content. The problem had also aggravated because the overall availability of good quality prime coking coal had been considerably depleted with the result that prime coking coal of lower seams with relatively inferior washability characteristics has been supplied to the washeries. The solution to the problem lay only in increasing the production of good primary coking coal by identifying potential areas in the various existing mines. The Committee have been informed that for this purpose the work regarding reconstruction of the entire Jharia coal fields had been undertaken. The scheme is expected to cost about 5,000 crores and was likely to take a period of 20 years to complete. This is obviously a long term plan. But to cope with the immediate requirements of coking coal of requisite quality for steel plants there is need for taking short term and result-oriented measures.

**2.53 One of the objectives envisaged in transferring the ownership of CCWO to BCCL was that with the reorganisation/reconstruction of Jharia coal fields the command areas of the washeries would be so rationalised**

as to give coal of the requisite quality depending upon the technique of the washing in the respective washeries. The Department of Steel feel that there is no judicious distribution of available raw coal to various coal washeries. The Secretary coal had in a meeting held on 23 September, 1983, also expressed similar feelings when he observed that "there appeared to be no proper procedure for selection of mines for supply of raw coal to washeries." The Committee cannot but emphasise that immediate steps need to be taken to ensure that as far as possible raw coal suitable for washing in respective washeries should be supplied from the already identified collieries and seams.

2.54 Another step that can be taken to minimise the problem of poor quality feed stock for washeries is that coal produced by different collieries of BCCL may be so scientifically blended as to ensure suitable feed for the washeries.

2.55 The existing washeries which were originally designed to process raw coal of certain ash content are not able to bring down the ash to the level desired by the steel plants because of increase in the degree of ash content in raw coal. In order to tackle this problem some modifications are stated to have already been made in Dugda I, Dugda II and Pathardih washeries. The Committee desire that it may be considered if further modifications can be carried out in the existing plants and equipment with a view to ensure that washed coal with requisite ash content may be obtained from the available feed stock.

2.56 The Committee have been informed that R&D division of BCCL was doing a lot of work, with the help of the Central Fuel Research Institute, on the question of reducing ash contents of the washed coal. Some processes like 'oil agglomeration', 'demineralisation' and 'bleaching' have been developed and are being tested. The Committee feel that more concerted efforts are required to be put in because ultimately only R&D will help us in upgrading the technology for utilising the abundantly available stocks of raw coal with high ash content.

2.57 In the context of the available resources of prime coking coal and the washing facilities in the country, the Secretary coal painted a very bleak picture by stating that the country can never become self-sufficient in the matter of coking coal of requisite quality and some quantity of coking coal will always have to be imported to meet the total requirements of the steel plants. In order to overcome this constraint in regard to steel production in the country, the Committee feel there is need for introducing changes and modifications not only in the washeries and collieries but also in the steel plants. The designing of the new steel plants and for that matter designing of Thermal Plants as well, should be done in future in a manner that they are able to run with the quality of coal available in the country. The Committee need hardly emphasise that there

should be complete and close coordination between the Department of Coal, Steel & Mines so that there is an integrated approach in ensuring self-reliance in regard to supply of coking coal for steel production.

### E. Disposal of Middlings

2.58 The Washeries at Dugda I and Patherdih are designed as three product washeries (i.e. clean coal, middlings and rejects).

In the case of two product washeries (Bhojudih and Dugda II) entire arising (which has average ash content of about 45 per cent) at Bhojudih is classified as rejects/sinks but arising of Dugda II (which also has average ash content of about 40 per cent) is classified as middling/by-product.

2.59 According to the policy laid down (January 1971) by the Government of India that the thermal power stations in the country should utilise inferior grades of coal and that those which are located near the coal washeries should utilise washery middlings having an ash content upto 45 per cent, the four Washeries are linked to the following thermal power stations for disposal of middlings:—

1. Dugda I Washery (3 product)	} Chandrapura Thermal Power Station of Damodar Valley Corporation (DVC).
2. Dugda II Washery (2 product)	
3. Bhojudih Washery (2 product)	Santhaldih Power Station of West Bengal State Electricity Board.
4. Patherdih Washery (3 product)	Chandrapura & Durgapur Thermal Power Stations of Damodar Valley Corporation (DVC).

2.60 In this connection Audit have pointed out that in accordance with the above policy, middlings from Dugda I and II Washeries were stacked together and were being supplied to the Chandrapura Thermal Power Station of DVC up to June 1973 when it was decided in consultation with representatives of various Ministries of the Government of India and DVC that no thermal power station would accept middlings of higher than 32+3 per cent ash and hence the middlings from Dugda II Washery should be sent to the power station only when the Washery was converted into a three product washery. Accordingly, Dugda I middlings were segregated at a cost of Rs. 8.90 lakhs during July 1973 to February 1974 and supplied to the DVC power station from February 1974 alongwith a part of fresh arisings.

2.61 Owing to space limitations, inability of Chandrapura Thermal Power Station (CTPS) to take fully the middlings of the third shift and occasional break-down of CTPS conveyor belts, a part of arising of middlings of Dugda I Washery, however, continued to be stacked with middlings of Dugda II. The total quality so dumped was 42.39 lakhs tonnes upto 30th April 1978 (6.00 lakh tonnes valued at Rs. 1.43 crores of Dugda I and 36.39 lakh tonnes valued at Rs. 8.27 crores of Dugda II) valued at Rs. 9.70 crores (as on 30th April 1978). The expenditure incurred towards dumping upto 30th April, 1978 amounted to Rs. 94.91 lakhs. The accumulated middlings/rejects are yet to be disposed of (August 1981). The Management informed the Audit (March 1977/August 1981) as follows:—

- (i) "Accumulation of middlings stock has been going on since the disposal/sale arrangements could not be found out for all the quantities produced especially for Dugda II middlings. The stock of rejects is increasing and may continue since the same is not vendable."
- (ii) "Sale of middlings had picked up and a quantity of 7.32 lakh tonnes had been sold in 1978-79 and 1979-80."

2.62 Further the Bhojudih Washery was commissioned in November 1962 whereas the Santhalidih Power Station went into commercial operation from June 1974. The rejects/sinks of this Washery have, however, not been accepted by the power station so far (August 1981) on account of high ash content (43 to 45 per cent) as against its reported requirement of coal with a maximum ash content upto 32 per cent on rake-wise analysis. The entire arising (39.48 lakh tonnes not yet valued) during 1962-63 to 1977-78 (upto April 1978) had been dumped at a cost of Rs. 69.56 lakhs.

2.63 The Committee have been informed that the stock of middlings/rejects at the end of the year 1982-83 in respect of all the coal washeries was as under:—

1982-83  
(Lakh tonnes)

*Dugda-I*

Middlings	8.41
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Rejects	16.48
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*Dugda-II*

Middlings	65.15
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Rejects	1.09
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*Bhojudih*

Middlings	•	•	•	•	•	•	•	0.017
Rejects	•	•	•	•	•	•	•	39.63
<i>Pathardih</i>								
Middlings	•	•	•	•	•	•	•	2.55
Rejects	•	•	•	•	•	•	•	5.77

2.64 The Committee desired to know the reasons for the accumulation of huge stocks of middlings in the four washeries of CCWO. The CMD, BCCL explained:

"We are facing difficulty in regard to the regular off-take of middlings because middlings are not required. There is no requirement as such just now. And, therefore, the stockpiles of middlings have been going up. The middlings have got high ash. High ash middlings are consumed only in power plants at DVC's Chandrapura and DVC's Durgapur. But most of it is not taken by anybody. There is some kind of sale to those who take it for other consumption like domestic consumption for fuels etc. But, at present this sale is very much limited because of the ash in middling. So, I am afraid we have not been able to eradicate this problem of middling at the moment and we have many heaps of middlings in our washeries. The middlings contain lot of carbon and because of this on heating of the heap of middlings, we get smoke and fire. This is one of the continuing problems."

The witness further clarified:

"...About Bhojudih and other middlings that are collected, the point is that when the washery was installed, there was no source which could take this middlings for their own consumption. Santhal dih power House had come much later. But even then its design would not be able to take 43 per cent ash which was rather high ash for the power plant. They would have some better coal than the middling. So middling is being sold as it is on the goodness or badness which it has at the moment. It is not selling the entire tonnage that is produced from the washeries. If there are new technologies

developed for which lots of attempts are made, even 43 to 53 per cent ash content are utilised for power generation. In our country also one plant has been started with fluidized bed boilers. Therefore high ash coals like the ones having 50 to 60 ash content can be utilised. One power plant has gone into use. There are others which are now being designed for being tried at different places. When this is done, then all these middlings can be utilised in those boilers of the power house. Upto this time such thing has not been done. It will be difficult to make use of the middlings. This is why the consumption does not pick up and people are not interested in taking them."

2.65 Asked about the possibility of utilisation of middlings, CMD, BCCL stated:—

"Upto 40 per cent some power-houses are already taking such as the Chandrapura, Durgapur. Some other power houses of the country are also taking it. But beyond that most of the people are refusing because it causes fire-outs in their boilers. There are other uses, e.g. making domestic fuel by the process of briquetting and pelletization. If pellets and briquettes are made by a process of de-volatilization, then in a small form it comes out. It is a clean fuel which can be taken to places where smokeless fuel is required. Because of the process, the cost of pellets becomes quite high.

We have set up some factories now. In Dhanbad, we have a pellet factory, to use this kind of coal. Thereby we make small lumps round or flat, which can be carried to urban areas for use in ovens. But the price becomes high, so, it cannot be used in rural areas. Nobody there has the wherewithal to use it. In urban areas like Calcutta, it is being used. Its price is Rs. 450/- per tonne. At Neyveli also, there is a similar thing, called Leco."

2.66 The Committee were informed that the present power houses were not actually able to utilise the middlings which have ash content of 45 and 50 per cent because of the design of boilers. Asked about any prospect of changing the boilers by the power houses so that it becomes possible to use the middlings, the CMD, BCCL stated:

"It is a question of keeping the pilot project going on. The total outlay becomes quite high. First, it has to be taken in the

pilot projects and then followed by larger plants. No larger plant has yet been set up. Once this is acceptable in smaller plants, perhaps the larger plants will come up."

2.67 The witness also informed the Committee that BHEL have taken coal from different washeries. On that basis, they have started their own design. The Central Fuel Research Institute at Dhanbad is more or less coordinating on this issue. They have also set up a small plant in their laboratory. They are experimenting with different coals and to see and advise BHEL and others how they could make boilers for this coal. Workers has been done on this, but for larger plants they have not yet started it.

2.68 As to the efforts made for reduction of ash contents of middlings/washery sinks with a view to make them suitable for use in power houses, the BCCL, have in a written note stated:—

*"Existing Washerries*

- (i) Dugda II Washery is presently a two product Washery i.e., producing clean coal and rejects (sinks). The sinks have an ash percentage in excess of 35 per cent and hence are not acceptable to the power houses. Power Plants also do not wish to take the rejects of a two product washery for their own operational reasons. A scheme for conversion of Dugda-II Washery to a 3 product Washery has, therefore, been taken up. The sinks produced at the Washery are to be washed to yield two fractions i.e., middlings and rejects. These middlings will be suitable for the power houses. The construction work has been completed in July' 83 and No-load trials are in progress.
- (ii) The scheme for upgradation of sinks of Bhojudih Coal Washery could not be operated due to various un-avoidable operational constraints as a result of heavy deterioration in the quality of feed stock, as compared to qutlity parameters anticipated at the design stage. An alternative scheme for production of middlings through baum jig wash boxes was planned and implemented from 1979 onwards. This scheme involves screening of the middlings of the jigs at 6 mm and material of 25 to 6 mm having an ash content within 35 per cent can be generated. By this way around 4000 tonnes of true middlings per month are being produced from Bhojudih Coal Washery and despatched to Santaldih Thermal Power Station of West Bengal State Electricity Board."

### *New Washeries*

All new Washeries recently built and being proposed for future construction are 3 product Washeries producing clean coal, middlings and rejects. In these Washeries, the circuits have been so designed that the middlings produced will have an ash percentage of  $32 \pm 3$  per cent so that the middlings are suitable for use in power Houses.

A new process of coal slurry beneficiation has been developed by Central Fuel Research Institute of CSIR through the application of Oil Agglomeration technique. A 10 Tonne Per Hour Pilot Plant is being erected at Patherdih Coal Washery for coal slurry upgradation by this newly developed technique. The plant is likely to be commissioned around January/February, 1984. Depending upon the success of this scheme, possibilities of commercial application of the same for beneficiation of Washery middlings/sinks after their fine grinding can be explored."

**2.69** Asked about the latest position in converting the Dugda II washery to a three product washery, the CMD informed the Committee:

"The latest position is that this is completed and it is under trial. The information to us from those who are trying is that by the end of this month that is July, the trial would be over and that after that, the normal operation would start."

In regard to the scheme for upgradation of sinks of Bhojudih washery it was stated in evidence that the project had since been completed and "this is also under trial and the trial is expected to be over by the end of this month (July 83)".

**2.70** Referring to the large stocks of middlings collected in different washeries, the Committee pointed out that people in the country were suffering from acute scarcity of coal and therefore efforts could be made to dispose of these stocks of middlings. In this connection the CMD, BCCL, stated:

"The main problem there is transport. People in Uttar Pradesh, Haryana and Punjab want coal. If they take this middling, it has high ash. They carry it all the way. It is very costly for them. So, they do not like to take it. Rather they would like to carry better quality coal. That is the problem."

2.71 Asked as to how supplies of middlings were made to various consumers, the witness stated:

"There are two ways of making the supplies. Some of the middlings are linked to power plants. They get wagons allotted. It is done by the Linkage Committee which is operating at the Ministry level between coal, railways and the consumer. So, they link it and then that goes by railways to the power house. The others are offered as it is where is at certain price which is very nominal. They can take by trucks. If they can obtain wagons, they take by wagons. It is offered and it is also advertised. But unfortunately there are not many gradations in middlings primarily because of the high ash and high cost of transport."

2.72 In a letter dated 3rd September, 1977 addressed to the Secretary, Deptt. of Steel, the Chairman SAIL *inter alia* stated as under:

"CCWO has an accumulated stock of middlings to the tune of about Rs. 7 crores. Tender Notifications floated by CCWO sometime ago reveals that these middlings are saleable and can fetch a price at which these have been valued in accounts. A good number of parties are interested in these middlings and are ready to pay the initial deposits but BCCL is creating difficulties in the disposal. In this connection, a copy of Telex dated 23.8.77 received from HSL is enclosed. It would be observed therefrom that BCCL is creating difficulties in the disposal of these middlings probably with the intention that middlings are transferred to them at nil value alongwith the Assets and liabilities of CCWO which *ipso-facto* would mean an equivalent loss of Rs. 7 crores to HSL. Needless to say, in addition, estimated savings in the event of CCWO remaining with HSL instead of transferring it to BCCL works out to about Rs. 7 crores per annum."

2.73 During evidence the Committee pointed out that although BCCL considered that middlings had no value, the SAIL had been assigning definite value to the stocks of middlings while preparing their annual accounts. The CMD, BCCL stated in this connection as under:

"The fact is that it is lying for many years, and a good quantity of it has been wasted by burning, because there is spontaneous heating which occurs in these heaps; and fire starts. It is more or less lying unused and discarded. We have put a value because middlings also have got some carbon in them. In fact, that is why BCCL and SAIL had some difference of

opinion about their take-over. SAIL wanted middlings price to be quite high, and wanted them to be handed over to BCCL as an asset. We did not agree. An inter-Ministerial group is looking into this. It is one of the products of the washeries. SAIL have assigned a certain value to it. For the last ten years, a little bit of sale has been going on. Some price has to be fixed. Some realisation has been made by selling these materials. The price has changed in course of years. There is a certain value attached which is mentioned over here. But to keep it at zero value perhaps would not have been fair."

2.74 In this connection, the Department of Coal stated in a written reply as follows:—

"Middlings/rejects of these washeries are being sold by Central Coal Supply Organisation of SAIL. The accounts of these four washeries of CCWO also form a part of SAIL's account and the estimated value as well as cumulative profit in respect of middlings/rejects have been given by SAIL. Since some of middlings are saleable and efforts are being made to improve the quality of middlings/rejects, it would not be correct to say that these figures are fictitious."

2.75 In the same context, the SAIL have in a note, stated:

"BCCL was of the opinion that the middlings and rejects are not marketable. However, CIL is selling washery sinks of their own washeries and coal of similar quality in large quantities. It is, therefore, not understood as to why BCCL consider this material as not saleable and desire it to be passed on to them at nil value. According to the actual analysis of Dugda II and Bhojudih sinks, the material qualifies for Grade-G coal for which Government has fixed a statutory price of Rs. 58 per tonne. The material, therefore, should be saleable otherwise Government would not have declared a price for it. SAIL has succeeded in selling 6.28 MT (total sale) of middlings upto 31st March, 1983 since 1976-77."

In another note, the SAIL have stated:

"As on 31st March, 1983 there was a stock of 7.6 MT of middlings and about 6.3. MT of the sinks and rejects in all washeries. The middlings at Bhojudih and Patherdih are getting sold. Even at Dugda where there are huge stocks sufficient quantities are

being sold every year. Position of sale of middlings and rejects from CCWO from 1976-77 to 1982-83 is as follows:—

	Sale of Middlings (Tonnes)	Value (Rs./Lakhs)	Sale of rejects (Tonnes)	Value (Rs./Lakhs)
1976-77 . . .	9,38,907	435.95	4,692	1.51
1977-78 . . .	10,41,654	456.34	235,48	28.08
1979-80 . . .	12,50,976	712.92	540,263	177.10
1980-81 . . .	8,94,303	631.58	461,976	192.91
1981-82 . . .	10,24,611	970.98	331,469	199.14
1982-83 . . .	11,25,957	1293.05	388,810	234.25
<b>Total :</b>	<b>62,75,808</b>	<b>4505.82</b>	<b>19,62,695</b>	<b>832.94</b>
<b>Closing Stock as on 31-3-83</b>	<b>76,13,252</b>	<b>2914.61</b>	<b>62,97,126</b>	<b>*</b>

\*The stocks of rejects and sinks have not been assigned any value. From the above, it would be clear that in both the cases there is a market and as such there is justification for booking them in the accounts. If vigorous efforts are made, the sale can be increased substantially."

2.76 It is seen that following the Government's decision to transfer the four coal washeries of SAIL to BCCL, representatives of SAIL and BCCL had two meetings to discuss and finalise the modalities of transfer. In these meetings certain basic difference in regard to the assets and liabilities to be taken over by BCCL cropped up. Among these the major issue related to the valuation of stock of middlings and rejects. At the end of March, 1982, CCWO had a stock of 69.29 lakhs tonnes of middlings valued at Rs. 22.91 crores and also a stock of 58.68 lakhs tonnes of rejects for which no value had been assigned in the accounts.

2.77 The viewpoint of SAIL in regard to vendability of middlings is contained in the following note submitted to the Committee:—

\*BCCL does not appear to have taken any effective measures for the disposal of Bhojudih Sinks and Dugda II middlings. On the other hand their strategy seems to be that the entire accumulated stock as on 31st March 1977 of Bhojudih sinks (36.42 lakhs tonnes) and Dugda II middlings (33.11 lakhs tonnes) be passed on to them by HSL at nil value. It appears that the sale of these materials to BCCL would

commence only after the transfer is executed. In this connection, if any be mentioned that Bhilai Steel Plant had agreed to take 5000 tonnes per month of Dugda II middlings. Though the decision was communicated to CCWO for making arrangements to despatch the said quantity in the rake loads to Bhilai in March, 1977 the movement is yet to take place. Apart from the concern of the HSL to get the stocks liquidated and improve its cash position it is not in the overall interest of the nation to allow the by-product to go as a waste or leave it to the mercy of nature specially when increasing stress is being laid on the better management and utilisation of wastes by-products."

2.78 A serious problem in the satisfactory functioning of the CCWO washeries has been the poor off-take of the middlings, which is a necessary by-product of a coal washery. By the end of the year 1982-83 the four washeries had accumulated huge stocks of middlings, whose value was assessed at Rs. 29.14 crores. The Committee was dismayed to learn that the valuation of middlings has been a bone of contention between the SAIL and the BCCL and was a vital factor leading to delay in finalisation of modalities for transfer of ownership of the washeries. This incidentally provides a cue to the lack of efforts on the part of BCCL to dispose of the accumulated stocks of middlings. After having taken a position that the middlings should be passed on by SAIL to BCCL at nil value, the BCCL did not obviously put in any efforts to dispose of the middlings lest they were proved wrong. Otherwise there can be no justification for BCCL to consider that the middlings were not marketable when middlings/washery sinks of similar quality of the other washeries of Coal India Ltd. were selling in large quantities. Further in view of the overall shortage of coal supply in the country it is inconceivable that there is no taker for these middlings. The Committee, therefore, desire that the circumstances under which there was huge accumulation should be investigated for appropriate action.

2.79 Now that the question of ownership of CCWO washeries seems to have been finally settled, the Committee can only express the hope that all out efforts will be made to dispose of the accumulated stocks of middlings and nation's resources will not be allowed to go waste. The Committee would like to be apprised of the precise action taken in the matter. The Committee would also be interested to know at what value the middlings and rejects have been transferred to BCCL at the time of transfer of ownership of these washeries.

2.80 The Committee note that the main users of the middlings are the thermal power stations. In terms of a policy laid down by Government in January, 1971, the thermal power stations located near the coal washeries

are required to utilise the washery middlings having an ash content upto 45 per cent. Each of the 4 washeries of CCWO has been linked to particular thermal power station for disposal of middlings. However, the off-take of the middlings by the concerned thermal power stations has not been commensurate with the total arisings because the ash content of the middlings was more than the desirable limits. This called for action either to upgrade the middlings or to modify the thermal plants so that they could consume middlings with higher ash contents. The Committee have been informed that Dugda-II Washery which is presently a 2-product washery is being converted into a 3-product washery. Middlings produced by this washery after conversion will be suitable for the power houses. The Committee trust that efforts will be made to complete the conversion work without further loss of time.

2.81 Similarly, a scheme for upgradation of the sinks of Bhojudih washery was stated to be under implementation. The Committee would like to be informed of the actual progress made in this project.

2.82 The Committee were informed that new technologies had been developed which made it possible to use the middlings with ash contents ranging from 43 to 53 per cent for power generation in thermal stations. One such power plant was reportedly using such middlings. BHEL was also reported to be working on the design of a boiler which can use middlings with higher ash contents. These are the steps in the right direction and the Committee wish to stress that concerted efforts should be made to enable large arising of middlings with higher ash contents being put to economic use.

#### F. Weighment of Coal

2.83 In their Report under Section 619(3) of the Companies Act, 1956 on the accounts of CCWO for the year 1981-82, the Statutory Auditors made the following observations regarding quantity of raw coal received and consumed and quantity of washed coal produced/despatched:

##### "(a) Quantity of raw coal received/consumed

The exact or near exact quantity of raw coal received has remained undetermined as the major quantity of raw coal received has remained unweighed especially at Dugda Washery because the washery weighbridges remained out of order for months together, as per details given below:—

Plant	Tonnes received	Quantity in lakh M. Tonnes	
		Weighed	Unweighed
Dugda . . .	34.09	10.28	23.81
Bhojudih . . .	17.82	12.91	4.91

### *Patherdih Wagons weighed at Railway weighbridges*

The quantity of raw coal consumed is derived from the coal received plus/minus stocks. The records maintained at plants for the quantity consumed are unauthentic. There exists vast differences in quantities consumed as per daily production reports and as per log books. The quantity consumed as per log books is generally always on the lower side than as per daily production reports e.g. at Dugda Washery it is 20,000 M. Tonnes less consumed in each unit in some months.

#### *Quantity of washed coal produced/despatched.*

The quantity of washed coal produced is derived from despatches plus/minus stocks. The records maintained at washeries for washed coal are not authentic as there exist vast difference in the quantity produced as per daily production reports and quantity purchased as calculated on the basis of raw coal fed as per log books and yield reduction/ factor thereof.

The exact or near exact quantity of washed coal despatched has remained undetermined as the major quantity of washed coal despatched has not been weighed because of washery weigh bridges remaining out of order for months together, as per details given below:

Plant	Tonnes despatched	Quantity in lakh/M. Tonnes	
		Weighed	Unweighed
Dugda	19.31	5.19	14.18
Bhojudih	12.84	Nil	12.84
Patherdih	12.46	Nil	12.46

(b)....The shortages/excesses in the quantity of raw coal received/washed coal despatched have remained unascertained.

(c)....No proper action seems to have been taken for deductions to be made for under load coal supplied and/or inferior quantity of coal supplied mixed with boulders, shales and other foreign materials."

2.84 The Committee enquired about the reasons for not maintaining proper records of receipt and despatch of coal. The CMD, BCCL stated in evidence that the records of receipt and despatch were maintained. He

added: "The weighbridge had officially gone out of order." As regards the working of weighbridges, a representative of CCWO stated:

"At present all the (weighbridge, of) washeries are working excepting weighbridges at Dugda-I. Raw coal weighbridge at Dugda-II was closed down for its replacement by a new weighbridge capable of weighing two four-wheeler wagons or one box wagon as the case may be. Since the older one was not capable of weighing two 4-wheeler wagons, this replacement was necessary to smoothen out the marshalling yard operation. The replacement work was taken up in November, 1980 and completed by September 1981. However, the working between September 1981 and March 1982 was interrupted as the new weighbridge gave teething trouble and needed adjustments and calibrations. Since April 1982, it has been in continuous operation.

This work was taken up on the advice of the Railways for better performance of the marshalling yard and during 1981-82 only 30 per cent of the incoming raw coal wagons were weighed in Dugda whereas in 1982-83 96 per cent of the incoming coal had been weighed.

**Bhojudih :** Bhojudih raw coal weighbridge was out of order for capital overall repair in 1981 for 3 months from July to September. Since September 1981 and onwards the weighbridge has been working absolutely satisfactorily. We could weigh 70 per cent of incoming coal during 1981-82. In 1982-83 we weighed 92 per cent of the incoming coal.

**Patherdih :** The raw coal weighbridge of the Railways have been working satisfactorily all the time.

#### Washed Coal

**Dugda I** washed coal weighbridge has been out of commission since 1979 and needs replacement. The weighbridge is located under the washed coal bunkers. The replacement would need total shut down and the despatches from Dugda-I would be disturbed. Weighbridge is available with the washery and the replacement work will be taken up as soon as the rope way transport system for carrying washed coal from Dugda-2 to Bokaro Steel is commissioned. When the rope-way is commissioned, Dugda-2 despatches will be through the rope ways and Dugda-I despatches will be arranged through Dugda-2 wagon loading and weighing system.

**Dugda-2 washed coal weighbridge** has been in working order. During 1981-82 we could weigh 50 per cent of the despatches of the Dugda. However, during 1982-83, the weighbridge was out of order only for 44 days in the year and weighment was more or less 95 per cent.

**Bhojudih:** Bhojudih washed coal weighbridge was out of order since 1977. A new weighbridge was procured in 1978. The replacement work was tendered out on several occasions but without success. Since the work was to be carried out in a life marshalling-yard and affecting 50 per cent of the loading capacity of the washery, the work was of difficult nature. However, by the end of 1980, the work was awarded and got completed by March 1983. Now, the working is 100 per cent weighment at Bhojudih.

**Patherdih:** The Patherdih weighbridge had to be taken for capital repairs in 1981-82 and as such it could not be operated during 1981-82. But during 1982-83, after the capital repairs had been successfully carried out, 70 per cent of weighment could be done. With regular check of the weighbridges, the position will further improve."

2.85 Asked as to how the correctness of the receipts and despatches was ensured, the CCWO stated in a written reply as follows:---

"Correctness of the receipts of raw coal is normally ensured by keeping the raw coal wagon weigh bridges in the Washeries in working conditions. These weigh bridges are mechanical machineries, calling for repair, overhaul and replacement from time to time. None of the Washeries is provided with any stand-by-weigh bridges. In the event of such extenuating circumstances, when the weigh bridge is out of order, the receipt is accounted for in accordance with weights shown on the Rly. receipts which are based on carrying capacity + 2 tonnes as per the extent of Rly. rules. These weights are test checked by observing the loading of the wagons upto the loading heights marked by the Railways on the wagons themselves.

Belt conveyor weighing machines (weightometers) are also installed on the raw coal feed belts for measuring the quantity of input to the Washeries. These mechanical weighing machines are also susceptible to breakdowns and errors.

The receipt and input of raw coal figures as above and the physical stock checkings of raw coal storage bunkers of definite geometrical configuration and capacity from time to time, ensure the correctness of receipts. Similarly, the correctness of the des-

patches of washed coal is also ensured by keeping the weigh-bridges in working order. In the event of weigh-bridge being out of order, the wagons are loaded to the pre-determined heights (determined on the basis of test weighments) so as to ensure that the wagons contained washed coal as per the carrying capacity 2/5 tonnes as per the requirement of the Railway freight rule. Railway accept the loaded wagons for despatch and prepare the despatch documents accordingly. Steel Plants have posted their Loading Inspectors in the Washeries to check the loading both when the Weigh-bridges are working and when the same are out of order."

**2.86** The Committee further wanted to know whether any complaints regarding short supply of coal by the Steel Plants and other users were received by CCWO. The CCWO have stated in a written reply that:

"There have been occasions when Steel Plants reported short receipts on the basis of test weighments carried out at their ends. Such short receipts, if any, are not on account of short loadings at the Washery ends. The washeries at their ends take action to keep the weigh-bridge in operating condition. In the event of weigh-bridge being out of order, strict vigil is kept on maintaining the loading heights of the wagons as per pre-determined levels. However, possibilities of short receipts due to (i) moisture evaporation losses during transit from the Washery to the Steel Plant (washed coal being wet product) and (ii) losses arising out of pilferage enroute, cannot be ruled out."

**2.87** In their report under Section 619(3) of the Companies Act, 1956 on the accounts of CCWO for the year 1981-82 the statutory auditors have brought out that proper records of receipt and despatch of coal from washeries have not been maintained. This is due to the fact that washery weigh-bridges have remained out of order for months together. The Committee also note from the evidence of the undertaking that weighbridges have not only remained out of order for long period, their repair has also taken very long time. The Committee would like the Government to investigate such past cases with a view to pin point responsibility for failure in proper maintenance etc. The Government should also assess the amount of losses suffered by the Organisation due to weighbridges being out of commission for long periods. The Committee feel concerned about the lack of care in maintaining the weighbridges and would like to stress that proper attention should be paid to ensure that the weighbridges remain in working order all the time. Wherever necessary the old weighbridges may be replaced by new ones in a phased manner.

## CHAPTER III

### COST CONTROL

3.1 The Costing System prevalent in the Washerries is designed to work out the actual cost of washed coal which is treated as main product. According to Audit, no cost is worked out for middlings and rejects. While working out the actual cost of washed coal, credit for sale of middlings/rejects is afforded in the cost sheet prepared monthly/annually.

3.2 Cost of washed coal is estimated at the beginning of the year. The cost so worked out represents the estimated/target cost of the year and this is considered by the management as standard cost.

3.3 As per supplementary Report of the Auditors under Section 619(3) of the Companies Act, 1956 on the accounts of CCWO for 1981-82, the target cost (ROM basis) and actual cost (ROM basis) during 1979-80 to 1981-82 was as under:—

(In Rs. per tonne)

Washerries	1979-80		1980-81		1981-82	
	Target Cost	Actual Cost	Target Cost	Actual Cost	Target Cost	Actual Cost
Dugda I & II	211.53	274.07	260.83	280.50	355.20	390.32
Bhojudih	156.82	196.33	207.41	216.89	295.32	284.57
Patherdih	187.78	229.94	225.94	238.55	302.60	336.40

It is seen that the actual cost in respect of all the washerries during the years 1979-80 to 1981-82 was more than the target cost, except in the case of Bhojudih washery in 1981-82.

3.4. During the evidence of the representatives of CCWO the Committee enquired about the reasons for actual cost being higher than the target cost. The CMD, BCCL stated:

“There has been a difference between the targetted cost and the actual cost. The targetted cost, of course, was worked out on the basis of the total production as also the inputs that are provided by way of stores and manpower. One thing which went against is the production itself. There has been, in the production, some gap which deviated the cost. That is the

main factor. There have been changes sometimes in the price of coal; when the price of coal went up, then also the total cost got affected. In the targeted cost, we take into account the production, the depending on the manpower that we have, their wages and also the overheads. The targeted cost is calculated scientifically. Wherever difference has arisen it is because those calculations have not just materialised, firstly because of the production loss itself and secondly the raw input being different from what we had estimated."

3.5 The table below, furnished by the SAIL gives details of the operating cost per tonne of washed coal in different washeries of CCWO during the years 1972-73 to 1982-83.

(In Rs. per tonne)

Year	Dugda-I & Dugda-II	Bhojudih	Patherdih
1972-73 .	21.31	11.97	18.16
1973-74 .	26.02	13.44	21.67
1974-75 .	27.27	12.26	22.42
1975-76 .	33.03	13.94	26.74
1976-77 .	28.05	16.12	22.41
1977-78 .	30.41	19.26	24.66
1978-79 .	35.87	19.44	29.92
1979-80 .	48.90	22.79	35.58
1980-81 .	47.75	24.66	40.95
1981-82 .	55.61	30.74	50.43
1982-83 .	72.75	39.10	64.25

3.6 It is seen from the above that the operating cost in washeries has gone up in the last 10 years from a level about Rs. 21/-per tonne to a level of about Rs. 73/-per tonne in case of Dugda, Rs. 12 to Rs. 39 in case of Bhojudih and Rs. 18 to Rs. 64 in case of Patherdih. It has also been stated that the current level of operating cost in CCL washeries at Kargali, Kathara Swang, Gidi is hardly 60 per cent of the above figures.

3.7 Another index of efficiency of operation of a washery is consumption of Magnetite. The table below gives details of the consumption of magnetite in different washeries of CCWO:

(In Kg. per tonne)

Year		Dugda-I	Dugda-II	Bhojudih	Patherdih
1972-73	.	1.70	1.86	0.51	1.30
1973-74	.	2.12	2.18	0.47	1.12
1974-75	.	1.66	1.79	0.50	1.40
1975-76	.	1.63	2.99	0.41	1.31
1976-77	.	1.10	2.85	0.25	1.26
1977-78	.	1.26	3.51	0.14	1.11
1978-79	.	2.09	3.09	0.23	1.56
1979-80	.	2.56	4.09	0.47	1.85
1980-81	.	3.46	4.61	0.52	2.14
1981-82	.	3.37	4.43	0.50	1.99
1982-83	.	3.05	4.16	0.51	1.68

3.8 It is to be seen from the above table that consumption of magnetite has increased from 1.7 Kg. per tonne to over 3 Kg. per tonne during last 10 years in Dugda-I, in case of Dugda-II from 1.86 Kg. to over 4 Kg. and in case of Patherdih from 1.30 Kg. to 2 Kg. per tonne.

3.9. The Committee find that there has been steep increase in the actual cost of production of washed coal during the year 1979-80 to 1981-82. In Dugda I and II washeries the actual cost of production per tonne increased from Rs. 274.07 in 1979-80 to Rs. 390.32 in 1981-82, in Bhojudih washery? The actual cost of production per tonne increased from Rs. 196.33 in 1979-80 to Rs. 284.57 in 1981-82 and similarly in case of Patherdith washery the actual cost of production per tonne increased from Rs. 229.94 in 1979-80 to Rs. 336.40 in 1981-82. The actual cost of production of the main product (washed coal) was also higher than the target cost in all the washeries except in Bhojudih during all these years. This is indicative of laxity in cost control. The Committee desire that proper cost control measures may be introduced and strictly followed.

3.10 The operating cost in all the washeries has also gone up in the last 10 years from a level of about Rs. 21 per tonne to a level of about Rs. 73/- per tonne in the case of Dugda I & II, from Rs. 12 to Rs. 39 in

the case of Bhojudih and from Rs. 18 to Rs. 64 in the case of Patherdih. The current level of operating cost in CCL washeries at Kargali, Kathara, Swang and Gidi is stated to be hardly 60 per cent of the above, figures. Another index of efficiency of operation of washery is consumption of magnetite. The consumption of magnetite in all the washeries except Bhojudih has increased from 1.7 Kg per tonne to over 3 kg. per tonne during the last 10 years in Dugda I, in case of Dugda II from 1.86 kg. to over 4 kg. per tonne and in case of Patherdih from 1.30 kg. to 2 kg. per tonne. The Committee recommend that factors leading to higher operating costs and those resulting in higher consumption of magnetite may be identified with a view to taking remedial measures. . . .

## CHAPTER IV

### INVENTORY HOLDINGS

4.1 The following table indicates the inventory holdings of the washeries at the end of the years 1978-79 to 1982-83:—

Year	Total inventories of raw materials stores & spares finished, semi-finished products (Rs. in lakhs)	Total Inventories of stores and spares and as number of months consumption	Finished, semi-finished stock (i.e. clean coal and middlings as number of months sales)
1978-79 .	1863.28	451.21(27.2)	14.6
1979-80 .	2024.96	515.71(25.42)	10.57
1980-81 .	2924.35	663.71(25.61)	14.48
1981-82 .	4280.53	818.61(29.3)	15.33
1982-83 .	4587.21	1012.98(30.6)	7.84

4.2 During the course of examination of the representatives of CCWO, the Committee enquired about the reasons for heavy accumulation of inventories. The CMD, BCCL stated as follows:—

“With regard to inventory there are a few aspects by which this thing has happened. We had certain new equipments installed for the improvement we wanted to bring about on the basis of the recommendation, the expert committee had earlier made. So some installations came and on that the inventory also became higher. Then the requirement of major steel structures. Because of the ageing steel structures had to be brought and that had accounted for 15 per cent of the whole thing. Then there were capital replacement awaiting installations. Their replacements have to be made. Materials were brought and are kept there. That accounts for 8 per cent. Then we have spare parts which earlier suffered very badly. We are trying to keep the spare parts in our stock and that accounted for 10 per cent of the total. Then there has been increase in the total value. The increase in prices of various goods. That also led to the increase in prices actually from

1977-83 almost is about 80 per cent in various materials which we are using. The price increase itself shows a lot of increase in the inventory. These are the main factors which led to the inventory remaining at this level."

He added:

"In terms of months if we leave iron and steel then it is 19 months. If we take all then it comes to about 29 months."

4.3 The Committee desired to know whether the inventory holdings in CCWO washeries, which represented 25 to 29 months consumption were not on the higher side *vis-a-vis* inventory holdings in the other washeries of BCCL. In a note, the Deptt. of Coal have stated:—

"The inventory holdings of the stores and spares of CCWO washeries have been between 27 to 32 months consumption during the period 1970-71 to 1982-83. BCCL took over the management of CCWO in the year 1973. It may be seen that prior to 1973 the management was under the then Hindustan Steel Limited when the average inventory holdings were 32 months' consumption. The whole period have been bracketted together, as given below:—

Over 3 year's period	Average inventory holdings in terms of months of consumption
1970-71 to 72-73 . . . . .	32.16
1973-74 to 75-76 . . . . .	24.33
1976-77 to 78-79 . . . . .	25.57
1979-80 to 1982-83 . . . . .	27.51

As can be seen from the above, that the inventory holdings which averaged at around 32 months' consumption during 1970-71 to 1972-73 have come down to a level of 27 months' consumption during 1979-80 to 1982-83. In fact, the holdings were still at a lower level during the intervening periods. The marginal increase in the recent years has been mainly due to necessity of stocks maintained at washeries for capital replacement, both for equipments/machineries and for structurals, as also for additional equipments installed due to technological/engineering charges. The main reasons for high inventory is that these washeries were planned at the end of fifties and built in the beginning of sixties with foreign collaboration having mostly imported plant and machineries differ-

ing from washery to washery. In order to avoid non-availability of spare parts and sub-assemblies of the equipment arising out of obsolescence change of models etc. by the parent foreign manufacturer, procurement of spare parts were done to cover for slow moving as well as insurance items besides regularly consumable ones, which accounted for a higher holdings.

Since these washeries were owned by SAIL upto 31-9-83, not by BCCL, Department of Coal had not therefore looked into the problem of inventories. It may be pointed out that these washeries are 15 to 20 years old and, as such, the inventory holding of these washeries can not be compared with other new washeries of BCCL which have been commissioned only recently. Also, to overcome the operations constraints being faced due to inferior quality of raw coal, some additional equipment and machinery had to be installed. The safety stocks maintained are also kept slightly at a higher level because of high lead time of procurement due to acute power problem in the eastern region."

4.4 During evidence the Committee pointed out that the High Powered Committee while recommending a lower operating capacity had mentioned the non-availability of spare parts in time as one of the reasons for doing so. However, the inventories including spare parts had been on very high side. Asked about the reasons for the same the CMD, BCCL replied:—

"After this High Powered Committee had given its findings in 1971, there were quite a bit of works taken up which needed the supply of spare parts. Some of the spares are slow moving and some are very fast moving. There were arrangements made so that we have a regular flow of spares to our washeries. I must say that now this problem of plant stoppage for want of spares is not there. We have tried to eliminate this cause. This has caused higher inventory also. It has its own repercussions on the inventory. We are trying to maintain sufficient stock of spares. Earlier we were maintaining spares for about 26 to 27 months. Now, it is for about 28 to 29 months. This has caused a rise in our inventory. But we have reduced this particular element to a great extent."

4.5 In reply to a query whether the provision for spare parts did not form the part of the project report, the witness stated:

"It is part of our annual plan. In the annual plan, it would be mentioned that so many spares are needed and accordingly the spares are purchased. This has been streamlined to a great

extent and at present we are not facing any difficulty on that account."

4.6 The Committee pointed out that the inventory holdings in respect of stores and spares of CCWO appeared to be on the very high side in as much as they represented 25 to 29.5 months consumption during 1978-79 to 1982-83. As to the reasons for it, CCWO stated in a written reply furnished after the evidence that as at the end of 1982-83, the inventory holdings (stores and spares) stood at Rs. 961.27 lakhs. The main reasons for inventory holdings being on the higher side were (i) stocking of the FOR spares (ii) technological|engineering changes including balancing facilities made in the Washeries, (iii) Capital equipment awaiting replacement, (iv) stocking of structural steel and pipe lines for strengthening| major replacements of the existing technological and civil structures, and (v) maintenance of safety stocks.

It was further stated that if the holdings on account of (i) Dugda Up-gradation Plants, yet to be put into operation, (ii) capital equipment awaiting replacements and (iii) structural steels including pipe lines are not accounted for, the working inventory works out to around Rs. 731.27 lakhs representing 24 months consumption.

4.8 On being asked about the reasons for over estimation or requirements of inventories and whether responsibility for such over estimation had been fixed, the CMD, BCCL stated as follows:—

"Obviously there had been an over-estimation. Out of the total purchase that was made some of them were utilised. In any case there were some which could not be utilised and which means that the purchase was in excess of the real requirements. There has been definitely an error in the judgement or which could be deliberate to purchase things which may not be required. Then no committee or anything was set up to fix up the responsibility for this over-estimation. That has not been done yet. We can easily find out who were the authorities who had asked for these purchases and why did they make this kind of error in over-estimating the requirements. We have not done that. We can do that."

4.9 Asked about efforts made for disposal of inventories CCWO stated in a note that earlier efforts have been made on 3 occasions for disposal of surplus stores, however, with partial success. Actions for further identification and disposal of surplus stores are on hand and all out efforts will be made to suitably dispose off the surplus stores and reduce the inventory holdings from the present level.

4.10 According to Audit, stores and spares aggregating Rs. 56.10 lakhs remained non-moving (April 1981). The washery-wise details of non-moving stores and spares are given below:—

(Rs. in lakhs)

Washery .	Amount of non-moving stores and spares.
Dugda I and II	26.70
Bhojudih	14.10
Patherdih.	15.30

4.11 During the evidence of the representatives of CCWO, the Committee wanted to know about the latest position of non-moving stores and spares. The CMD, BCCL stated that they have got non-moving material for Rs. 75 lakhs, Rs. 25 lakhs and Rs. 3 lakhs in Dugda, Bhojudih and Patherdih washeries respectively.

4.12 Asked about any possibility of their utilisation, the witness stated:—

“The idea of course is that these spares will be utilised in our new washeries which are coming up in BCCL. The new washeries will be needing something. First we check whether they are needed there. Then we will transfer them for utilisation. If there are no requirements we have to give them away to individual persons who want these spares.”

4.13 The Committee further wanted to know whether any norms have been fixed for holdings of finished stocks, the CCWO informed in a written reply:—

“Since it is programmed to despatch the entire arisings of washed coal to steel plants on day-to-day basis, no norms as such for holdings on this account are fixed. The holdings arises in cases (i) when the dispatches of washed coal and middlings do not match with the arisings for want of adequate transportation (rail movement) facilities, (ii) when the arisings are dumped/stocked for certain operational difficulties of the plants.”

4.14 As on 31st March, 1983, the CCWO washeries and inventory holdings, comprising of finished, semi-finished products, raw materials and

stores and spares, of the order of Rs. 45.8 crores. Apart from the accumulated stocks of middlings which accounted for inventory worth Rs. 29.14 crores, stores and spares constituted the other major components of the inventory holdings. At the end of 1982-83, the inventory holdings on account of stores and spares stood at Rs. 10.13 crores. This represented 29 months consumption of stores and spares. It is interesting to note that in 1970-71 one of the reasons given by a High Powered Committee for recommending lower operating capacities for washeries was the non-availability of spares in time. Since then it appears the stores and spares have been acquired at a faster pace without taking into account their actual requirement. The CMD, BCCL was frank enough to admit that there had been an over estimation as the purchases were in excess of the real requirement. The Committee suggest that the over-provisioning be investigated with a view to fixing responsibility.

4.15 It has been stated that since the washeries were owned by SAIL upto 31.9.1983 and not by BCCL, the Department of Coal had not looked into the problem of inventories. The Committee would like to know how the Department of Steel failed to review the position. In this connection they would also like to know whether there was periodic performance review of CCWO at the Government level since 1972.

4.16. Now that the question of ownership has been settled, the Committee recommend that the position regarding inventory of stores and spares may be thoroughly reviewed by the Department of Coal with a view to identify the surplus stores. The slow moving stores and spares may be segregated and earnest efforts may be made to dispose of the surplus stocks. The Committee would like to be apprised of the outcome of the efforts made in this behalf. There is also need for laying down proper norms for inventory holdings. While doing so the inventory holdings of the washeries of the BCCL may be kept in view.

## CHAPTER V

### MANPOWER ANALYSIS

5.1 While reviewing the staff requirements in the Washeries, the Committee on Public Undertakings in paragraph 200 of its Thirty-first Report (3rd Lok Sabha—April 1966) had observed that, considering the main responsibilities of the Washeries, the staff employed was on the high side and recommended that the standard force, which was then being finalised, should be worked out soon. The standard force for all the Washeries was fixed in July 1972 as under:—

Dugda I & II	.	.	.	.	.	.	.	1061
Bhojudih	.	.	.	.	.	.	.	506
Patherdih	.	.	.	.	.	.	.	513
Central Office	.	.	.	.	.	.	.	371
Officers.	.	.	.	.	.	.	.	137
<hr/>								
						Total :		2588

5.2 As against the above standard force, the actual number of persons employed in each washery during the period 1978-79 to 1982-83 was as follows:—

Year		Dugda I & II	Bhojudih	Patherdih	Cent. Office	Total
1978-79	.	1054	590	552	322	2513
1979-80	.	1050	591	550	319	2510
1980-81	.	1273	595	679	318	2870
1981-82	.	1266	593	680	311	2850
1982-83	.	1239	588	685	310	2872

5.3 During the course of examination of CCWO, the Committee pointed out that the total staff strength was higher than the standard force fixed in 1972. Asked about the reasons for it the CMD, BCCL stated as follows:—

“The standard force was fixed in 1972 to start with. But after that there have been certain changes. The major change was that there used to be some work done by contractors; some of those workers of contractors were departmentalised, they were taken on our rolls. Then to man whatever additional balancing facilities we have provided in the plants, further manpower became necessary. The maintenance requirement is also going up.”

5.4 The Committee wanted to know whether any productivity study was ever done in the organisation to determine the staff strength. The CMD, BCCL stated that according to their O & M study the standard force was 3071 and against this the actual strength was 3003.

5.5 Asked whether the study was done by National Productivity Council or it was their departmental study, the witness replied that it was done by their own internal group.

5.6 In reply to a question as to whether it was not desirable for the organisation to have a man power study done by National Productivity Council, the CMD, BCCL stated:

“We have a good industrial engineering group. It will be a good idea to have it re-checked by somebody from outside. We will take that. We have not done that.”

5.7 During the course of examination of the Ministry, the Committee enquired about the reasons for increase in manpower strength. The Secretary, Department of Coal stated that certain jobs which were earlier done through contractors, were now being done departmentally and subsequently this additional manpower had been engaged. But in actual operations of the washeries there was no increase in manpower.

5.8 According to the SAIL, the incidence of overtime in CCWO washeries has increased. The following table shows the percentage increase of overtime at CCWO washeries during the years 1977-78 to 1982-83:

Percentage increase of overtime payment (Salary/Wages Basis.)

Year	Dugda-I & Dugda-II	Bhojudih	Patherdih
1972-73 .	14.16	12.10	19.80
1977-78 .	38.91	19.97	42.59
1978-79 .	49.19	24.36	52.84
1979-80 .	47.24	23.05	43.13
1980-81 .	46.91	30.40	48.32
1981-82 .	48.43	32.08	49.
1982-83 .	50.11	42.82	50.00

5.9 It is seen from the above that incidence of overtime has increased from a level of about 12-14 per cent of the wages in 1972-73 to a level of 42—50 per cent of the wages in 1982-83.

5.10 During the evidence of the Department of Coal, the Committee enquired about the reasons for increase in overtime. The Secretary, Department of Coal stated:

“The utilisation of capacity has improved, the production has gone up by one and a half times. But the labour force remains the same. Therefore, increase in overtime has taken place.”

5.11. The Committee find that considering the main responsibilities of the washeries the standard force for all the washeries had been fixed in July, 1972. However, the actual staff strength during the years 1980-81, 1982-83 has been much more than the standard strength. The Committee was also informed that according to an O&M study conducted in the washeries standard force had been refixed at 3071 against which the actual strength was 3003. The Committee feel that for a realistic appraisal of the manpower requirements the National Productivity Council may be entrusted with a manpower study as agreed to by the CMD, BCCL.

5.12 From the data made available to them, the Committee find that incidence of overtime in CCWO washeries has increased from a level of about 12-14 per cent of the wages in 1972-73 to a level of 42-45 per cent of the wages in 1982-83. Interestingly it has been brought to Committee's notice that on account of overtime payments made in the year 1979-80, two of the non-executives of the washeries had to be listed in the published accounts alongwith other officers, who were earning above Rs. 36,000/- per annum. This discloses the extraordinarily heavy payment of overtime allowance in the organisation. The Committee would urge that the justification for such high incidence of overtime payments should be gone into and remedial steps taken to ensure that the payments of wages and overtime allowance are commensurate with the level of production and productivity achieved in each washery. The Committee would command this aspect of the study also being entrusted to the NPC.

## CHAPTER VI

### WORKING RESULTS

6.1 In regard to supply of washed coal to the steel plants of the Company, the Central Coal Washeries Organisation is functioning as a service unit and is recovering the actual cost of washed coal from the steel plants. The Committee on Public Undertakings in its Thirty-first Report (3rd Lok Sabha-April 1966) and Forty-fifth report (4th Lok Sabha-April 1969) had recommended that if the Washeries were to work with maximum efficiency at minimum cost, they should function as independent commercial enterprises and show results comparable with other washeries in the country. The Ministry however, did not implement this recommendation on the following considerations given in their reply (October 1971) to the Committee:—

“Government fully share the Committee's emphasis that strenuous efforts should be made to bring down the cost of washing to minimum in the Hindustan Steel Limited Coal Washeries. Government would also agree, in principle, that the cost of washing in Hindustan Steel Limited Washeries should compare favourably with that in other Washeries in the country, though, in actual practice, such a comparison of the cost of washing in Hindustan Steel Limited Washeries with that in other Washeries would not be strictly of like with like. Other Washeries are pit-head Washeries whereas Hindustan Steel Limited Washeries are central Washeries. The sources also keep changing with passage of time.”

“Secondly, coordination of movements and the cost of transportation of coal from the various collieries to the Central Washeries is high as compared to the cost incurred by pit-head Washeries on this account.”

Thirdly capital investment per tonne of input in the case of a Central Washery is much higher because of additional marshalling yard of facilities for incoming coal and the cost of infrastructure which has to be borne by the Washery itself as against a pit-head Washery where the costs are distributed both over the mines and the Washery establishment.

6.2 For supplies to outside parties, prices are negotiated with the customers, based on quarterly cost of production, capital investment, return

on gross block, etc. With effect from 1-4-1969 a system of pooled prices for all washeries has been introduced.

6.3 According to Audit the profit had arisen mainly due to sale of clean coal to parties other than the steel plants and the accounts of the coal washeries showed a cumulative profit of Rs. 2289.79 lakhs as at end of 1982-83 after taking into account the assessed value of Rs. 2914.61 lakhs of accumulated middlings, as indicated below:—

Year	Profit (+) Loss (—) during the year (Rs. in lakhs)	Cumulative profit (Rs. in lakhs)
1978-79	(+)	48.56
1979-80	(+)	75.69
1980-81	(+)	126.75
1981-82	(+)	275.04
1982-83	(+)	667.78*

\*Provisional figure.

6.4 During the evidence of the representatives of CCWO, the Committee pointed out that the profit of the Organisation was mainly on account of showing the value of middlings and in case no value was assigned to the middlings, there would have been heavy losses. To this, CMD, BCCL stated,

“I think it will make a serious change because the profit that we are having is only by selling it.”

6.5 The Committee find that against the total investment of Rs. 40.36 crores made in the CCWO washeries, the cumulative profit reportedly earned by the washeries comes to Rs. 22.90 crores at the end of 1982-83. This figure is clearly misleading inasmuch as it also includes the assessed value of accumulated middlings. Though the assessed value of the middlings at the end of the year 1982-83 has been shown in the accounts at Rs. 29.14 crores, this is only a notional figure because at one time BCCL felt that accumulated stocks of middlings are worth nothing. Obviously therefore if no value is assigned to the middlings, the figure of cumulative profit will get transformed into one of cumulative losses. The Committee thus find that the marketability of middlings is crucial to the profitability of the organisation. They would await the attempts made to dispose of the accumula-

ted middlings and the value realised. For the future the Committee suggest that on the basis of the experience gained the inventory of middlings should be realistically valued in order that the accounts may depict the true picture of financial results of the working of the organisation.

NEW DELHI;  
*April 9, 1984*  
Chaitra 20, 1906 (Saka)

MADHUSUDAN VAIRALE,  
*Chairman,*  
*Committee on Public Undertakings.*

## APPENDIX

### *Statement of conclusions/Recommendations of the Committee in Public undertakings contained in the Report*

Sl. No.	Reference to Para No. in the Report	Conclusions/Recommendations
1	2	3
1	1.27	<p>The Committee note that in June, 1972, a proposal mooted by Bharat Coking Coal Ltd. for transfer to it of the four washeries of CCWO, which had been set up by the erstwhile Hindustan Steel Ltd. (now SAIL), was agreed to in principle by HSL on the consideration that it would ensure better coordination between production of prime coking coal and supply of washed coal to the steel plants. In April, 1973, the management of the CCWO washeries was entrusted to BCCL under the extraordinary device of a Power of Attorney issued in favour of the CMD, BCCL, which enabled him to manage these washeries pending the <i>de jure</i> transfer of the ownership to BCCL. The peculiar feature of this Power of Attorney was that this vested power of management on the CMD of BCCL and not on BCCL as Company with the result that it was not the Board of BCCL which decided matters about Washerries but the Board of SAIL. This created responsibility without authority. Under this arrangement the Department of Coal provided BCCL with the funds for the capital requirements of the Washerries, while SAIL continued to pay for all the operational charges for CCWO as well as cost of raw materials to BCCL. This was a very anomalous position and very unsatisfactory state of affairs posing intricate problems of accounting &amp; auditing. Under these circumstances there could not be effective control over management and operations of washeries either of SAIL or of BCCL. Although, in the begin-</p>

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ning this arrangement, which led to dual control, was made as an interim measure pending formal transfer of CCWO to BCCL, it has continued for more than 10 years affecting adversely the efficient and smooth functioning of the washeries.

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1.28

The Committee are surprised to find that the question of transfer of ownership of CCWO washeries to BCCL was hanging fire for a period of 10 years as the *modus operandi* for the transfer of the assets and liabilities of one Government Company to another Government company could not be mutually agreed upon for such a long time. This appears all the more strange particularly because the rationale behind the transfer of CCWO from SAIL to BCCL was never in doubt and the proposal had also been specifically cleared not once but twice by the Cabinet; first in 1976 and again in 1977. It is also pertinent to recall that the Committee on Public Undertakings (1980-81) who "having been convinced of the advantage of these washeries' ownership resting with the coal company" had recommended that the ownership be transferred by SAIL to BCCL forthwith. Despite all these, it was only in September 1983 that it was mutually agreed upon to effect the transfer w.e.f. 1st October, 1983. This is a typical case of inordinate delay in implementing a policy decision of the Cabinet by the civil servants. It seems fairly clear that the authorities concerned had shown less than ordinary interest in setting the matter, which cannot but be deprecated by the Committee. In view of the importance of the matter and the neglect that it has suffered so far, the Committee would like Government to ensure that all formalities are completed without further delay.

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The interim arrangement, under which BCCL managed the washeries of CCWO but SAIL, as owner of the washeries, paid for all the operational charges as well as cost of raw materials was admittedly not satisfactory. It led to dual control on the activities of the CCWO which was not at all conducive to efficient functioning of the organisation. Further not only the

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objectives envisaged in transferring the ownership of CCWO to BCCL had not been realised the continued dual control has had adverse repercussions on long term investments and improvements in the working of the washeries. The Committee recommend that since the dual control has now ended and ownership has been transferred to BCCL, all necessary measures, short term and long term, may be taken to remove the bottlenecks for improved and efficient functioning of the washeries.

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2.20

The Committee find that a high powered Committee constituted in 1970-71 to go into the problems of washeries, had, after considering the past performance and present deficiencies of the washeries, recommended lower operating capacities as compared to high initial installed capacities. However, a review of the actual performance of washeries during the last 3 years reveals that except for Bhojudih washery none of the washeries could attain even the derated capacity in any of the three years. The capacity utilisation has been particularly low in the case of Dugda I and Dugda II washeries during the year 1982-83. The reasons for very low capacity utilisation in these two washeries need to be investigated with a view to taking necessary remedial measures.

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2.21

In Bhojudih although the capacity utilisation during the last 3 years has been less than the rated capacity as per project report, it was able to achieve a utilisation level which was more than the derated capacity in each of the 3 years. The Committee would be interested to know whether the Bhojudih washery was free from the constraints which affected the capacity utilisation in other washeries. The Committee need hardly point out that such *inter se* comparisons in the matter of capacity utilisation in different washeries under CCWO can, besides providing reliable measure for judging the performance efficiency of each washery, give an insight of constraints in capacity utilisation to the managements and prove

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useful in finding remedies for short coming. They would urge that steps may be taken to maximise the capacity utilisation in each washery.

6      2.22      The Committee also find that the reasons given for lower capacity utilisation in CCWO washeries are more or less the same as were adduced in 1971 for derating their installed capacities. These include deterioration in the quality of raw coal, irregular supply of wagons; irregular off-take of middlings, etc. The two additional factors now coming in the way of capacity utilisation are stated to be power shortage and the plant maintenance. Thus, the constraints which inhibited the utilisation of the installed capacity had not been eliminated and allowed to persist even after the lapse of a long period of more than 10 years. The Committee are disappointed at the lack of efforts on the part of authorities to set right the deficiencies affecting the performance of the washeries.

7      2.23      From the data furnished to the Committee it is seen that the loss in capacity utilisation in the year 1982-83 was as high as 9.10 per cent in Dugda I & II, 17.5 per cent in Bhojudih and 5.5 per cent in Patherdih coal washeries only on account of shortages of railway wagons for loading of washed coal and for supplies of raw coal from collieries to washeries. This is a disturbing state of affairs contrary to the impression that is given from time to time that there was no dearth of wagons for movement of coal. The Committee desire that the matter regarding adequate supply of wagons of requisite type for the washeries should be sorted out at the level of Government.

8      2.24      The rated input capacity of the washeries can be achieved within 4,000 effective working hours per annum. However, the actuals as regards the effective operating hours on load were always less than the norms because of increased down time/shut down of the plants for various reasons such as power failures, raw coal shortages, plant break-downs and operational

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problems. The total shut down periods due to various reasons ranged between 16 and 28 per cent of the available hours during the last 3 years in all the washeries. Corrective measures to ensure fuller utilisation of available hours are reported to have been taken. These *inter alia* include provision of captive power supply for Patherdih washery, review of preventive maintenance schedules of plants, taking up of coal upgradation schemes in Dugda I & II washeries. The Committee would watch with interest the impact of the remedial measures on the capacity utilisation of the washeries.

9            2.25            Plant shut-downs on account of break-down of machinery and operational troubles seem to occur frequently. In some of the washeries as much as 13 to 14 per cent of the total shut-downs were on these counts. This is clearly indicative of the fact that plants and machinery are quite old. The Committee, are, therefore, of the view that maintenance and replacement of plant and machinery must receive due priority.

10           2.52            For maintaining the efficiency of blast furnaces and avoiding deleterious effect on steel making furnaces, coal with ash content not exceeding 17 per cent (+0.5%) is required to be used in the steel plants. During the years 1980-81 to 1982-83, as against the projected norms of 15 to 17 per cent of ash content in the clean coal, the ash content in the clean coal produced by CCWO washeries ranged between 18.8 and 22.8 per cent. Admittedly there have been complaints from steel plants about high ash content in the washed coal. According to BCCL the main reason for high ash content in the clean coal was that the raw coal fed in the washeries was coming from lower and deeper seams, which were inherently of poor quality having more of ash content. The problem had also aggravated because the overall availability of good quality prime coking coal had been considerably depleted with the result that prime coking coal of lower seams with relatively inferior wash-

ability characteristics has been supplied to the washeries. The solution to the problem lay only in increasing the production of good primary coking coal by identifying potential areas in the various existing mines. The Committee has been informed that for this purpose the work regarding reconstruction of the entire Jharia coal fields had been undertaken. The scheme is expected to cost about 5,000 crores and was likely to take a period of 20 years to complete. This is obviously a long term plan. But to cope with the immediate requirements of coking coal of requisite quality for steel plants there is need for taking short term and result-oriented measures.

11 2.53 One of the objectives envisaged in transferring the ownership of CCWO to BCCL was that with the reorganisation/reconstruction of Jharia coal fields the command areas of the washeries would be so rationalised as to give coal of the requisite quality depending upon the technique of the washing in the respective washeries. The Department of Steel feel that there is no judicious distribution of available raw coal to various coal washeries. The Secretary coal had in a meeting held on 23 September, 1983, also expressed similar feelings when he observed that "there appeared to be no proper procedure for selection of mines for supply of raw coal to washeries." The Committee cannot but emphasise that immediate steps need to be taken to ensure that as far as possible raw coal suitable for washing in respective washeries should be supplied from the already identified collieries and seams.

12 2.54 Another step that can be taken to minimise the problem of poor quality feed stock for washeries is that coal produced by different collieries of BCCL may be so scientifically blended as to ensure suitable feed for the washeries.

13 2.55 The existing washeries which were originally designed to process raw coals of certain ash content are not able to bring down the ash to the level desired by the steel plants because of increase in the degree of ash content in raw coal. In order to tackle this

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problem some modifications are stated to have already been made in Dugda I, Dugda II and Patherdih washeries. The Committee desire that it may be considered if further modifications can be carried out in the existing plants and equipment with a view to ensure that washed coal with requisite ash content may be obtained from the available feed stock.

14 2.56 The Committee have been informed that R & D division of BCCL was doing a lot of work, with the help of the Central Fuel Research Institute, on the question of reducing ash contents of the washed coal. Some processes like 'oil agglomeration', 'demineralisation' and 'bleaching' have been developed and are being tested. The Committee feel that more concerted efforts are required to be put in because ultimately only R&D will help us in upgrading the technology for utilising the abundantly available stocks of raw coal with high ash content.

15 2.57 In the context of the available resources of prime coking coal and the washing facilities in the country, the Secretary coal painted a very bleak picture by stating that the country can never become self-sufficient in the matter of coking coal of requisite quality and some quantity of coking coal will always have to be imported to meet the total requirements of the steel plants. In order to overcome this constraint in regard to steel production in the country, the Committee feel there is need for introducing changes and modifications not only in the washeries and collieries but also in the steel plants. The designing of the new steel plants, and for that matter designing of Thermal Plants as well, should be done in future in a manner that they are able to run with the quality of coal available in the country. The Committee need hardly emphasise that there should be complete and close co-ordination between the Department of Coal, Steel and Mines so that there is an integrated approach in ensuring self-reliance in regard to supply of coking coal for steel production.

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16	2.78	<p>A serious problem in the satisfactory functioning of the CCWO washeries has been the poor off-take of the middlings, which is a necessary by-product of a coal washery. By the end of the year 1982-83 the four washeries had accumulated huge stocks of middlings, whose value was assessed at Rs. 29.14 crores. The Committee was dismayed to learn that the valuation of middlings has been a bone of contention between the SAIL and the BCCL and was a vital factor leading to delay in finalisation of modalities for transfer of ownership of the washeries. This incidentally provides a cue to the lack of efforts on the part of BCCL to dispose of the accumulated stocks of middlings. After having taken a position that the middlings should be passed on by SAIL to BBCL at nil value, the BCCL did not obviously put in any efforts to dispose of the middlings lest they were proved wrong. Otherwise there can be no justification for BCCL to consider that the middlings were not marketable when middlings washery sinks of similar quality of the other washeries of Coal India Ltd. were selling in large quantities. Further in view of the overall shortage of coal supply in the country it is inconceivable that there is no taker for these middlings. The Committee, therefore, desire that the circumstances under which there was huge accumulation should be investigated for appropriate action.</p>
17	2.79	<p>Now that the question of ownership of CCWO washeries seems to have been finally settled, the Committee can only express the hope that all out efforts will be made to dispose of the accumulated stocks of middlings and nation's resources will not be allowed to go waste. The Committee would like to be apprised of the precise action taken in the matter. The Committee would also be interested to know at what value the middlings &amp; rejects have been transferred to BCCL at the time of transfer of ownership of these washeries.</p>

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18	2.80	<p>The Committee note that the main users of the middlings are the thermal power stations. In terms of a policy laid down by Government in January, 1971, the thermal power stations located near the coal washeries are required to utilise the washery middlings having an ash content upto 45 per cent. Each of the 4 washeries of CCWO has been linked to particular thermal power station for disposal of middlings. However, the off-take of the middlings by the concerned thermal power stations has not been commensurate with the total arisings because the ash content of the middlings was more than the desirable limits. This called for action either to upgrade the middlings or to modify the thermal plants so that they could consume middlings with higher ash contents. The Committee have been informed that Dugda-II Washery which is presently a 2-product washery is being converted into a 3-product washery. Middlings produced by this washery after conversion will be suitable for the power houses. The Committee trust that efforts will be made to complete the conversion work without further loss of time.</p>
19	2.81	<p>Similarly, a scheme for upgradation of the sinks of Bhojudih washery was stated to be under implementation. The Committee would like to be informed of the actual progress made in this project.</p>
20	2.82	<p>The Committee were informed that new technologies had been developed which made it possible to use the middlings with ash contents ranging from 43 to 53 per cent for power generation in thermal stations. One such power plant was reportedly using such middlings. BHEL was also reported to be working on the design of a boiler which can use middlings with higher ash contents. These are the steps in the right direction and the Committee wish to stress that concerted efforts should be made to enable large arising of middlings with higher ash contents being put to economic use.</p>
21	2.87	<p>In their report under Section 619(3) of the Companies Act, 1956 on the accounts of CCWO for</p>

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the year 1981-82 the statutory auditor have brought out that proper records of receipt and despatch of coal from washeries have not been maintained. This is due to the fact that washery weighbridges have remained out of order for months together. The Committee also note from the evidence of the undertaking that weighbridge have not only remained out of order for long period, their repair has also taken very long time. The Committee would like the Government to investigate such past cases with a view to pin point responsibility for failure in proper maintenance etc. The Government should also assess the amount of losses suffered by the Organisation due to weighbridges being out of commission for long periods. The Committee feel concerned about the lack of care in maintaining the weighbridge and would like to stress that proper attention should be paid to ensure that the weighbridges remain in working order all the time. Wherever necessary the old weighbridges may be replaced by new ones in a phased manner.

22 3.9 The Committee find that there has been step increase in the actual cost of production of washed coal during the years 1979-80 to 1981-82. In Dugda-I and II washeries the actual cost of production per tonne increased from Rs. 274.07 in 1979-80 to Rs. 390.32 in 1981-82, in Bhojudih washery, The actual cost of production per tonne increased from Rs. 196.33 in 1978-80 to Rs. 284.57 in 1981-82 and similarly in case of Patherdih washery . the actual cost of production per tonne increased from Rs. 229.94, in 1979-80 to Rs. 336.40 in 1981-82. The actual cost of production of the main product (washed coal) was also higher than the target cost in all the washeries except Bhojudih during all these years. This is indicative of laxity in cost control. The Committee desire that proper cost control measures may be introduced and strictly followed.

23 3.10 The operating cost in all the washeries has also gone up in the last 10 years from a level of about

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Rs. 21 per tonne to a level of about Rs. 73/- per tonne in the case of Duga-I & II, from Rs. 12 to Rs. 39 in the case of Bhojudih and from Rs. 18 to Rs. 64 in the case of Patherdih. The current level of operating cost in CCL washeries at Kargali, Kathara,

Swang and Gidi is stated to be hardly 60 per cent of the above figures. Another index of efficiency of operation of washery is consumption of magnetite. The consumption of magnetite in all the washeries except Bhojudih has increased from 1.7 kg per tonne to over 3 kg. per tonne during the last 10 years in Duga-I, in case of Duga-II from 1.86 kg. to over 4 kg. tonne and in case of Patherdih from 1.30 kg. to 2 kg. per tonne. The Committee recommend that factors leading to higher operating costs and those resulting in higher consumption of magnetite may be indentified with a view to taking remedial measures.

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4.14

As on 31st March, 1983, the CCWO washeries and inventory holdings, comprising of finished, semi-finished products, raw materials and stores and spares, of the order of Rs. 45 crores. Apart from the accumulated stocks of middlings which accounted for inventory worth Rs. 29.14 crores, stores and spares constituted the other major components of the inventory holdings. At the end of 1982-83, the inventory holdings on account of stores and spares stood at Rs. 10.13 crores. This represented 29 months consumption of stores and spares. It is interesting to note that in 1970-71 one of the reasons given by a High Powered Committee for recommending lower operating capacities for washeries was the non-availability of spares in time. Since then it appears the stores and spares have been acquired at a faster pace without taking into account their actual requirement. The CMD, BCCL was frank enough to admit that there had been an ever estimation as the purchases were in excess of the real requirement. The Commit-

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suggest that the over-provisioning be investigated with a view to fixing responsibility.

25 4.15 It has been stated that since the washeries were owned by SAIL upto 31.9.1983 and not by BCCL, the Department of Coal had not looked into the problem of inventories. The Committee would like to know how the Department of Steel failed to review the position. In this connection they would also like to know whether there was periodic performance review of CCWO at the Government level since 1972.

26 4.16 Now that the question of ownership has been settled, the Committee recommend that the position regarding inventory of stores and spares may be thoroughly reviewed by the Department of Coal with a view to identify the surplus stores. The slow moving stores and spares may be segregated and earnest efforts may be made to dispose of the surplus stocks. The Committee would like to be apprised of the outcome of the efforts made in this behalf. There is also need for laying down proper norms for inventory holdings. While doing so the inventory holdings of the other washeries of the BCCL may be kept in view.

27 5.11 The Committee find that considering the main responsibilities of the washeries the standard force for all the washeries had been fixed in July, 1972. However, the actual staff strength during the years 1980-81 and 1982-83 has been much more than the standard strength. The Committee was also informed that according to an O&M study conducted in the washeries standard force had been refixed at 3071 against which the actual strength was 3003. The Committee feel that for a realistic appraisal of the manpower requirements the National Productivity Council may be entrusted with a manpower study as agreed to by the CMD, BCCL.

28 5.12 From the data made available to them, the Committee find that incidence of overtime in CCWO washeries has increased from a level of about 12-14 per cent of the wages in 1972-73 to a level of 42-50

per cent of the wages in 1982-83. Interestingly it has been brought to Committee's notice that on account of overtime payments made in the year 1979-80, two of the non-executives of the washeries had to be listed in the published accounts alongwith other officers, who were earning above Rs. 36,000/- per annum. This discloses the extraordinary heavy payment of overtime allowance in the organisation. The Committee would urge that the justification for such high incidence of overtime payment should be gone into and remedial steps taken to ensure that the payments of wages and overtime allowance are commensurate with the level of production and production and productivity achieved in each washery. The Committee would commend this aspect of the study also being entrusted to the NPC.

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6.5

The Committee find that against the total investment of Rs. 40.36 crores made in the CCWO washeries, the cumulative profit reportedly earned by the washeries comes to Rs. 22.90 crores at the end of 1982-83. This figure is clearly misleading inasmuch as it also includes the assessed value of accumulated middlings. Though the assessed value of the middlings at the end of the year 1982-83 has been shown in the accounts at Rs. 29.14 crores, this is only a national figure because at one time BCCL felt that accumulated stocks of middlings are worth nothing. Obviously therefore if no value is assigned to the middlings, the figure of cumulative profit will get transformed into one of cumulative losses. The Committee thus find that the marketability of middlings is crucial to the profitability of the organisation. They would await the attempts made to dispose of the accumulated middlings and the value realised. For the future the Committee suggest that on the basis of the experience gained the inventory of middlings should be realistically valued in order that the accounts may depict the true picture of financial results of the working of the organisation.