C. P. U. No. 502

COMMITTEE ON PUBLIC UNDERTAKINGS (1982-83)

(SEVENTH LOK SABHA)

SIXTY-FIFTH REPORT

ON

NATIONAL FERTILIZERS LTD.

(MINISTRY OF CHEMICALS AND FERTILIZERS)

Presented to Lok Sabha on 26 APR 1983

Laid in Rajya Sabha on 26 APR 1983

LOK SABHA SECRETARIAT
NEW DELHI
April, 1983/Chaitra, 1905 (Saka)
Price : Rs. 3.70

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(1982-83)

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INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to present the Report on their behalf, present this Sixty-Fifth Report on National Fertilizers Ltd.

2. The Committee also examined the Report of the Comptroller and Auditor General of India, Union Government (Commercial) 1979, Part III relating to Nangal Unit of the Fertilizer Corporation of India Ltd. (now part of National Fertilizers Ltd.)

3. The Committee took evidence of the representatives of National Fertilizers Ltd. on 19, 20 and 22 October, 1982 and of the Ministry of Chemicals and Fertilizers on 25 and 26 November, 1982.

4. The Committee considered and adopted the Report at their sitting held on 4 April, 1983.

5. The Committee wish to express their thanks to the Ministry of Chemicals and Fertilizers and National Fertilizers Ltd. for placing before them the material and information they wanted in connection with the examination of the Company. They also wish to thank in particular the representatives of the Ministry of Chemicals and Fertilizers and National Fertilizers Ltd. who gave evidence and placed their considered views before the Committee.

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

NEW DELHI;
April 7, 1983
Chaitra 17, 1905 (S)

MADHUSUDAN VAIRALE.
Chairman,
Committee on Public Undertakings.

CHAPTER I

OBJECTIVES AND OBLIGATIONS OF NFL

(a) *Historical Background*

National Fertilizers Ltd. (NFL) was incorporated on 23rd August, 1974 with the responsibility of implementation of Bhatinda, Panipat and Mathura Fertilizer Projects. The implementation of Mathura Project was deferred by the Government. With effect from 1st April, 1978, the fertilizer industry in the public sector was reorganised and, as a consequence thereof, Nangal Unit and Chandigarh Marketing Office of Northern Marketing Zone of Fertilizer Corporation of India were transferred to NFL. As on 31-3-82, the paid up capital of the Company was Rs. 274.28 crores. In addition the Government had given loans amounting to Rs. 250.06 crores.

(b) *Objectives and Obligations*

1.2 Statement of Micro objectives were to be formulated by Public Undertakings with the approval of Government as directed by BPE in November, 1970. The basic corporate objectives of the Company were approved by the Board on 31-12-80 and forwarded to the administrative Ministry which had suggested incorporation of certain modifications and holding of subsequent discussions with Bureau of Public Enterprises.

1.3 The Committee desired to know the present position in regard to finalisation of objectives and obligations of the Company. The Managing Director, NFL in evidence, during October 1982, stated that the Company had constituted a committee about two months ago headed by Director (Finance) to review the objectives further. It was expected that in two or three months period the Committee would be able to submit their report.

1.4 The Committee enquired as to who were the other members of the Committee besides Director (Finance), the witness stated that three more Company Officials were members on the Committee. To another query as to whether any experts had been associated with the Committee, the witness stated that after the report of the Committee was put up, they would discuss in with the experts as well as the Ministry before finalisation.

1.5 When the Committee pointed out that it would be impossible for NFL to reach to any rightful conclusion in regard to projecting future demand of fertilizers etc. without associating representatives

from Ministry of Agriculture and Planning Commission, the Managing Director, NFL stated in evidence :

> "Your suggestion will be taken into consideration. I will definitely request Agriculture Ministry to nominate a member from that Ministry...."

1.6 Asked whether to avoid duplication of efforts, the administrative Ministry should also not be associated with the Committee, the witness stated :

> "We will consult our Ministry as well as the Agriculture Ministry so that the report is finalised at the earliest."

1.7 In the course of evidence of the representatives of the Ministry of Chemicals & Fertilizers the Committee enquired about the modifications suggested by the Ministry in the Corporate objectives of the Company, the representative of the Ministry stated :

> "Fertilizer Industry Coordination Committee system provides for a return of 12 per cent if a capacity utilisation of 80 per cent is achieved. If a higher capacity utilisation is attained, the return goes up; otherwise gets reduced. With 90 per cent utilisation, the return would be more....when they initially wrote to us, they said the pre-tax return will be 15 per cent.....It should be 15 per cent post tax.. We pointed out this to them. What we said has been accepted by NFL."

1.8 The Committee enquired the reasons for delay in formulation of objectives and obligations of the Company. The Secretary of the Ministry stated that in first 4 to 5 years, the Company was engaged in the construction of the project and, therefore, at that time it was not possible to frame the objectives. As soon as the Company started operating, this was brought to their notice and they finalised the objectives sometime in 1980. This explained why even though technically the Company was established in 1974, the framing of the objectives itself could not be taken up for first 5 years which was spent only in the construction and implementation of the projects.

1.9 Asked as to when the objectives were expected to be finalised, the Secretary of the Ministry stated, "It will be finally approved by us and I hope that in the next 3 or 4 months, it should be possible for us to finalise them."

1.10 One of the objectives of the Company as approved by the Board is to attain a sales volume, to be among the top 3 fertilizer companies in the country and reaching, about 90 per cent of the market share

in the Northern Indian Market and 25 per cent in the total Indian market. The Committee desired to know the share of NFL in total production of fertilizers in 1981-82. The Managing Director, NFL in evidence stated that the Company's share of market for nitrogenous fertilizer in India during 1981-82 was 15.5 per cent. As regards Company's share in the Northern Indian market, in a written reply it has been stated that the actual market share of NFL during 1981-82 was as under :—

	Quantity sold (tonnes)	% share of NFL in the market
(a) Punjab	236074	41.4
(b) Haryana	124156	59.5
(c) Himachal Pradesh	9203	69.5
(d) Rajasthan	17541	16.4
(e) U.P.	70597	7.4

1.11 Asked as to when the Company expected to achieve the objectives laid down by them, the witness stated that the fertilizer scene in the market was changing fast and the capacity was increasing. The objective of share in the market might therefore, have to be revised.

Elaborating it further, the witness added :

> "Since we have formulated this objective, the demand has further increased this year. Fertilizer requirements were also increased considerably. So, we have to add to our capacity. Government of India has accordingly taken a decision to increase the capacity by permitting other industries to put up their plants."

1.12 The Committee desired to know from the Ministry the basis of setting up the above objectives by NFL. The Joint Secretary (F) stated in evidence :

> ". . . . This is not a very correct approach. The demand of fertilizer is rising very rapidly and NFL has the same number of plants. Therefore, to get 90 per cent of that market is not realistic. The demand all over the country is rising rapidly and to keep the figure of 25 per cent is unrealistic."

1.13 In regard to the suggestion of the Committee to associate a representative of Ministry of Agriculture in the Committee set up to revise the objectives of the Company, the witness stated :—

> "I think the Committee has very rightly suggested that there should be an association of the people from the Ministry of Agriculture in framing this (marketing) objectives, and that is what the NFL has done. That committee will look into the marketing objective. What is more important for

NFL is to see how to produce the maximum from the plants and to market it in the area near about, so that as much as 90 per cent of the production should be marketed in the primary area, so that the freight is kept to the minimum and farmers are able to buy more fertilizer."

(c) *Corporate Plan*

1.14 The Committee enquired as to whether there was any corporate plan for the Company duly approved by the Ministry. The Secretary, Ministry of Chemicals and Fertilizers stated in evidence that they had no corporate plan as such. The Ministry had been monitoring on the basis of plan, annual and quarterly targets and reviewing the physical performance and marketing etc.

1.15 Asked about the desirability of having corporate plan besides framing micro-objectives of the Company, the witness stated that it was possible and was being done in many undertakings. When pointed out that a separate corporate plan, if desirable, should be brought into practice, the witness stated "We shall take notice of this".

1.16 In this connection, the Committee also drew attention of the Ministry to the recommendation No. 5 contained in their 49th Report (1981-82) relating to Public Undertakings—Management and Control Systems, which stated :

> "The Committee feel that it is essential to fix clear targets to measure the performance there against. These targets could be easily derived from the National Plans. In future plan targets, both annually and for the plan period, should be fixed for each undertaking by the administrative Ministry in consultation with the Planning Commission. These should be : (i) production in physical terms, (ii) value added corelated to the sectoral rate of growth indicated in the plan, (iii) capital investment, and (iv) generation of internal resources for capital investment corelated to the resources forecast of the Plan. These targets and achievements should be clearly brought out in the Annual Reports of the Undertakings with an explanation for the shortfalls."

1.17 Asked about the action taken by the Ministry on the above recommendation of the Committee, the Secretary, Ministry of Chemicals and Fertilizers stated that the recommendation of the Committee was being implemented. In their Sixth Plan, the targets for each fertilizer Company had been worked out and the targets for every year were also being fixed sometime before the end of the preceding financial year. The yearly targets were also broken into quarterly targets and they vary from one Company to another, depending upon the annual shut down, which they plan during different periods either for the normal

maintenance and overhaul of the equipment to be done periodically.

1.18 The Committee were also informed that generation of internal resources by the Company during the Sixth Five Year Plan and also been worked out. As regards the suggestion of the Company that targets for value added corelated to the sectoral rate of growth indicated in the plan should be given, this will be done in future plan targets, said the Ministry's representative.

1.19 The Committee find that even after eight years of establishment of National Fertilizers Ltd., the micro-objectives of the Company have and yet been finalised. Belatedly, a statement of corporate objectives as approved by the Board in December, 1980 was forwarded to the administrative Ministry, which suggested certain modifications. The corporate objectives in the light of modifications suggested by the Ministry in April, 1981 are still under review by a Committee set up by the Company. The Committee are distressed to note that such a long time has been taken to finalise even the basic objectives of the Company. They feel that no realistic and meaningful evaluation is possible unless the objectives for which a Company has been established are fully known. They hope that as assured by the Secretary of the Ministry in the course of evidence, the micro-objectives of the Company, clearly laying down the obligations and objectives—financial and economic, would be finalised soon.

1.20 The Committee also suggest that the review Committee set up by the Company should be broad-based. It should include a representative of the Ministry of Agriculture, which is concerned with the assessment of demand for fertilizers in the country, so that a realistic objective could also be laid down in regard to the market share of the Company. To expedite review after finalisation of the objectives by the Review Committee, the Committee feel that representatives of the administrative Ministry, BPE and Ministry of Finance should also be associated with the Review Committee.

1.21 The Company does not have any corporate plan as approved by the Ministry. The Committee desire that after the finalisation of the micro-objectives of the Company its corporate plan should also be drawn up early so that the performance of the Company could be judged against the set plan|targets.

1.22 The Committee would also invite attention in this connection to the recommendation in Para 5 of their 49th Report, wherein they have recommended that in future plan targets, both annually and for the plan period, should be fixed for each Undertaking by the administrative Ministry in consultation with the Planning Commission in regard to (i) production in physical terms ; (ii) value added corelated to secto-

ral rate of growth indicated in the Plan; (iii) capital investment; and (iv) generation of internal resources for capital investment corelated to the resources forecast in the Plan. NFL targets for production had been fixed both annually and for the plan period, the targets for generation of internal resources had been fixed for the plan period only and no targets had been laid down for value added. The Committee hope that action would be taken to fix various targets as suggested by them. These targets and achievements should also be clearly brought out in the Annual Report of the Undertaking with an explanation for the shortfalls, if any.

CHAPTER II
PROJECT PLANNING AND EXECUTION

(a) *Investment decision*

The Estimates Committee were informed in October, 1973, that Government had decided in principle, setting up *inter-alia* the fertilizer plants at Bhatinda and Panipat. However, the investment decision for Bhatinda was taken in August, 1974 and for Panipat Project in February, 1975. The Committee enquired about the reasons for the delay in taking investment decision on the two projects. The Secretary, Ministry of Chemicals and Fertilizers, stated in evidence that the feasibility report for them were prepared by Engineers India Ltd. in February, 1973. Thereafter, the investment proposals were processed after consulting the Ministries concerned and the various agencies.

2.3 Of the three projects taken up for execution by the Company, report was considered in the Ministry in an inter-departmental meeting on 13th December, 1973 and the project was cleared after Cabinet sanction in August, 1974. The only slight slip back was in respect of Panipat which was considered again in December, 1974 and cleared in February 1975.

(b) *Delays in Construction and Commissioning*

2.3 Of the three projects taken up for execution by the Company, the Nangal Expansion Project was commissioned in Novemer, 1978 while Panipat and Bhatinda Project were commissioned in September and October, 1979 respectively. There have been heavy slippages in construction and commissioning in these projects with reference to original schedules as shown below :

Nangal Expansion Project :

	Original	Actual
1. Zero date	March 73	March 73
2. Erection	20-10-75 (31 m)	30-6-77 (51 m)
3. Commissioning	20-1-76 (34 m)	6-1-78 (58 m)
4. Production	20-3-76 (36 m)	1-11-78*

*Declared to have gone into commercial production from this date. Urea Plant commissioned on 12th December, 1977.

Bhatinda Project:

	Original	Actual
1. Zero date	26-9-74	26-9-74
2. Feed-in	27-9-77 (36 ,m)	7-12-78 (50 m)
3. Production	1-1-78	1-10-79*

* Date of commercial production. First Urea produced on 2nd June, 1979.

Panipat Project

	Original	Actual
1. Zero date . . .	30-4-75	30-4-75
2. Feed-in . . .	15-5-78 (36½ months)	2-9-78 (40 months)
3, Production	15-8-78	1-9-79*

* Date of commercial production, first Urea production commenced on 10-4-1979.

2.4 The Committee enquired the reasons for the inordinate delays in construction and commissioning of the three projects. They were informed by NFL in a note that the extension of time schedule for completion of the Nangal Expansion Project was caused by :

(i) Delay in completion of basic designs by M|s. Uhde because of the change in the specification of the feed-stock.

(ii) Delay ranging from 6 to 8 weeks in receipt of basic design documents from M|s. Uhde and Technimont on account of delays in post.

(iii) Delay caused by revision of specifications by M|s. Uhde and M|s. Lurgi for major equipment, such as rectisol towers and instruments.

(iv) Inadequate response to global tenders, thereby necessitating re-floating of enquiries and a delay of 3 to 4 months in ordering certain critical equipment.

(v) Failure of both indigenous and foreign suppliers to stick to the committed delivery schedules. For the Bharat Heavy Plates & Vessels Ltd., delay in respect of 63 items of equipment due for delivery in April, 1975 was estimated at 58 weeks.

(vi) The delivery of the equipment for Ammonia and Urea Plants by M|s. Bharat Heavy Plates and Vessels Ltd. further slipped to 93 weeks. Slippage of delivery schedules had maximum impact of 19 to 26 weeks on the completion schedules of Ammonia and Urea Plants respectively.

(vii) M|s. Flexitallic Gasket Ltd., UK, supplied lens gaskets for Ammonia Synthesis Section on 24th January, 1977 against original date of delivery i.e., 2nd November, 1975. This delay had a direct impact of 23 weeks in the erection of piping.

2.5 According to Audit, in addition to the delays mentioned above, delay in completion of civil works by about one year was also a factor responsible for prolongation of the schedule for completion. The

delay was attributed partly to inadequate labour employed by the contractor and partly to the management, because of delay in making available the drawings (which were received late from the P&D Department of FCI) and 'holds' imposed temporarily by the site management.

The reasons for the delay in achieving 'feed-in' in Bhatinda Project were stated to be the following :—

	Impact on project schedule (weeks)
(i) Delay in receipt of documents from process licencers by TEC . .	6
(ii) Delay in delivery of indigenous fabricated equipments and instrumentation by M/s. G. Binny, L & T, Anoop Engg., BHEL & M/s. Taylor, etc.	10
(iii) Delay in Stabilisation of Boilers	9
(iv) Accident in Air Separation Unit resulting in major damage to the Cold Box and equipments/piping	36
	61

2.6 As regards the reasons for slippage of 15 weeks in Panipat Project, it was explained that during construction phase, certain indigenous equipments suffered a serious set back, in M|s. L&T's works in March, 1977 and subsequent lock out in the works of M|s. G. Binny, on whom orders for Heat Exchanges, and Tall Towers had been placed. The situation took such a serious turn that the equipment partly fabricated by M|s. G. Binny had to be off-loaded to M|s. KEL. The last deliveries of equipment i.e. H_2S Absorber were received from M|s. Kaveri only in April, 1978. The 'feed-in' of fuel oil to gasifier was achieved on 2-9-1978 with 15 weeks slippages.

2.7 In the course of evidence, the Committee enquired whether the long delays in construction of the three plants did not indicate lack of close monitoring and control on the progress of construction. The Managing Director, NFL stated that all the three projects were equipped with the project planning and monitoring cells. These cells were headed by competent Engineers and they adopted PERT and CPM techniques with regard to detailed monitoring. Delays in these projects were primarily due to external constraints. These were primarily slippages in the delivery of equipment. Some of suppliers delayed the equipment considerably.

2.8 Asked if the assistance of the Ministry was sought in regard to delays on the part of Public Undertakings, the Managing Director NFL stated :

> "The assistance was taken of the administrative Ministry as well as Industries Ministry by NFL for all the three projects to contain delay in the supply of equipments. In

1975 the Joint Secretary of the administrative Ministry, Petroleum Chemicals & Fertilizers, visited Visakhapatnam twice to request Bharat Heavy Plates and Vessels Ltd to expedite the supply of equipments. Similarly, the Industries Secretary had a number of meetings to expedite the fabrication and manufacture of the equipment. The Ministry was very much in contact with us and gave us assistance whenever we could draw upon their resources. They tried to put pressure and tried to help us wherever possible. In the case of delay in the engineering work, the Additional Secretary, Industries, had a number of meetings with the concerned people. So, assistance was forthcoming from all of them, whenever we approached them."

2.9 In this connection, the Committee enquired from the Ministry as to when were the delays in the supply of equipments especially on the part of Public Undertakings came to their notice. The Joint Secretary (F), Ministry of Chemicals and Fertilizers, in reply stated that the Nangal Plant was with the Fertilizer Corporation of India because NFL was not formed at that time and consultants were the P&D of FCI. By February, 1975, when the matter became sufficiently serious that it was likely to be delayed, it came to the Government level. Elaborating, the witness stated :

"It takes a little time before one can come to a conclusion as to who is at fault. There are areas where the manufacturers can get over the initial delays. But when it reaches the stage of being critical, then the delay becomes critical."

2.10 Explaining further the Secretary of the Ministry added, "Normally, the Company will deal with the problem and as long as there is no serious problem envisaged by them, they do not keep the Ministry involved. They only report to us the implementation of the project and if at a particular time they are apprehensive that their efforts may fail, from that time onwards we take it up to see to what extent at the official level, the Ministerial level or inter-ministerial level the work can be expedited. This is the procedure which is being followed even now."

2.11 Asked about the reasons for the delay by BHEL in supplying the equipment, the witness stated that BHEL faced some problems because of oil crisis and this was partly one of the reasons attributed by them for the delay in supply of equipment. The delay was contained due to some active steps taken by the Ministry.

2.12 As regards the delay of 36 weeks, in the case of Bhatinda Project due to an accident in the Air Separation Unit resulting in major damage to the cold box equipment|piping, the Committee wanted to know whether the cause of accident was investigated. The Managing Director stated that a High Power Committee consisting of outside experts was constituted to investigate the cause of fire. That Committee came to the conclusion that the accident occurred when a pipe in the cold box gave way during first cooling down. As a result, the pipes got pressurised and many of the pipes and equipment got damaged.

2.13 Asked about the additional expenditure incurred in rectifying the damage to the equipment, the witness stated, "The Japanese supplier replaced the equipment free of cost."

2.14 The Committee desired to know as to whether any penalty was charged from the suppliers for the delay in supply of equipments, the Managing Director, NFL stated during evidence that they had levied penalties on foreign and Indian manufactures both in the private and in public sectors.

2.15 Asked about the amount of penalties realised, the NFL in a note stated that the amount recovered in respect of the three units was as under :—

Nangal . . .	Rs. 83.15 lakhs
Panipat . . .	Rs. 48.20 lakhs
Bhatinda . . .	Rs. 22.48 lakhs

2.16 As regards the percentage of penalty levied, the Managing Director, NFL stated in evidence :

> "We cannot levy penalty of more than 5 per cent of the contract value. This is as per the terms of the contract."

2.17 When the Committee enquired whether only 5 per cent penalty would be charged from the contractor|supplier even for long delays, the witness stated :

> "If we feel that the contractor is not according to schedule we can get the help of other contractors and other people, and we can change the contractor. This five per cent is the ceiling which is normally acceptable by firms."

2.18 In the course of evidence of the representatives of the Ministry, the Committee enquired as to whether the provision of liquidated damages to a maximum of 5 per cent of the contract value was sufficient deterrent against delays in making supplies and was it the usual penalty clause in such contracts. The Joint Secretary(F), stated that

the normal practice in the commercial sector was to have liquidated damage as penalty for delay of 0.5 per cent for every week of delay, subject to a maximum of 5 per cent of the value of the contract and this was the generally accepted practice.

In this connection, the Secretary of the Ministry added :

> "If we insist on deviating from the normally accepted commercial practice, if we start insisting on a higher penalty, the danger is that they will jack up the prices while tendering because they will have to cover this. This kind of apprehension is always there. So, in normal commercial practice 5 per cent has been accepted by and large as a reasonable stipulation, so far as liquidated damages are concerned."

2.19 There was delay of over one year in starting commercial production in Nangal Expansion Project even after completion of erection. It had been stated that it took longer time due to modifications in fuel oil handling and gasification oil system to operate on LSHS, explosion in carbon slurry tank, teething troubles, fire in Nitrogen wash section and trouble in synthesis gas compressor.

2.20 Asked about the problem faced in synthesis gas compressor and as to how was it overcome, the NFL in a note stated that the following problems were faced and modifications were executed for Synthesis Gas Compressor :—

(a) 5 No. valve plug of the main turbine of the Synthesis Compressor at Nangal were replaced since one of them was found to be broken. While replacing, the plugs were also modified. The material was supplied free of cost and no expenditure was incurred by NFL.

(b) The level control of the seal oil system was replaced with an improved design.

2.21 The Committee desired to know the causes of fire in Nitrogen Wash Section and whether any enquiry was held and report given. The NFL, in a note furnished after evidence stated that an Enquiry Committee was set up to go into the cause of fire and suggesting remedial measures. The fire was stated to be due to a leakage of hydrogen from flange and a valve gland in the Nitrogen Wash Section.

2.22 The Company had also taken longer time in commissioning and testing of the Bhatinda and Panipat plants even after their erection. As per the understanding with the contractor, production was

to commence after 3 months from the "Feed in". The actual dates of "Feed in" and commercial production for both the plants was as follows :—

	Feed in	Production
Bhatinda	7.12-78	1-10-79*
Panipat	2-9-78	1-9-79**

* Date of commercial production, first urea produced on 2nd June, 1979.

** Date of commercial production, first urea production commenced on 10-4-1979.

2.23 Asked about the reasons for longer time taken for commissioning and testing activities of these plants, the Ministry in a note stated that the principal reasons for the extra time taken for tesing and commissioning of these plants were :

	Bhatinda	Panipat
Rectification work on Syn. Gas Compressors	4 weeks	8½ weeks
Closure due to non-availability of coal	20 weeks	8½ weeks
Power interruptions and voltage dips	..	5½ weeks
	24 weeks	22½ weeks

2.24 The Committee also enquired whether the delays in construction and commissioning of the Plants resulted in expiry of the guarantees and if so, what was its effect. The NFL stated in a note that in case of Bhatinda and Panipat Plants, the delay in construction and commissioning did not result in expiry of the guarantees. In case of Nangal Expansion Project, M|s. Uhde, who were the main engineering contractor, claimed extra payment for extension of guarantees and that too without any liability for non-fulfilment of process guarantees. As their terms were not acceptable to the Company, the Guarantee Tests were performed and it was found that the plan could work within the specified guarantees, except in the case of Air Separation Unit supplied by M|s. Cryoplants, U. K. In the case of Air Separation Plant also, the plant suppliers had quoted for 99 per cent oxygen purity whereas the actual purity on test runs was found to be between 98 per cent to 98.5 per cent. According to the terms of the contract, a penalty of £ 20,000 was levied on M|s. Cryoplants, U. K. It may, however, be mentioned that 98 per cent purity in oxygen is enough for production of fertilizers. The plants are now working satisfactorily and giving more than 98 per cent purity oxygen. This had no affect on production in the Unit and all the plants have worked at or above rated capacity.

2.25 The Committee enquired about the value of loss of production on account of delays in construction and commissioning of each project. In a note, the NFL have stated that the value of loss of production as a consequence of delay in commissioning of the three plants was as follows :—

	Rs. lakhs
Nangal	7975
Bhatinda	8243
Panipat	5649
TOTAL	21867

2.26 When the Committee during the evidence of the Ministry, pointed out that due to delay in implementation of the three projects, there was a loss of over Rs. 200 crores of production, the Secretary of the Ministry reacted :

> "We do appreciate that for a fertilizer factory, delay means loss of production. In the case of BHPV there was a discussion for placing the order for air separation unit for Panipat. After discussion it was agreed that they would be able to deliver one equipment at one time and we were advised to import another one. That was one step that we took. But the fact remains that even today for many of these supplies for which orders have been placed on the public sector undertakings, a good deal of effective chasing has to be done by us."

(c) *Cost over-run*

2.27 There had been increase in capital cost of the projects as compared to the original estimates as shown below :—

Project	Original estimates as approved by Government	Actual expenditure/revised estimates	Percentage increase
Nangal Expansion	Rs. 75.60 cr.	Rs. 132.50 cr.	75%
Bhatinda	Rs. 138.40 cr.	Rs. 240.47 cr.	74%
Panipat	Rs. 139.73 cr.	Rs. 221.33 cr.	58%

The escalation in cost on account of delay in construction alone was Rs. 15.5 crores, Rs. 20.3 crores and Rs. 14.7 crores for Nangal expansion, Bhatinda and Panipat projects respectively.

2.28 As regards the reasons for the heavy cost overrun it was stated that the Nangal expansion project was sanctioned by Government in April 1973 at a capital cost of Rs. 75.60 crores (including

Rs. 39.05 crores in foreign exchange). These estimates were further revised upward in November, 1975, to Rs. 118.58 crores. The revised estimates as approved by Government in October 1978 were Rs. 129.83 crores (F.E. component : Rs. 40.15 crores). The actual capital expenditure on the project was Rs. 132.49 crores (with foreign exchange component of Rs. 40.15 crores). The cause-wise analysis for additional expenditure of Rs. 56.90 crores was as follows :—

(Rs. in crores)

Variation due to :	
1. Change in scope	5.14
2. Change in parity	11.02
3. Price escalation	9.04
4. Items for which no provision was made in the original estimates	5.26
5. Inadequate provision	6.67
6. Increase in financing charges	11.32
7. Increase in departmental charges	4.17
8. Increase in customs duty, sales tax, ocean freight etc.	2.97
9. Other	1.51
TOTAL	56.90

2.29 As would be seen from the above table, an increase of Rs. 5.14 crores was due to change in scope of the project. The Committte enquired about the changes in scope of the project after April, 1973. The Managing Director, NFL, in reply stated that in the case of Nangal Expansion project it was originally envisaged that three boilers each of 65 tonnes capacity would be required but, while firming up the design, steam requirement was found to be higher. Thus, increase due to change in the scope of this equipment worked out to Rs. 2.6 crores and the balance Rs. 2.54 crores was due to increase in quantum of pipe and pipe fittings.

2.30 As regards the increase of Rs. 11.02 crores on account of change in parity, the NFL in a note furnished after evidence stated that the increase in cost due to change in parity affected nearly all the imported equipments, since large number of equipments came from West Germany and the increase in the exchange rate of DM was to the extent of 50 per cent from September, 1972 (when TEFR was approved) to November, 1975. Asked as to whether this was due to delayed payment, the NFL stated that the increase in the cost due to change in parity was not due to delayed payments because as per World Bank procedure, letters of credit were opened and payments were drawn by the suppliers as per the terms of the Purchase orders and letters of credit.

2.31 When the Committee referred to the increase of Rs. 5.26 crores due to items for which no provision was made in the original estimates and enquired as to why no provision could be made in this

regard in the original estimates, in a note, the NFL has stated that the major items for which the provision could not be made in the estimates were :—

(a) Construction equipments consisting of 200 tonnes crane, 30 tonnes crane trailers and bulldozers.

(b) Fire Protection System (Foam Tenders and Mulsifiers system).

(c) Oil support system for boilers, high pressure nitrogen storage facility etc.

(d) LPG Handling System.

(e) Other Minor items.

2.32 With regard to increase of Rs. 11.32 crores in financing charges, the Managing Director, NFL stated in evidence :—

"The increase is due to delay in completion of projects—Rs. 5.13 crores. Increase due to increase in the cost of projects—Rs. 4.29 crores. Increase due to change in the method of calculation of interests—Rs. 1.68 crores and increase due to change in the rate of interest Rs. 0.22 crores."

2.33 As regards the reasons for increase in estimates of Bhatinda and Panipat projects, the Committee were informed that Bhatinda and Panipat Fertilizer Projects were approved by Government on 23rd August, 1974 and 10 February 1975 with estimated investments respectively of Rs. 138.40 crores (foreign exchange component Rs. 53.15 crores) and Rs. 139.73 crores (foreign exchange component Rs. 50.60 crores). In line with BPE guidelines, these estimates were redefined within one year and were approved by the Board of Directors in August, 1975 and August, 1976 respectively for Rs. 174.13 crores (foreign exchange component Rs. 56.19 crores) and Rs. 174.21 crores (foreign exchange component Rs. 48.21 crores).

Asked as to what were the unforeseen developments leading to large increase in estimates within one year, the Managing Director, NFL, stated in evidence :

"As per the BPE's guidelines, the project authorities are required to firm up the project estimates within 12 months of the start of the work on the project. The cost estimates of Bhatinda and Panipat projects were firmed up in August, 1975 and August, 1976 respectively, taking

into account the increase in equipment cost that were known at the time. The increases in equipment cost were more than normal because of oil crisis which took place in 1974-75. Both international and national prices had exploded. The abnormal rise of prices in all the three plants is actually due to this period of instability in oil prices. And we could not foresee this escalation in cost while preparing the feasibility report."

2.34 There had been increase in estimates to the extent of Rs. 11.93 crores, Rs. 21.73 crores and Rs. 17.44 crores in the case of Nangal Expansion, Bhatinda and Panipat projects respectively on account of items for which there was no provision or inadequate provision in the original estimates. Asked why provisioning of items costing huge sums could not be made in the estimates, the Joint Secretary(F), Ministry of Chemicals and Fertilizers stated in evidence :—

"We can divide it into two categories (i) Nangal and (ii) Bhatinda and Panipat. The experience of fuel oil plant before Nangal was very limited. So there were certain provisions which were not made in the original estimates and they had to be included later on. On the other hand, at Bhatinda and Panipat the main reason for escalation was because there was no provision for commissioning charges in the first estimates. The main element by which the costs have gone up was on account of testing and commissioning charges—Rs. 12 crores for Bhatinda and Rs. 14 crores for Panipat. It was not as if this item was not known at the time of the first estimates. The item was considered, but a view was taken that the commissioning costs, i.e. the cost of raw material, fuel-oil, coal and power, the company will incur, but when they produce urea during the commissioning time, that urea can be sold and certain credits will be given. This is a correct hypothesis in respect of other plants. For example, in respect of naptha plant, there is no extra cost of commissioning. But in fuel-oil case the number of sections in this plant are much larger in the reformation process. The commissioning activities take longer time and in the process there is also considerable amount of wastage of raw material. So, in actual practice, the earning from the finished product was not what we expected in comparison with the utilization of raw material."

2.35 In reply to a further query whether it was not possible to foresee all these things at the time of framing estimates, the representative of the Ministry stated :—

> "It is possible only by long experience. What was available in naphtha plant was not available in the case of fuel based plant."

2.36 As regards the expected cost of commissioning and testing, it was stated that the total expenditure during that period estimated for Bhatinda and Panipat was as under :—

	Bhatinda	Panipat
	(Rs. /lakhs)	
Expenditure during testing and commissioning	865.00	840.94
Value of production during testing and commissioning period	851.60	851.60
Net	(—)13.40	(+)10.60

2.37 In regard to the value and the quantity of urea actually recovered during the commissioning period and also the basis of arriving at the value, it was stated that the quantity and value of urea recovered during testing and trial runs of the Nangal Expansion, Bhatinda and Panipat Units of NFL was as under :—

	Qt. Mt.	Value (Rs./ lakhs)
Nangal Expansion	49812	1131.13
Bhatinda	4097	135.38
Panipat	24625	614.90

In addition, small quantities, of Ammonia and Sulphur was also available as opening stock on the dates of commercial production of the projects. The value of these products was also included above in the value of urea. In regard to basis of valuation, the Ministry stated that the basis of evaluation was the retention price prevalent on the date of sale or commercial production in case of unsold stocks. The valuation of Ammonia and Sulphur was on the basis of cost of production/market price, whichever was lower.

2.38 The Committee enquired as to what extent the cost of production of urea had gone up due to increase in cost estimates of the three projects. The NFL, in a note furnished after evidence stated that the elements of cost which were affected due to increase in capital cost were (a) depreciation and (b) interest on long term loans. In case of Nangal Expansion, Bhatinda and Panipat Projects, the increase in the cost was as under :—

(Rs./crores)

	Original/ firmed up estimates	Final cost of the project	Variations
Nangal Expansion	75.60	132.50	56.90
Bhatinda	188.48	240.47	51.99
Panipat	182.88	221.33	38.45

2.39 The increase in the cost of production of urea per tonne as a consequence of increase in the cost of the project due to delay in project at 80 per cent level and 90 per cent level at operation would be as under :—

	(In Rupees) Operation Level	
	80%	90%
Nangal Expansion	296	263
Bhatinda	175	155
Panipat	129	115

2.40 In February 1973, Government had received feasibility reports for Bhatinda and Panipat Projects, but investment decisions were taken after 18 and 24 months respectively. The Committee regret that the Ministry took an unusually long time. They hope instructions issued by the Ministry of Finance (Plan Finance Division) in March 1982 in pursuance of the recommendation of the Committee in their twenty-Seventh Report (1981-82) wherein the Ministries have been asked to ensure that clearance of a project does not normally take more than six months have been noted by the Ministry and in future project approval will not take more than 6 months.

2.41 There have been heavy slippages ranging from 13 to 32 months in the construction and commissioning of the Nangal Expansion, Bhatinda and Panipat projects with reference to original schedules. There were delays both in civil construction work and in supply of equipments. Even after mechanical completion, the time taken in commissioning and commencement of commercial production was more than originally anticipated. The delays in construction have resulted in cost escalation to the extent of over Rs. 50 crores and loss of production valued at over Rs. 200 crores. The Committee are perturbed over these delays in implementation of projects which have proved to be very costly. These delays, the Committee feel are mostly due to lack of management control and monitoring of the projects both at the corporate and the Ministry level. They would stress that these wings of the organisation should be made more effective with a view to taking timely remedial measures and to avoid such costly delays in future. The Committee would like the Ministry/Company to ensure that schedules fixed for constructing and commissioning of a plant are adhered to as far as possible.

2.42 For the delays in supply of equipment by the foreign and Indian suppliers both in private as well as in the public sector, although penalty is stated to have been imposed on the suppliers it has been generally limited to 5% of the contract value which was insignificant compared to the loss suffered by the Company on account of delays in construction. The Committee suggest that the liquidated damages should be related to the loss to which the undertaking may be put on account of delays in the discharge of the responsibility envisaged in the agreement in regard to the supplies and other aspects like commissioning of the plant etc. to

ensure that the interest of the Government|public enterprises is adequately safeguarded.

2.43 Besides the escalation in cost on account of delays in construction, the estimates have also increased to the extent of Rs. 26.16 crores in Bhatinda and Panipat projects on account of absence of any provision in the original estimates for testing and commissioning on the assumption that actual expenditure on inputs and utilities during this period would more-or-less match with the sales value of production achieved. These assumption, however, did not materialise. While the expenditure was more than originally anticipated, the production achieved was much lower. In any case the Committee suggest that the estimated expenditure on testing and commissioning should be part of the capital estimates to present a correct picture in regard to the cost of a project and receipts during the construction period could be shown separately.

2.44 Heavy cost overrun, ranging from 58 per cent to 75 per cent over the original estimates has also resulted in the increase of cost of production of urea ranging from Rs. 129 to Rs. 296 per tonne. The Committee feel that these results call for greater vigilance and alertness on the part of all concerned to avoid such heavy cost overruns.

(d) *Profitability Analysis*

2.45 About the effect of increase in the cost estimate of Nangal Expansion, Bhatinda and Panipat projects on the rate of financial return on the investment made as compared to that anticipated at the time of sanctioning of the project, the NFL has furnished the following data :

	Nangal Expansion		Bhatinda		Panipat	
	Original estimate	Actual	Original estimate	Actual	Original estimate	Actual
Rate of financial return on the investment at 90% capacity and before taxes .	10.93%	10.63%	19.9%	22.4%	20.7%	22.6%

2.46 The Committee enquired as to how in spite of large increase in the capital cost, the financial return on Bhatinda. Panipat has been higher than originally assessed. They were informed by NFL that the financial return for each project was based on actual cost of the project. The retention price was so fixed that at 80 per cent capacity utilisation of the factory there was a return of 12 per cent post tax taking into account the raw material, investment cost etc.

2.47 Asked whether the present system of fixing of retention price based on the actual cost of the project was satisfactory, the Secretary of the Ministry stated in his evidence that prior to April 1981, the Retention Price formula admitted the actual capital cost so long as they

were approved by the competent authorities and the incentive to keep down the capital cost was not that much evident. It was, however, explained that the retention price scheme was introduced from 1st November, 1977. For the projects completed before November, 1977 the Companies had no idea of retention price. Therefore, their adding any amount to the cost after 1-11-77 to claim higher retention prices did not arise. In order to correct the situation and to instil a sense of discipline in the project monitoring agency as well as the Company itself, the decision had been taken by FICC that for new projects wherever there was delay as compared to the original targets date, the actual expenditure on financing, departmental and preoperative expenses would be reckoned only up to the original date of commercial production as envisaged and balance disallowed from the capital costs for the purpose of calculating financing charges and depreciation. The only exception made was in respect of equipment, wherever due to unforeseen circumstances beyond their control the cost of equipment had gone up because of delayed deliveries or escalation in cost etc. To this extent the retention pricing formula had been rationalised to ensure some measure of financial pricing formula had been rationalised to ensure some measure of financial discipline so far as taking into account the actual cost of construction was concerned.

2.48 The Committee desired to know whether there was any incentive under the present pricing formula to keep the capital cost on fertiliser projects to the absolute minimum. The witness stated that "the incentive is in-built in the scheme itself to the limited extent that they have to keep the cost down to reduce|eliminate disallowance (of additional capital costs). As it is, there is no other incentive. Possibly this is a thing which we have to consider—the question having been posed. As it is, incentive is in the operational area itself—by efficient running of the plant and the benefits that it enjoys by way of higher profits by making capacity utilisation higher than 80 per cent".

2.49 Asked whether the Ministry had come across cases of significant cost escalation of fertilizers projects in the private sector, the witness stated :

> "We do not have at the moment any information so far as that is concerned because in the recent years practically no private sector project has come into existence and, therefore, comparisons are not possible to that extent. The only one that is there is the Gujarat Narmada Valley Fertilizer Company which is a joint enterprise of the Gujarat State Government as well as the public financial institutions and also the public. In the case of the Gujarat Narmada Valley Fertilizer Company, the capital cost is likely to go up from the original Rs. 220 crores to Rs. 400 crores or so. Another one which has a very marginal cost increase would be the Indian Explosives

which have a unit in Kanpur; they have an expansion scheme; it was to cost about Rs. 70 crores but now it is estimated to cost Rs. 80 crores or so. Barring these we do not have any recent cases where comparisons with the private sector as such can be done to determine the order of escalation."

2.50 The Committee wanted to know as to how did the Ministry guard against over-statement of capital costs, especially by private sector units to secure higher retention price. In reply, the Secretary of the Ministry stated during evidence :

"About the question how we safeguard against over-statement of capital costs, especially the private sector units, to secure higher retention price, I must mention here the procedure that is followed. So far as the private sector projects are concerned, the outlay of the project is not approved by the Government. What the Ministry does, and through their institutional mechanism, is only to recommend a licence for the establishment of a factory by a private company in a particular place. But so far as the cost of the project itself is concerned, it is for them to take a view in consultation with the appraisal agencies. The financing agencies like the IDBI and other appraise the cost of the project and determine whether the project estimates made are upto the mark and satisfactory from their point of view. We do not have any mechanism to scrutinise the cost of their project. The only safeguard is this. Once the project is completed, they come under the retention price scheme. If they say that their costs have gone up and, therefore, the retention price should be fixed on the basis of the higher capital cost incurred, the FICC technical experts go into that and find out the reasons why they are asking for a retention price being fixed on a higher capital cost of the project. These matters are gone into and then a decision is taken as to what is admissible and what is not admissible. The policy decision which I have mentioned earlier does not allow taking into consideration changes in financing pattern and other special reasons advanced in support of their claim for a higher retention price on the basis of higher costs. They are examined on merits both by the financial experts and technical experts by the FICC and then a decision is taken about the retention price. This is the safeguard and we have got to see that they do not paid up the costs to get a higher retention price. This scheme compels them to see that they keep the costs down. So this broadly sums up the kind of scheme that we have".

2.51 The Committee enquired whether any economic cost benefit analysis was made at the time of sanctioning of the original estimates and as subsequently revised in the case of Nangal Expansion, Panipat and Bhatinda units and if so, how did the economic internal rate of return change with the escalation of cost. In reply, the representative of the Ministry stated :

> "At first when the three plants were approved, this system was not developed and I.R.R. was not worked out for the original cost estimates. However, when the cost was revised for these three projects, I.R.R. was worked out on economic basis. I.R.R. for Nangal-I was 14.7 per cent with 25 per cent premium of foreign exchange and 10.3 per cent without premium, Bhatinda—19.7 per cent and 15.2 per cent respectively and for Panipat the figures were 19.4 per cent and 15.8 per cent. These were the internal rate of return calculated by the Planning Commission. While considering the economic rate, they take the landed prices of the product and since it is paid in foreign exchange, a premium is given in calculation for producing it within the country for saving foreign exchange."

2.52 Asked if the BPE|Planning Commission undertake economic cost benefit analysis of projects, do they keep the administrative Ministry and the public undertakings informed of the outcome, the Joint Secretary of the Ministry stated :

> "They do keep the administrative Ministry informed. In fact, their evaluation is discussed with us. It is true NFL is not aware of this. As a company it would look at the financial return. When the proposal comes before Government, it should have an economic appraisal to see which projects are worth taking up."

2.53 In this connection, the Secretary of the Ministry added that normally chief executives of the public undertakings accompany them when they go to PIB's meetings. The note was no doubt sent to the Ministry. The chief executives were informally aware, because the note was a Government document. If they wanted to seek any clarification, they talked to the chief executives.

2.54 The Committee enquired if there was a feedback of data from the public undertaking to evaluate the actual economic return and compare with the anticipations. The representative of the Ministry stated that the economic rate of return was usually applied for appraising the projects and finding out the relative merit of different projects. Once the projects were commissioned, the economic return was no longer relevant. When pointed out that after commissioning

there could be many changes such as variation in capacity utilisation etc., the witness stated that once a project was approved and had gone on stream, the financial return would only show whether the plant was working efficiently and the economic return was relevant before the project was approved.

2.55 The Committee pointed out that in their 17th Report (7th Lok Sabha) on Coal India Ltd., they had stressed that the analysis of economic costs and benefits of the nationalised coal industry should be undertaken on a scientific basis, in consultation with the Planning Commission, at periodic intervals, in order to assure all concerned that the industry was productive, simultaneously taking steps to economise on the use of men, machinery and other inputs progressively. In reply, the Government had stated that the analysis would be undertaken by the Planning Commission periodically once in three|four years in consultation with Coal India Ltd. On the Committee's suggestion that similar periodical analysis in regard to economic rate of return could be done for fertilizer projects, the Secretary of the Ministry stated : "We will get in touch with the Planning Commission and suggest this, because they have the people capable of doing it".

2.56 In spite of heavy cost overrun the rate of financial return based on the revised estimates is stated to be almost the same in the case of Nangal Expansion and higher for Bhatinda and Panipat projects as compared to that assessed originally. This is because the retention price formula for the fertilizers provides for interest and depreciation on the basis of actual capital cost. As a result of increase in the cost of the projects, the retention price also went up. The difference between the retention price and the ex-works selling price is paid as subsidy to the Companies. With the result either the exchequer has to bear a higher subsidy burden on account of cost overrun due to poor project management, of the consumer has to pay the higher price. The Committee were informed that in order to correct the situation a decision had been taken in April 1981 that for new projects wherever there was delay in commissioning as compared to the original target date the escalation in capital cost on account of the delay will not be reckoned for the purpose of retention price except escalation in respect of cost of equipment due to circumstances beyond the control of project authorities. The Committee hope that change introduced in the retention price formula will help in better project management and financial control by the project authorities. The Committee, however, find that there is no mechanism in the Ministry to scrutinise the original capital costs of the fertilizer projects in the private sector and the possibility of overstatement of the expenditure to secure higher retention price cannot be ruled out. They therefore suggest that suitable norms be evolved for determining capital costs of the fertilizer projects for fixing the retention price with built-in incentive for keeping down the cost.

2.57 The Committee would also like to point out that in the case of fertilizer projects, having the retention price system, the financial rate of return does not reflect the true economics of the Project. It is essential to have economic cost benefit analysis and the internal rate of return determined thereby. In the case of three projects of NFL no such analysis had been made originally but is stated to have been done when the estimates were revised and the projects were found economically viable. The Committee suggest that the economic cost benefit analysis of the fertilizer projects in the public sector should be undertaken at periodical intervals and the result of such analysis brought out in the Annual Report of the Department of Fertilizers as has been agreed to by the Planning Commission in the case of coal industry in pursuance of the recommendations of the Committee in their 17th Report (1980-81).

CHAPTER III

PRODUCTION PERFORMANCE

(a) *Capacity Utilisation*

3.1 The production performance of each of the three plants during the last three years was as follows :—

(Fig. in 000' MT of 'N')

Year	Installed capacity	Actual Production	Capacity Utilisation(%)
Nangal Unit (Over all)			
1979-80	232	130.1	56.1
1980-81	232	123.2	53.1
1981-82	232	170.4	73.5
*Panipat Unit**			
1980-81	235	68.2	29
1981-82	235	182.1	77.5
*Bhatinda**			
1980-81	235	99.7	42.4
1981-82	235	133.7	56.8

* Commercial production in Panipat and Bhatinda commenced w.e.f. 1-9-1979 and 1-10-1979 respectively, therefore production figures of these plants are given only for two complete years i.e. for 1980-81 and 1981-82.

3.2 Asked about the percentage utilisation of each plant in 1982-83 (April to September), the NFL in a note furnished after evidence stated that capacity utilisation of the 3 NFL plants during April-September 1982 and upto December 1982 has been as follows :—

	Upto September 1982	Upto Dec. 1982
Nangal	72.3	76.0%
Panipat	50.8%	63.0%
Bhatinda	44.6	56.7%

3.3 The Committee were informed that for the Sixth Five Year Plan, target for the three NFL Units was 25 lakh MT of Nitrogen. Individually unit wise targets are :—

	lakh MT of Nitrogen
Nangal	8.71
Panipat	8.00
Bhatinda	8.29

3.4 The Committee enquired about targets fixed for production during the Sixth Five Year Plan period and the actual achievement thereagainst. The NFL in a note stated that for the first two years, i.e., year 1980-81 and 1981-82 targetted and actual production figures were as under :—

Sixth Plan (000' MT N)

Year	Nangal		Panipat		Bhatinda	
	Target	Actual	Target	Actual	Target	Actual
1980-81	126.9	123.2	94.7	68.2	97.9	99.7
1981-82	170.0	170.4	165.0	182.1	184.9	133.7

3.5 The Committee desired to know as to whether the Company would be able to achieve the target of production set in the Sixth Five Year Plan. The Ministry of Chemicals and Fertilizers stated in a note that it was now anticipated that the actual production might be of the order of 24.27 lakh tonnes of nutrients details of which were as under:—

	Lakh tonnes
Actual production during 1980-81 and 1981-82	7.77
Planned for 1982-83	5.14
1983-84	5.68
1984-85	5.68
	24.27

3.6 When enquired about the reasons for low capacity utilisation of the Plants, the Secretary of the Ministry stated in evidence that it was now fuel oil technology as against earlier technology of naptha. The 1st year's production and capacity utilisation was worked out at 50 per cent, second year's at 70 per cent, third year's at 80 per cent and so on.

3.7 Asked whether the Ministry were satisfied with the achievement in regard to production, the Joint Secretary of the Ministry stated that the production had been low. There had been certain circumstances.

Inputs like fuel oil and coal were not available. There were problems of equipment in the plants. These were the abnormal situations. Things had improved since last year.

3.8 When pointed out that the private sector had been able to achieve better results, the Secretary of the Ministry stated, "They were wise enough to have a captive power plant right from the beginning". It was, however, clarified that in the States like Rajasthan, Goa etc. the State Governments could not give any assurance regarding supply of power. Therefore, the private sector plants in Kota and Goa had to go for captive power plants. In the case of Punjab, they could give a reasonable assurance of power supply to the NFL units.

(b) Causes for low production

(i) *Equipment Problems* :

3.9 The Committee enquired about the production days lost due to equipment problems during the last two years. In a note, the NFL stated that during 1980-81 and 1981-82 the NFL Projects suffered loss of production due to equipment problems as under :

Production days lost	1980-81	1981-82
Nangal	16	58
Panipat	23	27
Bhatinda	115	76

3.10 Asked about the number of production days lost in 1982-83 (April-September) due to equipment problems, the Managing Director, NFL informed the Committee during evidence that 32 days, 17 days and 5 days were lost in Nangal II, Bhatinda and Panipat Plants respectively between April-September, 1982.

3.11 When pointed out that the days lost due to equipment problems were on the higher side, the Managing Director, NFL stated :

> "That was because these are new sophisticated plants. With dedicated effort, we have been able to overcome most of the problems. We feel that we are now on a very good footing to produce at higher levels".

3.12 The Committee enquired about the problem regarding waste heat boiler which affected the production in Nangal-II unit. The NFL in a note stated that the original Waste Heat Boiler, which was procured from West Germany (valued at about Rs. 2 crores) failed after about 18 months of operation, i.e., after the expiry of the guarantees. The boiler was got repaired from West Germany, generally conforming to the original specifications. This boiler, however, again failed within a

period of about one month. The expenditure on repair of the boiler in West Germany was Rs. 95.70 lakhs as per details given below :

	Rs/lakhs
1. Payment made to M/s. Borsig for repair of Waste Heat Boiler including cost of new tubes (DM 10,50,000)	47.89
2. Air transportation of Waste Heat Boiler to and fro	16.06
3. Customs Duty	31.19
4. Inland Transportation	0.56
TOTAL	95.70

The boiler was subsequently repaired in India with the following modifications :—

(i) the tubes material was changed ;

(ii) ferules were provided at the gas entry points;

(iii) additional scavanging arrangement from the surface of the tube plate was provided.

The total expenditure incurred for repair of boiler was approximately Rs. 7 lakhs. The repaired boiler has been in service since November 1981 and has been working satisfactorily till date at 85 per cent capacity.

3.13 The Committee enquired whether any investigation was made in regard to the causes of failure of the boiler. They were informed that earlier when the boiler failed in September, 1979, M|s. Uhde of West Germany who designed the boiler studied the failure and attributed it to the stress corrosion cracking of the tubes mainly due to caustic alkali. Subsequently, when the boiler failed again after repairs, an Expert Committee was appointed to investigate into the causes of failure and recommend corrective measures which submitted its report in October, 1981. In their Report the Expert Committee stated *inter-alia* that the mechanical design of the boiler is such that a 4-6 mm crevice at the tube|tube-sheet joint after the termination of hydraulic expansion, is unavoidable. If the crevice is absent in the design, the tubes would not fail even perhaps with deviations in water quality that occured due to fairly good resistance of "Modified alloy 800" tubes'.

3.14 Regarding the cause of failure, the Expert Committee had concluded as follows :—

> "The failure of tubes in the crevices is attributed to stress corrosion cracking due to caustic alkali. Chlorides or fluorides may also have contributed to the failure. The presence of deposit in the crevices provided the mechanism

for enrichment of the caustic alkali present in water to corrosive levels under the deposit where maximum residual stresses, high temperature, alternate drying and wetting conditions already existed. More or less similar conditions are expected at the crevice portions in the tube| tube-hole in baffles where cracks were observed".

3.15 Action had been taken on some of the recommendations of the Expert Committee. The Expert Committee, however, suggested that the long term solution to the problem was to choose altogether a new boiler whose design eliminated crevice or the ammonia loop system design possibly be modified so as to bring down the gas exit temperature from ammonia convertor to around 400°C. A study in this regard had been entrusted to M|s. Haldor Topsoe.

3.16 The Committee enquired whether the question of having the boiler repaired in the country instead of sending it to West Germany was considered. The Managing Director NFL in reply, stated :

"This was a proprietary equipment. This was a very difficult piece of equipment and we did not have the experience of handling it. When it was handled in German workshop, we could put our engineers to learn it. After coming back we changed the technique to suit our requirements..... we found that repairing it requires special jigs and tools. When we came back after learning of the jigs and tools deployed there for their own requirements, we also prepared our own jigs and tools to meet our requirements. Whenever we send the equipment for repairs. We also send our engineers so that they could learn the job".

3.17 When pointed out that while purchasing the boiler it should have been ensured that their engineers learnt the job, the witness explaind that at that time it was a proprietary item and the manufacturers did not allow the NFL engineers to go into the details when the fabrication was going on. They, however, made it a condition that whenever they sent the equipment for repairs their engineers would be associated with the job.

3.18 Asked as to whether there was no guarantee of satisfactory service of the boiler after the modifications were carried out by the suppliers, the witness stated in evidence :

"For repair of the equipment the guarantee clause is not introduced. In this particular case it was not a fabrication failure. It was due to bad quality of water used..... .....The equipment is of sophisticated nature. Therefore, we had to change the type of material for fabricating the tube bundle ourselves, to safeguard against poor quality of water."

3.19 The Committee wanted to know that during the period when the boiler was sent for repairs, how was the plant working. The Managing Director, NFL stated in evidence that they had two alternatives, either the plant should be closed down or work it to a partial capacity. When the boiler was sent for repairs, they put a bye-pass connection. By this method, they could work without the boiler upto 55 per cent capacity.

3.20 Equipment problems relating to Synthesis Gas compressors were stated to have affected production in 1980-81 in Bhatinda Unit also. The Committee desired to know the nature of problems faced, the loss of production on that account and whether any responsibility could be fixed for the unsatisfactory working of the compressors. In reply, the Managing Director, NFL stated :—

> "The major problem was with the gas compressor in Bhatinda in 1980-81 and there was leakage in the inter-cooler on a number of occasions as a result of which the Plant had to be closed down. However, the supplier, the BHEL, has given us necessary service to look into the problem and try to solve it and we are trying to see that some proper welding is done so that the leaks are plugged".

3.21 During the course of evidence of the representatives of NFL, the Managing Director of the Company suggested that it was their considered view that indigenous suppliers of equipment should pay greater attention to the manufacture and supply of spare parts. With increased indigenous content of equipment in the Plants, it was desirable that spares of requsite quality were available in time of necessary maintenance. Asked as to whether the matter was brought to the notice of the Ministry by the Company, if so, when and what was the action taken by the Ministry thereon, the Secretary of the Ministry stated:—

> "So far as the question of availability of spare parts is concerned right from 1979 we have been in touch with the Ministries concerned, and also BHEL—in January 1979, February and March 1979. We have been continuously in dialogue with them, to make the spare parts available. The position has considerably eased. It was very bad two years back. But I will not call it totally satisfactory now. Recently in July 1982, for the first time BPE, ourselves and the fertilizer industry had a kind of tripartite meeting, seminar or workshop in Vigyan Bhavan, along with all the leading manufacturers and sub-contractors together

there. The whole question of standardization, availability of spare parts, after-sales service by them and the question as to who is responsible for what, etc. were considered. That has been helpful in trying to focus Government attention in particular for the manufacture, to serve the industry better and to ensure spare parts, after-sales services etc."

3.22 In this connection, the Committee enquired as to why the BHEL was not taking interest in this regard, the Joint Secretary (F), Ministry of Chemicals and Fertilizers stated in evidence that adequate number of spare parts were not available and the stock and the inventory which ought to be there was not there.

3.23 Asked as to whether they were having the capacity to manufacture them, the witness stated in evidence:—

"We cannot really accurately answer it. It is for the BHEL, to say about it. They have got a number of customers. There are certain constraints, but they have kept the plant running; and the matter is being taken up with them".

(ii) *Inadequate availability of coal.*

3.24 The Committee enquired about the number of production days and value of production lost due to coal problem during the last three years. The NFL, in a note-stated that the number of production days and value of production lost due to non-availability|inadequate availability of coal in Nangal Expansion, Bhatinda and Panipat Plants during the period 1979-80, 1980-81 was as follows :—

(Value in Rs. crores)

Unit	1979-80		1980-81	
	Days	Value	Days	Value
Nangal II	114	24.22	120	20.41
Panipat	..	..	129	47.53
Bhatinda	29	9.58	37	9.40
Total	143	33.80	286	77.34

3.25 In 1981-82, due to improvement in supplies of coal, there was no loss of production at three NFL units dut to input constraints.

3.26 Asked about the reasons for non-availability of coal, the NFL, in a note furnished after evidence, stated that the non-availability of coal had been the main reason for low capacity utilisation of Nangal Expansion, Panipat and Bhatinda Plants right from inception. The basic

problem was due to non-availability of infrastructure for the movement of coal. The matter was taken up at various levels with their administrative Ministry and in turn with the Energy Ministry as well as Railway authorities. From November|December 1980 onwards the railways as well as Energy Ministry was stated to have given an assurance that NFL plants would not suffer for want of coal. Though even after that their plants had remained closed but there had been no loss of production due to non-availability of coal.

3.27 In this connection, the Committee desired to know whether there was any system of stocking coal by NFL to avoid stoppage of plants due to shortage of coal. The witness stated in evidence that they had no hesitation to built up the stocks. They had made a request to the railways and they were doing their best. Elaborating, he stated :

> "I do not know how far they can move more coal supply to us. They also feed the other industries. Naturally, the railways must have enough capacity to move more rakes. That is frankly the situation. Our requirement ranges from 1000 to 1100 tonnes per day per plant. The increase percentage wise is not substantial".

3.28 Subsequently, in a note, NFL furnished the position of availability of coal *vis-a-vis* the requirement of the plants during 1980-81 and 1981-82 as under:—

(Figures in Tonnes)

	Requirement		Actual availability	
	1980-81	1981-82	1980-81	1981-82
Nangal	216000	270000	180156	290238
Bhatinda	315000	324000	197896	268183
Panipat	315000	324000	130902	298612

3.29 In regard to problem of inadequate supply of coal, the Committee enquired as to when it came to the notice of the Ministry and what were the reasons for delay in solving the problem. In reply, the Secretary, Ministry of Chemicals and Fertilizers stated in evidence :

> "Actually the problem was highlighted in October 1980 or so when we had this problem. The situation became more serious so far as availability of coal was concerned. It was at that time we thought that we should have a machinery within ourselves so that we can coordinate on behalf of the fertilizer factories because they are all away from the coal locations. There should be a coordinating

machinery to ensure supply of coal as early as possible. So FICC deployed officers whose job is particularly to look into the requirements of the factories and coal was the one. Now, the position in 1982 is fairly under control and we do not have any serious problem in so far as the availability of coal is concerned".

3.30 In view of non-availability of coal, the Committee enquired as to whether, LSHS was ever used as an alternative fuel. In reply, the Managing Director, NFL stated in evidence that the boilers were designed in 1974 for coal firing. The oil support could be upto 30 per cent only but they could not work exclusively on oil because their design was such. The new boiler which they were going to instal would be designed to work also on 100 per cent oil. In this regard, the representative of the Ministry also stated that the boiler section was capable of using 30 per cent in term of fuel oil and that was the maximum which could be used. The fuel oil was much more expensive than coal and the cost would go up.

3.31 On a query as to whether the NFL was using that combination, the Joint Secretary (F), Ministry of Chemicals and Fertilizers in evidence stated that as the coal was available, they were not using any fuel oil. But whenever, there would be coal problem, the combination of coal and fuel oil would be used.

3.32 During the course of evidence, the Managing Director, NFL stated that the quality of coal which they were getting was not good and at times it contained about 45 per cent ash. Their plants were designed for receiving coal with ash content not exceeding 35%, resulting in lot of wear and tear to the plant which reduced the life of certain parts of the machinery. Besides, they were also incurring additional transportation cost. It was suggested that the coal companies be requested to instal beneficiation plants like coal washeries at the pit heads so that coal of good quality only was transported to the manufacturing units. This would mean lesser pressure on infrastructure of Railways towards transportation costs and better life and lower maintenance time of boilers.

3.33 Asked about the Ministry's view in this regard, the Joint Secretary (F) of the Ministry stated in evidence that the problem of ash was there not only in the fertilizer plants but also in other plants. There could be a solution by way of beneficiation through washeries but they required huge investments. The witness added that after washing coal, there was more moisture in the coal and that also created certain difficulties.

In this context, the witness further stated :

"The quality of coal was very important. In some plants it is even used as a feed stock. When it is used in boilers, we will have to examine whether that much investment is possible, NFL is using 1 million tonnes of coal. Many customers will require good quality coal. Investment is very high".

3.34 Asked as to whether suitable design for boilers could not be found for using higher ash content coal, the witness stated in evidence, "We will have to have appropriate boilers". He added that so far as the new boilers were concerned, they would be based on proper linkages and the likely ash content. But in respect of those already built as in NFL, there was not much that could be done. To some extent LSHS could help but it was more expensive.

3.35 In this connection, the Committee enquired whether there had been any study conducted about the comparative cost which they would incur on using LSHS as fuel oil and by getting repaired the boilers due to great wear and tear in the equipment and machinery because of poor quality of coal. In reply, the Joint Secretary (F), Ministry of Chemicals & Fertilizers stated in evidence :—

"We have received no such suggestion from NFL, but LSHS will be more expensive. Anyway, we can ask them to carry out a study."

(iii) *Power Problems*

3.36 Production days and value of production lost at the three Units of NFL during last three years on account of power problems was stated to be as follows :—

(Value in Rs. Crores)

Unit	1979-80		1980-81		1981-82	
	Days	Value	Days	Value	Day	Value
Nangal II	4	0.85	4	0.72	11	2.84
Panipat	36*	11.18	74	29.95	30	12.61
Bhatinda	9**	3.00	7	2.46	49	23.95

*w.e.f. 1-9-1979
**w.e.f. 1-10-1979

3.37 Asked about the problems faced by NFL in respect of power, the company in a note stated that power problems which had been affecting performance of NFL units could be largely divided into two categories :—

(i) Power cut &

(ii) Voltage fluctuations & Power failures.

Complete power cuts as well as partial power cuts had been imposed on different occasions for all the three NFL Units. Problems relating to voltage fluctuations power failures had been affecting production performance of NFL Units more often. These voltage fluctuations power failures resulted in sudden tripping of the plant, which not only resulted in loss of production, but was also risky for equipments and human life. A number of equipment failures had already occurred due to these problems. At Panipat Units, these problems had been more severe right from the commissioning stage. There was hardly any month when production had not been interrupted due to these types of problems. From August 1981 onwards, these types of problems had increased at Bhatinda also.

3.38 As regards the arrangements made for power supply to different units. Government decided in April, 1955 to set up a fertilizer-cum-heavy water plant at Nangal on account of following considerations :—

(i) Availability of abundant and cheap power generated from the Bhakra Power Complex.

(ii) Fertilizer factory based on electrolytic hydrogen offered an attractive opportunity for simultaneous production of heavy water at a reasonable cost for supply to the Department of Atomic Energy.

3.39 In terms of the agreement (effective from January 1961 for a period of 25 years) between the Bhakra Management Board and the Fertilizer Corporation of India, the Corporation was entitled to power supply of 164 MW of power, with power cuts not exceeding 40 MW, if the power generated in the Bhakra Complex was less than 392 MW. The Unit was also entitled to claim a penalty at the rate of Rs. 5.50 per KW per month on 50 per cent of the contract demand for the period exceeding 200 minutes of interruptions in a month, if the supply to the Unit was interrupted for reasons other than what has been provided in the agreement.

3.40 The Bhakra Management Board supplied power to the Unit in accordance with the draft agreement till May 1970, but in July 1970, the quota of power for Nangal Unit was pegged at 98 MW by a notification issued by the State Government of Punjab under the Indian Electricity Act, 1910.

3.41 The Corporation contended that the power cut imposed was not justified as the generation at Bhakra was more than the minimum generation upto which no power cut could be imposed on the Nangal Unit. This issue together with the question of payment of compensation to the Corporation and the payment of enhanced rates was considered at the level of the then Ministers of Petroleum and Chemicals and Irrigation and Power between September 1970 and January 1971 when the following decisions were taken :—

(i) Bhakra Management Board should supply 124 MW of power to the Corporation and, from July 1971, it should be possible for Bhakra Management Board to give 164 MW.

(ii) The Bhakra Management Board should pay compensation to the Corporation at the rate of 9 paise per unit for reduction in power from 98 MW to 60 MW.

3.42 The actual average supply of power, ranged between 75 and 148 MW from 1970-71 and 1977-78 resulting in loss of production of CAN valued at Rs. 24.80 crores in addition to production of heavy water valued at Rs. 1.54 crores.

3.43 A meeting was held in March, 1977 wherein the representative of F.C.I., BBMB and the Ministry of Energy were present. An agreement was reached therein which provided as follows :

(i) the agreement shall remain in force till 31st December, 1985 or till the existing plant is retired whichever is earlier.

(iii) the Board would supply 98 MW power at 100 per cent load factor to the existing plant w.e.f. 1st January 1978 and the power supply would not be reduced below 72 MW.

(iii) the following would be the tariff for supply of power :—

(a) Till 31st December, 1977 when the new plant would be deemed to have gone into commercial production

4.88 paise|KWH

(b) with effect from 1st January 1978 when 98 MW at 100 per cent load factor would be made available

5.859 paise|KWH

(c) when supply of power is less than 98 MW at 100 per cent load factor but not below 72 MW.

3.6 paise|KWH

(d) when supply is above 98 MW at 100 per cent load factor

10.0 paise/KWH for the excess power above 98 MW.

The rates of power agreed to are exclusive of electricity duly levied by the State Government.

3.44 The position however remained unsatisfactory. Against 98 MW contracted, the actual average availability was—

1978-79	110.99 MW
1979-80	96.78 MW
1980-81	84.60 MW
1981-82	64.38 MW

3.45 The Committee enquired as to what was the action taken by the Ministry to see that BBMB honoured the commitment made to the Ministry and the power was supplied at least in accordance with the revised agreement. The Joint Secretary (F), Ministry of Chemicals and Fertilizers stated in evidence :

> "It is true that it is an agreement, but in the final analysis, it is really a matter to see how much water the reservoir has, and there are conflicting claims like the claim by the agriculturists for their agricultural requirements and these claims are also important. So, a balanced view has to be taken. From the Ministry's side, right from 1970 the Ministry of Chemicals and Fertilizers had meetings with the Ministry of Power and then there has been meetings with the Chairman of the Board in subsequent years. Later on there were meetings at the Secretary's level. These meetings were held in order to protect the interests of the Nangal Fertilizer Plant, but there are conflicting claims, these cannot be ignored either."

3.46 In this connection, the Committee desired to know the figures of generation of power by the Bhakra Management Board and the quantity of power supplied to National Fertilizers Ltd. In a note, the Ministry of Chemicals and Fertilizers furnished the following statement of energy supplied to NFL for the period from 1964 to 1981 :

Year	Generation of power at Bhakra from 1964 on wards on year to year basis in Million Units	Power made available to Nangal Fertilizer factory from Bhakra for the same period in Million units
1	2	3
1964	3041.1	1383.629
1965	3194.5	1246.018
1966	3553.9	1314.724
1967	3939.9	1406.028

1	2	3
1968	4343.0	1363.075
1969	4983.0	1384.000
1970	4280.0	907.487
1971	4832.0	969.417
1972	4852.037	941.017
1973	5414.737	978.414
1974	4465.76	633.642
1975	5146.868	1109.721
1976	5817.398	1384.421
1977	5108.783	854.4402
1978	6737.011	952.557
1979	6856.486	953.278
1980	5849.8172	747.142
1981	5988.55	611.829

3.47 Asked as to whether the agreement provided for payment of compensation/penalty in case of failure to make supplies as per the agreement, the NFL in a note furnished after evidence stated that there was a penalty clause in the original draft agreement and the penalty was enforced by not paying the bills at the enhanced rates to BBMB.

3.48 The issue of payment of compensation to the Corporation and payment of enhanced rate to BBMB was considered at the level of the then Ministers of Petroleum and Chemicals and Irrigation & Power. As a result of these discussions, the agreement was reached in March 1977 and according to which a payment of Rs. 10.5 crores was made by FCI to BBMB in full and final settlement of their claims towards enhanced rates after adjusting compensation of Rs. 3.89 crores.

3.49 The Committee pointed out that the agreement with BBMB would remain inforce till 31st December, 1985 or till the existing plant was retired whichever was earlier. Asked whether any study had been undertaken to ascertain the remaining life of the existing plant, the NFL stated in a note that among the Nangal old plants, Heavy Water and Ammonia Synthesis Section were in very good health. Electrolysis Plant could also be continuously run though with increased maintenance. The plants would produce to the extent of availability of power. At 98 MW power supply the plant would work at 60 per cent capacity only. This was possible provided the new power rates were reasonable and economical.

3.50 During the course of evidence, the Committee were also informed that CAN plant based on production of Ammonia by Electrolysis process had a capacity of 300 tonnes of Ammonia per day and the Nangal Expansion Unit had a capacity of 900 tonnes of Ammonia per day. Out of that, 600 tonnes was to be used for urea production and the balance sent to the old plant and if necessary, the old plant could be closed down. Further, a proposal whether to close it down or to go

in for rehabiliation was stated to have been put up by the Company. The Committee desired to know the decision taken by the Ministry in this regard. In reply, the representative of the Ministry stated in evidence :

> "We have not taken the decision to discontinue it. This year, the plant is not working. But there is no decision taken that this plant should be shut down permanently. . . . They (NFL) are anxious to diversify it."

3.51 Asked in case it was decided to continue to run the old plant, how was it proposed to utilise the surplus ammonia that would be available from new plant on its working upto full capacity, the National Fertilizers Ltd. stated in a note that the Company had already entered into an agreement with M|s. Punjab National Fertilizers (a State Government Undertaking), for supply of 70 MT of Ammonia per day for their Unit coming up at Naya Nangal. About 50 Te|day would be utilised for production of methanol for which a plant was being set up by the Company at Nangal. Balance quantity was proposed to be sold to other consumers.

3.52 The Committee wanted to know the position in regard to power supply for Nangal II, Bhatinda and Panipat Plants. The NFL stated that contracted power for each plant was as follows :—

Nagal II	32.6 MVA
Panipat	35 MVA
Bhatinda	30 MVA

3.53 As regards source of supplies, the Managing Director, NFL stated in evidence that the Nangal II & Bhatinda Plants got power from the Punjab State Electricity Board and Panipat got power from Haryana Electricity Board. There was no formal agreement for power supply to these plants. The Company had applied for required power and the same had been sanctioned by the respective Electricity Boards for supply against normal tariff and other usual conditions.

3.54 The Committee enquired about the steps taken by the Management to overcome the constraint in regard to power supply. They were informed that the problem regarding power had been actively persued from time to time with the concerned authorities. The latest accord was arrived at in a meeting held under the Chairmanship of Cabinet Coordination Secretary, at Nangal on 15th February, 1982, where it was confirmed that as per agreement reached with HSEB in April, 81, quota of power to NFL Panipat would be segregated from the rest of the State quota. In case of overdrawal by Haryana State, it was agreed that NFL supply should not be cut in view of the continuous nature of the plant operations. During this meeting it was also agreed that :

(i) In view of the very high priority accorded by the Central Government to maximise production of fertilizers, the PSEB would review its priorities and consider according priority to fertilizer units next only to Agriculture.

(ii) Even in the event of power cuts becoming imperative in the Punjab State, PSEB|BBMB would reduce the power in stages from Nangal (old) and redistribute power to enable both Nangal (New) and Bhatinda units to continue production in consultation with the NFL authorities. Cut on supply of power to Nangal (New) and Bhatinda Plants would be imposed only as a last resort when even after curtailment of supply to the old plant further cuts became imperative to meet the demand of agriculture sector.

3.55 Power cuts and voltage fluctuations were stated to be still continuing to affect performance of Bhatinda and Panipat Units. The Company had therefore, decided to instal 25 MW Captive Power Units each at Bhatinda and Panipat.

3.56 To another query as to when were captive power plants for Bhatinda and Panipat Units sanctioned, the Managing Director, NFL stated in evidence that their Board of Directors had approved the installation of captive power plants in their meeting held in July 1982. The plants were likely to cost Rs. 50 crores each. They had sent the proposal to Government for sanction and in the meanwhile they were discussing with the prospective suppliers about the plants. In this connection the Secretary of the Ministry stated in evidence that the proposals regarding captive power plants for Bhatinda and Panipat were received in September-October and they would try to expedite the proposals but it would require at least 4 months.

3.57 Asked in view of the experience of Nangal I Unit, would it not have been prudent to have sanctioned captive power plants for those Units from the very beginning, the Joint Secretary (F), Ministry of Chemicals and Fertilizers stated in evidence that they had experience of Nangal where there were difficulties in getting adequate power. The case of Bhatinda and Panipat was different from Nangal, as in Nangal it was raw-material requirement in others it was power requirement. Elaborating, the witness added :

> "At the time when Bhatinda and Panipat were put up, discussions were held with State Government's Electricity Boards. They promised the required quantity of power. Power problem is of two kinds; 'quality' and 'quantity'. Ammonia plant is such a sensitive plant that even a minute's interruption results in lot of dislocation and it takes 24 to 36 hours to set them right. Even small interruptions assume importance. Therefore Bhatinda and Panipat have now to go in for captive units."

3.58 When enquired why was it not thought of earlier, the witness stated that at earlier stages power cut was not there and also captive power plant was also an expensive proposition because resources constraint had always been there. A few year's experience had shown them

that it was not correct for a sensitive fertilizer plant to depend upon grid power. Therefore, the decision was taken to have internal captive power generation.

The Secretary of the Ministry, added :

> "To put it in a nut-shell, the fertilizer comes nowhere compared to other units. Now in view of our experience and in view of emerging trend of power requirements and the requirements of our country itself, in so far as generation trend and consumption trends are concerned, I think even from the economic point of view, to cover the ammonia end, through the captive plant and not the urea end as not much damage is done to the urea plants. But ammonia production process is extraordinarily a sensitive process and interruption for a minute causes damages in various sections of the plant. These damages are very costly. It has happened in Bhatinda Unit and it took 3 or 4 days to rectify the defects."

3.59 The Committee enquired as to when the power plants were likely to be set up and how the power requirements were proposed to be met till then. In reply, a representative of the Ministry stated in evidence that it would take 3 years after approval for installation of the power plants in Bhatinda and Panipat. As regards alternate arrangements till then, the witness stated :

> "It is constant exercise. For Panipat there is a separate power line from Bhakra. This avoids certain problems. Separate circuits are used. There are some solutions which help to some extent."

3.60 Asked as to whether the power supply position to Nangal Units was satisfactory then, the Managing Director, NFL stated that the supply position was not satisfactory. They, therefore, had to close down Nangal-I on 30th September, 1982 but they were continuing to run the Nangal-II Plant.

3.61 The Committee enquired about the control of the Centre on the BBMB. The representative of the Ministry of Chemicals and Fertilizers stated in evidence that the BBMB was an autonomous body created by a notification under the Punjab Reorganisation Act. The Chairman of the Board was a nominee of the Central Government and other members of the Board were representatives of the partner States viz. Punjab, Haryana and Himachal Pradesh. This Board was under the Ministry of Energy.

3.62 He added that Bhakra was only a producer of energy and the institution which supplied the power was Punjab State Electricity Board. Technically, they were only a consumer. The Indian Electricity Act

empowered the State Government to restrict or increase the supply of power to the consumer. The Punjab Government had invoked that power, which was available to them under the Electricity Act, and treated them as a consumer.

3.63 Asked whether there were any instances of Central Govt. intervening regarding supply of power to NFL, the Secretary of the Ministry in evidence stated :

> "So far as power supply is concerned, the arrangements are always both on formal and informal plane. Whenever we are having the problem, we have been taking up the matter either at the Secretary's level or the Minister's level. To the extent possible, all possible arrangements are made. If not total, at least some restricted power supply is made available. We seek the help of Department of Power and the Department of Atomic Energy also. These are being done to the extent possible. On two or three occasions we have taken up the matter with the State Government also."

3.64 In reply to a question the representatives of the Ministry stated in evidence :—

> "We will have to divide our power requirement into two parts. One is for the old Nangal plant, where electricity is used as a raw-material. There the requirement is very high, 164 MW. For Nangal expansion, Panipat and Bhatinda the requirement is only 20 MW for general purpose, not as a raw-material. In the Nangal expansion plant the capacity is so fixed that adequate ammonia for both the old and new Nangal fertilizer plants can be provided by from the plant. When we are talking about power availability from the point of view of fertilizer production the most important thing is power availability for Bhatinda, Panipat and Nangal expansion, which is not so high, 20 MW; today it is assured. Today because there is no power for the old plant, it is shut down and there is no ammonia production. The real issue is that the heavy water plant gets closed once the fertilizer plant gets closed down, which is far more important than fertilizer. Only if the electricity is used for the old Nangal plant we can produce ammonia, part of which produces heavy water. Another point is that the tariff for that power is very low, only 13 paise per unit, as against the prevailing 30 or 35 paise. If the power tariff goes up, then the production of ammonia from this plant becomes exhorbitantly expensive. So, then it is not worth producing ammonia. But keeping the power tariff low has implications for the State Electricity Board. This is an overall problem which has to be sorted out, taking into account the requirement of heavy water and other things."

3.65 The Committee note that the average capacity utilisation of the three plants of NFL—Nangal, Panipat, Bhatinda, had been only 42 per cent in 1980-81 and 70 per cent in 1981-82 against the set objective of 90 per cent. Achievement in the first half of the Sixth Five Year Plan period was also only 38 per cent of the targets fixed which were aimed at achieving on an average only 70% capacity. It has, however, been stated that on the basis of production planned during the remaining Plan period, 95 per cent of the targets laid down would be achieved. The Committee are distressed to note that achievement has been much less than the targets. They feel that failure to reach the targets in such a vital commodity make the national economy suffer on two counts, first lower financial return from sizeable investment and secondly heavy drain of foreign exchange on import of substantial quantities of fertilizers to meet the country's requirements. The Committee are also unhappy to find that no serious efforts had been made either by the Company or the Ministry to overcome the problems and achieve the targets fixed.

3.66 The major constraints in achieving higher production have been stated to be equipment problems, inadequate availability and poor quality of coal and irregular and short supply of power. During the last two years, production days lost on account of equipment problems alone were 74, 50 and 191 in Nangal, Panipat and Bhatinda Units respectively. The position was thus particularly bad in Bhatinda Project. The problem is still continuing and the equipment problems have accounted for a loss of 54 days production during April-September 1982. The Committee regret to note that even after three years of the commencement of commercial production the plants continue to suffer from equipment problems and management has failed to solve those problems which are causing heavy shortfall in production. They would stress the need for immediate action to identify and remove the deficiencies.

3.67 Inadequate supply of spares of requisite quality by the indigenous suppliers is stated to be another problem faced by the Company. The Committee have already stressed the need for better attention by BHEL in regard to after-sale service and manufacturing of adequate spares and their timely delivery in their 44th Report on BHEL. They hope that the recommendation would be implemented in letter and spirit. They would also like the NFL to assess its requirements in advance and place orders sufficiently before the time of requirement.

3.68 Incidentally, the Committee find that on an imported waste heat boiler at Nangal II costing about Rs. 2 crores an expenditure of Rs. 96 lakhs was incurred for repairs abroad and the boiler failed again after one month of its recommissioning. An Expert Committee

appointed after second failure of the boiler to investigate the causes of the failure and to recommend corrective measures found inter-alia design deficiencies in the boiler. On the basis of the recommendations of the Expert Committee the boiler was subsequently got repaired in India and was stated to be working satisfactorily but at reduced capacity. The Committee feel that the detailed inquiry into the causes of failure of the boiler and the remedial measures needed for its satisfactory working should have been conducted before sending it for repairs abroad. In the absence of it, they fail to understand how was it ensured that the boiler would work satisfactorily on re-commissioning. The Committee desire that the matter be examined further and responsibility fixed for the design deficiencies in the boiler and for incurring infructuous expenditure on its repair abroad.

3.69 Another factor which seriously affected the production of the three plants in 1979-80 and 1980-81 was inadequate availability and poor quality of coal. The value of production lost in two years on this account estimated at Rs. 111.14 crores. The Committee find that the boilers of the plants are designed to use 30 per cent of Low stock heavy sulphur as fuel. However, inspite shortage of coal, the use of low stock heavy sulphur was not resorted to. The Committee feel that had there been better coordination with the Railways and other measures like use of low stock heavy sulphur taken well in time, the production loss on account of shortage of coal could have been avoided to a great extent.

3.70 The higher ash content in the coal for which the plants were not designed has created problems of greater wear and tear and reduced the life of certain parts of the machinery. The Committee suggest that the question of installing beneficiation plants at the pit heads to upgrade the quality of coal, which would not only help in better life and lower maintenance time of the boilers, but would also reduce the transportation cost should be considered seriously.

3.71 The Committee view with concern the loss of production to the extent of Rs. 87.56 crores on account of power cuts as well as power failures/voltage fluctuations during 1979—82. The problems is particularly serious in Nangal Unit I where electricity is the main feed stock and the shortage of power not only affects the production of fertilizers but also of heavy water. Power is drawn from Bhakra but actual distribution is controlled by the State Government. Though demands of various consumers for power are expected to be kept in view by the State Government, while the quantum of power generated in 1981 in Bhakra has doubled as compared to 1964 the Committee note that the power made available to Nangal Fertilier Plant was even less than 50% of that supplied in 1964. In spite of the mater having been taken up at various levels and the fertilizer plants included

in the priority list for supply of power, the Company is facing serious power problem.

3.72 The Committee have been informed that with the commissioning of Nangal Expansion Plant, having surplus ammonia capacity which can meet the requirement of Nangal I unit the problem of production of fertilizers of Nangal Unit I has been largely solved. However, in the event of closing down of the electrolysis plant on account of inadequate power supply, there will be stoppage of production in the heavy water plant also. The Committee desire that the matter should be examined soon by Government and in case the production of heavy water at Nangal Unit is considered to be economically viable, immediate steps should be taken to ensure regular supply of adequate power to the Nangal Plant.

3.73 In the case of Panipat and Bhatinda units, in view of the fact that in ammonia production process, power interruptions cause heavy damages, belatedly, a decision had been taken by the Company to have captive power plants of 25 MW at each of the plants. It would, however, take 3 years to set up the power plants after the approval of the proposal by Government. In the meantime, in order to avoid heavy losses on account of power problem the Committee stress the need for persuading the State Governments to implement the decision taken at the meeting with the Cabinet Co-ordination Secretary in February 1982 and the supply of power to fertilizer plants be accorded priority next only to agriculture. The Committee hope that the Central Government will be able to make the State Government realize their obligation to the Public Undertakings in their state and ensure regular and uninterrupted power supply to them.

CHAPTER IV

FINANCIAL PERFORMANCE

(a) *Cost of Production*

4.1 The NFL in a note to the Committee have stated that the selling price (Consumer Price), Retention price fixed by FICC and the actual cost of production of urea during the period 1978-79 to 1981-82 in regard to their plants, was as under :—

(Rs. Per tonne)

Urea	As on 31-3-79	As on 31-3-80	As on 31-3-81	As on 31-3-82
Nangal				
Consumer Price	1450	1450	2000	2350
Retention Price	1741	2160	2327	2601
Cost of Production	2414	2532	2737	2365
Panipat				
Consumer Price	1450	1450	2000	2350
Retention Price	2112	2649	2873	3276
Cost of Production	N.A.	3137	3932	2314
Bhatinda				
Consumer Price	1450	1450	2000	2350
Retention Price	2130	2729	2975	3412
Cost of Production	N.A.	2980	3169	3192

Notes :

1. Nangal Expansion Plant started commercial production from 1-11-78. The cost of production of the year 1978-79 was thus the average cost of production for 5 months period November 78—March 1979.
2. Panipat Plant started commercial production w.e.f. 1-9-79. The cost of production for the year 1979-80 was thus for 7 months period from September 1979 to March 1980
3. Bhatinda Plant started commercial production w.e.f. 1-10-79. The cost of production for the year 1979-80 was thus for 6 months period from October 79 to March 80.

4.2 As regards the reasons for higher cost of production the NFL stated that the consumer prices of fertilizers were statutorily controlled; the real comparison of the cost of production should be with the retention prices. The principal reasons for cost of production being higher than the retention prices of fertilizers during the period 1979—82 were :

(i) Operation of plants at a lower level due to :—

(a) Non-availability/inadequate availability of coal;

(b) Power cuts; and a large number of voltage dips;

(c) teething troubles; Nangal Expansion Plant was under stabilisation during 1978-79 and Bhatinda and Panipat Plants during 1979-80.

4.3 The prices of ammonium sulphate and calcium ammonium nitrate (CAN) had been decontrolled by the Government with effect from 8th June 1980.

4.4 Asked as to how did the selling price of CAN during 1980-81 and 1981-82 compare with the cost of production, NFL in a note stated that after the issue of notification decontrolling the price of Ammonium Sulphate and CAN w.e.f. 8th June, 1980, an informal meeting was arranged in the Department of Chemicals and Fertilizers, to discuss as to how the prices of these two products be fixed by the various manufacturers in the country, so that the prices were reasonable and also there was no unhealthy competition among the manufacturers. In this meeting, it was decided that the manufacturers of CAN in the country would sell their products at Rs. 1600 per tonne. The price of Rs. 1600 per tonne meant the ex-factory realisation of Rs. 1250 per tonne of CAN.

4.5 As against the ex-factory price of Rs. 1250 per tonne the actual cost of production during 1980-81 and 1981-82 was :—

1980-81	Rs. 1044.20 per tonne
1981-82	Rs. 1263.06 per tonne

4.6 The following were stated to be the reasons for actual cost of production being higher than the ex-factory realisation in 1981-82 :

1. Increase in Electricity Duty by Punjab State Government w.e.f. 1-7-81, its impact on cost of production being Rs. 132 per tonne of CAN.

2. CAN is also produced from Ammonia taken from Nangal Expansion Plant. Increase in the cost of coal, LSHS, electricity duty has also affected adversely the cost of production of CAN from Expansion Ammonia.

3. Apart from the above, railways have increased freight from time to time and all these increases have affected the profitability of CAN. Moreover, the equated freight was originally fixed by Government for the supply of fertilizer upto Block headquarters, whereas actually the fertilizer has to be transported to the more distant centres. This has also had an inroad into the profitability of CAN.

4. After the fixation of the above price, there has been increase in expenses on salaries, maintenance and over-heads which could not be recovered as the price once fixed has not been revised so far.

4.7 The Committee were also informed that whereas fertilizer pool equalisation charges and excise duty were removed from Urea and other fertilizers w.e.f. the date of decontrol, these two charges continued to be levied on Ammonium Sulphate and CAN. The incidence of these two charges per tonne of CAN amounted to Rs. 213.44.

4.8 Further keeping in view the present sale price of CAN at Rs. 1600 per tonne and Urea at Rs. 2350 per tonne, the price per kg. of nutrient content in CAN cost the farmers Rs. 6.40, compared to nitrogen per kg. in Urea at Rs. 5.11. This disparity in the price was making CAN unfavourable, where Urea and CAN, both were equally useful to farmers. With reduction in demand for CAN in NFL's normal economic zone, the Company had ventured to sell the products in distant areas, which meant higher expenditure on freight.

4.9 Asked about the total loss suffered by the company in the sale of CAN during 1981-82, the Managing Director, NFL stated in evidence. "During 1981-82 the loss suffered for production and sale of CAN was Rs. 1.35 crores." When the Committee wanted to know the measures proposed to be taken by the company to reduce cost and to ensure fair return on the production of CAN fertilizers, the witness stated :

> "We have given two suggestions. CAN is produced by two firms in India. We have requested that this should be brought under retention price. If it is not possible, then do not levy any excise duty and fertilizer pool equalisation charges. We have taken up with the Government and the Government are actively considering our request. We are meeting the loss by increasing the production of Urea. The Urea production is 81 per cent now, so that at least the unit can continue to make profit".

4.10 During the course of evidence of the Ministry, the Committee desired to know the reasons for decontrolling the prices of Ammonium Sulphate and CAN from June, 1980. In reply, a representative of the Ministry stated :

> "These were particularly used for raising the cash crops. It was felt that they would be able to sustain higher prices in the market. If the prices had been statutorily controlled it would have become necessary to give a retention price to the manufacturers and bring the products under the retention prices."

4.11 The Committee pointed out that the cost of production of CAN in NFL was about Rs. 1263 in 1981-82 and enquired as to how was it justified in informally pegging the ex-factory price at Rs. 1250 even after decontrol of the price of CAN. The witness stated that

immediately after decontrol the company earned some profit out of the price but gradually the price of naphta as well as other raw material went up with the result the cost of production of CAN increased. The only possible way to make up for the increased raw material costs was to raise the selling price to the farmer. But since the bulk of fertilizers like urea was statutorily controlled, there was a limit beyond which the price could not be raised.

4.12 Asked about the decision taken by the Ministry on the NFL suggestion regarding bringing of CAN under the retention price-formula, the Secretary, Ministry of Chemicals and Fertilizers stated in evidence, "The proposal has come from NFL. One more plant, the Rourkela Steel Plant, is also now producing CAN. We are examining it."

When pointed out that while examining the above proposal of NFL, the higher cost of production and excise duty on CAN might also be considered so that the examination could be complete, the Joint Secretary(F), Ministry of Chemicals and Fertilizers stated, "It is examined by the Ministry, and the third angle is the subsidy paid."

4.14 The Committee wanted to know the reasons for doing away with excise duty and fertilizer pool equalisation charges on fertilizers other than CAN and Ammonium Sulphate. In reply, the Sectary of the Ministry stated :

> "Earlier there was excise duty on all fertilizers. But once it was brought under statutory control. Government had to refund to the company the money, which had been collected as excise duty, as subsidy under retention price. That is why, the excise duty has been abolished. In the case of CAN since there is no retention price, the excise duty collected by them, does not have to be refunded to the manufacturers."

4.15 In this connection, the Committee noted that in the Budget proposals for 1983-84 presented to Lok Sabha by the Minister of Finance on 28th February, 1983, the production of CAN and Ammonium Sulphate had been fully exempted from excise duty.

PROCESS EFFICIENCY

(i) Consumption of Materials

4.16 The Committee enquired about the basis of fixation of norms for raw materials and utilities by Fertilizer Industries Coordination Committee and how did the actual consumption compare with the norms. The Ministry stated in a note, that the technical officers of

Fertilizer Industries Coordination Committee visited the manufacturing units for study on the date of actual behaviour of the plant. They collected data regarding the consumption norms actually achieved during Guarantee. Pest Runs of the plants as well as the actual consumption norms achieved during continuous run of the plant for a reasonable period and at a capacity above 80 per cent. Based upon these and providing a allowance for start-ups and shut-downs, consumption norms figures were arrived at by FICC.

4.17 The actual consumption in respect of important items compared with the norms fixed by FICC for the year 1981-82 and 1982-83 (April to December) in respect of the three plants of NFL were stated to be as under :—

	Nangal	Panipat	Bhatinda
Feedstock for tonne of Ammonia in MT			
FICC norms	0.839	0.843	0.843
Actuals for 1981-82	0.885	0.899	0.933
Actuals for 1982-83 (April to December)	0.873	0.943	0.894
Ammonia per tonne of Urea in MT			
FICC norms	0.614	0.592	0.592
Actuals for 1981-82	0.590	0.590	0.599
Actuals for 1982-83 (April to Dec.)	0.591	0.591	0.599

As regards reasons for variations, the Ministry stated that the principal reason for higher consumption of feed-stock per tonne of Ammonia was frequent and sudden shut-downs and start-ups consequent upon power failure and voltage dips.

(ii) Labour productivity

4.18 The Committee desired to know whether the justification for the level of manpower and expenditure thereon had been examined with reference to volume of work. The NFL stated that when the Plants at Nangal Expansion, Bhatinda and Panipat were nearing completion an Expert Committee consisting of Experts from Fertilier Corporation of India, Madras Fertilizers Ltd., Gujarat State Fertilizer Corporation and National Fertilizers Ltd., was constituted to study the manpower requirements of various Units/Offices of the Company based upon workload and operational requirements. The report submitted by the Committee in June, 1978 was considered by the Board in their meetings held on 10-7-78 and 9-8-1978. The Board of Directors approved the set up and authorised the M.D. to make suitable modifications in 'levels' and 'number', keeping in view the operational requirements. As and when proposal for additional posts was received from departmental heads the same was examined in detail

keeping in view the expenditure involved before the sanction was accorded by the Competent Authority. As a result of the above procedures the Company had been able to keep the staff strength within the overall sanctioned limit.

4.19 Asked as to how did the manpower compared with the requirements assessed by the Committee for each of the 3 plants, the NFL in a note furnished, has stated that the manpower recommended by the Committee, and in position were as under :—

	Nangal	Panipat	Bhatinda
Recommended by the Committee	3086*	1253	125
In position	3337	1123	1047

*Excluding manpower for Public Relations Deptt. which was not under the scope of the Committee.

4.20 The Fazal Committee had pointed out that the manpower engaged in Nangal Project was excessive and would need a substantial reduction and had therefore, suggested an immediate study by the Company and the Department of Chemicals and Fertilizers. The Committee enquired, was any such study made and if so, what were its findings and what was the action taken thereon. The Ministry of Chemicals and Fertilizers stated in a note that a Committee consisting of NFL Officers was constituted during 1981 (1-7-81) for the review of manpower requirement as suggested by Fazal Committee. The Officers' Committee had already submitted its report on 16-10-1981 and the same was under review by the NFL Management.

4.21 The Committee enquired about the number of casual labour contract labour employed by the Company during the years 1980-81 and 1981-82 and the cost thereof. The NFL have furnished the following information :

Unit	1980-81		1981-82	
	No. of mandays	Total amount (Rs. lakhs)	No. of mandays	Total amount (Rs. lakhs)
Nangal	13656	1.57	14489*	1.92
Panipat	17093	2.65	12657	1.86
Bhatinda	16504	2.14	17861	2.79
Head Office	6558	0.77	7530	0.86
Marketing Office, Chandigarh	759	0.07	1080	0.11

*In addition 16130 mandays of Casual/Contract Labour were engaged during the year for chipping of hard set CAN and handling of off-grade Urea for reprocessing.

4.22 The Committee desired to know as to how did the NFL explain large number of casual/contract labour especially in Nangal Unit which was already having surplus manpower. In reply, the Managing Director of NFL stated in evidence :

> "We require extra labour or contract labour for doing some hard type of works like scrapping of dust which gets deposited in the machines etc. The job is casual in nature. The quantum of work is fluctuating. Therefore, every factory does employ people for such type of jobs. Because they are not of regular nature, we do not have regular employees."

4.23 The Committee desired to know the measures taken by the Company to elicit the cooperation of the labour in increasing productivity and efficiency. The NFL in a note *inter-alia* stated that recognising the importance of involving workers in the improvement of productvity and efficiency of the organisation, the Company had introduced a productivity-linked incentive scheme, broad features of which were :—

(a) Incentive becomes payable after a reasonable rate of production had been achieved and the rate of incentive went on increasing with increase in the level of production.

(b) Increase in efficiency by improvement in the consumption of materials; and

(c) Man-power factor to encourage attendance and reduce overtime/absenteeism.

4.24 The Committee enquired, since when was the scheme in operation and what had been the results achieved in terms of increased labour productivity of the Company. The Managing Director, NFL stated in evidence :

> "Productivity-linked scheme of Nangal Unit has been there for some time. But after Nangal Expansion, Bhatinda and Panipat, we formulated new production-linked scheme with the agreement of the Union. This scheme has three basic parameters. One is that when the production is 70 per cent or more, they start getting incentive. Whenever they achieve norms better than what we fix as the minimum achievable, they start getting more incentive as a result of achievement. Those who are attending and those who are not absenting, are getting increased incentives. This incentive scheme was introduced by us for units w.e.f. 1st April, 1981. This has yielded very good results. It applies not only to the workers. This incentive is payable upto Deputy General Manager level.

They have become more conscious of seeing that production is increased because they lose money whenever there is wastage. This has a very good effect on the working of the plant."

4.25 In reply to a Committee's query, whether any special targets had been fixed for 1982-83 as 1982 has been declared 'Productivity' year, the Managing Director, NFL stated that the Company had increased targets by about 17 per cent.

4.26 Asked what were the exact results that had been achieved in terms of increase in labour productivity and profitability of the Company after the introduction of the productivity-linked Incentive Scheme, the witness stated that in 1981-82 the production was much better than in the previous year. Subsequently, in a note the NFL has stated that the increase in productivity during 1981-82 compared to the immediately preceding year had been of the order of 67 per cent. However, there were a number of factors contributing to increased productivity and the entire increase cannot be attributed to the incentive scheme alone. As a matter of fact, none of the plants of the Company suffered production loss during 1981-82 due to non-availability of coal. There was a definite improvement in the supply of power as well.

4.27 The impact of the Incentive Scheme was that the employees were keen to bring back the plant in line at the earliest, after a shutdown. They were also concerned about the wastages of materials, because the consumption of raw-materials also constitute an important factor in the calculation of incentive payable to the employees.

(b) *Working Results*

4.28 As against the set objective of 30 per cent gross return on capital employed and 15 per cent net profit post-tax, the working results of the Company for 4 years period 1978-79 to 1981-82 were as under :—

(Rs./Crores)

Year	Operating profit	Past period adjustments	Net profit/ loss
1978-79	(2.29)	3.23	0.94
1979-80	(14.26)	(0.05)	(14.31)
1980-81	(41.62)	(0.51)	(42.13)
1981-82	38.29	21.46	59.75

Note:—Figures in brackets represent loss or debit adjustment.

4.29 The Committee enquired about the reason for losses suffered by the Company in spite of the fact that the retention price system provided for 12 per cent post tax return on net worth. The NFL has

stated in a note that FICC provided for 12 per cent post-tax return at 80 per cent capacity utilisation on normative basis. The price for Nangal Expansion had been fixed at capacity utilisation of urea at 90 per cent. The losses incurred by the Company during 1979-80 and 1980-81 were primarily due to lower capacity utilisation resulting from inadequate/non-availability of coal and power interruptions and voltage dips. During the year 1981-82, when coal was not a constraint in operating the plants, the Company earned an operating profit of Rs. 38.29 crores and a net profit after taking into account the past period adjustments of Rs. 59.75 crores. Thus during the year 1981-82, the Company had wiped off all the accumulated losses and had in fact generated a reserve of Rs. 4.32 crores.

4.30 Asked as to what would have been the profit earned by the Company had its production been in accordance with the retention price formula i.e. 80 per cent of the installed capacity, the Ministry stated that the profit before tax in 1981-82 would have been at Rs. 75.43 crores. The Committee were informed that the subsidy paid to NFL during the last three years was as follows :—

	Rs. in crores
1979-80 . . .	44.48
1980-81 . . .	46.20
1981-82 . . .	86.50
Total	177.18

(c) *Sundry Debtors*

4.31 The volume of book debts and sales for the last three years were as follows :—

(Rs. in lakhs)

As on 31st March	Total Book Debts		Total	Sales	Percentage of debtors to sales
	Considered goods	Considered doubtful			
1980 . .	2377.74	4.25	2381.99	13449.13	17.7 1
1981	2533.87	15.63	2549.50	15586.87	16.36
1982 . . .	8681.07	14.36	8695.43	31969.48	27.20

4.32 The sundry debtors represented 2.1 months turn-over during 1979-80, 1.96 months in 1980-81 and 3.3 months in 1981-82. The amount outstanding for more than six months as on 31-3-1982 was Rs. 469.89 lakhs.

4.33 The Committee were also informed that an amount of Rs. 139 lakhs was due from Ministry of Agriculture which represented reimbursement due for the price of CAN sold to the Fertilizer Pool by Nangal Unit during the period 1966 to 1969.

4.34 The Committee enquired as to when was the claim put up by the Company and what were the reasons for the delay in payment. In reply, the Ministry have stated in a note that the Company initially put up a claim in January, 1972 for Rs. 157.24 lakhs on account of increase in the cost of production due to the revision of electricity tariff by the BBMB. This was stated to be not actually due to the Nangal Unit, because the same had not been paid to the BBMB then. The payment had not been made because the increase in the tariff of electricity was disputed by the Nangal Unit. The payment to the BBMB was made in February, 1978 after the dispute was settled. Thereafter, claim was sent to the Department of Expenditure, Cost Accounts Branch which certified the dues at Rs. 139.68 lakhs. The claim was lodged immediately thereafter with the Ministry of Agriculture and pursued.

4.35 The Ministry of Agriculture had responded on 21-2-80 that the matter was under examination. The chronology of events relating to the case was as under :—

(1) Ministry of C&F referred the matter to the Department of Expenditure in November, 1978.

(2) Department of Expenditure replied admissibility of claim of Rs. 139.68 lakhs on 31-1-79.

(3) Ministry of C&F referred the claim to the Department of Agriculture on 19-4-79.

(4) Reference of the letters made by Ministry of C&F to Department of Agriculture, 19-4-1979, 4-7-1979, 2-8-1979, 25-10-79, 24-11-79, 19-2-80, 25-4-80, 9-9-81, 22.10.81, 20-9-82.

It has been stated that the matter was being pursued vigorously with Ministry of Agriculture.

4.36 The Committee find that against the set objective of 30 per cent gross return on capital employed and 15 per cent net profit post-tax, the N.F.L. had suffered operational losses to the extent of Rs. 55.88 crores in 1979-80 and 1980-81 (Rs. 14.26 crores in 1979-80 and Rs. 41.62 crores in 1980-81). Even during 1981-82, the operating profit was Rs. 38.29 crores or 6.74 per cent of capital employed. The working results are poor despite the fact that Government had paid

subsidy to the Company to the extent of Rs. 177.18 crores during the last three years. The cost of production was high at the three plants of NFL mainly due to low production. Consumption of feed stock per tonne of ammonia was also higher as compared to Fertilizer Industries Coordination Committee norms, which can not be attributed only to power failures and voltage dips. The Committee urge that the Company and the Ministry should constantly review the performance of the three fertilizer plants, with a view to removing the constraints that impede the production and cost efficiency. Unless frequent reviews are made and timely corrective measures are taken, the Committee are afraid that the financial objectives set by the Company will not be possible to achieve.

4.37 The manpower at Nangal Unit was also high. It was about three times that at Panipat and Bhatinda. In spite of excessive manpower, a large number of casual labourers have been employed. The Committee regret that although a departmental Committee constituted to review manpower requirement had submitted its report in October 1981, no action had been taken on the report and this was stated to be still 'under review' by the management. The Committee would urge the need for taking effective steps to employ the surplus manpower productively and to exercise greater control over employment of casual labour.

4.38 The Committee are glad to note that the Company has introduced productivity-linked incentive scheme which is stated to have produced good results. They would however, emphasise the need for fixing suitable norms for earning incentive not only for level of production but also for consumption of material based on F.I.C.C. norms.

4.39 Although the prices of ammonium sulphate and CAN had been decontrolled w.e.f. June 1930, the price of CAN fertiliers had been informally pegged at Rs. 1250 per tonne resulting in a loss of Rs. 1.35 crores to the Company in 1981-82. The Committee note in this connection the proposal made in the Budget for 1983-84 fully exempting ammonium sulphate and CAN from excise duty which would partly help in reducing their cost of production. The Committee do not think that informal price pegging of the products at an unremunerative level is appropriate. This arrangement therefore require looking into in case the position has not been reviewed after the granting of the duty exemption.

4.40 The volume of book debts has also gone up and were equivalent to 27.20 per cent of sales in 1981-82 as against 16.36 per cent in the previous year. The Committee would stress the need for taking effective steps to realise the debts outstanding for long. Incidently the

Committee find that an amount of Rs. 136.68 lakhs was outstanding against the Ministry of Agriculture for more than three years. The claim in respect of reimbursement due for fertilizers sold to the fertilizer pool, sent to the Ministry in April, 1979 after the admissibility of claim had been certified even by the Department of Expenditure, has not been settled so far. The Committee cannot but regret such inordinate delays in settling of claims by a Government Department which besides financial constraint causes avoidable loss to the undertaking which has to pay heavy interest to commercial banks on the amount borrowed to meet the working capital requirements. They hope that the payment would be made by the Ministry of Agriculture to the Company without any further delay.

CHAPTER V

INVENTORY CONTROL

5.1 The value of inventories at three Units of NFL as on 31-3-82 is indicated below :—

(Rs./lakhs)

Sl. No.	Items	Nangal	Bhatinda	Panipat
1.	Raw-materials	308.96	329.31	216.10
2.	Coal & Fuel Oil	12.37	58.69	77.00
3.	Chemicals & Catalyst	263.57	85.10	77.11
4.	Packing Materials	46.97	1.68	34.33
5.	Finished Goods	730.36	118.41	582.20
6.	General Stores	289.95	312.51	295.96
7.	Spares	1012.43	1272.63	1212.0
8.	Surplus Materials	166.45	..	..
	Total	2831.06	2178.33	2494.70

5.2 The Committee enquired whether any norms had been fixed for inventory holdings. The NFL stated in a note that the norms fixed by FICC which was the pricing authority for the fertilizer industry were as follows :—

Raw-materials	: One Month
Fuel Oil for Boiler	: One month
Chemicals & Stores	: Two months
Spare Parts	: Three years
Catalysts	: One charge for each catalyst
Packing Material	: Six weeks stock
Finished stocks	: 22 days

5.3 When asked about the value of stores and spares on 31-3-82 at Nangal which had not moved for 3 years and more, the NFL, in reply furnished the following information :

(Rs./lakhs)

	Total	Indigenous	Imported
Spares	267.81	71.55	196.26
General Stores	191.29	88.61	102.68
	459.10	160.16	298.94

The above value of Rs. 459.10 lakhs included insurance spares valued at Rs. 138.39 lakhs.

5.4 Asked as to what were the reasons for over-provisioning, the Company have in a note stated that the inventory of spare parts included certain insurance spares which moved only in case of a break-down. The insurance spares and stand by assemblies, had to be maintained in order to ensure un-interrupted operations of the plants to the extent possible.

5.5 The Committee pointed out that the stock of Chemicals and Catalysts was also much higher (Rs. 263.57 lakhs) in Nangal Unit as compared to Bhatinda (Rs. 85.10 lakhs) and Panipat (Rs. 77.11 lakhs) and asked reasons for the same. The NFL in a note has stated that the stock of catalyst was always one full charge and for chemicals two months consumption. At Nangal, there were two units i.e, Nangal old and Nangal Expansion and accordingly, the number of catalysts and chemicals were more. Unit-wise break-up of Chemicals and Catalysts in respect of three Plants was stated to be as under :—

(Rs. Lakhs)

	Nangal	Bhatinda	Panipat
Chemicals	141.58	39.09	48.04
Catalysts	100.75	46.01	29.07
	242.33	85.10	77.11

At Nangal, there were 5 catalysts compared to only two catalysts at Bhatinda and Panipat.

5.6 In regard to finished goods, the Committee desired to know the reasons for higher stocks in Panipat and Nangal units. In reply, the Managing Director, NFL stated in evidence :

> "Our Bhatinda plant was closed down during March 1982 due to certain repairs and hence it did not produce enough urea during that month. As on 31-3-82 actual stocks of finished goods was 15 days, 1-1|2 days and 8 days production at Nangal, Bhatinda and Panipat Plants respectively. This is not abnormally high. As per the FICC norms normally 22 days' inventories of the finished goods can be kept. The norm is accepted by most of the fertilizer industries. Bhatinda's inventory was much low because it had not produced fully during March 1982".

5.7 The Committee enquired about break-up of surplus materials of Rs. 166.45 lakhs in Nangal Unit into imported and indigenous materials and also justification for import of these items as well as other surplus stores by the Company. The Managing Director, NFL in evidence, stated :

"The break-up of surplus stores in Nangal is :

Indigenous materials	Rs. 73.95 lakhs
Imported material	Rs. 92.50 lakhs
	Rs. 166.45 lakhs

This surplus has arisen as a result of execution of Nangal Expansion project costing Rs. 132 crores. Most of the material which are pipes and fittings and some of the other materials are bulks in nature. They were indented on estimates which cannot be 100 per cent accurate..... These are erection surpluses which are generated as a result of the execution of the project".

5.8 On another query since how long did they remain surplus and what was the present position of their utilisation, the witness stated that after going into commercial production in 1978 they had sold out materials worth about Rs. 28 lakhs. He added : "This material is lying with us for 1-1|2 years and we are making efforts to reduce it.....We will be able to dispose it off or we will use it in our projects because this is a material most of which can be consumed".

5 9 The Committee pointed out that the Fazal Committee in their Report, had made various recommendations in regard to materials and maintenance management. Asked as to how far those had been implemented by the NFL, in a note the Company has stated that the Fazal Committee Report in respect of Materials and Maintenance Management has been considered at the Board level and most of the recommendations have been implemented. The Committee were also informed that in order to keep the inventory level to the minimum, a Committee called 'Materials Management Review Committee' had been constituted under the Chairmanship of a General Manager, Nangal. This Committee reviewed the inventory periodically. The Committee had instructions to take special care with regard to the inventory of stores and spares.

Physical verification of stocks

5.10 Year-wise value of shortages noticed as a result of physical verification in each of the units during 1979—82 was as under :—

(Rs. lakhs)

Year	Nangal	Panipat	Bhatinda	Total
1979-80	10.27	33.55	10.60	54.42
1980-81	52.70	42.93	0.05	95.68
1981-82	19.31	153.34	40.52	213.17

5.11 It was stated that the major portion of value of shortages represented shortages of coal and finished products. In case of all the units. the losses were well within the limits of handling loss approved by the Board of Directors, based upon a detailed study of such losses conducted by FCI.

5.12 Asked as to when was the study conducted by FCI and what were the norms of handling losses suggested by them and on what basis, the Managing Director, NFL, stated in evidence that in 1975 FCI had appointed M|s. A. F. Fergusson & Co., Chartered Accountants of Bombay for reviewing the procedure for identification of or reduction of stocks|shortages at Trombay. After receipt of their report, the FCI management decided to appoint the General Manager of Trombay to go through the report and collect the materials and to recommend the maximum limit of norms of shortages in finished products and raw materials for the whole of the Company. The report was submitted in 1978 and it was referred to another Sub-Committee of Directors. The Board of Directors decided to accept the following handling losses :

Coal

Transit loss	2%
Handling loss	2%
Total	4%

For urea, the handling loss was fixed at 1.5 per cent.

5.13 To another query as to what were the norms adopted by the Company, the witness stated, "These norms were also considered by the National Fertilizers' Board and we have adopted these norms in May 1979".

5.14 Asked as to whether the Company had ever compared the quantity of coal indented and actually received at site, the Managing Director, NFL, stated ".....This can be done on the basis of test check of the wagons. If the whole of the rake is to be checked, then the company may have to incur the demurrage....But we do the test check and we will give the figures also."

5.15 The Committee enquired whether any investigation was made of the shortages noticed and responsibility fixed, the Managing Director stated :

> "We are exercising control continuously to bring it down further. I have appointed another Committee consisting of a Deputy General Manager and an Internal Auditor to go into losses, and suggest further action".

5.16 Asked as to what were the reasons for shortages to the extent of Rs. 153.34 lakhs in Panipat Plant during 1981-82, the witness stated that in Panipat loss due to coal was Rs. 22 lakhs and that due to urea was Rs. 1.31 lakhs. Panipat had the maximum production in that year.

5.17 In this connection, the Committee desired to know from the Ministry as to whether they had enquired into the reasons for shortages in Panipat Plant having gone up from Rs. 42.93 lakhs in 1980-81 to Rs. 153.34 lakhs in 1981-82 and from Rs. 0.05 lakh to Rs. 40.52 lakhs in Bhatinda Plant during the same period. In reply, the Secretary of the Ministry stated that thefts and pilferages were regularly reported to the Board of Directors, where the Government were also represented. The Ministry by itself was not coming into the picture in an operational way to find out what exactly was happening, unless something was brought to the notice of the Ministry by the Management. The Board examined the circumstances in which those pilferages were taking place and took corrective or remedial measures which were necessary, either for investigation or rectification.

The witness added :

> "I understand that the Managing Director of NFL has appointed a Committee to go into transit and handling losses in respect of coal. The matter is under investigation".

5.18 The Committee enquired the reasons for heavy shortages of finished goods also. The Joint Secretary (F) of the Ministry stated that there were always certain losses which were inherent in handling. Usually certain norms were fixed as to what were the admissible losses. In respect of fuel oil based plants, they had appointed a Committee to determine the norms for the losses and it had yet to give its findings.

5.19 When the Committee pointed out that their main concern was that the losses due to shortages had gone up steeply. The witness stated, "Yes, we shall look into it".

5.20 The Committee find that the total value of inventories in the three plants of NFL was Rs. 81.75 crores at the end of 1981-82. The stock of raw materials, stores and spares was equivalent to about 5.32 months' consumption. There was need for improvement in inventory control particularly at Nangal Unit where the value of chemicals and catalysts was more than the combined stock of these items at Panipat and Bhatinda units. Further, general stores and spares valued at Rs. 4.59 crores (including imported items worth Rs. 2.39 crores) had not moved for more than 3 years. In addition, surplus construction materials worth Rs. 1.66 crores were lying undisposed for long. The Committee need hardly point out that the excessive inventories not only result in locking up of funds but also entail heavy carrying cost. They hope that the Materials Management Review Committee constituted by the management would thoroughly review the inventory of various items and effective steps would be taken on the basis of the suggestions of the Review Committee to reduce the inventories to the minimum. The Committee would suggest the formation of such Review Committees at Bhatinda and Panipat Plants also.

5.21 The physical verification of stocks has revealed heavy shortages which have gone up from Rs. 54.42 lakhs in 1979-80 to Rs. 213.17 lakhs in 1981-82 showing a four-fold increase within two years as against 135 per cent increase in the value of production. The Committee regret to note that in Panipat Unit alone the shortages amounted to Rs. 153.34 lakhs out of which loss of urea was to be extent of Rs. 131 lakhs. The Committee would like to be informed of the findings of the Departmental Committee set up by the management to go into these losses and the action taken on the basis thereof.

5.22 Shortages have also been noticed in the coal received at the three plants. The Committee were informed in evidence that test checks of coal wagons was being done to check the quantity of coal received and a Departmental Committee had been appointed by the Company to go into transit and handling losses. They hope that the Departmental Committee would undertake a detailed investigation and suggest effective means to minimise losses due to transit shortages and handling losses.

CHAPTER VI

ORGANISATIONAL MATTERS

Delay in filling up the post of Chief Executive

6.1 The Ex-Chairman & Managing Director of the Company relinquished charge w.e.f. 19th October, 1979. The present Managing Director was appointed only on 16-5-81. In between that period, there was no Managing Director in the Company. Asked about the reasons for not appointing the Managing Director in NFL for over 1½ years, the Secretary, Ministry of Chemicals and Fertilizers stated during evidence :—

'Shri B. B. Singh was the Chairman of NFL, who was appointed for a period of five years, with effect from 1-4-78. But before he could complete his term, he was relieved of his assignment because he was appointed as Chairman of IFC w.e.f. 19-10-79. Since the decision to appoint him as Chairman of IFC was taken suddenly, no advance action was taken to fill up the post. The PESB was asked to make suitable arrangement. In December, 1979 Mr. R. Subramanian, who was then the CMD of the Hindustan Fertilizer Corporation was recommended for appointment as CMD, NFL till 31-8-1980, which was also the date of his superannuation. The proposal was processed after getting the approval of the concerned Minister. It was referred to the processing authority for obtaining the approval of the Appointments Committee of the Cabinet. But the approval was not received and the change of Government took place. After the change of Government we were advised to seek fresh approval from the new Minister. The proposal was again processed but the approval of the ACC was not received. In the meantime, PESB was reconstituted. A recommendation was made that the suitable candidate would be Mr. Devarajan, who was the CMD of the Hindustan Organic Chemicals. When this recommendation was placed before the Minister Incharge, he felt that Mr. Devarajan would be more useful in HOCL itself, and he need not be disturbed. Since it was a promotion for him, it was considered that the post of Chairman HOCL had to be upgraded to accommodate Mr. Devarajan and to continue him there. Then we approached

PESB suggesting the appointment of Mr. U.R.W. Pande, Director (Tech.), NFL to the post of CMD till superannuation. PESB did not accept this recommendation, instead they recommended the appointment of Shri Kakkar who is the present M.D. to the post. At that time Mr. Pande was over-seeing the work of Mr. Kakkar and it was not considered administratively desirable to appoint Shri Kakkar. It took about four months to get this issue sorted out. Since 16-5-81, Mr. Kakkar has been serving as M.D. of the Company."

6.2 The Committee pointed out that during the period when there was no Chief Executive in the Company, it incurred heavy losses. Asked whether the absence of CMD affected the performance of NFL during that period, the Secretary of the Ministry stated in evidence that in the years 1979-80 and 1980-81, not only NFL plants but the entire northern area suffered from major infrastructural problems like movement of coal, movement of oil because of agitation in Assam etc. The situation improved all over from the first quarter of 1981. The witness added, "You will find that 1981-82 has been a good year, So, these are essentially infrastructural problems, which are responsible for lesser production."

6.3 In this connection, the Joint Secretary (F), Ministry of Chemicals and Fertilizers also stated during evidence :

"The infrastructural problems were very genuine at that time. Certain problems like fuel oil availability could not be sorted out by any Managing Director, because the Barauni Refinery was closed. But the presence of the Managing Director and Chief Executive would make a difference. The Company was managed by the Board. There was Technical Director. Certainly, the presence of the Managing Director would improve the position. It is not our idea that we should under play this.... ...I do not want to make a value judgement about the Managing Director."

6.4 The Committee regret to note the absence of a Managing Director in the Company for 1½ years during the crucial period of its operation (October 1979 to May 1981). Admittedly the absence of the Chief Executive affected the working of the Company. The Committee would invite attention in this connection to their recommendation in para 7 of their Eighth Report and would reiterate that the procedure for selection and making appointments to the post of Chief Executives of public undertakings should be streamlined and steps taken to see that the vacancies for whatever reasons are not allowed to remain unfilled for long.

CHAPTER VII

GENERAL

(a) *Agro-Service centres*

7.1 One of the objectives of the company is stated to be to participate in the marketing of other farm inputs and services, which could yield a minimum profit of 10 per cent on the investment. In this connection, the Committee desired to know as to what were the other farm inputs and services marketed by the Company. The Managing Director, NFL stated in evidence that their company produced only nitrogenous fertilizers, even though they had plans for producing phosphate fertilizers also. They had recently taken steps to market Di-ammonium phosphate (DAP) and were also considering proposals of marketing pesticides and insecticides by making suitable arrangements with SPIC Travancore and FCI etc.

7.2 When the Committee pointed out that this was one of the objectives finalised in 1980 and asked about the reasons for inordinate delay in this regard, the witness stated in evidence that it could not be said that they had not acted on this. They had established 12 agro-service centres, where pesticides, insecticides and other farm inputs were available. These things were available because of their agro-service centres. Otherwise their availability was not there in those areas.

7.3 Asked about the return on investment on these activities, the witness stated that these were self-sustaining service centres, because they were not incurring additional costs on the centres in giving the services of implements and other inputs. To another query as to how much percentage per product was being sold through the Agro-Service Centres, the witness stated :

> "We have put up these centres in backward and remote areas. As regards the percentage of sale it is very nominal".

7.4 The Company has taken up the marketing of pesticides and insecticides through agro-service centres set up in backward and remote areas. The Committee would emphasise the need for more vigorous efforts for the sale of these items by opening more such centres and educating the farmers about the method and advantages of their use.

(b) *Production of Phosphatic Fertilizers*

7.5 The Committee had enquired as to what were the main requirements that were wanting for better and more efficient working of the Company. The NFL stated that it was producing only straight nitrogenous fertilizer in the form of urea and CAN. The requirement of cultivators in this area was for balanced fertilizers. It was therefore necessary that the Company should produce phosphatic fertilizer so as to meet the requirement of farmers. The Committee desired to know in the course of evidence of NFL the decision taken in this matter. The Managing Director, NFL stated that regarding production of phosphate fertilizers the Company had taken a decision to install some new machinery. Nitric Acid plant was already existing in Nangal and a proposal had been sent to the Government for some more machinery.

7.6 Asked about the decision taken by the Ministry in regard to production of phosphate fertilizers by NFL, the Secretary, Ministry of Chemicals and Fertilizers stated in evidence that they had received the proposal for setting up a phosphate plant recently. It was under examination in consultation with the Planning Commission and it was estimated to cost about Rs. 60 crores.

7.7 The Committee hope that an early decision will be taken in regard to the manufacture of phosphatic fertilizers by the Company.

NEW DELHI;
April 7, 1983.
Chaitra 17, 1905(*S*)

MADHUSUDAN VAIRALE,
Chairman,
Committee on Public Undertakings.

APPENDIX

Statement of Conclusions/Recommendations of the Committee on Public undertakings contained in the Report

Sl. No.	Reference to Para No. in the Report	Summary of Conclusions/Recommendations
1	2	3
1	1.19	The Committee find that even after eight years of establishment of National Fertilizers Ltd., the micro objectives of the Company have not yet been finalised. Belatedly, a statement of corporate objectives as approved by the Board in December 1980 was forwarded to the administrative Ministry, which suggested certain modifications. The corporate objectives in the light of modifications suggested by the Ministry in April, 1981 are still under review by a Committee set up by the Company. The Committee are distressed to note that such a long time has been taken to finalise even the basic objectives of the Company. They feel that no realistic and meaningful evaluation is possible unless the objectives for which a Company has been established are fully known. They hope that as assured by the Secretary of the Ministry in the course of evidence, the micro objectives of the Company, clearly laying down the obligations and objectives—financial and economic, would be finalised soon.
2	1.20	The Committee also suggest that the review Committee set up by the Company should be broad based. It should include a representative of the Ministry of Agriculture, which is concerned with the assessment of demand for fertilizers in the country, so that a realistic objective could also be laid down in regard to the market share of the Company. To expedite review after finali-

1	2	3
		sation of the objectives by the Review Committee, the Committee feel that representatives of the administrative Ministry, BPE and Ministry of Finance should also be associated with the Review Committee.
3	1.21	The Company does not have any corporate plan as approved by the Ministry. The Committee desire that after the finalisation of the micro objectives of the Company its corporate plan should also be drawn up early so that the performance of the Company could be judged against the set plan targets.
4	1.22	The Committee would also invite attention in this connection to the recommendation in Para 5 of their 49th Report wherein they have recommended that in future plan targets, both annaually and for the plan period, should be fixed for each undertaking by the administrative Ministry in consultation with the Planning Commission in regard to (i) production in physical terms; (ii) value added corelated to sectoral rate of growth indicated in the Plan ; (iii) capital investment; and (iv) generation of internal resources for capital investment corelated to the resources forecast in the Plan. NFL targets for production had been fixed both annually and for the plan period, the targets for generation of internal resources had been fixed for the plan period only and no targets had been laid down for value added. The Committee hope that action would be taken to fix various targets as suggested by them. These targets and achievements should also be clearly brought out in the Annual Report of the Undertaking with an explanation for the short falls, if any.
5	2.40	In February 1973, Government had received feasibility reports for Bhatinda and Panipat Projects, but investment decisions were taken after 18 and 24 months respectively. The Committee regret that the Ministry took an unusually long time. They hope instructions issued by the Ministry of Finance (Plan Finance Division) in March 1982 in pursuance of the recommendation of the Committee in their twenty-seventy Report

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		(1981-82) wherein the Ministries have been asked to ensure that clearance of a project does not normally take more than six months have been noted by the Ministry and in future project approval will not take more than 6 months.
6	2.41	There have been heavy slippages ranging from 13 to 32 months in the construction and commissioning of the Nangal Expansion, Bhatinda and Panipat projects with reference to original schedules. There were delays both in civil construction work and in supply of equipments. Even after mechanical completion, the time taken in commissioning and commencement of commercial production was more than originally anticipated. The delays in construction have resulted in cost escalation to the extent of over Rs. 50 crores and loss of production valued at over Rs. 200 crores. The Committee are perturbed over these delays in implementation of projects which have proved to be very costly. These delays, the Committee feel are mostly due to lack of management control and monitoring of the projects both at the corporate and the Ministry level. They would stress that these wings of the organisation should be made more effective with a view to taking timely remedial measures and to avoid such costly delays in future. The Committee would like the Ministry/Company to ensure that schedules fixed for constructing and commissioning of a plant are adhered to as far as possible.
7	2.42	For the delays in supply of equipment by the foreign and Indian suppliers both in private as well as in the public sector although penalty is stated to have been imposed on the suppliers it has been generally limited to 5% of the contract value which was insignificant compared to the loss suffered by the Company on account of delays in construction. The Committee suggest that the liquidated damages should be related to the loss to which the undertaking may be put on account of delays in the discharge of the responsibility envisaged in the agreement in regard to the supplies and other aspects like commissioning of the plant etc. to ensure that the interest of the Government/public enterprises is adequately safeguarded.

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8	2.43	Besides the escalation in cost on account of delays in construction, the estimates have also increased to the extent of Rs. 26.16 crores in Bhatinda and Panipat projects on account of absence of any provision in the original estimates for testing and commissioning on the assumption that actual expenditure on inputs and utilities during this period would more-or-less match with the sales value of production achieved. These assumption, however, did not materialise. While the expenditure was more than originally anticipated, the production achieved was much lower. In any case the Committee suggest that the estimated expenditure on testing and commissioning should be part of the capital estimates to present a correct picture in regard to the cost of a project and receipts during the construction period could be shown separately.
9	2.44	Heavy cost overrun, ranging from 58% to 75% over the original estimates has also resulted in the increase of cost of production of urea ranging from Rs. 129 to Rs. 296 per tonne. The Committee feel that these results call for greater vigilance and alertness on the part of all concerned to avoid such heavy cost overruns.
10	2.56	In spite of heavy cost overrun the rate of financial return based on the revised estimates is stated to be almost the same in the case of Nangal Expansion and higher for Bhatinda and Panipat projects as compared to that assessed originally. This is because the retention price formula for the fertilizers provides for interest and depreciation on the basis of actual capital cost. As a result of increase in the cost of the projects, the retention price also went up. The difference between the retention price and the ex-words selling price is paid as subsidy to the Companies. With the result either the exchequer has to bear a higher subsidy burden on account of cost overrun due to poor project management, or the consumer has to pay the higher price. The Committee were informed that in order to correct the situation a decision had

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		been taken in April 1981 that for new projects wherever there was delay in commissioning as compared to the original target date the escalation in capital cost on account of the delay will not be reckoned for the purpose of retention price except escalation in respect of cost of equipment due to circumstances beyond the control of project authorities. The Committee hope that change introduced in the retention price formula will help in better project management and financial control by the project authorities. The Committee, however, find that there is no mechanism in the Ministry to scrutinise the original capital costs of the fertilizer projects in the private sector and the possibility of overstatement of the expenditure to secure higher retention price cannot be ruled out. They therefore suggest that suitable norms be evolved for determining capital costs of the fertilizer projects for fixing the retention price with built-in incentive for keeping down the cost.
11	2.57	The Committee would also like to point out that in the case of fertilizer projects, having the retention price, system, the financial rate of return does not reflect the true economics of the Project. It is essential to have economic cost benefit analysis and the internal rate of return determined thereby. In the case of three projects of NFL no such analysis had been made originally but is stated to have been done when the estimates were revised and the projects were found economically viable. The Committee suggest that the economic cost benefit analysis of the fertilizer projects in the public sector should be undertaken at periodical intervals and the result of such analysis brought out in the Annual Report of the Department of Fertilizers as has been agreed to by the Planning Commission in the case of coal industry in pursuance of the recommendations of the Committee in their 17th Report (1980-81).
12	3.65	The Committee note that the average capacity utilisation of the three plants of NFL—Nangal, Panipat,

1	2	3
		Bhatinda, had been only 42% in 1980-81 and 70% in 1981-82 against the set objective of 90 %. Achievement in the first half of the Sixth Five Year Plan period was also only 38% of the targets fixed which were aimed at achieving on an average only 70% capacity. It has, however, been stated that on the basis of production planned during the remaining Plan period, 95% of the targets laid down would be achieved. The Committee are distressed to note that achievement has been much less than the targets. They feel that failure to reach the targets in such a vital commodity make the national economic suffer on two counts, first lower financial return from sizeable investment and secondly heavy drain of foreign exchange on import of substantial quantities of fertilizers to meet the country's requirements. The Committee are also unhappy to find that no serious efforts had been made either by the Company or the Ministry to overcome the problems and achieve the targets fixed.
13	3.66	The major constraints in achieving higher production have been stated to be equipment problems, inadequate availability and poor quality of coal and irregular and short supply of power. During the last two years production days lost on account of equipment problems, alone were 74, 50 and 191 in Nangal, Panipat and Bhatinda Units respectively. The position was thus particularly bad in Bhatinda Project. The problem is still continuing and the equipment problems have accounted for a loss of 54 days production during April—September 1982. The Committee regret to note that even after three years of the commencement of commercial production the plants continue to suffer from equipment problems and Management has failed to solve those problems which are causing heavy shortfall in production. They would stress the need for immediate action to identify and remove the deficiencies.
14	3.67	Inadequate supply of spares of requisite quality by the indigenous suppliers is stated to be another problem faced by the Company. The Committee have already stressed the need for better attention by BHEL

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		in regard to after-sale service and manufacturing of adequate spares and their timely delivery in their 44th Report on BHEL. They hope that the recommendation would be implemented in letter and spirit. They would also like the NFL to assess its requirements in advance and place orders sufficiently before the time of requirement.
15	3.68	Incidentally, the Committee find that on an imported waste heat boiler at Nangal II costing about Rs. 2 crores an expenditure of Rs. 96 lakhs was incurred for repairs abroad and the boiler failed again after one month of its recommissioning. An Expert Committee appointed after second failure of the boiler to investigate the causes of the failure and to recommend corrective measures found *inter-alia* design deficiencies in the boiler. On the basis of the recommendations of the Expert Committee the boiler was subsequently got repaired in India and was stated to be working satisfactorily but at reduced capacity. The Committee feel that the detailed inquiry into the causes of failure of the boiler and the remedial measures needed for its satisfactory working should have been conducted before sending it for repairs abroad. In the absence of it, they fail to understand how was it ensured that the boiler would work satisfactorily on re-commissioning. The Committee desire that the matter be examined further and responsibility fixed for the design deficiencies in the boiler and for incurring infructuous expenditure on its repair abroad.
16	3.69	Another factor which seriously affected the production of the three plants in 1979-80 and 1980-81 was inadequate availability and poor quality of coal. The value of production lost in two years on this account was estimated at Rs. 111.14 crores. The Committee find that the boilers of the plants are designed to use 30% of Low stock heavy sulphur as fuel. However, inspite of shortage of coal, the use of low stock heavy sulphur was not resorted to. The Committee feel that had there

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		been better coordination with the Railways and other measures like use of low stock heavy sulphur taken well in time, the production loss on account of shortage of coal could have been avoided to a great extent.
17	3.70	The higher ash content in the coal for which the plants were not designed has created problems of greater wear and tear and reduced the life of certain parts of the machinery. The Committee suggest that the question of installing beneficiation plants at the pit heads to upgrade the quality of coal, which would not only help in better life and lower maintenance time of the boilers, but would also reduce the transportation cost should be considered seriously.
18	3.71	The Committee view with concern the loss of production to the extent of Rs. 87.56 crores on account of power cuts as well as power failures/voltage fluctuations during 1979—82. The problem is particularly serious in Nangal Unit I where electricity is the main feed stock and the shortage of power not only affects the production of fertilizers but also of heavy water. Power is drawn from Bhakra, but actual distribution is controlled by the State Government. Though demands of various consumers for power are expected to be kept in view by the State Government, while the quantum of power generated in 1981 in Bhakra has doubled as compared to 1964 the Committee note that the power made available to Nangal Fertilizer Plant was even less than 50% of that supplied in 1964. Inspite of the matter having been taken up at various levels and the fertilizer plants included in the priority list for supply of power, the Company is facing serious power problem.
	3.72	The Committee have been informed that with the commissioning of Nangal Expansion Plant, having surplus ammonia capacity which can meet the requirement of Nangal I unit the problem of production of fertilizers by Nangal Unit I has been largely solved. However, in the event of closing down of the electrolysis plant on account of inadequate power supply, there will be stoppage of production in the heavy water plant also. The

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		Committee desire that the matter should be examined soon by Government and in case the production of heavy water at Nangal Unit is considered to be economically viable, immediate steps should be taken to ensure regular supply of adequate power to the Nangal Plant.
19	3.73	In the case of Panipat and Bhatinda units, in view of the fact that in ammonia production process, power interruptions cause heavy damages, belatedly, a decision had been taken by the Company to have captive power plants of 25 MW at each of the plants. It would, however, take 3 years to set up the power plant after the approval of the proposal by Government. In the meantime, in order to avoid heavy losses on account of power problem the Committee stress the need for persuading the State Governments to implement the decision taken at the meeting with the Cabinet Co-ordination Secretary in February 1982 and the supply of power to fertilizer plants be accorded priority next only to agriculture. The Committee hope that the Central Government will be able to make the State Government realize their obligation to the Public Undertakings in their state and ensure regular and uninterrupted power supply to them.
20	4.36	The Committee find that against the set objective of 30% gross return on capital employed and 15% net profit post-tax, the N.F.L. had suffered operational losses to the extent of Rs. 55.88 crores in 1979-80 and 1980-81 (Rs. 14.26 crores in 1979-80 and Rs. 41.62 crores in 1980-81). Even during 1981-82, the operating profit was Rs. 38.29 crores or 6.74% of capital employed. The working results are poor despite the fact that Government had paid subsidy to the Company to the extent of Rs. 177.18 crores during the last three years. The cost of production was high at the three plants of NFL mainly due to low production. Consumption of feed stock per tonne of ammonia was also higher as compared to Fertilizer Industries Coordination Committee norms

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		which can not be attributed only to power failures and voltage dips. The Committee urge that the Company and the Ministry should constantly review the performance of the three fertilizer plants, with a view to removing the constraints that impede the production and cost efficiency. Unless frequent reviews are made and timely corrective measures are taken, the Committee are afraid that the financial objectives set by the Company will not be possible to achieve.
21	4.37	The manpower at Nangal Unit was also high. It was about three times that at Panipat and Bhatinda. Inspite of excessive manpower, a large number of casual labourers have been employed. The Committee regret that although a departmental Committee constituted to review manpower requirement had submitted its report in October 1981, no action had been taken on the report and this was stated to be still 'under review' by the management. The Committee would urge the need for taking effective steps to employ the surplus manpower productively and to exercise greater control over employment of casual labour.
22	4.38	The Committee are glad to note that the Company has introduced productivity-linked incentive scheme which is stated to have produced good results. They would however, emphasise the need for fixing suitable norms for earning incentive not only for level of production but also for consumption of materials based on F.I.C.C. norms.
23	4.39	Although the prices of ammonium sulphate and CAN had been decontrolled w.e.f. June, 1980, the price of CAN fertilizers had been informally pegged at Rs. 1250 per tonne resulting in a loss of Rs. 1.35 crores to the Company in 1981-82. The Committee note in this connection the proposal made in the Budget for 1983-84 fully exempting ammonium sulphate and CAN from excise duty which would partly help in reducing their cost of production.

(1)	(2)	(3)
		The Committee do not think that informal price pegging of the products at an unremunerative level is appropriate. This arrangement therefore requires looking into in case the position has not been reviewed after the granting of the duty exemption.
24	4.40	The volume of book debts has also gone up and were equivalent to 27.20% of sales in 1981-82 as against 16.36% in the previous year. The Committee would stress the need for taking effective steps to realise the debts outstanding for long. Incidentally the Committee find that an amount of Rs. 136.68 lakhs was outstanding against the Ministry of Agriculture for more than three years. The claim in respect of reimbursement due for fertilizers sold to the fertilizer pool, sent to the Ministry in April, 1979 after the admissibility of claim had been certified even by the Department of Expenditure, has not been settled so far. The Committee cannot but regret such inordinate delays in settling of claims by a Government Department which besides financial constraint causes avoidable loss to the undertaking which has to pay heavy interest to commercial banks on the amount borrowed to meet the working capital requirements. They hope that the payment would be made by the Ministry of Agriculture to the Company without any further delay.
25	5.20	The Committee find that the total value of inventories in the three plants of NFL was Rs. 81.75 crores at the end of 1981-82. The stock of raw materials, stores and spares was equivalent to about 5.32 months' consumption. There was need for improvement in inventory control particularly at Nangal Unit where the value of chemicals and catalysts was more than the combined stock of these items at Panipat and Bhatinda units. Further, general stores and spares valued at Rs. 4.59 crores (including imported items worth Rs. 2.39 crores) had not moved for more than 3 years. In addition, surplus construction materials worth Rs. 1.66 crores were lying undisposed for long. The Committee need hardly point out that the

(1)	(2)	(3)
		excessive inventories not only result in locking up of funds but also entail heavy carrying cost. They hope that the Materials Management Review Committee constituted by the management would thoroughly review the inventory of various items and effective steps would be taken on the basis of the suggestions of the Review Committee to reduce the inventories to the minimum. The Committee would suggest the formation of such Review Committees at Bhatinda and Panipat Plants also.
26	5.21	The physical verification of stocks has revealed heavy shortages which have gone up from Rs. 54.42 lakhs in 1979-80 to Rs. 213.17 lakhs in 1981-82 showing a four-fold increase within two years as against 135% increase in the value of production. The Committee regret to note that in Panipat Unit alone the shortages amounted to Rs. 153.54 lakhs out of which loss of urea was to the extent of Rs. 131 lakhs. The Committee would like to be informed of the findings of the Departmental Committee set up by the management to go into these losses and the action taken on the basis thereof.
27	5.22	Shortages have also been noticed in the coal received at the three plants. The Committee were informed in evidence that test checks of coal wagons was being done to check the quantity of coal received and a departmental Committee had been appointed by the Company to go into transit and handling losses. They hope that the departmental Committee would undertake a detailed investigation and suggest effective means to minimise losses due to transit shortages and handling losses.
28	6.4	The Committee regret to note the absence of a Managing Director in the Company for 1½ years during the crucial period of its operation (October 1979 to May 1981). Admittedly the absence of the Chief Executive affected the working of the Company. The Committee would invite attention in this connection to their recommendation in para 7 of their Eight Report and would

(1)	(2)	(3)
		reiterate that the procedure for selection and making appointments to the post of Chief Executives of public undertakings should be streamlined and steps taken to see that the vacancies for whatever reasons are not allowed to remain unfilled for long.
29	7.4	The Company has taken up the marketing of pesticides and insecticides through agro-service centres set up in backward and remote areas. The Committee would emphasise the need for more vigorous efforts for the sale of these items by opening more such centres and educating the farmers about the method and advantages of their use.
30	7.7	The Committee hope that an early decision will be taken in regard to the manufacture of phosphatic fertilizers by the Company.

GIPRRND—31LSS/82—14-4-83—1,155

Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Sixth Edition) and printed by the Manager, Government of India Press, Ring Road, New Delhi-64