C. P. U. No. 1

COMMITTEE ON PUBLIC UNDERTAKINGS

(THIRD LOK SABHA)

SIXTH REPORT

FERTILIZER CORPORATION OF INDIA LTD., NEW DELHI

(MINISTRY OF PETROLEUM & CHEMICALS)

LOK SABHA SECRETARIT
NEW DELHI

April, 1965
Chaitra, 1887 (Saka)

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CORRIGENDA

6th Report of the Committee on Public Undertakings on Fertiliser Corporation of India, New Delhi.

Page	Para	Line	For	Read
Cover	-	5 from below	Lok Sabha Secretarit	Lok Sabha Secretariat
13	40	8	limits	limit
14	48	5	receipts	receipt
22	71	1	has not	it has not
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42	144	last	s.	Rs.
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58	203	last line, last col.	17	173
64	223	8	serivce	service
73	255	5-6	undertaking	undertakings
76	265	Head-ing	Enquiry	Equity
77	268	2	1:27	1 : 0.27
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106	S.No.5	6	1957	1958
107	"	2	8 years	7 years
126	" 67	1	Products	Projects
138	" 98	11	all round	alround

CONTENTS

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(THIRD LOK SABHA)

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INTRODUCTION

I, the Chairman, Committee on Public Undertakings, having been authorised by the Committee to submit the Report on their behalf, present this Sixth Report on the Fertiliser Corporation of India Ltd., New Delhi.

2. This Report is based on the examination of the working of the Fertiliser Corporation of India Ltd. upto the year ending 31st March, 1964. The Committee took the evidence of the representatives of the Fertiliser Corporation of India from the 16th to the 21st December, 1964 and of the Ministry of Petroleum & Chemicals on the 13th and 14th January, 1965.

3. The Report was adopted by the Committee on the 2nd April, 1965.

4. The Committee wish to express their thanks to the officers of the Ministry of Petroleum & Chemicals and the Fertiliser Corporation of India for placing before them the material and information that they wanted in connection with their examination. They also wish to express their thanks to the non-official organisations/individuals who, on request from the Committee, furnished their views on the working of the Fertiliser Corporation of India Ltd.

PANAMPILLI GOVINDA MENON,
Chairman,
Committee on Public Undertakings.

NEW DELHI;
20th April, 1965.
Chaitra 30, 1887 (*Saka*).

I

INTRODUCTORY

Fertilizers are to agriculture what steel is to industry. In an agricultural country like ours where the yield per acre is low, supply is short of demand and population is increasing, the fertilizer industry assumes added importance. It has been the sad experience of the country that foodgrains had to be imported year after year. The average yield of wheat per acre in India is 267 Kgs. as against an average of 860 and 746 Kgs. in Japan and U.S.A. respectively. The higher yield in the above countries has obviously been possible because of higher consumption of fertilizers and improved methods of cultivation. With more intensive utilisation of fertilizers our yield per acre of arable land can also be considerably increased, if not brought on par with the yield in other countries. Importance.

2. Fertilizers are not, however, new to India. They have been used for plantation crops for over 50 years. Their application to field crops on any large scale dates from the Grow More Food Campaign started during the Second World War. Thereafter successive Five-Year Plans have laid increasing emphasis on the use of fertilizers for achieving the targets of agricultural production.

3. The production and consumption of fertilizers have steadily increased during the last few years as would be seen from the figures given below:— Production and Consumption.

('000 tons of N)

Year	Production	Imports	Total availability
1961-62	145	138	283
1962-63	178	245	423
1963-64	219	223	442
1964-65 (estimated)	225	223	448

4. The production target of fertilizers during the Third Plan was fixed at 800,000 tonnes per annum. The target

fixed for fertilizer production during the Fourth Plan is 2 million tonnes of nitrogen per annum. To achieve this target, it has since been decided to develop the industry on a "crash programme" basis.

Indian Fertilizer Industry.

5. The first Indian plant for the fixation of atmospheric nitrogen was installed at Belagola in Mysore just before the Second World War. A second unit was installed in Alwaye in 1946. But these were small units. In 1944, the Indian Foodgrains Committee recommended the establishment of a large fertilizer factory with a daily output of 1,000 tons of ammonium sulphate. Following the recommendations of a British Technical Mission, which visited the country in 1944, it was decided to set up a State-owned fertilizer factory at Sindri. Its management was entrusted to Sindri Fertilizers and Chemicals Ltd., which was incorporated on 18th December, 1951.

6. In October 1954, the Government set up the Fertilizer Production Committee to select suitable locations and suggest the pattern of production during the period of the Second Plan. As a result of the recommendations made, a plant was set up at Nangal to produce both fertilizers and heavy water. The Nangal Fertilizer and Heavy Water Project, which was initially started as a departmental work of the Government of India, was incorporated as a Company with effect from 27th February, 1956 under the name of "Nangal Fertilizers and Chemicals Ltd."

Formation of the Fertilizer Corporation.

7. Later on, the execution of the Trombay Fertilizer Factory was entrusted to Nangal Fertilizers and Chemicals Limited and its name was changed to Hindustan Chemicals and Fertilizers Limited with effect from 14th July, 1959. In order to ensure unification of control of fertilizer units in the public sector under a single company, Government formed the Fertilizer Corporation of India Limited, with effect from 1st January, 1961 and placed the management of Sindri, Nangal and Trombay Units under its control.

8. The Fertilizer Corporation of India is, at present administering seven fertilizer factories of which Sindri and Nangal units are operating and those at Trombay, Namrup, Gorakhpur and Korba are in the various stages of construction. The management of the recently sanctioned fertilizer project at Durgapur has also been entrusted to the Corporation.

Rated Capacity of Units.

9. The annual rated capacity of the various fertilizer units/projects of the Corporation is given below:—

(In tonnes)

	Sindri	Nangal	Trombay	Namrup	Gorakhpur	Korba	Durgapur
Ammonium Sulphate	355,000	..	..	100,320	..	..	..
Urea	23,470	..	99,000	55,110	173,920	217,800	55,000
Double Salt	121,920	..	..	..	..	..	..
Calcium Ammonium Nitrate	..	388,000	..				
Heavy Water (Kgs.)	..	14,100	..	..	..	..	
Nitrophosphate	..	..	330,000	..	..	..	..
Methanol	..	..	33,000	..	..	..	..
Ammonium Phosphate	..	..	..	..	..	..	..
				..	..		560,000

II

OPERATING UNITS

1. SINDRI

A. General

10. The Sindri Unit commenced production in October, 1951. Initially it had only four sections, *viz.*, power plant, gas plant (operated with purchased coke), ammonia synthesis plant and sulphate plant. During 1955, purchase of coke was dispensed with by setting up a battery of its own to cater to the needs of the gas plant. Upto 1958-59, the Unit produced only ammonium sulphate. From October, 1959 production of two more types of nitrogenous fertilizers was taken up *viz.* double salt (ammonium sulphate nitrate) and urea. The three fertilizers currently produced by Sindri Unit have different nitrogen content (*i.e.* Ammonium sulphate 21 per cent, Double Salt 26 per cent and Urea 46 per cent). In addition to fertilizers, small quantities of intermediate products, such as Ammonia and Nitric Acid and by-products like coke, coke breeze, tar, benzol, toluol, are also marketed. Chalk sludge obtained as a by-product in the sulphate plant is sold to Associated Cement Company for production of cement.

B. Production

Capacity *vis-a-vis* actual production.

11. The rated capacity and actual production in the Sindri Unit, during the last 4 years, are indicated below:—

	Rated Capacity (M.Tonnes)	Production (Metric tonnes)			
		1960-61	1961-62	1962-63	1963-64
Ammonia (old plant)	96,000	84,174	89,375	102,334	94,494
Ammonia (new plant)	63,368	27,685 (43·6 %)	28,734 (45·3%)	38,627 (60%)	37,985 (59·9%)
Ammonium sulphate	355,000	305,218 (85·9%)	284,326 (80%)	323,523 (91·1%)	307,107 (86·5%)
Urea . .	23,470	10,666 (45·5%)	13,634 (58·0%)	18,717 (79·7%)	18,116 (77·2%)
Double Salt .	121,920	36,005 (29·5%)	55,428 (45·5%)	62,229 (51%)	47,211 (38·7%)

12. It would be seen that the production of ammonia in the old plant has been rising steadily and in fact exceeded the designed capacity of 96,000 metric tonnes in 1962-63. The fall in ammonia production during the year 1963-64 was partly due to an explosion in the old Ammonia Plant but partly due to labour unrest throughout the later half of the year. The production in the new plant has not, however, reached the rated capacity so far. This has been attributed to gross insufficiency in providing initially for spares and reserve equipment in the expansion ammonia plant. As a result the plant is available for production for only about 285 stream days a year as against the anticipated stream efficiency of 330 days. There were certain other limitations as well. Lean gas for heating the coke ovens, which would have released rich gas from the ovens for synthesis of ammonia, was not available in sufficient quantity. In consequence, a part of the rich gas had to be utilised for heating the ovens. Further, on account of progressive deterioration in the quality of coal only 8·5 million cubic feet of coke oven gas per day was available as against roughly 10 million cubic feet of coke oven gas anticipated per day. **Reasons for shortfall.**

13. As regards ammonium sulphate, it would be seen that although the production of ammonia rose during 1961-62, the production of the sulphate declined from 305,218 metric tons in 1960-61 to 284,326 metric tonnes in 1961-62. This was ascribed to the need for progressive overhaul of grates of gas generators. The low production during 1962-63 was attributed to progressive deterioration in its quality, delays in its receipt on account of breaches and derailments in the railways due to unprecedented rains. The fall in production in 1963-64 has been attributed to the relatively low production of ammonia during the year. **Ammonium Sulphate.**

14. The production of double salt and urea was stated to be lower than the rated capacity so far due to shortfall in ammonia production as well as sale of increasing quantities of ammonia to factories for production of explosives. **Double Salt and Urea.**

15. *The question of inadequate spare equipment, deterioration in the quality of raw materials* (viz., *coal and gypsum*) *and the steps taken to overcome these problems are dealt with in paragraphs infra. The Committee, however, regret to observe that no steps appear to have been taken so far to improve the position although production at Sindri Unit has been much below the rated capacity all these years. In this connection paragraphs* 66—73 *may also please be seen.*

C. Purchase of Additional Machinery

Recommended by Expert Committee in 1961.

16. It is noted that adequate spare equipment had not been provided for in the Gas Reforming and new Ammonia Plants. Therefore, whenever any equipment needed repairs and maintenance, there was a 50 per cent reduction in production. An Expert Committee which went into the question of additional spare equipment needed in these plants, recommended in 1961 the installation of the following:—

(i) one coke oven-cum-cracked gas compressor and one pump turbine set for the water scrubber in the gas reforming plant; and

(ii) spare gas re-circulator in the ammonia plant.

In addition, the Corporation decided in June, 1962 to instal two more producers in the lean gas plant to make up the shortfall in gas requirements of coke ovens. Necessary provision was made in the capital budget of Sindri unit for 1962-63 and foreign exchange requirements, grouped under "Implementation Scheme" were included in the half yearly foreign exchange budgets submitted to Government in 1963-64. But the implementation scheme remained unexecuted due to delay in the allocation of foreign exchange.

Delays in placing orders and loss in production.

17. In evidence, the Committee were informed that it had been pointed out to Government that Sindri Unit was losing a production of 20 tons of ammonia per day (valued at Rs. 15,000) due to delay in allocation of foreign exchange for the additional machinery worth Rs. 20 lakhs, and nothing had been done. The exchange was released only recently and the actual order placed in September, 1964. It was expected that the additional producers would be commissioned in the second quarter of 1966. The loss of production due to non-availability of sufficient coke oven gas and lack of spare equipment amounted to approximately 127,000 tonnes of ammonia (valued at about Rs. 10 crores) during the period 1959 to March, 1964.

Reasons for delay.

18. The representative of the Ministry of Petroleum and Chemicals stated during evidence that there were difficulties in finding foreign exchange and getting clearance from various agencies in Government. Originally the requirements of foreign exchange had been worked out in different currencies. When the matter was examined in the Ministry of Finance they had suggested that the requirements should be restricted to one country, preferably the U.K., but that was not considered feasible. The applications for release of foreign exchange were received by Government from the

Corporation from July, 1963 onwards. A sum of Rs. 7 lakhs in German currency for the lean gas producer was released from 'free foreign exchange' in July, 1964 and Rs. 13·00 lakhs were released in December, 1964. The delay was thus mainly due to the critical foreign exchange position.

19. *The Committee regret to observe that there has been a delay of about* 3 *years in placing orders for additional equipment recommended by an Expert Committee for the Sindri Unit as far back as* 1961 *and that it would take another* 2 *years before it is actually installed. There has been delay on the part of the Corporation in deciding on the equipment to be installed. Thereafter Government took* 1½ *years to release foreign exchange. It is difficult for the Committee to appreciate why it was not possible for Government to arrange foreign exchange worth Rs.* 20 *lakhs which could have saved loss in production of fertilizers worth Rs.* 10 *crores by March,* 1964 *alone as also avoided their imports. It is clear that the need for additional machinery was not fully comprehended and the matter was not given the serious consideration that it deserved. The Committee recommend that Government should examine the matter with a view to fixing responsibility for this unconscionable delay in a matter of this importance.*

Production of Ammonium Sulphate and ammonium nitrate separately.

20. It has been suggested that since the operation of double salt plant at Sindri is never smooth, it might be worthwhile to produce intermediate products like ammonium sulphate and ammonium nitrate separately and to market them as such. The Committee understand that the Ministry of Defence have also approached the Corporation for the manufacture of ammonium nitrate. The Managing Director also agreed that the implementation of the above suggestion would improve the economics of the Unit but he was not sure whether the Ministry of Food and Agriculture would agree to diverting ammonium nitrate for the manufacture of explosives.

21. *As the Indian farmer has now gained experience in the use of several varieties of fertilizers, the Committee are not sure if the production of double salt at present assumes the same importance as before. They feel that the acceptance of the above suggestion would not only improve the economics of the unit but would also meet the demand of the Ministry of Defence for ammonium nitrate, which is in short supply and is of equal importance. The Committee recommend that the matter should be looked into in consultation with the Ministry of Food and Agriculture and an early decision taken.*

D. Coal

(i) Requirements.

22. The annual coal requirements of the Sindri Unit and the source of its supply are indicated below:

	Quantity (Tonnes)	Value (Rs. lakhs)	Source of supply
For Power Plant	474,000	133·00	Bihar & Bengal Collieries through the Coal Controller.
For Coke Oven Plant . . .	329,000	111·00	
Total	803,000	244·00	

For the coke oven plant, the unit needs superior coal which could not only produce a hard and reactive coke for usage in the Gas Plant but have a high volatile content in order to produce maximum gas.

23 Initially the Unit obtained its supplies from Lodna and Loyabad collieries which since 1958-59 have been diverted to steel plants and other consumers. As a consequence the unit has been able to get Coal of inferior coking grades with low ash fusion. The quality and blend of such coal resulted in higher consumption and considerable wastage. After repeated representations to the Coal Controller and the Government, the position somewhat improved by February, 1960. Subsequently, the use of high volatile coal had to be suspended as its quality was progressively deteriorating, especially with regard to ash fusion characteristics. Therefore, the unit has been compelled to frequently change the blend of coal, depending upon the quality of coal available.

24. At present, the final requirements of the unit are stated to be as follows:—

Bejdih/Methani (Sel.A) .	13,500	tons	per month
Loyabad . . .	8,000	,,	,,
Lodna (Washed Coal) . .	6,000	,,	,,
Golden Jeenagora . .	2,500	,,	,,
	30,000	,,	,,

25. The Committee feel that fertiliser industry is no less *vital to the country's economy than steel or other industries to which superior coal has been diverted. They would urge*

that suitable steps be taken by Government to allocate the right blend of coal for coke ovens, regularly and in adequate quantities.

26. The original design of the coke oven plant provided for both top charging and stamping operations. Stamping process was tried with one machine in 1955 and 1956. A second machine was imported from Germany and commissioned sometime in 1958. But finally the stamping process was not adopted, with the result that the machines are lying idle. (ii) Stamping Machines.

27. The Committee were informed that the stamping process envisaged the use of high volatile coal but the coke produced was not suitable for gas generation. Further, since the coke oven plant had to produce coke for the gas plant and coke oven gas for synthesis of ammonia, a compromise in the blend had to be effected which at present consists of 50 per cent high volatile coal and the other 50 per cent comprising of low volatile metallurgical coal of Jharia fields. The stamp charging process was discontinued as above blend produced the necessary quality of coke with the top charging process.

28. In evidence it transpired that samples of coal, with which the stamping machine was to be worked, had not been sent to Germany to test the suitability of the stamping machine. It was, however, added that the stamping process, which had not been given a fair trial, might still be useful; it was not being tried at the moment because that was likely to affect production. The purchase of the second machine was stated to have been allowed by Government on the basis of technical advice.

29. *It is apparent that the need for providing for both the processes in the coke oven plant would not have arisen if the specifications and samples of coal had been supplied to the plant manufacturers in advance. This omission has resulted in the import of two stamping machines costing about Rs.* 15 *lakhs which have been lying idle for the last* 7 *years. Against the background of difficulty in providing foreign exchange worth Rs.* 20 *lakhs to the same unit subsequently, referred to in paragraph* 19, *the import of these machines, which are lying idle, appears incongruous.*

30. It came to the notice of the Committee that unburnt coke discharged along with ash from the gas plant at Sindri had, for the last 12 years, been sold as waste material. In evidence, the General Manager, who had been posted to Sindri recently, informed the Committee that attempts were sometimes made to manually pick out such coke but it interfered with the ash dumping operations. He added that (iii) Non-recovery of Coke.

the contractor employed for discharging ash wagons at the dumping yard, was required to return to the Unit a maximum of 200 tons of coke per month (valued at Rs. 12,000) for which he was paid Rs. 2·87 per ton. He, therefore, found it more advantageous to sell the extra coke outside than returning it to the Unit. Recently, however, it had been decided to appoint labourers to pick out suitable coke from the discharged ash. As a result of this experiment the unit was saving Rs. 50,000 per month approximately, after paying 70 workers engaged on the job. Suitable mechanical arrangements for the purpose were also being devised. The General Manager admitted that, due to non-recovery of coke from the ash, the unit had suffered a total loss of approximately Rs. 27·36 lakhs (Rs. 50,000—Rs. 12,000=Rs. 38,000 per month for about 6 years when manual picking was not done).

Committee's observation.

31. *It is surprising that the need for recovering suitable coke from ash was not fully realised by the management during all these years, when they knew that the contractor was recovering and selling it outside. The Committee trust that the management would constantly endeavour to explore all possible avenues of economy and avoidance of waste, particularly in the consumption of raw materials, which account for over 50 per cent of the cost of production of ammonium sulphate.*

E. Gypsum

(i) Source of supply.

32. Sindri Unit was designed on the basis of utilisation of Khewra (now in Pakistan) gypsum of 93 per cent. purity. After the partition of the country, the Unit has been obtaining its supplies of gypsum from the mines of Bikaner Gypsums Ltd., in Rajasthan. The Corporation also opened some mines of its own in Rajasthan.

(ii) Deterioration in quality.

33. The Committee were informed that the gypsum obtained from Rajasthan, though satisfactory in the earlier years, was deteriorating in quality and during 1962-63 it was only of about 76·94 per cent. purity. The gypsum contained a large quantity of clay thus affecting its filterability and adding to the expenditure on the maintenance of filters. This also led to considerable losses of ammonium sulphate alongwith chalk. The combined effect of low purity and low filterability was an increase in consumption of gypsum and reduction in the quantity of ammonium sulphate produced. It was stated that efforts were being made to shift the Railway line in the mining area of Bikaner Gypsums Ltd., so as to win better quality of gypsum from deposits lying below the railway lines. This was expected to improve the quality of gypsum and reduce its consumption. Large quantities of good quality

gypsum are also available elsewhere in Rajasthan but unfortunately these occurrences are at a considerable depth. below the ground level. This would, however, require deep mining which in turn would increase the cost. Moreover, gypsum from Rajasthan to Sindri would always present transport problems. To solve this it had been decided to change the process of manufacture at Sindri. But even so, the change over would take 3 to 5 years from now. *The Committee, however, noted certain unusual features regarding the arrangements for procurement of gypsum and its transportation which are discussed in the succeeding paragraphs.*

34. The original agreement of Sindri Unit with Messrs Bikaner Gypsums Ltd. for the purchase of gypsum was for five years (1952 to 1957) and was to be renewed yearly thereafter. After the expiry of the last annual contract in October, 1960, a fresh contract has not been executed so far. It was stated that Messrs Bikaner Gypsums Ltd., had approached Sindri Unit to enter into a fresh contract on a long-term basis and had also demanded higher prices on account of increase in mining costs. The Board of Directors approved the execution of a new contract for a period of five years commencing from 1st October, 1960. When the draft agreement was sent to M/S Bikaner Gypsums Ltd. for execution, they again raised the question of higher prices with retrospective effect.

(iii) Contract with Bikaner Gypsums Ltd.

35. *The Committee are surprised at the unbusinesslike manner in which the entire transaction has been dealt with by the Corporation. Although the proposed contractual period of five years is nearing completion, the contract has not been concluded so far. This delay has provided the suppliers with an opportunity to demand higher prices which would affect the cost of production. Further, gypsum is an important raw material for the Sindri Unit and disputes could always arise with suppliers in regard to the quality and/or quantity of the material supplied. In fact, deterioration in the quality of gypsum is the chief problem of the Unit at present. It was, therefore, necessary for the Corporation to safeguard its interests by executing a formal contract even before the expiry of the earlier contract. The representative of the Ministry admitted that the position was not satisfactory. The Committee urge that the formal contract should at least now be executed without further delay and hope that such cases would not recur in future.*

36. It came to the notice of the Committee that, in October 1961, though 27898 tons of gypsum were shown as in stock in the books, in actual fact there was not even

(iv) Shortage of Gypsum.

an ounce of gypsum at Sindri. This resulted in shortfall in production. The Financial Adviser who examined the matter, at the instance of the Board of Directors, reported that:—

(i) In addition to the average shortage of 3.8 per cent revealed on physical verification, 4 per cent. of the quantity of gypsum received as per Railway invoices was being written off *w.e.f.* 21st September, 1956 on account of gradual deterioration in the quality;

(ii) The shortage of 27,898 tons could be related only to supplies received from the beginning of the financial year (219,504 tons). This shortage of 12.7 per cent. plus 4 per cent. written off from the books at the time of accountal of the Railway receipts would work out to 16.7 per cent.; and

(iii) It would not be unreasonable to assume that the bulk of the shortage might have been due to wrong weights shown in the railway receipts in the absence of weigh bridges.

37. To provide for more effective day-to-day control over supplies of gypsum, weigh bridges have since been provided in Sindri and all incoming gypsum is being weighed and compared with the invoiced weights. The past system of writing off at the rate of 4% of the receipts has been given up; only the actual shortage between the weighments at Sindri and the invoiced weights are written off every months.

38. The Committee enquired whether any action was taken against the Resident Director for not ensuring adequate stock of gypsum. They were informed that when the matter came to the notice of Government the tenure of the Resident Director was not extended.

39. *The Committee are surprised that the only action taken by Government against the Resident Director for the shortage of* 27,898 *tons of gypsum costing about Rs.* 14.00 *lakhs which also resulted in shortfall in production at the Sindri factory was non-extension of his tenure. They consider that this was a matter which should have been investigated thoroughly and disciplinary action taken against the persons responsible therefor and that it was not enough to get such a serious lapse examined by the Financial Adviser only. The Committee regret that this was not done by Government. They suggest that an inquiry be conducted and responsibility fixed, if possible.*

40. *The Committee are not aware of the basis on which 4% of the gypsum received as per railway invoice was being written off at Sindri w.e.f. 21st September,* 1956. *The very fact that this practice was discontinued after the Financial Adviser examined the matter, would indicate that it was not justified. Normal business prudence required that only the actual difference between the weighments at Sindri and invoiced weights, subject to a reasonable limits, should have been written off. On the basis of average cost, the value of gypsum written off by the Corporation at the rate of 4% alone would work out to between Rs.* 10 *and Rs.* 14 *lakhs per annum. It is surprising that neither the local Chief Finance and Accounts Officer nor audit raised any objection to it and allowed the practice to continue for about five years.* Procedure of writing off of gypsum.

41. The following other aspects regarding procurement and use of gypsum came to the notice of the Committee:— (v) Other Matters.

(i) Purity of gypsum supplied by Bikaner Gypsums Ltd., as well as departmental mines was stated to be 5 to 10% higher at source than it was actually found to be at Sindri;

(ii) Till recently the consumption of gypsum was estimated on the basis of theoretical requirements and the weighing machines had been bypassed for the last 5 years since gypsum, which was in powdered form did not easily flow through bunkers and weighing machines.

42. As regards (i) above, the Committee were informed that gypsum received at Sindri was not tested for quality in order to ensure that payment was made according to the material received. Payments were stated to be made on the basis of tests done at the mines. In this connection the Committee understand that coal consuming industries in the private sector carry out chemical tests in the mines as well as sample checks at the receiving end and make payment according to the results obtained. *The Committee recommend that the Corporation should adopt a similar procedure.*

43. *As regards the consumption of gypsum, it has since been planned to weigh the material before it is processed. But no concrete steps had been taken in the matter earlier. It is regrettable that this normal method of issuing materials for purposes of production was not introduced till* 1962, i.e., 11 *years after commencement of production.*

44. Under a contract entered into by the Sindri Unit in 1952, the Corporation is committed to supply chalk sludge (vi) Supply of Chalk to A.C.C.

to the Associated Cement Company upto 1975. This agreement does not provide for revision of prices in relation to the cost of gypsum. *The Committee realise that since the Sindri Unit was not allowed to put up a cement plant, a long-term contract had to be entered into to enthuse a private party to put up a cement factory. But, as stated by the Managing Director, a long-term agreement should have stipulated revision of prices to relate them to the increase in the cost of gypsum from time to time.*

(vii) Loss of Ammonium Sulphate in Chalk.

45. It has been stated that as per original design of Sindri Plant, its chalk sludge should have contained 4% ammonium sulphate. Due to poor quality of gypsum, however, the quantity of chalk sludge as well as the ammonium sulphate content in the chalk increased from 4 to 6% on the average. On this basis almost 70 to 80 tons of ammonium sulphate per day were being lost in the chalk. During 1963-64 (9 months), the presence of clay in gypsum was more pronounced as compared to 1962-63, thereby further increasing the loss of ammonium sulphate to about 100 tons per day (*i.e.*, 10% of production).

46. As regards the steps taken to recover the sulphate, the Committee were informed that though the necessity was felt nearly 3 years ago, no scheme could be implemented immediately. The equipment for recovering ammonium sulphate costing Rs. 11·42 lakhs had since been purchased and it would enable recovery of 7,500 tonnes of sulphate per annum. As per present schedule, sulphate recovery plant was expected to be commissioned by about middle of next financial year.

47. It will be seen that the equipment purchased at a cost of Rs. 11·42 lakhs would be able to recover only 7,500 tonnes of sulphate per annum, out of a loss of approximately 30,000 tons per annum. *The Committee feel that the feasibility of recovering more sulphate needs to be examined.*

(viii) Comprehensive Study.

48. *From the foregoing paragraphs it would be seen that besides deterioration in the quality of gypsum and presence of clay in it, which has affected its filterability, the arrangement of its procurement, testing of quality, despatch, receipts, storage and accounting leave much room for improvement. Even the contract with the suppliers which expired in 1960 has not been renewed as yet. Since gypsum accounts for as much as 40% of the cost of production, its importance in the economies of the Sindri factory cannot be minimised. One would have expected the management to make suitable arrangements in this regard from the very beginning and to investigate the reasons whenever they found*

any variations in the cost of production due to increased consumption of gypsum, deterioration in its quality, excessive loss in storage, or variation in the quantity despatched and received at Sindri. The Committee find that this has never been done despite the fact that gypsum has been a serious problem with the Unit for quite sometime. They consider that even now a comprehensive review of the arrangements regarding the supply of gypsum might be quite rewarding, since gypsum is likely to be used for a few more years at Sindri. The Committee suggest that the Corporation should undertake such a review as early as possible.

F. Inventories

49. The total value of materials, stores and spare parts at Sindri Unit during each of the last 3 years is given below:— Position in Sindri.

	1961-62		1962-63		1963-64	
	Value of stock (Rs. lakhs)	Percentage of consumption/sale	Value of stock (Rs. lakhs)	Percentage of consumption/sale	Value of stock (Rs. lakhs)	Percentage of consumption/sale
Raw Materials	26·59	5·511	96·29	16·928	120·27	20·23
Stores (other than spares) . .	159·42	156·32	168·05	174·54	159·19	133·15
Spare parts .	305·93	458·87	353·59	457·84	400·98	521·15
	491·94		617·93		680·44	

50. It will be seen that the value of inventory has been rising from year to year. The closing stock of raw materials on 31st March, 1964 represented about 2 to 3 months' consumption but in the case of stores and spares it was much in excess of requirements and worked out to about 16 and 62 months' consumption respectively.

51. Similarly Nangal Unit also held excessive inventories and the stocks of stores and spares at the end of 1963-64, represented 26 months' and 62 months' consump- Position in Nangal.

tion respectively, as would be seen from the following statement:—

	1961-62		1962-63		1963-64	
	Value of stock (Rs. lakhs)	Percentage of consumption/sale	Value of stock (Rs. lakhs)	Percentage of consumption/sale	Value of stock (Rs. lakhs)	Percentage of consumption/sale
Raw materials	5·36	20·78	12·63	34·12	14·67	28·94
Stores	90·98	546·87	88·08	226·63	82·76	219·99
Spares	73·88	729·42	76·19	444·73	98·36	520·99
	170·22		176·90		195·79	

52. It was stated that Nangal Unit did not have any large surplus in stores and spares except construction materials left over after the completion of the project. These were also being transferred to new projects.

Reasons.

53. As regards Sindri Unit, it was stated in evidence that in 1959 when the generators started breaking down, the Chief Engineer got alarmed and ordered enormous quantities of spares as an abundant precaution. Supplies against those orders which were placed in 1959-60, were received till March 1961. The Board had been very critical of the situation and steps were being taken to rationalise the position. A team of officers was appointed in August 1963 to undertake a review of the large number of items held in stock and to assess the likelihood of utilisation/disposal of stores surplus to the Corporation's requirements. The Financial Adviser stated that on the recommendation of the above Team, instructions had been issued to the Planning and Development Division to explore the possibilities of utilising surplus stores in the new projects to the extent possible or to dispose them of. The Units had also been directed to curtail the placing of orders. It was hoped that during the next 2 years there would be a positive reduction in the inventories.

Earlier recommendations.

54. Evidently, the position was not satisfactory even before 1959. In this connection the Committee note that in 1959 the Tariff Commission had commented on this overstocking of stores and spares at Sindri in the following terms:—

> "....the value of stores and spares was much in excess of requirements.....A large number of items have hardly been utilised over a period of years. Although consumption has

remained more or less steady at about Rs. 96 lakhs since 1955-56 Sindri has been adding to its inventory at the rate of about Rs. 50 lakhs a year. Since this affects the liquid resources of the Company, steps should be taken to review the stores inventories properly and effect possible economies".

55. In their 120th Report (2nd Lok Sabha) presented in the Lok Sabha in March/April 1961, the Estimates Committee also criticised excessive inventories at Sindri as follows:—

> "....it does not appear necessary to hold stocks of stores and spare parts to the extent of nearly 3½ times the value of annual consumption. The Committee trust that the management of the concern would examine the matter to determine the minimum requirements of stores and spare parts with reference to normal annual consumption."

Committee's observations.

56. *The Committee regret to observe that despite positive recommendations by the Tariff Commission and the Estimates Committee in* 1959 *and* 1961 *respectively, no concrete steps appear to have been taken to reduce the excessive stocks of spares and stores at Sindri; additional purchases continued to be made and the situation was rather allowed to worsen. The explanation offered during evidence that excessive orders by the then Chief Engineer were placed as a measure of "abundant precaution" is also not convincing. It was expected of the Chief Finance and Accounts Officer, the Resident Director, the Board and the Government that they would exercise normal scrutiny of the proposals of the Chief Engineer for the purchase of spares and stores bearing in mind the past consumption, future requirements and procurement time involved. This was not done. The team of officers to go into the matter was appointed by the Board only in* 1963 *when the situation had already gone out of control. The facts revealed by the team are also disconcerting in that provisioning levels had not been fixed. Above all, the list of the spares available in the stores had not been circulated to the plant authorities.*

Reduction in inventories suggested.

57. *The Committee are also not sure whether it would be possible to utilise surplus spares etc., in the new projects since the plant and other equipment in all the Units are not identical. It is obvious that excessive inventories result in blocking of capital and interest payments thereon affect*

the cost of production. They also involve expenditure of foreign exchange as these spares are imported. There is also the danger of deterioration, wastage and pilferage during storage. The Committee urge that effective steps should at least now be taken to reduce the inventories both at Sindri and Nangal to the extent possible. One way of doing so would be to intimate to the Director General, Supplies and Disposals about the stores and spares surplus to the requirements of the Corporation so that they could be utilised by other fertiliser plants in the country.

Preparation of Stores Manual suggested.

58. *In this connection it came to light that the Stores Accounting Procedure Order (Provisional) 1952 followed in Sindri and the Stores Procedure Order at Nangal were not exhaustive. Further, stores at the Nangal Unit were not being classified either according to their value or according to their procurment time. The Committee recommend that immediate action may be taken to lay down a comprehensive Stores Manual for the guidance of all the Units/Projects of the Corporation so that stores accounting problems and overstocking are avoided in the new Projects.*

Utilisation of Stores.

59. The Committee also note that stores were not being put to the best possible use. Some instances are given below:—

(i) Use of Coking Coal in Power House.

(i) The average stock of coal at Sindri during the last 3 years has been around 50,000 tonnes. In 1960-61 and 1961-62 over 36,000 tonnes of coal meant for coke ovens had to be diverted to Power House because it had weathered and was found unsuitable. The additional cost due to difference in the cost of coal for power House and coking coal was stated to be Rs. 52,000 in respect of above quantity. In evidence it transpired that on many other occasions also coking coal which had deteriorated in storage had to be used in the power house.

(ii) Coke Breeze.

(ii) On an average 70 to 80 tonnes of coke breeze is formed at Sindri daily, which will correspond to roughly 26,000 tonnes per annum. A portion of this is being utilised in the Power plant. The present stock of coke breeze was stated to be 79,000 tonnes as there was no ready market. In explanation it was stated that the lean gas generators installed at Sindri were expected to consume coke of sizes upto

5 m.m. In actual practice this could not be achieved and as a result all coke below the size of 10 m.m. was being discarded as breeze. Further, the coke produced at Sindri had to meet the requirements of both gas and lean gas plants and their size specifications being different, this necessitated further crushing of coke which resulted in additional loss of coke as breeze.

60. The Committee were informed that the possibility of its use on a larger scale in the A.C.C. Cement factory was under investigation. It was also hoped that new generators could use coke-breeze upto 5 m.m. and the wastage would be reduced. *The Committee urge that due vigilance should be exercised to ensure proper and purposeful utilisation of stores and raw materials. They trust that energetic efforts would be made to find a market for the accumulated breeze also.*

G. Maintenance

Hours lost.

61. It is noted that there were 12 breakdowns in the various plants of Sindri Unit during the year 1962. These increased to 22 during the year 1963 but came down to 5 in 1964. In addition to this, working hours were lost during each of the last 3 years on account of maintenance, overhaul and repairs. These are given below plant-wise:—

(Hours Lost)

	1961-62	1962-63	1963-64
Ammonia Plant (CCC)	11316	11233	8663
Ammonia Plant (Expansion)	5874	2297	2064
Urea Plant . . .	518	2470	2560
Sulphate Plant . . .	14782	16128	7147
Gas Reforming Plant . .	2334	1761	782
Gas Plant . . .	1251	596	618
Double Salt Plant .	374	1292	1112
Coke Oven Plant .	229	149	388

62. It would be seen that hours lost on repairs etc., of urea, double salt and coke oven plants have been going up.

Need for improvement.

63. *It is well known that poor maintenance causes frequent breakdowns in the plant and reduces the time available for production. It is therefore vital to production that plant and machinery are well maintained. It would be*

useful if a system of preventive maintenance is introduced in the Unit. This will not only reduce the volume of maintenance work but also the inventory of spares. It has particular importance in India where, due to shortage of foreign exchange, neither replacement machines nor spares are readily available. The Committee trust that with the introduction of improved maintenance techniques, methods etc., the efficiency of the plant would improve.

H. Labour Management Relations

64. Labour relations at Sindri have not been satisfactory during the last 2 years. There was a strike in the factory from 23rd to 26th September, 1963 followed by a slow down movement in November, 1963. Again there was a strike from the 16th to the 21st July, 1964. The value of production lost on account of the July strike alone amounted to Rs. 21·71 lakhs.

65. *It is expected of public undertakings that they would become model employers. Since these undertakings constitute social property, the workers should also display a sense of responsibility and should not have an unnecessary agitational approach. The Committee need hardly state that complete co-operation between labour and management is very essential for the efficient working of any Unit. They feel that time has come when Government should make a comprehensive review of labour management relations in all the public undertakings and lay down suitable policies to be followed by them to ensure better industrial relations.*

I. Change in Process of Manufacture

Schemes under consideration.

66. In view of the high costs, the difficulties in procurement, the low quality of gypsum and deterioration in the efficiency of sulphate plants, the following two schemes have been under the consideration of the Board of Directors of the Corporation:—

(i) elimination of use of gypsum altogether and its replacement by direct neutralisation. (This was also recommended by Zaheer Committee in 1961).

(ii) utilisation of sulphuric acid for production of ammonium phosphate, the by-product gypsum being utilised for making ammonium sulphate. (This would mean additional production of 94,000 tons of P_2O_5 per year without altering the nitrogen capacity).

67. A tentative decision had been taken to purchase 200/300 tonnes of sulphuric acid per day from M/S Pyrites and Chemicals Development Co. Ltd., who were putting up a plant at Sindri. In addition the Corporation had decided to put up a plant to produce 700 tons of sulphuric acid a day at Sindri, but no final decision has been taken so far. The only difficulty which stood in the way of the use of gypsum was stated to be the commitment of Sindri Unit to A.C.C. to supply them chalk sludge. till 1975. Final decision not taken.

68. During evidence the Managing Director informed the Committee that after Durgapur Fertiliser Plant was approved by the Cabinet, they were considering the possibility of establishing production of 94,000 tons of phosphatic fertilisers at Durgapur and transporting its by-product gypsum of about 400,000 tons to Sindri. Thereby nearly 95 per cent. of the extra capital outlay at Sindri would not be necessary. But before taking any decision the Corporation would also have to investigate whether the corbonate sludge thrown out in processing the by-product gypsum would be suitable for the cement factory. Possibilities of using by-product gypsum.

69. Subsequently, in a paper submitted to the Committee on 5th February, 1965, it has been stated that the Sindri Unit could be rehabilitated by bringing up the new ammonia plant to full production and by installing additional plants to produce about 100,000 tonnes of phosphatic fertilisers. The last measure, when implemented, would enable the Sindri Unit to eliminate their dependance on outside gypsum whether natural or by-product and use their own by-product gypsum. The Corporation has prepared a scheme which is stated to be under submission to the Board of Directors. The capital investment involved in the scheme, whose implementation would, according to the Managing Director, give a new lease of life to Sindri Unit, is estimated at Rs. 15·11 crores (including Rs. 375·86 lakhs on a sulphuric acid plant, Rs. 871·55 lakhs on phosphoric acid plant and Rs. 30·19 lakhs on Ammonium Nitrate Plant). Latest proposal.

70. It has been stated that establishment of the above plants at Sindri would save a sizeable portion of the capital investment. It would also be possible to improve the productivity of existing labour force by suitable deployment in the new plants.

71. *It is unfortunate that the Sindri Unit which is one of the first major ventures in the public sector, has been facing heavy weather since* 1959, *and due to various reasons* Committee's observation.

.: has not been possible to work the plant to full capacity. Its rehabilitation is now estimated to cost Rs. 15·11 crores. Its chief problems are: (i) low production, (ii) inadequate supply of right type of raw materials, (iii) poor maintenance of plant and equipment, (iv) excessive inventory and above all (v) over-manning (paras 233—41) and unhappy labour-management relations. Even so, no positive steps appear to have been taken so far to rehabilitate the Unit and if a scheme is now approved and actively implemented the results are not likely to be achieved before 1970. Even at this stage there is vacillation on the part of the Board and the Government. Such a serious situation should normally call for immediate remedial measures. But here the situation has been allowed to take its own course. The Committee feel that between the construction of new Projects and the rehabilitation of the Sindri Unit, the latter should have been given higher priority by the management of the Corporation.

72. The Committee find that the second scheme envisages the production of phosphatic fertilisers at Sindri and utilisation of by-product gypsum at Sindri itself. It is however not clear how the by-product gypsum thrown up by Durgapur fertiliser plant will be used. *The Committee feel that its utilisation may also pose a problem later on. They hope that the utilisation of that by-product would also be planned in time*.*

Appointment of Expert Committee suggested.

73. *From the varying proposals made by the Managing Director, during evidence and in writing later on, it is evident that no systematic study has been made to prepare a co-ordinated plan to rehabilitate the Sindri unit. The latest proposals call for radical changes in the production pattern of the Sindri Unit and will entail heavy investment. The Committee, therefore, recommend that Government should immediately set up an expert Committee to thoroughly examine the various alternative proposals made in this behalf and suggest a suitable scheme after considering technical, financial and other aspects. High priority should be given to this scheme so that the Sindri Unit is improved as early as possible.*

*At the time of factual verification, the Committee were informed that the utilisation of by-product gypsum of Durgapur had never been considered to be a problem. The currently approved production pattern of the Durgapur Project visualised the production of ammonium sulphate—phosphate as an end-product of which the ammonium sulphate component would be manufactured from the by-product gypsum that would be available from the phosphoric acid plant. The intention of the statement made by the Managing Director before the Committee which is referred to in para 68, was that it would appreciably improve the profitability of the Durgapur Project if it were to arrange for the manufacture of urea and diammonium phosphate at Durgapur and if it were possible then to utilise the by-product gypsum at Sindri.

2. NANGAL UNIT

A. General

74. The decision to establish a Fertiliser and Heavy Water Plant at Nangal was taken in July, 1955 on the recommendation of Fertiliser Production Committee (1954). It had recommended a capacity of 70,000 tons of nitrogen per year in the form of diluted Ammonium Nitrate (calcium ammonium nitrate) and 7½ tons of heavy water per year. Subsequently, however, the production capacity of the factory was increased to 80,000 tons of nitrogen and 14.5 tons of heavy water per annum. Preliminary project reports from three selected foreign firms were invited in November-December, 1955. About 1454 acres of land were acquired on 4th July, 1956. On 16th November, 1956 Messrs Vitro Engineering Division of New York were appointed as Technical Consultants.

B. Erection/Commissioning

75. A statement showing the dates when tenders were invited and received and contracts for main plants were awarded is given below:—

Name of Plant	Date of tender invitation	Last Date of tender receipt	Date of awarding contract	Date of Commissioning
1. Rectifier & Switch yard (electrical equipment)	2-4-1957	15-7-1957	Dec. 1957	10-1-1961
2. Electrolysis Plant	24-11-1956	31-1-1957	March, 1957	Do.
3. Fertilizer Group of Plant	31-12-1956	15-6-1957	Oct. 1957	7-4-1961
4. Heavy Water Plant	July, 1957	Nov. 1957	Sep. 1958	9-8-1962
5. Storage Silo			8-5-1959	
6. Water Supply & Treatment Plant			21-2-1959	

76. The delay in taking a decision about the process to be adopted for the production of heavy water was stated to be responsible for the delay in awarding a contract for this plant.

77. The construction of civil works in the factory commenced towards the middle of 1958 and installation of equipment and machines started about 8—10 months later. The Fertilizer Group of Plants, except the 3rd stream was commissioned in April, 1961. The Heavy Water Plant was commissioned in August, 1962. In this connection it is seen that the factory was originally expected to go into production by the end of 1959 and reach its rated capacity by the middle of 1962.

78. *It would thus be seen that the Corporation took about 6 to 7 years to erect and commission the fertilizer any heavy water plants at Nangal. Even after the consultants were selected, the time taken works out to 4½ and about 6 years respectively. From the date of award of contracts for the fertiliser and heavy water plants it took about 3½ and 4 years respectively. The delay in erection resulted in an additional expenditure of about Rs. 75 lakhs on departmental charges alone. The Committee trust that the Corporation would take suitable measures to avoid such delays in the new projects under construction. In this connection para 164 may also please be seen.*

Reasons.

79. The following major factors are stated to have affected the timely completion of the plants:—

(i) delay in the design of civil works;

(ii) delay in the delivery of equipment by foreign contractors;

(iii) delay in transit from manufacturers works to Indian Ports;

(iv) delay in customs clearance and inland transportation;

(v) delay in the replacement of equipment damaged in transit or lost in Dock Yard. Some of the equipment was carried over to other ports;

(vi) damage to 3rd hyper compressor on high seas;

(vii) delays in issue of import licenses and customs clearance permits; and

(viii) delay in supply of power from Bhakra Power House owing to mishap in the hoist chamber in August, 1959. The original schedule of power supply was 60—70,000 kws. by the end of September, 1959, 120 to 130,000 kws. by the end of December, 1959 and full quantum of power (*i.e.* 164,000 kws.) by the end of March, 1960. The firm power for the operation of the factory was, however, supplied during the 1st week of December, 1960 and the trial run of the plants was started on 8th December, 1960. The consultants also lodged a claim for extension of stay of European personnel because of non-supply of power in time.

80. *The delays and difficulties experienced in the Nangal Project are similar to those experienced by the other projects. With better planning, they could have been avoided. The Corporation should draw lessons from their experience at Sindri and Nangal and ensure their avoidance in future.*

81. There was also some delay in the construction of storage silo and it was not expected to be available till July, 1961. Arrangement had, therefore, to be made with the Ministry of Agriculture for bagging and immediate despatch of daily production of calcium ammonium nitrate in the factory. Storage Silo.

82. In evidence it was stated that consulting engineers had furnished a rather expensive design and the estimated cost of the silo was Rs. 42 lakhs. The engineers of the Corporation, however, suggested an alternative design which, if adopted, could result in substantial savings. Tenders were therefore, invited for alternative design which resulted in some delay.

83. *The Committee do not understand why the preparation of a design for a storage silo, which was after all later made by the engineers of the Corporation themselves should have been earlier entrusted to foreign consulting engineers. This resulted in delay. The Committee trust that consultation with foreign engineers would be resorted to only when it is unavoidable**.

C. Estimates of Cost

84. It is noted that the Fertilizer Production Committee had estimated the capital outlay for the Nangal Project at Rs. 20·90 crores. As against this, the final estimates of the project are stated to be Rs. 31·20 crores. The details of various revisions in the estimates made from time to time are given below:— Frequent revisions.

(Amount in crores of Rs.)

Fertiliser Production Committee (1955) estimates, excluding working capital	20·90
First Revision (April, 1958) . . .	27·11
Second Revision (Nov. 1959)	30·03
Third Revision (March, 1963)	31·20

85. Asked about the reasons for frequent revisions in the estimates, it has been stated that the original estimate of Rs. 20·90 crores prepared by the Fertilizer Production Committee was for a plant with an annual production capacity Reasons.

*At the time of factual verification, it was stated that initially the suppliers of the Fertiliser Group of Plants in Nangal (Messrs. Saint Gobain of France) had submitted an expensive design which was not accepted. Quotations were invited from various parties on the basis of designs to be furnished by them. After these tenders were received, the most economical (and at the same time technically sound) design was selected and with this design the Corporation's engineers had nothing to do.

of 70,000 tonnes of nitrogen and 7½ tonnes of heavy water which was subsequently revised to 80,000 tonnes of nitrogen and 14·5 tonnes of heavy water. Further the estimates of the Fertiliser Production Committee did not provide for the financing charges (about Rs. 2·6 crores), and were tentative. The Committee note that the revised estimates of Rs. 31·20 crores, forwarded to Government on 19th February, 1963 had also not been approved by Government so far, and the latter had sought certain clarifications in regard to them.

Final estimates not approved by Government.

86. *It would be seen that the final estimates of Rs.* 31·20 *crores are about* 50 *per cent higher than the estimates prepared by the Fertiliser Production Committee in* 1955. *The Committee feel that detailed estimates should have been prepared by the Corporation immediately on receipt of project report from the consultants in* 1956 *and Government approval obtained thereto. That was not done. Instead, first revision in the estimates was thought of only in* 1958. *These estimates were also incomplete and were exceeded later on by about* 15 *per cent. It is not known why Government was lax in this important matter and did not insist on detailed estimates being prepared particularly when the estimates of the Fertilizer Production Committee were known to be incomplete. The result has been that although the project was fully commissioned about* 3 *years ago, the final estimates have not yet been cleared by Government so far.*

Preparation of realistic estimates suggested.

87. *Frequent revisions in the estimates are not conducive to efficient working of a project. They affect the cost of production and vitiate the basic assumptions on which the project is based. The detailed estimates of projects should be prepared in a realistic way and efforts made to adhere to them.*

D. **Power Supply**

Revision in rates.

88. As stated earlier, there was a delay on the part of the Punjab State Electricity Board in supplying power to the Nangal Project which delayed its commissioning. The Committee were informed that the rate of power had also been increased from 2·6 to 2·9 pies per kwh. on account of the following reasons.—

(i) higher cost of construction of Bhakra Nangal Project;

(ii) an upward revision in the rate of interest charged to Bhakra-Nangal Project; and

(iii) A sum of Rs. 3·39 crores which was to be debited to cost of civil works was later charged to Bhakra left Bank Power Plant.

In addition, the Punjab Government has levied duty at the rate of 20%.

89. There has thus been an increase of about 33% in the cost of power which, together with duty, works out to about 3·5 pies per unit. The increase in the cost of production due to increased cost of power alone is stated to be about Rs. 16·60 per tonne of Calcium Ammonium Nitrate net. Effect on cost of production.

90. In this connection the Committee note that, at a meeting held in the Ministry of Irrigation and Power on 4th February, 1957 to determine the rate of power supply from Bhakra Nangal Fertiliser Factory, it had *inter alia* been decided that:— Original agreement.

(i) the rate of 2·6 pies per unit (KWH) will remain in force for a period of 15 years from 1st June, 1957;

(ii) the above rate will be subject to review after 15 years provided there was increase or decrease in the operation and maintenance charges by 25% of the basic figure. A formula for the adjustment to be made due to variation referred to above should be worked out and incorporated in the agreement;

(iii) the agreement should provide for payment by the Company a minimum charge on the basis of 90% load factor for the block of power reserved for the Company on the basis of schedule furnished; and

(iv) per contra the agreement should also provide for penalty payable to the Corporation in case power was not made available as per time schedule.

91. Details had been incorporated in a contract which had been awaiting execution for more than a year. The Punjab State Electricity Board was refusing to ratify the draft agreement and expected a further increase in the price, which, the representatives of the Corporation stated, would make the project completely uneconomic. Formal contract not entered into.

92. The Managing Director admitted that the increase in the rate of power, already made, was not in accordance with the original agreement but had been agreed to under pressure from the Government of India. Even the initial price of 2·6 pies kwh was stated to have been agreed to in order to provide the State Government with an opportunity to build the entire left Bank power house and it was not fair Views of the Managing Director.

on the part of the Punjab Government to go back on their past commitment after having made the Corporation invest such large sums of money in the fertiliser industry. The reasons advanced for increase in the rate of power were also stated to be based on certain manipulations. It was added that the Corporation would not have "dreamt" of building a fertiliser plant if they had any suspicion that the cost of power would be as much as 3½ pies kwh, particularly because the process of manufacture entailed the use of a large quantity of electricity.

Committee's Observation.

93. *It is surprising that the Punjab Government after having agreed to supply power at the rate of 2·6 pies per kwh to the Nangal Project demanded an increase to 2·9 pies per kwh when the Corporation had invested huge sums of money in putting up a plant. It is not understood why the Central Government also pressed the Corporation to pay an increased rate. As this is an important matter which affects the economical working of the Unit, the Committee feel that Government should intervene and ensure that a fair and equitable agreement between the two parties is reached without delay.*

E. Production

Rated capacity and actual production.

94. The rated capacity and actual production at Nangal Unit during each of the last 3 years are indicated below:—

	Rated Capacity	Production		
		1961-62	1962-63	1963-64
Calcium Ammonium Nitrate (tonnes)	388,000	200,790	284,322 (73%)	374,000 (96%)
Heavy Water (kgs)	14,100		5,249	11,735 (83%)

95. It has been stated that only two-thirds of the ammonia plant was available for operations till November, 1962 since one of the three hyper compressors was damaged in transhipment on the high seas and could only be replaced at that time. The heavy water plant was also commissioned only in August, 1962. The production till 1962-63 was, therefore, considerably below the rated capacity.

Reasons for shortfall.

96. The shortfall in production was mainly stated to be due to excess leakage of caustic from the electrolysers leading to increased consumption of power. Corrosion at various points also necessitated stoppage of the unit to enable repairs or replacements to be made. A total of 8785 cell-line hours had been lost on this account. These represented 5·5% of the total hours required to be worked for the ultimate production of 388,000 tonnes of calcium ammonium nitrate. The actual hours lost valued in terms of the end-product would work out to about Rs. 30 lakhs. Nearly one third of

the lost hours were made up by extra loading of Electrolysis Plant. Steps were being taken to carry out the necessary modifications which were estimated to cost Rs. 2·35 lakhs. The desirability of installing a few more cell-lines was also being considered.

97. In evidence it was stated that the suppliers of electrolysers had never designed such large cells before. There was thus an element of experiment involved. But they were very co-operative and deputed their men to change the affected parts.

98. *The Committee would urge that necessary measures be taken to remedy the above defects in the electrolysers and instal additional cells without delay so as to avoid loss in production.*

Heavy Water.

99. The Committee were informed that under normal operating conditions the unit could manufacture 12·5 tonnes of heavy water in a year as against the rated capacity of 14·11 tonnes. This was partly due to the fact that maintenance in respect of heavy water plant could not be fully synchronised with the maintenance of other plants and partly due to low concentration of H.D. in feed hydrogen which in turn was caused by frequent shut downs of electrolysers. In evidence, the General Manager stated that in another two or three years, when it was possible to maintain the equipment properly, it would be possible to synchronise the working of the two plants. It is thus evident that there is loss in production due to inadequate maintenance of the plant. *The Committee trust that energetic steps would be taken to reach the rated capacity as early as possible.*

F. Sale Price of Heavy Water

Delay in deciding.

100. Though Nangal Unit started producing heavy water with effect from 9th August, 1962, its sale price to Atomic Energy Department, its sole buyer, had not been decided till recently. The latter did not accept the basis on which the price was worked out by the Corporation. They, therefore, deputed an Accounts Officer to Nangal to verify and collect the cost data. On receipt of a report from the Atomic Energy Department, the Corporation decided to accept, as far as possible, the changes and adjustments in the cost figures recommended by them. But there was still a sizeable hiatus between the price worked out by the Corporation and the price that the Atomic Energy Department were

prepared to pay. The difference in the sale price worked out by the two was mainly stated to be due to:—

(a) the annual production capacity having been taken at 12·5 tonnes;

(b) depreciation being based on a plant life of 12 years as compared to the AEET formula of 20 years life with 20% residual value; and

(c) a return on capital of 10% as against 5% suggested by the AEET.

101. The Committee were, however, informed by the Department of Atomic Energy in December, 1964 that an agreement had since been reached with the Fertiliser Corporation in this regard.

102. *It would be seen that it took the Corporation over two years to decide the sale price of heavy water. This is somewhat surprising when the producer and the consumer are both wings of the Central Government. The Committee feel that, in cases where prices are not agreed to in advance between the parties and differences persist, the feasibility of the Tariff Commission examining the cost of production and allowing reasonable margin of profit to the producing unit may be considered by Government.*

G. Accumulation of Stocks

Reasons.

103. In 1961-62 the Fertiliser Corporation was faced with some difficulty in moving their products out of the factories, particularly at Nangal. The difficulty arose because State Governments failed to issue despatch instructions to cover the full allotment of fertilisers made by the Central Pool. Consequently the despatches of fertilisers were considerably low. Further wagons were not available from the Railways and there were restrictions in bookings to the South. As a result, stock position assumed serious proportions and on 6th February, 1962 the stock in the silo was 49,145 tonnes. Necessary steps were taken with the assistance of the Ministries of Railways and Food and Agriculture to overcome this problem.

104. In this connection, the Committee note that in the year 1961-62 only 34·5% (56,460 tonnes) of calcium ammonium nitrate distributed was consumed in the Punjab and as much as 35% (57,929 tonnes) was distributed in the Southern States. The position has since improved and, in 1963-64, 202,014 tonnes of CAN were distributed in the Punjab.

105. In evidence, it was admitted that the problem had arisen mainly because preparatory work to popularise the product had not been done. But there was no difficulty at present. *The need for avoiding accumulation of fertilisers cannot be over emphasised. It results in locking up of capital, deterioration in storage, and can even lead to stoppage of production. The Committee, therefore, urge that suitable measures should be taken in coordination with the Agricultural Extension Service of the Ministry of Agriculture to popularise fertilisers in areas where new plants are being put up, so as to ensure prompt off-take of fertilisers and avoid their transportation to far off places.* **Steps to popularise fertilisers suggested.**

H. Oxygen

106. It has not been possible for the Nangal Unit to use oxygen produced in the electrolysis plant which is being let out in the atmosphere. The quantities so let out, since commencement of production in the electrolysers, are as follows:— **Extent of Non-utilisation.**

Duration	Oxygen in 1000 Nm.³
Year ending 1962	59,175·9285
„ 1963 .	80,102·5675
„ 1964 . .	104,668·4335
Current year till 31-7-1964	34,192·855

107. Various possibilities for utilisation of surplus oxygen were stated to have been investigated. Most important of these were:— **Possibilities examined.**

(a) installation of a compression plant to fill oxygen in cylinders for use in Oxygen-acetylene welding industry and for use in hospitals;

(b) distribution as liquid oxygen for use as an explosive and for filling in breathing apparatus;

(c) installation of Oxy-thermic process for the manufacture of calcium carbide; and

(d) Gasification of coal, naphtha or fuel oil for the production of synthesis gas for manufacture of ammonia.

108. The Corporation has stated that surplus oxygen could best be utilised for gasification of hydro carbon or coal feed-stocks for expanding the nitrogen capacity. Techno-economic study based on gasification of naphtha, fuel oil and

coal has been prepared and is under the consideration of Government. It envisages doubling the capacity of the existing plant.

109. In evidence, the Managing Director of the Corporation stated that if the availability of commercially exploitable quantity of gas was established in Jawalamukhi, it would be possible to produce 300 tons of extra ammonia per day for the manufacture of urea which is a more profitable product. The representative of the Ministry informed the Committee that even with the expansion of the Nangal Unit, the entire quantity of oxygen would not be utilised and solution to the problem was not yet in sight. Government had not, however, specifically asked the Corporation to study the position regarding utilisation of oxygen in similar factories abroad.

110. *The cost of production of the Nangal Unit is much higher as compared to similar factories abroad. Maximum utilisation of the existing resources is, therefore, essential for reducing the cost of production and improving its financial position. The Committee were informed that utilisation of oxygen would fetch about Rs.* 60 *lakhs per annum. They, therefore, recommend that the schemes for utilisation of surplus oxygen should be carefully examined and implemented without delay.*

I. **Other Problems**

111. The Nangal Unit is faced with the following other problems:—

(i) failure of expansion turbine rotor in Nitric Acid Plant; and

(ii) corrosion in condensators and ammonia vaporiser in Nitric Acid Plant.

112. The problem of failure of expansion turbine rotor in Nitric Acid Plant is under study with the suppliers of equipment, M/S G.H.H. of Germany. Simultaneously, the above problems are being studied locally by the Planning & Development Division of the Corporation. But it has not yet been possible to find a complete solution to these problems. *The Committee would urge that energetic efforts be made to solve the above problems at an early date.*

III

PROJECTS UNDER CONSTRUCTION

A. Planning of Projects

113. Besides the two operating Units at Sindri and Nangal, the Fertilizer Corporation is setting up five fertilizer plants, one each at Trombay (Maharashtra), Namrup (Assam), Gorakhpur (U.P.), Korba (Madhya Pradesh) and Durgapur* (West Bengal).

(i) Sanctioning of Projects.

114. The time-lag between the original proposal and final clearance of the Projects by Government is given in the following table:—

	Trombay	Namrup	Gorakphur	Korba
1. Date of conceiving the project .	June, 1955	1954	Early, 1960	Aug. 1962
2. Date of receipt of technical feasibility report .	10-1-1959	Sep. 1959	19-8-1960	April, 1963
3. Location of site	1959-60	Aug. 1961	March, 1963	June, 1963
4. Date of receipt of project report .		10-5-1960	Early, 1963	Aug, 1964
5. Date on which clearance was received from Government to go ahead with the project . .	14-4-1959	June, 1960	27-10-1961	Not yet received.
6. Total time taken from conceiving the project .	about 4 years	6 years	1/½ Years	..

Reasons for delay.

115. Messrs Burmah Shell Refineries had originally proposed before 1955, the establishment of a fertilizer plant based on naphtha from the refineries at Trombay. The proposal was not pursued by them subsequently as they considered it unremunerative. In 1958 an *ad hoc* Committee was appointed by Government to formulate proposals to set up a plant there. On their recommendation, it was decided in 1959 to set up a unit at Trombay in the

*This project (ertimated cost Rs. 35·63 crores) has been sanctioned for implementation only recently. It does not therefore form part of this study by the Committee on Public Undertakings.

public sector. This accounted for delay in the planning of Trombay Project.

116. As regards Korba, a private party was licensed for putting up a 100,000 ton nitrogen plant in 1961. They did nothing and surrendered the licence when the Corporation was entrusted with this project in 1962. The question whether the plant should be coal-based or not delayed its clearance by Government. The allocation of foreign exchange further delayed its clearance. The Committee were informed that the possibilities of reducing the cost of production at Korba were still under examination. In the meantime 244 persons employed at Korba are idle. If by any chance Government finally decide against the Project, an expenditure of Rs. 121.73 lakhs would have been incurred at Korba out of which Rs. 30 lakhs would be rendered infructuous.

Views of U.N. Fertilizer Mission.

117. In this connection, the Committee find that in 1962, the United Nations Fertilizer Mission in their Report on Planning for the Production of Commercial Fertilizers during the Third Five Year Plan had observed as follows:—

> "The high cost of fertilizer based on coal in Rajasthan or Madhya Pradesh would set a difficult selling problem. If it is later found that local demand increases so as to necessitate production there, any manufacture should probably be based on naphtha, or possibly on natural gas".

118. *It is thus evident that the decision to set up a fertilizer plant at Korba by the Fertilizer Corporation of India was not preceded by a thorough study of its technical, financial and other aspects. The difficulties which have delayed the clearance of the project by Government are not unforeseeable and could well have been anticipated particularly when the United Nations Mission had expressed a doubt in the matter. The result has been that the Third Five Year Plan targets of fertilizer production would not be achieved, necessitating large imports. What is more, a part of land for the project has been acquired. 244 persons already employed there are idle and an expenditure of Rs. 30 lakhs would be rendered infructuous if ultimately a decision is taken not to proceed with the project. The Committee trust that Government would at least now carefully examine the economics of the proposed Korba plant expeditiously and take a final decision without further delay.*

(ii) Stages of Scrutiny.

119. From the table in paragraph 114 it would also be seen that the time taken from the date of receipt of feasibility reports to clearance by Government has ranged between 3

months in the case of Trombay to over 2 years in the case of Korba, for which a clearance is being still awaited. It was represented to the Committee that scrutiny and approval of feasibility study and detailed project reports by Government, at present, involved considerable delay, as various Ministries have to be consulted. In order to avoid these delays it was suggested that a conference of representatives of the concerned Ministries might be held at both these stages to consider and examine the reports. *The Committee recommend that Government might examine the present procedure regarding scrutiny of projects with a view to simplify and orient it so as to minimise delays in their sanctioning.*

(iii) No uniform procedure.

120. The Committee find that after the preparation of feasibility study reports, the procedure followed in the selection of sites, drawing up of detailed project reports and clearance by Government has differed from project to project. For instance, sites for Namrup and Gorakhpur Projects were selected after obtaining Government clearance to go ahead with the projects. In the case of Korba the site has been selected and a part of the land has also been acquired, though Government approval is still awaited. Similarly, the detailed Project Reports for Namrup and Korba Projects were prepared before obtaining Government's approval to their execution. In the case of Gorakhpur Project this was prepared after Government's approval. No such report was, however, prepared for the Trombay Project.

121. *From the foregoing it would be clear that a uniform procedure has not yet been evolved in the matter of selection of sites and preparation of Detailed Project Reports by the Fertilizer Corporation. The Committee are also not sure if a well-defined procedure has been laid down by Government indicating the various stages in the implementation of industrial projects and the order and time sequence in which those steps are to be proceeded with. To avoid delays and inadequacies in the planning of projects, the Committee feel that it would be desirable to clearly spell out the types of studies that should be undertaken and the order in which they should be conducted before a project is finally approved by Government for implementation. They suggest that the Bureau of Public Enterprises might examine this matter with a view to prescribing a regular procedure for adoption in the case of all the industrial undertakings in the public sector.*

B. Detailed Project Report

Not prepared for Trombay Project.

122. As stated earlier, a project report was not prepared in the case of Trombay Project and the feasibility study was the only basis for its implementation. A detailed project report is principally a plan of operation giving the schedule of construction, the cost estimates and the time schedule of its commissioning. In other words, it also sets the standard of time, cost, men, material and machines. The performance of project authorities can only be assessed if there is a project report of this nature. As stated elsewhere, lack of such detailed project planning has resulted in schedule slippages, cost overruns and contractual difficulties at Trombay and a valid basis for performance evaluation does not exist. In evidence it was admitted that the absence of a detailed project report and detailed estimates were serious lacunae, and that it was not prudent to have launched on this project without detailed project report. *The Committee feel that Government should not give approval to go ahead with a project, until its detailed project report has been prepared.*

C. Location of Projects

Gorakhpur and Namrup Projects.

123. In locating the fertilizer factory at Trombay the easy availability of petroleum naphtha from the refineries and proximity to Port, which facilitated transport of raw materials, were stated to be the considerations. The locations at Gorakhpur and Namrup were stated to have been decided on the recommendation of Technical Committees appointed for the purpose. The Committee, however, note that the Corporation was handicapped due to relative inaccessibility of the area where Namrup Unit will be located. It is facing unusual difficulties in transporting heavy machinery and equipment to the job site. In the case of Gorakhpur factory also the locational disadvantages and transportation costs, would put up the cost of its intermediate and end-products which will be higher than the production cost of other units.

Criteria.

124. As to the criteria laid down for location of fertilizer plants, the representative of the Ministry informed the Committee that the policy of Government, as announced by the Minister of Commerce in Parliament, was that it was desirable to aim at one fertilizer factory in each State. Considerations like regional development, availability of raw materials and proximity to market were also taken into consideration. The location at Gorakhpur was stated to have been decided on the consideration that naphtha was to be obtained from Barauni Refinery.

125. *It is obvious that both the Gorakhpur and Namrup Projects suffer from locational disadvantages. The Committee are not sure whether better locations for these units could not be found in these areas. Location is one of the decisive factors in the economies of the working of a Unit. The Committee urge that greater care should be exercised before deciding the location of industrial projects in future and economic considerations should be the guiding factor in this regard.*

D. Land

126. The Fertilizer Corporation experienced considerable difficulty in the matter of acquisition of land for Gorakhpur Project. It took them nearly 20 months to get possession of about 85% of the total land required. Although the project was sanctioned in October, 1961, it has not so far been possible for them to take possession of the remaining 149 acres of land. Due to delay in the acquisition of land, the progress of the project has been affected and the completion of the factory may be delayed to some extent. In the case of Namrup Project also, some delay is stated to have taken place due to Land Acquisition proceedings having been challenged in the Assam High Court. (i) Acquisition difficulties at Gorakhpur and Namrup.

127. *The Committee feel that the present legal position is such that land acquisition procedure tends to be protracted. Government should, therefore, review the legal aspect and take necessary steps with a view to speeding up land acquisition procedure for public undertakings.*

128. The entire cost of land acquired for Namrup has been borne by the Fertilizer Corporation. The U.P. Government, however, shared the cost of land acquired for the Gorakhpur Project in the proportion of 40:60, when the price of land was increased due to agitation by tenants. The West Bengal Government is stated to have gifted 1,000 acres of land for the proposed fertiliser factory at Durgapur. The Madhya Pradesh Government has also agreed in principle to give waste land in Korba area at a cheap rate. (ii) Cost of Land shared by State Governments.

129. *The Committee note that no uniform policy is being followed by the Corporation in meeting the cost of land required for its Projects. As the cost of land accounts for 3 to 7% of the total capital cost of a fertilizer project, the Committee are of the view that the Corporation should try to obtain as much assistance from the State Governments concerned as possible.*

(iii) Utilisation of Land.

130. The area of land acquired for each unit/project of the Corporation is given below:—

Sindri Unit .	6156 acres	
Nangal Unit .	3690 ,,	
Trombay Project	825 ,,	
Gorakhpur Project	1017 ,,	proposed to be acquired.
Namrup Project	809 ,,	

131. It will be seen that the land acquired for Sindri & Nangal Units was much in excess of their needs. In evidence, the representative of the Ministry stated that excessive land was acquired at Sindri because it was cheap then. Some of the surplus land at Sindri was now being utilised by Pyrites & Chemicals Development Co. Ltd. for putting up a sulphuric acid plant there. The requirements of Nangal Unit were stated to have been based on the experience of Sindri Fertilizer Factory. Subsequently, however, about 1,034 acres of land, which were not being put to any purposeful use had to be placed at the disposal of the State Government for being returned to the original owners at the price paid by the Unit, less 15% compulsory acquisition and interest charges. As a result, the unit incurred a loss of Rs. 5 lakhs.

132. *It would appear that the acquisition and utilisation of land in the earlier projects has been on a lavish scale. The importance of careful assessment of requirements of land and planning layout of factories and townships needs no special emphasis. Proper planning and laying down standards for land utilisation would lead to economy in land. The economy in land would in turn lead to lower maintenance cost and consequently reduced operational cost of the plant. The Committee recommend that the Corporation should exercise utmost economy in assessing land requirements and its utilisation for the fertilizer units in future. They further suggest that suitable norms should be laid down by the Corporation regarding utilisation of land for the future factories and townships.*

E. Soil Investigations

Difficulties at Namrup.

133. The Namrup Project has suffered a set back of about a year due to the need for fresh soil investigation, which has been entrusted to M/s. Cementation India Ltd. This delay is also likely to result in additional expenditure. The Committee were informed that preliminary studies were made by the Central Water and Power Commission

by wash-boring but no chemical and other tests were carried out. The second subsoil investigation carried out by Cementation Limited in the same site at a cost of Rs. 2.16 lakhs revealed that it would be necessary to build cellular or raft foundation resting on at least 100 ft. long piles, for all the heavy moving machinery at enormous cost. Detailed investigation was being carried out at a location within a mile from the present site. If that area was found suitable it might be possible to locate the factory without any special precaution like piling or further delay. This would, however, necessitate acquisition of 120 acres of land and involve additional expenditure on:—

(i) railway line;

(ii) power transmission;

(iii) putting up steam generating set; and

(iv) development of new site including putting up a revetment to protect the factory at the new site.

134. In evidence it was stated that the Corporation had to proceed on the basis of preliminary indications. Detailed soil investigations could only be conducted after acquisition of land by the Corporation. The representative of the Ministry, however, agreed that proper selection of site could only be done after detailed soil investigations which should be attempted in the very beginning.

135. *The selection of a site is a basic, long term and final decision for the location of an industrial enterprise. Even minor omissions at the time of initial soil investigations can prove to be very costly, as has happened in Namrup. The Committee, therefore, recommend that maximum care and attention should be devoted to detailed soil investigations initially so that chances of a bad location which saddle the project with additional cost and delays are minimised. It might also be examined whether detailed soil investigations could not be carried out against payment of a small compensation to the owners of the land.*

F. Production Pattern

Change in Trombay Project.

136. It was originally proposed that nitrophosphate to be manufactured at Trombay project would be all citrate soluble. Subsequent studies, however, revealed that a water soluble product might be more suitable for Indian soil conditions. In November 1960, some 16 months after the first issue of Notices inviting tenders, a decision was taken that Nitrophosphate to be produced should be 50 per cent water soluble. This decision to

change the product, in addition to causing lengthy delays in construction process, necesssitated the setting up of a sulphuric acid plant and alteration in the specifications for the bagging plant.

137. *To undertake the execution of the project and invite tenders without finally deciding the product to be manufactured at Trombay were a serious lapse. In the fertiliser industry it is all the more necessary to decide the product pattern in advance as the product to be manufactured is supposed to be based on extensive trials and suitability to the soils for which it is intended. To avoid difficulties of the nature that arose at Trombay, the Committee feel that this is a matter which should receive the first attention while setting up industrial enterprises of this nature.*

G. Change in Scope

Namrup Project.

138. As recommended by Fertiliser Technical Committee, it was originally proposed to set up a fertiliser factory at Namrup with a capacity of 50,000 tonnes of ammonium sulphate and 50,000 tonnes of urea per annum. A detailed project report was also prepared on that basis involving a capital outlay of Rs. 15·14 crores. Subsequently, however, the capacity was altered to 50,000 tonnes of urea and 100,000 tonnes of ammonium sulphate, necessitating a change in the detailed project report and delaying execution of the project by about a year. In evidence it was stated that the capacity of the project had to be enlarged under pressure from the tea industry and instructions from Government.

Committee's observation.

139. *The size of an industrial enterprise has to be determined after a thorough study of the requirements. The requirements of tea industry, the principal industry of that region, should have been foreseen. It is regrettable that this was lost sight of. The Committee would urge that such alterations in the capacity of projects during the course of their execution be avoided, as far as possible, as they involve unnecessary expense and delay.*

H. Town Gas Plant

Setting up entrusted to Trombay Project.

140. The setting up of a town gas plant at Trombay with a capacity of 2 million cubic feet of gas per day has been entrusted to the Trombay project of the Fertiliser Corporation. The decision was taken over 4 years ago (in October 1960). A project report was also prepared subsequently, but the project has not been taken up for execution because the Bombay Municipality and the

Maharashtra Government had not yet made any firm commitment either about the offtake of gas or the price at which it will be supplied to them.

141. In evidence the Managing Director informed the Committee that the Maharashtra Government were since prepared to guarantee the offtake of gas but its pricing had not been settled. The availability of feedstock naphtha had also not been ensured.

142. *The Committee regret that the setting up of the Town Gas Plant was decided before making sure about the availability of the necessary feedstock or offtake of gas and without entering into a formal agreement with the State Government in this regard.*

I. Foreign Exchange

143. There has been considerable delay in arranging foreign exchange allocation for the projects under construction as would be seen from the following:— Delays in allocation.

	Trombay	Namrup	Gorakhpur
(1) Date on which clearance was received from Government to go ahead with the project.	14-4-1959	June, 1960	27-10-1961
(2) Date on which foreign exchange was arranged . . .	29-12-1960	28-8-1962	July, 1963

144. Global tenders for the various plants of Trombay project were invited on 17th November, 1959 without knowing the source of foreign exchange. These were received upto June 1960. During the scrutiny of tenders in August 1960, it became known that the foreign exchange requirements of the project would be met out of a U.S., A.I.D. Loan. Tenders for certain plant & machinery had therefore to be obtained from U.S.A. only. Besides the delay caused in refloating tenders for which American firms had not quoted initially, the Corporation had to pay higher prices for plant and machinery because the same had to be obtained from American tenderers only. The extra price amounting to Rs. 184 lakhs (about 15% of the total cost of plant

and equipment) had to be paid for various plants as follows:—

	Difference in price	
1. Ammonia Plant	Rs. 126 lakhs	(20% higher)
2. Urea Plant	Rs. 28 „	(13% „)
3. Nitrophosphate Plant . .	Rs. 30 „	(19% „)
	s. 184 lakhs	

Suggestion of the Corporation.

145. The Corporation stated that different countries have different engineering standards. It is therefore absolutely essential to know the source of foreign exchange before designing the necessary plant and equipment. Further, to save time, untied credits should be made available from a number of countries which can supply equipment so that the Corporation can pick and choose the most reliable equipment at an early stage of project execution.

146. *The Committee feel that the source of credit should be ascertained by an undertaking before inviting tenders. In the present case, tenders were invited before knowing the source of finance with the result that the earlier effort proved to be a waste and it became necessary to refloat tenders from American sources when it was finally known that funds would be available from U.S., A.I.D. loan. Perhaps this was inevitable under present conditions in India. Restriction of the source of funds unnecessarily adds to the cost of the project, as has happened at Trombay. The Committee suggest that, as far as possible, untied credit should be made available for such big projects.*

J. Raw Materials

(i) Water arrangements for Trombay.

147. The requirements of water for normal production at Trombay Project are about 6 million gallons per day. In August 1956 the Maharashtra Government had confirmed that the required quantity of water would be made available for the factory by 1960. The Municipal Corporation, however, desired that one third of the entire cost involved in the installation of water mains and reservoir (Rs. 88 lakhs) at Trombay be given to them in the form of subsidy and the balance as interest bearing loan since it was not possible for them to finance the scheme without such assistance.

148. In March 1960 the Fertiliser Corporation approved the rates for water supply (Rs. 1.25 per 1000 gallons for the first 5 years and Rs. 1.50 per 1000 gallons for the next 5 years) which were subject to increase under

certain conditions. In April 1961 Government decided that the Fertiliser Corporation could advance interest bearing loan to the Municipal Corporation but any subsidy should be granted by the Maharashtra Government. Subsequently the Municipal Corporation wanted to increase the rates by Rs. 0.25 per 1000 gallons. In March 1964, however, the Municipal Corporation informed that they would not be able to stick to their commitment for water supply for want of steel. They also decided that due to acute shortage of water, drinking water should not be supplied to industries in preference to the domestic needs of the city population. The matter was, therefore, taken up by the Central Government with the Maharashtra Government at the highest level. As a result the State Government have informed the Corporation on July 29, 1964 that the Municipal Corporation has agreed to supply 2 million gallons of water per day. The Committee were further informed that the officers of State Government and Municipal Commissioner had unofficially ensured the General Manager that the project will not have any difficulty on account of non-availability of water. A regular agreement had not however been entered into by the Fertiliser Corporation with the Municipal Corporation so far.

(ii) Power arrangements for Trombay.

149. There was also a delay of 14 months in making final arrangements for meeting the power requirements of the Trombay Project. There was further delay in making arrangements for the actual supply of power. These delays resulted in shifting the firm date of availability of power to January 1965. The present rate for power supply, inclusive of electricity duty, works out to 5·6 paisa per kwh as against 3·5 paisa per kwh originally indicated by the Maharashtra Government (*i.e.* an increase of 50%).

150. *The timely commissioning and economic working of an industrial enterprise depends to a large extent on the timely supply of and reasonable rates for basic raw materials, like water and power. It is, therefore, essential that firm and satisfactory arrangements in regard to their supply should be made in the very beginning, preferably before starting the work, otherwise it would lead to difficulties.*

151. *The Committee note that the Maharashtra Government had earlier agreed to supply water and power at certain rates. After the location of the project was decided upon, higher rates were demanded. Their supply has also been delayed. Similar difficulties were experienced at Nangal as well. In the circumstances, the Com-*

mittee suggest that the Central Government should enter into firm commitment with the State Government concerned with regard to these matters preferably before locating a Project in that State.

(iii) Loss of equipment at Dock Yard.

152. The Committee have earlier referred to the loss of equipment meant for Nangal Project in the Dock Yard, whose replacement delayed the timely completion of the Project. The Trombay Project was also faced with a similar situation. The value of their equipment and materials lost at the docks amounted to $54,795·14. A number of other items were lost but were recovered after a period ranging from three months to one year. Due to congestion at Bombay port, a number of ships, some of these carrying critical items, had also to be diverted to other ports, *viz.*, Kandla, Calcutta and Cochin.

153. *The Corporation has since set up a Liaison Office at Bombay. The Committee hope that such losses will not recur.*

(iv) Fort rent and demurrage charges.

154. *The Trombay Project has paid port rent and demurrage charges amounting to Rs.* 4.55 *lakhs. This is on the high side. This has been attributed to delay in clearance of goods due to receipt of bills of lading after arrival of goods, delay in customs appraisal and congestion in the port. Of the above amount Rs.* 2·04 *lakhs are stated to have been paid due to delays in customs examination and appraisal. The Committee urge that necessary steps may be taken to clear the goods as early as possible, so as to reduce the demurrage charges in all the Projects of the Corporation. The avoidable delays in customs examination, if any, should be brought to the notice of the Ministry of Finance so that the procedure followed by the Customs Authorities is simplified.*

K. Estimates of Cost

Original and revised estimates.

155. The original and revised estimates of the various projects are given below:—

	Original estimates	Revised estimates	Remarks
		(Rs. crores)	
Trombay Project .	24·34 (1959)	33·40 (June 1963)	37·76 (including Rs. 4·36 crores for methanol Plant)
Namrup Project	18·03		Estimate not finally approved by Government.
Gorakhpur Project . .	26·57 (16-12-1963)		
Korba Project . .	30·48	..	

156. The increase in the cost of Trombay Project has been ascribed partly to non-inclusion of financing charges (Rs. 3·10 crores) to cover the interest on capital employed during the period of construction, and working capital (Rs. 0·71 crores) in the original estimates. The increase has also been due to (i) higher cost of American plant and increase in prices over 1957 level (Rs. 2:51 crores) and (ii) change in the product pattern of the project which necessitated installation of additional plants as follows:— Reasons for increase in estimates.

(i) Provision of sulphuric acid plant & water treatment plant, increasing the capacity of Steam Generation Plant & installation of Argon Recovery Plant—approximately Rs. 1:00 crore.

(ii) Additional customs duty due to increase in the cost of plants—Approximately Rs. 1 crore.

(iii) Cost of land—Approximately Rs. 0:5 crore.

It has been stated that the contemplated change in the site of Namrup Project is also likely to affect the estimates of that Project.

157. The Committee have earlier referred to the fact that Trombay Project was proceeded with on the basis of feasibility study and no detailed project report was prepared. The feasibility study also contained rough estimates based on prices prevailing in 1957. In evidence the Committee were informed that the estimates now prepared by the Planning and Development Division of the Corporation in respect of Namrup, Gorakhpur and Korba Projects were more accurate and large variations were not expected to take place in future.

158. *Whatever the justification for the upward revision in the estimates of the Trombay Project, the Committee feel that a correct assessment of the cost should have been made at the earliest opportunity after ascertaining the source of finance and calling for quotations for plant and equipment. That was not done. The Committee feel that for proper financial control, Government should insist on detailed estimates of projects being prepared by the undertakings before according approval thereto. They hope that this would be done in future.*

159. *The Committee note that the project estimates for Namrup and Gorakhpur Projects prepared in February* 1961 *and March* 1964 *respectively are still awaiting Government's approval. In the meantime, expenditure is being*

incurred. This is not proper and if a Project is not approved by Government it would lead to infructuous expenditure.

L. Time taken in erection/commissioning

160. The dates of sanctioning implementation of the various projects and anticipated dates of their commissioning are given below:—

	Trombay	Namrup	Gorakhpur
Date on which clearance was received from Govt. to go ahead with the Project.	14-4-1959	June, 1960	27-10-1961
Scheduled dates of commissioning	October, 1964/ February 1965	Jan., 1966	April 1967
Time taken	5 1/2 years	5 2/3 yrs.	5 1/2 years

161. The schedule of commissioning of the Trombay Project has been revised four times and there is likely to be a further revision.

162. In this connection the United Nations Fertiliser Mission (December 1960 to February 1961), observed that the normal time schedule for completion of a fertiliser project, under Indian conditions, was about 35 to 47 months. Against this the actual time taken by the Corporation varied from 52 to 71 months as will be seen from the table below:—

	Normal time schedule estimated by U.N. Fertiliser Mission	Approximate time taken by the Fertiliser Corporation
	(months)	(months)
Preliminary analysis, project report, initial decision to proceed with the Project	4—5	5—7
Preparation of tenders, preliminary process and specifications etc.	3—4	3—4
Contractors' project bid, reveiw of bids and official decision to construct the factory	4—8	12—20
Ordering, construction, erection to completion and start-up . . .	24—30	32—40
	35—47	52—71

163. In evidence it was admitted that there was scope for improvement in the matter of planning and programming of fertiliser projects in the country. It was also agreed that with their experience, the Corporation could now reduce the time taken in the erection/commissioning

of future fertiliser projects to 40/50 months from the date of approval of projects.

164. *Every day's delay increases the capital cost of a project and defers production which in the case of a big fertiliser plant could be worth nearly half a million rupees. The Committee, therefore, recommend that the Corporation should at least now make a serious attempt to reduce the time taken in the erection and commissioning of its future projects.*

M. Construction Works

Compressor foundations of Trombay Project.

165. The Committee were informed that the representatives of M/s. Chemical Construction Corporation, who supplied the design of the compressor foundations of the Trombay Project, were not satisfied with the workmanship of the foundations and wanted some parts to be demolished and rebuilt. The expenditure on dismantling 17 pedestals and rebuilding them amounted to Rs. 1.41 lakhs. The Chemical Construction Corporation also doubted the strength and soundness of lean concrete on which compressor foundations were built and argued that they would not be responsible for running the machinery unless they were satisfied that the foundations were safe. A Committee of Expert Engineers under the Chairmanship of a Member of the Central Water and Power Commission was appointed to go into the problem of lean concrete as well as the foundations. It reported that the foundations were quite safe. *The Committee feel that this unnecessary controversy which held up the work could have been avoided by mutual discussion before commencement of the foundation work.*

N. Cost Reduction Units

Not set-up.

166. The Committee find that Fertiliser Corporation has not so far set up Cost Reduction Units in its projects which was recommended in the Third Five Year Plan in the following terms:—

> "Cost Reduction Unit should be established in each major construction project as a part of the construction organisation under the exclusive control of the Chief Engineer of the Project. Its functions will be to carry out work studies, continuously analyse factors affecting costs, recommend suitable adjustments from time to time, in materials, techniques, procedures and organisation, evaluate the results of such adjustments and keep a watch on progress in achieving economies in construction costs."

167. The Managing Director informed the Committee during evidence that the above recommendation had not come to his notice.

168. *It is hardly necessary to emphasise the need for setting up Cost Reduction Units in big projects where construction accounts for a substantial proportion of expenditure. Immediate steps should be taken to organise such a Unit in all the projects of the Corporation.*

O. Comprehensive Completion Reports

Planning Commission's recommendation.

169. To enable the public enterprises to learn from their past experience and to avoid similar mistakes in future projects, the Third Five-Year Plan had recommended the preparation of a comprehensive completion report for each major project as follows:—

> "For each major project, a comprehensive completion report should be prepared giving the entire history of the project, including mistakes which occurred and risks taken, remedial measures adopted and lessons drawn so that this report may serve as a reference book and guide to engineers charged with the execution of similar projects in the future. The preparation of the completion report should be begun while the works are in progress and events fresh in memory and the report completed, as far as possible, simultaneously with or soon after the completion of the project. Technical bulletins dealing with various aspects of design and construction should also be prepared at the same time."

170. No instructions have so far been issued by the Corporation to the project authorities to undertake the preparation of such a report, although the above recommendation had been brought to the notice of the Managing Director a year ago. A beginning is, however, proposed to be made with the Trombay Project.

171. *As the intention of preparing completion reports is to benefit from past experience, it would be worth-while preparing such reports for Sindri & Nangal as well. The Committee would suggest that the Planning and Development Division of the Corporation might undertake this task.*

172. *The Committee would also recommend that after pooling all the experience of the industrial projects, Government should issue suitable instructions to all the project authorities so as to avoid similar mistakes.*

Pooling of experience.

173. *As stated earlier, recommendations made by the Planning Commission in the Third Five Year Plan had not been specifically brought to the notice of the Fertiliser Corporation. The representative of the Ministry agreed that it would be desirable for the administrative Ministries to do so. The Committee, however, feel that the Bureau of Public Enterprises should be entrusted with this task.*

IV

BOARD OF DIRECTORS

A. Composition

Variation in the strength of the Board.

174. The present Board of the Fertiliser Corporation consists of 14 members, as shown in Appendix I. Besides the full-time Chairman-*cum*-Managing Director and Executive Director there are 7 officials *i.e.*, a representative each of the (1) administrative Ministry, (2) Ministry of Finance (3) Ministry of Food and Agriculture, (4) Ministry of Labour and Employment (5) Atomic Energy Commission, (6) Council of Scientific and Industrial Research, and (7) Fertilisers and Chemicals Travancore Limited. The remaining five Directors are non-officials and include a labour representative. The number of Directors has, however, varied from year to year. It was 14 in 1960-61, 8 in 1961-62, and 11 in 1962-63 and 1963-64. During the current year it is fourteen.

175. During evidence, the Secretary of the Ministry stated that there was no hard and fast rule regarding the strength of the Board of Directors. This depended on the Minister in charge and varied according to requirements.

176. *Such variation in the number of Directors from year to year gives an impression that the strength of the Board is determined on* ad hoc *basis. The size of a Board is to be related to the volume and variety of work, and the need to provide representation to various interests. The Committee suggest that some broad principles should be laid down to determine the strength and composition of the Board of Directors of the Public Undertakings for the guidance of all the Ministries.*

B. Appointment of Additional Secretaries

177. Government decided* in November, 1961 that "no Secretary of a Ministry/Department shall be member of any Board." Despite the above decision, additional Secretaries of Ministries of Finance and Labour and Employment have been appointed as members of the Board of Directors of the Fertilizer Corporation. The Secretary of

*Decisions of Government on the report of Krishna Menon Committee and other studies on Public Undertakings.

the Ministry stated during evidence that Additional Secretaries were not debarred from being appointed on the Boards. Moreover, the Additional Secretaries on the Board of Fertiliser Corporation of India did not belong to the Administrative Ministry controlling the undertaking but to other Ministries.

178. *The Committee do not agree with the above view. They feel that the considerations which weighed with the Government in deciding against Secretaries being appointed on the Boards of Public Undertakings, apply equally to Additional Secretaries. They have hardly the time for such duties. The Committee suggest that Government should issue suitable instructions to make the above decision applicable to Additional Secretaries as well.* Committee's views.

C. Appointments

179. At the time of reconstitution of the Board in 1964-65, two persons, one of whom is Zamindar and social worker and the other an educationist were appointed as members. The Secretary of the Ministry stated during evidence that a social worker as such was not debarred from being considered for appointment as a Director and was actually so appointed where deemed necessary. *The Boards of industrial undertakings, like the Fertilizer Corporation, have to decide highly complex and technical issues. Its Directors should, therefore, bring with them qualifications and experience suited for the purpose. The Committee trust that this will be kept in view while appointing the Board of Directors in future.* Social Worker and Zamindar on the Board.

D. Functional Directors

180. In addition to the full-time Chairman-*cum*-Managing Director, the Board of the Fertilizer Corporation includes a full-time Executive Director. The later appointment was made in November, 1964 on the recommendation of the Board in order to groom a successor to the Managing Director, who is due to retire shortly. The functions of the Executive Director are identical to those of the Managing Director. Besides, the Chairman-*cum*-Managing Director, there is no functional (full-time) Director in the Corporation. Present position.

181. The Managing Director stated during evidence that there should be only one captain in a ship. He did not believe in functional division of duties at the headquarters because, in his view, it rendered effective decentralisation Views of the Managing Director.

difficult. Further, the control of the head of a Unit was likely to be curtailed to a very large extent. As to the avdisability of appointing a full-time Financial Director, the Managing Director felt that the present arrangement of having a Financial Adviser was better. The Financial Adviser was completely independent and had the right to attend every meeting of the Board. The Managing Director was also required to report every case to the Board wherever he acted at variance with the advice of the Financial Adviser. Moreover, if the suggestion was agreed to, there might be a demand for the appointment of technical and other Directors.

Views of the Committee.

182. *The Board of a large-sized multi-unit industrial undertaking like the Fertilizer Corporation has to take various decisions regarding planning and policy matters. It has to provide guidance to new projects, initiate policy, and effect alterations in the overall plan, enter into foreign aid agreements, and agreements with suppliers, contractors, and the like. On the execution side also it has to deal with various issues and problems of an urgent nature involving unexpected bottlenecks and difficulties that might affect the progress of projects. The Committee feel that all this load of work would surely be too heavy for one Chairman-*cum-*Managing Director.*

183. *In their opinion it would be advantageous to have a full-time Financial Director incharge of budget and accounts department and another full-time technical director to look-after technical matters. These Directors would not only be a party to, and responsible for all the decisions of the Board with regard to the management and operation of the enterprise, but would readily identify themselves with the objectives of the enterprise. Further such full-time Directors would also gain the necessary training and experience for ultimately taking over as Managing Director. The Committee suggest that the matter may be examined by Government.*

E. **Managing Director**

Retired Officer re-employed.

184. The present Chairman-*cum*-Managing Director of the Corporation attained the age of superannuation in December, 1960 and has since then been re-employed with the Corporation. Presently he has been granted extension of service upto June, 1965. The Secretary of the Ministry stated that personally he was against a retired man being kept so long. But the officer concerned had been in the industry for at least 15 years and had acquired sufficient knowledge and experience. It had not been possible to find

a suitable successor to him. In April, 1963, a Resident Director had been appointed at Sindri so that he might take over from the present Chairman. But he did not come upto expectations. An Executive Director had since been appointed (in November, 1964) who would shortly take over from him.

185. *The Committee feel that there has been lack of forethought and planning in regard to the selection of a successor to the present Chairman-cum-Managing Director. A suitable understudy should have been appointed early enough who could take over on the retirement of the existing incumbent. Such an attempt has been made only in November* 1964. *For not having done it, it became necessary to give extension of service to a retired officer for five long years which could have been avoided.*

F. **Other Suggestions**

186. *The Committee recommend that the desirability of giving representation to the following interests on the Board of Directors of the Fertiliser Corporation might be considered*:

(i) *Agricultural Scientists; and*

(ii) *Farmers' Organisations particularly because distribution functions are likely to be entrusted to the Fertiliser Corporation.*

V

GOVERNMENT CONTROL

A. Technical Planning Cell

Not organised by the Ministry.

187. It was suggested in the Third Five-Year Plan, that Central Ministries concerned with industrial development should take early steps to organise well-equipped technical planning cells to concentrate on the broad technical and economic aspects of the projects with which they were concerned and on the various related steps which required co-ordination at the level of policy and administration. No such Cell has so far been set up by the Ministry of Petroleum and Chemicals which has ten industrial and other undertakings (*viz.* Fertiliser Corporation of India, FACT, Indian Oil Corporation, Oil & Natural Gas Commission, Cochin Refineries Ltd., Indian Drugs and Pharmaceuticals Ltd., Pyrites & Chemicals Development Co. Ltd., Hindustan Organic Chemicals, Hindustan Antibiotics & Hindustan Insecticides) under its administrative control.

Reasons.

188. In evidence it was stated that the Ministry was formed only a year ago and was reorganised towards the latter half of November, 1964. As such the above recommendation had not been considered so far.

Early setting up suggested.

189. *The delays in the implementation of projects in the public sector have largely been attributed to lack of adequate technical, economic and financial planning. In order that planning of projects is done in sufficient detail, and the progress of their implementation is watched, the Committee consider it necessary that Ministries responsible for administering big projects are staffed with suitable technical personnel. They regret to observe that even a specific recommendation made in the Third Five-Year Plan in this regard has not been implemented by the Ministry of Petroleum and Chemicals so far. The Committee trust that the proposed Cell would now be organised at an early date.*

B. Reviews of Financial and Accounting Arrangements

Government Direction.

190. In November, 1963 Government laid down the revised form for submission of quarterly Reviews by the Financial Advisers of Public Undertakings and indicated that they should reach them by the end of the month fol-

lowing the close of quarter, after being placed before the Board. But if there was no Board meeting, the report should be placed before the Board after submission to Government.

191. There have been delays in the submission of these reports by the Fertiliser Corporation as follows:— Delays in their submission.

Period	Date of submission	Time taken after close of quarter
For quarter ending June, 1963 .	25-9-1963	About 3 months
„ „ September, 1963	23-11-1963	„ 2 „
„ „ December, 1963.	21-2-1964	„ „ „
„ „ March, 1964 .	17-7-1964	„ 3½ „
„ „ June, 1964 .	22-9-1964	2½
„ „ September, 1964	7-12-1964	„ 2½ „

192. In evidence it was stated that the reports were compiled immediately after the receipt of statements from the projects at the end of the quarter which was done within a month. The Financial Adviser stated that the reviews were sometimes sent to Government in anticipation of approval by the Board but the latter had since directed that nothing should be sent to Government without their having seen it. The representative of the Ministry, however, termed this direction of the Board as contrary to Government instructions referred to above and promised to look into the matter. Reasons.

193. *Timely reporting is essential for the efficient working of any organisation. Without it, serious "schedule slippages" or "cost overruns" might come to notice only after the opportunity for corrective action has been lost. The Committee trust that Government would issue suitable instructions to the Corporation clarifying the position regarding timely submission of these reviews without waiting for approval of the Board.* Committee's observation.

C. Reports submitted to Government

194. A list of reports and returns which are required to be submitted by the Fertiliser Corporation to Government is given in Appendix II. It has been stated that these reports enable Government to keep itself informed about the progress of activities of the Corporation, its expenditure, difficulties, if any, encountered in implementing its programme of work and render assistance, where necessary. The returns are scrutinised by Government to watch progress and ensure compliance with its orders.

195. The representative of the Ministry admitted during evidence that sometimes lot of data was supplied from which it was not easy to find out the points requiring action on the part of Government. The Corporation and other public undertakings had, therefore, been instructed to submit a narrative report along with the statistical data and to highlight points on which action is required. The Planning Commission was also stated to be reviewing the form of reports with a view to suggesting improvements.

Committee's observation.

196. *The Committee feel that the reports required to be submitted should be meaningful but not too numerous. With that end in view they suggest that the Bureau of Public Enterprises might examine the number and contents of reports presently submitted by the Public Undertakings to Government and the use to which they are put with a view to devising suitable form for submission of such reports.*

D. Cost Reduction Statements

Origin.

197. With a view to securing economy and efficiency in the implementation of Third Five-Year Plan, Government decided in December, 1961 that each Secretary should identify sectors of administration in his jurisdiction, which required attention from the point of cost reduction, and study the same. Such studies were to include aspects relating to designs, specifications, materials control and utilisation, methods of work, utilisation of staff, delay in decision making and other elements having a bearing on efficiency and costs.

198. In February, 1962, the then Ministry of Commerce & Industry decided to undertake a study of the difficulties experienced by the Fertiliser Factories at Nangal and Sindri in effecting expeditious off-take of their production and requested the Corporation to furnish quarterly reports on the subject. Since then, progress reports on the subject continue to be furnished to the Ministry. *This was a step in the right direction. After sometime the problem of accumulation of stocks had disappeared. Thereafter to have continued to get this report was not necessary and Government could have selected some other aspect or activity of the Corporation for this purpose.*

E. Reports/Returns submitted to Corporation

Scrutiny in Head Office.

199. The General Managers of the Projects/Units of the Corporation submit periodical reports and returns in the prescribed forms for the information of the Managing Director. But these are not scrutinised in the head office.

During their visit to the head office of the Corporation, the Committee were informed that these were mostly financial statements, which were collated and consolidated by the Financial Adviser. The others were for the information of Managing Director who reviewed the working of the Units/ Projects and visited them if any disquieting features were noted there. The Managing Director however informed the Board of Directors on such matters as he considered necessary.

200. *The Committee consider it necessary that a summary of these reports with a clear analysis of physical progress, problems encountered and solutions should also be placed before the Board.*

201. *The monthly progress reports submitted by the project authorities do not indicate whether the progress of construction is on schedule. They simply state "steel 20% erected" or "buildings 80% complete", etc. The Committee feel that the form of these reports needs revision so as to clearly indicate whether the progress of construction is on schedule and within the estimated cost. They hope that the Bureau of Public Enterprises would look into the matter.* Form of Progress Reports.

VI

ORGANISATION

A. Organisation at the Head Office

202. An organisational chart of the Fertiliser Corporation is given at Appendix III. At the head office, located in New Delhi, the Chairman-*cum*-Managing Director, is assisted by a Secretary, a Financial Adviser, a Transportation Adviser and a Public Relations Adviser. In addition, the Chief Training and Education Officer at Sindri works under the direct control and supervision of the Managing Director. The Senior Purchase Officer, Calcutta and the Purchase and Liaison Officer, Bombay also work as part of the headquarters office.

203. It has been stated that the head office organisation is essentially intended to assist the Managing Director in the discharge of his duties as the Chief Executive of the Corporation, which are, direction, control, guidance and coordination of the operations of the units and projects. The sanctioned strength and staff actually employed in the headquarters office of the Corporation during each of last 3 years are given below:—

Department	1962		1963		30-9-1964	
	Sanctioned	Actual	Sanctioned	Actual	Sanctioned	Actual
Mg. Director's Office	6	6	7	7	7	7
Secretariat . .	104	90	92	91	97	96
Purchase & Liaison Section . .	26	21	16	15	14	14
Technical Section .	16	14	4	3	4	4
Personnel Section .	29	18	8	8	7	7
Finance and Accounts Department .	49	38	34	33	36	33
Public Relations Adviser's Department	7	7	5	5	7	7
Transportation Adviser's Department	4	4	5	5	5	5
	241	198	171	167	177	17

204. *The strength of various Departments in the head office of the Corporation has generally been brought down during the last two years. The Committee, however, learn that no job analysis has been made so far. They recommend that that should be done.* Job-analysis suggested.

B. Transportation Adviser

205. As stated earlier, the Corporation employs a Transportation Adviser (in the scale of Rs. 1600—2000) at the head office. He has a staff of 4 persons in his department. The present incumbent is an officer on deputation from the North Eastern Railway till January, 1967. The need for such an officer was stated to have been felt about two years ago when Sindri Unit ran out of essential raw materials, *viz.* gypsum and coal, and Nangal unit had its storage silos overfilled with stocks of fertilisers due to movement difficulties. It was stated that the Transportation Adviser assists the Managing Director and the General Managers of the Units/Projects in all matters relating to inland transport and maintains close liaison with the zonal Railways and the Railway Board for the purpose. Need.

206. The Committee note that in addition each Unit/Project of the Corporation employs a Transportation Officer/Superintendent Transport of sufficiently high status* with a complement of staff as indicated below:—

	Total staff in the Transportation Department
Sindri	188
Nangal	107
Namrup	81
Gorakhpur	20
Trombay	38
Korba	44

207. *The Committee feel that the local transportation officer of the Unit/Project concerned should be in a position to attend to its transportation problems and any liaison with the Railway Board could be done by the Liaison officer of the head office (scale of pay Rs. 1000—1400). They feel that the post of the Transportation Adviser which was created to tide over a temporary difficulty, should not have been continued on a permanent basis. The reasons*

*The scale of pay of Divisional Transportation Officer at Sindri is Rs. 700—1250.

advanced for appointing a Transportation Adviser at the head office of the Corporation are such which apply equally to all multi-unit undertakings. The Committee are not convinced of the need for such an officer at the headquarters of the Fertiliser Corporation when other industrial undertakings like Heavy Engineering Corporation, Hindustan Steel Limited etc. with greater transportation problems do not have such officers at their head offices. The Committee, therefore, recommend that the post of Transportation Adviser at the head office of the Corporation should be abolished.

208. *The Board of Directors of the Corporation have recently decided to appoint an Industrial Relations Adviser at its head office. This is again a departure from the usual pattern followed by other public undertakings. It appears to the Committee that guiding principles should be laid down for the organisational set up at head offices of multi-unit undertakings. They suggest that the Bureau of Public Enterprises might make a comparative study of the organisational set up of the head offices of multi-unit undertakings in the public sector and private sector/foreign countries and lay down a broad pattern for the guidance of Public Undertakings which could be varied to suit the special requirements of individual undertakings.*

C. **Location of Head Office**

209. The registered office of the Corporation is located at Delhi. In the initial stages, as the senior officials had to maintain constant touch and consultation with the Ministries and Departments of the Government, it was considered necessary to locate the registered office in Delhi. Subsequently, on 18th January, 1963, the Government issued a directive asking the Corporation to shift its headquarters. The Board accordingly decided that the Corporation should maintain the official headquarters of Managing Director and Financial Adviser and a liaison office at Delhi but the registered head office of the Corporation should be immediately shifted to Bombay. Government later advised the Corporation that it would not be necessary to shift the registered office to Bombay but it should release a minimum accommodation of 7,000 sq. ft. in Delhi. In view of Government's decision, the Board on 1st June, 1963 decided to acquire two acres of land in Delhi or its neighbourhood for the construction of an office building as well as staff quarters. But no final decision has been taken so far.

210. *The Committee consider that the location of head office of each Public Undertaking should be decided after taking all relevant factors into consideration (its size, number of units, their location, stage of their execution, etc.) but such a decision should be based on certain broad principles. They suggest that the Ministry of Works and Housing should go into this question in consultation with the administrative Ministries concerned and lay down broad principles for locating the headquarters of Public Undertakings, consistent with their efficiency and economy, while keeping in view the need for relieving congestion in the capital. In this connection they would invite a reference to the recommendation contained in para 17 of the 50th Report of Estimates Committee (3rd Lok Sabha).* Committee's observation.

211. *The Committee trust that the question of location of head office of the Fertiliser Corporation would be re-examined in the light of the above remarks.*

D. Organisation at Unit/Project Level

212. The organisational set up of the operating Units as well as Projects under construction varies from project to project (Appendix III). For instance, the Sindri Unit employs a Commercial Supdtt., while there is no such officer at Nangal. There is a Deputy General Manager at Nangal but none at Sindri. Again there is a Stores Purchase Officer at Namrup Project while no other Project employs such an officer.

213. *The Committee realise that the size of Departments in a Unit/Project and the status of departmental heads would depend on the stage of construction or the scale of its operation. Nevertheless, they feel that the organisational set up of a Unit/Project should not be decided on* ad hoc *basis. It should be determined after a proper study of the needs of each Unit/Project because the absence of proper organisation and suitable officers to attend to specific functions from the very beginning, e.g., absence of Stores Purchase Officer at Gorakhpur, can result in grave irregularities. To avoid such a situation, the Committee suggest that the Corporation might study the organisational set up of its various Units/Projects* vis-a-vis *their needs and remodel it accordingly. While doing so, they might also keep in mind the desirability of having common designations for similar functions in all the Units/Projects, so as to facilitate inter-plant transfers.* Study suggested.

214. It was stated that the Commercial Superintendent at Sindri was appointed as an experimental measure, in pursuance of a directive from Government. The Managing Commercial Superintendent.

Director of the Corporation, however, saw no particular advantage in appointing such an officer. The Secretary of the Ministry promised to examine the matter and abolish the post, if necessary. *The Committee hope that necessary action would be taken.*

E. Planning and Development Division

215. Under instructions from Government a Planning and Development Division, capable of planning and building two major fertiliser production units every year has been set up by the Corporation. The Division, which is headed by a General Manager, employed 843 persons on 1st January, 1965. The annual expenditure on their salaries and allowances etc. works out to over Rs. 37 lakhs.

216. The organisation is stated to be well-equipped and competently staffed. It was claimed that in the field of fertiliser technology there would be nothing beyond their competence if they were able to purchase process know-how for high pressure ammonia and urea synthesis.

217. The Division designed medium pressure nitric acid plant for Trombay but, because of the Project's tie up with the Development Loan Fund, the contract for the Plant had to be awarded to an American firm. The organisation is currently handling the detailed designing, engineering and procurement of Ammonium Sulphate Plant for the Namrup Project, all plant and accessories for the Korba Project and all auxiliary plants of the Gorakhpur project. It was, however, admitted that the Division was not fully occupied.

218. *A Planning and Development Division in a Corporation has a very vital role to play. It is very regrettable that having developed such an organisation it is not being usefully employed, and the experience and talent which have been built are being wasted, leading to frustration among the officers concerned. Government should give this matter immediate attention. The possibility of its services being made available to the private sector on payment of fees should be examined.*

219. *In the meantime, to assess the performance of the Division, it is essential that it should be run on purely commercial lines and charge the units/projects of the Corporation for the work undertaken on their behalf. Its accounts should also be published separately in the annual reports of the Corporation.*

F. Rourkela Fertiliser Plant

220. When the fertiliser plant at Rourkela was ready, the Government decided to entrust its management to the Fertiliser Corporation with effect from 1st April, 1963 without settling detailed terms and conditions. It has been stated that during the period the plant was under the management of the Corporation adequate supplies of coke oven gas were not released to the fertiliser plant while it was being used as fuel in the power plant. The result was that the fertiliser plant could be worked only upto about 25 to 35% of its capacity. Hindustan Steel also demanded the price for the supply of feedstock and utilities at rates different from those assumed in the original Project Report. As a result the Corporation suggested that the plant may be run by them as agents of Hindustan Steel Ltd. on payment of a fee or the latter should accept, on transfer of the plant, a price lower than its book value. The matter was referred to the Finance Minister who decided that the plant may be transferred back to Hindustan Steel Ltd. This has been done with effect from 1st May, 1964.

221. *It is surprising that the management of a public sector plant was transferred from one undertaking to another without settling the terms and conditions of the transfer. This led to disputes, difficulties and loss in production. The matter has attracted a good deal of public attention. The Committee hope that such a situation would not be allowed to recur.*

VII

PERSONNEL MATTERS

A. General Managers

222. Under the Articles of Association of the Fertiliser Corporation, the President may, on the recommendation of the Board of Directors, appoint one of the Directors to be the Resident Director of the Unit/Division and/or any person to be the General Manager of such Unit/Division for the conduct and management of the business of each constituent Unit/Division of the Company. Accordingly a General Manager has been appointed for each of the operating Units as well as Projects. The Korba and Namrup Projects are, however, headed by a General Project Manager and Deputy General Manager respectively.

(i) Appointment of I.A.S. officers.

223. Four General/Deputy General Managers of the Corporation belong to the I. A. S. In evidence it was stated that conscious efforts were being made by the Corporation to develop top managerial personnel for its future needs but it was necessary to appoint these officers at the present stage. The Secretary of the Ministry was of the view that the incumbents for these posts, whether they belonged to the Corporation or to a serivce, should be officers with proved executive ability, resourcefulness and initiative. It was, however, the policy of Government to put officers of Fertilizer Corporation incharge of the units, where such officers had been thrown up by the Corporation.

Desirable Qualifications.

224. As to the qualifications desirable in a General Manager for a fertilizer plant, the Managing Director stated that managerial ability was a *sine-qua-non* for a General Manager. He must have the quality of leadership and be able to hold together a team of men and make them work harmoniously. He need not necessarily be a technical man, though it would be an additional qualification. An ideal General Manager of a Fertilizer Project should, however, have the background and experience in the Corporation.

225. *The Committee regret to note that so far no systematic plan has been prepared by the Fertilizer Corporation to recruit, train and develop suitable personnel for top posts though one of its units has been in operation since 1951. This is vital for the efficient functioning of an expanding industrial undertaking like the Fertilizer Corporation. The appointment of service officials to these top posts in the early stages of an undertaking was understandable but it could hardly be justified at present. In view of its expanding activities and increasing needs for managerial personnel the Corporation should assess in advance its requirements for the next five years and take energetic steps to build up a team of top managers from amongst its engineers and administrators to man its future projects.*

Development of Managerial Personnel suggested.

226. The dates of Government clearance to the various fertilizer projects and appointment of General Managers therefor are given below:—

(ii) Delay in Appointment in new projects.

Name of the Project	Date of conceiving the project	Date of Government Clearance	Date of appointment of General Manager/ General Project Manager
Trombay	June, 1955	14-4-1959	24-8-1962
Namrup	1954	June, 1960	February, 1961
Gorakhpur .	Early, 1960	27-10-1961	19-4-1963
Korba .	August, 1962	Not yet received	3-5-1963

Thus top managerial appointments at the Trombay, Namrup and Gorakhpur projects were made long after these were sanctioned for implementation by Government. During evidence, it was stated that though senior officers were appointed later on, Junior Project Officers had been appointed at these places from the very beginning.

227. *At the initial stages, a project is faced with numerous difficulties which baffle even the seasoned administrators. In order that the General Managers are able to overcome those difficulties and problems successfully, they should be selected soon after a project is approved and given the necessary training and orientation. This had not been done in the case of service officials appointed to these positions by the Fertilizer Corporation. The Managing Director of the Corporation agreed that it was necessary. The Committee trust that this would be done in the case of future Projects of the Corporation.*

(iii) Frequent Changes.

228. There have been frequent changes in the incumbents of the post of the General Manager at Sindri and Nangal. Similarly, Trombay Project has had three different officers at the head (Chief Executive Officer, General Project Manager and General Manager) in the construction stage itself. It has been stated that changes in the incumbents of the post of the General Manager were administratively necessary and were made having regard to the suitability of the persons concerned for the specific job. The Managing Director ascribed these changes at Sindri and Trombay to the fact that the incumbents had not been successful.

229. *The efficient working of a Unit/Project depends, to a large extent, on the direction and guidance provided by the Chief Executive and it normally takes time to acquire sufficient knowledge of the problems and requirements of a Project. Frequent changes of these officers are not, therefore, desirable and might prove costly. On these considerations, continuity in top managerial posts is very essential, as was agreed to by the representative of the Corporation as well as the Ministry. The Committee have earlier suggested the development of suitable personnel for these posts. Till such time as the Corporation is able to throw up suitable managerial talent from within the organisation, incumbents of these posts should be selected with due care, based* inter alia *on their experience in industrial undertakings. Further a minimum tenure of at least 5 years should be fixed for the incumbents of these posts.*

(iv) General Manager of Gorakhpur Project.

230. The General Manager of Gorakhpur Project, who was appointed to the post in April 1963, has since been reverted to the U.P. State service even before completing 2 years in the Corporation. The Secretary of the Ministry stated during evidence that the officer was due for promotion in his cadre and therefore wanted higher emoluments for continuing at Gorakhpur. They tried hard to retain him but did not succeed. The Joint Secretary, Ministry of Finance, however, stated that the proposal of the Ministry of Petroleum and Chemicals in this regard had been agreed to by them. In a note furnished later on it has been stated that the officer who joined as officer on Special Duty in the Corporation on 10th September, 1962 was due to retire in March, 1963. Subsequent development raising the retirement age from 55 to 58, appeared to have made the service in the Corporation un-attractive as his prospects of service in his cadre upto 21st March, 1966 and the chances of promotion therein increased.

231. *As stated earlier, it takes some time for a person to familiarise with the working of an undertaking. With his transfer, the experience gained or knowledge acquired is lost and the project suffers. The Committee hope that this aspect would be taken into consideration while appointing top officers in future.*

(v) Permanent Absorption of suitable service officers.

232. The present General Manager of Nangal Unit joined the erstwhile Nangal Fertilizers and Chemicals Limited on 2nd December, 1957 as Controller of Administration on deputation from a State Service. Since then he has worked in various capacities in the Units/Projects of the Fertilizer Corporation such as Chief Executive Officer of Trombay Division, Deputy General Manager, Sindri Unit and General Project Manager of Korba Division. Though it is over 7 years, when he was first appointed in the Corporation, he still continues to be on deputation terms. *Such of the Officers who have aptitude for industrial management and are found suitable for holding managerial posts in undertakings should be permanently absorbed. Such an arrangement would enable the undertaking concerned to form a nucleus of suitable officers and the officers would also develop a sense of loyalty to the undertaking. The Committee hope that this aspect would receive due attention.*

B. Staff

(i) Operating Units.

233. The staff employed in the two operating units of the Corporation on 31st March, 1964 is given below:

	Non-technical	Technical	Total
Sindri Unit .	2695	5408	8103 (on 29-2-64)
Nangal Unit .	1398	2031	3429

234. As against the above, the staff strength for operating the Trombay Project at rated capacity has been fixed at 1803 (428 non-technical and 1375 technical personnel). The Sindri Unit employs about 2½ times the number of personnel employed at Nangal and over four times of those to be engaged at Trombay.

235. Various Committees (including the Tariff Commission) have pointed out, from time to time, that the Sindri Unit is beset with excessive manpower. This was even admitted by the Minister in a statement made in Parliament

in 1963. The staff strength at Sindri Units from year to year is given below:—

Year	*No. of persons employed*
1959	8947
1960	9407
1961	9688
1962	9293
1963	9090
1964	8429
1964 (30-9-1964)	8005

Reasons for over-staffing.

236. The Managing Director informed the Committee that extra staff must have come about in a period of 2 or 3 years after he left the Sindri Unit as its General Manager in 1952. There was no indication in the project report regarding manpower requirements and, unless staff requirements were assessed on the basis of workstudy, it was difficult to determine its reasonableness. The General Manager or the Managing Director in those days had a free hand to regulate the staff strength in various departments and one of the important reasons for overmanning could be a competition between the Heads of Departments to have more men under them.

Extent of Surplus.

237. It transpired that 1400 persons were recruited between 1957 and 1959 for the expansion units on the recommendations of Heads of Departments without an overall assessment of staff requirements for the entire factory which should normally have been done. The Corporation proposed to transfer some surplus personnel to Gorakhpur Project but that was objected to by the U.P. Government. They were now considering the possibilities of transferring some of the semi-skilled surplus men to other public undertakings in Bihar *e.g.* Heavy Engineering Corporation. The desirability of introducing a scheme for voluntary retirement, gratuity scheme, etc. was also being discussed with the union but a solution was not yet in sight. It was stated that given some incentive and training 5,000 men would be sufficient for manning that unit. According to the Financial Adviser of the Corporation, the Unit spent about Rs. 65 lakhs to Rs. 1 crore annually on the salaries of surplus personnel.

238. *There has been no manpower planning in the Sindri Unit from the very beginning. Neither did the Project Report indicate the staff requirements nor was any work study or job evaluation done later on to assess its requirements accurately. That unhealthy competition between the heads of the departments to have more and more men*

under them than was necessary should have resulted in proliferation of staff indicates failure of the top management to fix norms of work or relate it to actual needs. What is more, about 1,400 *persons were recruited for the expansion of the unit without an overall assessment of the staff requirements. Thus a good opportunity to absorb surplus personnel in the expansion of the plant was also lost. It is surprising that neither the Board of Directors nor the Government took note of this problem till* 1959. *Various Committees and specialist firms had subsequently to be appointed to assess the work-load and determine the staff strength entailing considerable labour and expenditure but a solution to the problem is not yet in sight.*

239. *It is well-known that the surplus staff leads to absenteeism, general laziness, indiscipline and thus vitiates industrial relations. It also contributes to unnecessary expenditure. In this connection the following observations made by the Managing Director of the Corporation at the last Annual General Meeting held on* 30*th September,* 1964 *are pertinent:—*

> "There are however many (other) ills to cure at Sindri, and they involve fundamentally solution of personnel problems. The Unit is at present grossly over-manned, but a feasible way out of this difficulty is not easy to find. With the establishment of additional facilities for production of phosphatic fertilizers in the Unit, it should be possible to find gainful employment for a part of the surplus personnel. Large scale transfers of surplus men to new units under planning or construction are beset with many difficulties. . .For a complete solution of the problem, we have, I am afraid, to depend on the gradual elimination of the excess staff by efflux of time in anticipation of which the Corporation's first task is to determine the correct strength of staff required in different categories in different branches of Sindri administration..... the problem of labour unrest in the unit is to some extent a direct consequence of its overmanning."

240. As regards Nangal Unit, the Managing Director stated in evidence, that, if helpers could be eliminated and the number of clerks could be reduced, even at the cost of increasing the number of officers to some extent, the Unit

Position at Nangal.

could be managed with 2,400 persons as against the present strength of 3,400. It is further noted that Messrs. Personnel & Productivity Services, which were asked to study the workload and manpower requirements of non-technical departments of the Nangal Unit in 1962, proposed a staff strength of 711. As against this, the permanent set up of 1082 is proposed by the Unit and 1026 persons were in position in February, 1965. *The Committee are surprised that the recommendations of the specialist firm made in 1962 have not been fully implemented so far. They recommend that every effort should be made to bring down the staff strength of the Unit to the level suggested by the Personnel & Productivity Services.*

Reduction suggested.

241. It was stated that the General Manager of Durgapur Project had been requested to make a comprehensive study of the staff position both at Nangal and Sindri Units with the help of one or two senior work study engineers and in consultation with the General Managers. *The Committee would urge that, after the General Manager of Durgapur Project has submitted his report, vigorous steps should be taken to reduce the existing surplus personnel at the Sindri and Nangal Units, either by transferring them to the other Projects of the Corporation or securing them suitable employment in other public undertakings with the assistance of the Ministry of Labour & Employment. The possibility of introducing a suitable scheme for voluntary retirement of surplus staff by payment of suitable compensation may also be considered. The Committee have no doubt that the Labour Unions would cooperate with the Corporation as it would have a salutory effect on the Unit as well as the workers.*

(ii) Productivity of Labour

242. The man-hours spent per ton of production at Sindri and Nangal Units during each of the last 3 years are given below:—

	1961-62	1962-63	1963-64
Sindri	66	58	59
Nangal			
(i) Calcium ammonium nitrate	32	19	15
(ii) Heavy Water	..	44	31

243. It will be seen that though the productivity of labour has improved from year to year at Nangal, the position at Sindri has not materially changed during the last 3 years. This may perhaps be due to overstaffing.

244. *Labour and establishment charges constitute an important element in the cost of production. It is absolutely necessary to keep down the establishment charges to the minimum possible. The Committee hope that various suggestions made in this Report* e.g. *for better utilisation of men and materials, proper maintenance of plant and equipment and happier industrial relations would lead to greater productivity. They trust that the position will be constantly reviewed with reference to the norms laid down for the purpose and suitable remedial action taken when necessary.*

(iii) Projects under construction.

245. The staff requirements of the Projects under construction and persons employed therein on 31st March, 1964 are given below:—

	Ultimate requirements	*Employed on 31-3-64*
Trombay . .	1803	1543
Namrup . .	1362	603
Gorakhpur .	2011	302
Korba . .	2269	120

Committee's suggestions.

246. *The Committee feel that there is need for close watch on the recruitment of staff from the very beginning so that overmanning does not manifest in the new units. With that end in view the Committee would like to suggest that:—*

(i) *the staff strength for various stages of construction/operation of a project should be carefully assessed in the beginning itself and intimated to the General Manager;*

(ii) *the number of personnel employed should be kept slightly below the assessed number;*

(iii) *The strength assessed should in no case be exceeded, without prior approval of the Board of Directors;*

(iv) *The Board and Government should also keep a continuous watch and periodically examine the staff strength of each project with reference to the estimated requirements; and*

(v) *efforts may be made to absorb the surplus staff in the Units of the Corporation in other public undertakings as far as possible.*

C. Helpers

Position in Sindri and Nangal.

247. There were 444 helpers at Nangal on 1st September, 1964 for assisting the operators in plant operations for heavy rigging gang, for assisting them in heavy mechanical jobs etc. Similarly, the Sindri Unit employed 1197 helpers. The Trombay Project is, however, experimenting with complete elimination of this category of workers.

248. In evidence, it was stated that the country was somehow wedded to this practice, though some of the helpers assisted the operators and were subsequently absorbed in the category of operators.

Views of Manpower Committee.

249. In this connection the Manpower Committee (1961) appointed by the Corporation for Sindri Unit observed as follows:—

> "Tradition has been built up whereby almost all the technicians are provided with a helper or a Mazdoor. Similarly all cleaning jobs and handling jobs are entrusted entirely to mazdoors with the result that there is a heavy preponderance of staff in the lower categories".

Committee's Recommendation.

250. *The provision of helpers for skilled workers as tool carriers without ascertaining the need therefor is not justified and is a waste of manpower. If Trombay project is able to do without these helpers, there is no reason why other projects cannot do without them. Since the appointment of helpers leads to overmanning and higher cost of production, the Committee suggest that their number should be reduced to the minimum.*

251. *In this context, the Committee would commend the initiative shown by the General Manager of the Trombay Project* (1964) *in assessing the ultimate staff strength in the very beginning and successfully eliminating the employment of helpers. It happens rarely that the staff strength of a project as originally fixed at* 3,000 *is reduced to* 1,803.

D. Overtime

Position in Sindri and Nangal.

252. Despite the fact that Sindri and Nangal Units of the Corporation are overmanned, the expenditure on overtime paid to staff amounted to Rs. 14·40 lakhs and Rs. 2·67 lakhs respectively during the year 1963-64. The General Manager of the Sindri Unit explained to the Committee during evidence that overtime was necessitated on the grounds that: (i) sometimes skilled personnel did not turn up in particular shift and the man on the earlier shift had to continue in the next shift; and (ii) if a maintenance job was to be completed

within a specified time, the same skilled worker had to work continuously for 10 to 12 hours. However, instances were stated to have come to the notice of the management where some persons helped their colleagues to get overtime by absenting themselves. In this connection the Committee note that during the year 1963-64 absenteeism at Sindri and Nangal worked out to 28·17% and 12·92% respectively.

Need for strict Control.

253. *The Committee, however, find that overtime is not restricted to skilled personnel only but is paid in all Departments including Stores, Personnel Administration, Security, Estate, Medical and Transportation Departments. There is thus need for reducing absenteeism and exercising strict control in the payment of overtime and avoidance of malpractices of the nature referred to above. The Committee hope that suitable measures would be taken by the Corporation in this behalf.*

E. Categories of Staff

254. It is noted that on 31st March, 1964 there were 88 categories of technical and 161 categories of non-technical posts in the Nangal Unit. Further there were various grades of staff (Grades I, II, III) even in categories like operatives, mechanics, fitters, technicians, drivers and helpers both in the Nangal and Sindri Units. The scales of pay in the Nangal Unit had also not been standardised. The position in Sindri Unit is also somewhat similar.

Need for Rationalisation.

255. During evidence it was admitted that it was not desirable to have such a large number of categories of posts. Trade and scale classification had to be rationalised and their number reduced. The Managing Director agreed to make a comparative study of the position in other public undertaking. *The Committee trust that necessary action would be taken to put this matter on a proper footing in all the projects of the Corporation.*

F. Ratio of Supervisors and Operatives

Position at Sindri and Nangal.

256. The Committee were informed that on 1st January, 1965, the ratio of supervisory staff to operatives in Sindri & Nangal Units was as follows:

	Supervisors	Operatives
Sindri .	1	6·9
Nangal .	1	5·6 (including helpers deployed on independent jobs)

Reduction suggested.

257. *The supervisory staff at the Nangal Unit is on the high side. The Committee suggest that the number of supervisory staff may be reduced as much as possible.*

G. Technical and Non-technical Staff

Position in operating Units.

258. The ratio of non-technical to technical staff differs from Unit to Unit as follows:—

	Non-technical	Technical	Total	Ratio of (1) to (2)
	1	2	3	4
Sindri (on 29-2-64)	2695	5408	8103	1:2
Nangal	1398	2031	3429	1:1·45
Trombay (proposed)	428	1375	1803	1:3·2

Review suggested.

259. It would be seen that the ratio of non-technical to technical staff is higher at Sindri and Nangal Units as compared to Trombay Project. Explaining this, the Managing Director stated that the former were out of the way places. As such, large housing colonies, including schools, hospitals etc. had to be built there and the staff employed on their maintenance etc. accounted for the higher figure. Further, sweeping and other jobs had been let out on contract at Trombay which was not the case at Sindri and Nangal. *The Committee suggest that the position might be reviewed with a view to reducing the number of non-technical staff, as was agreed to by the Managing Director.*

Laying down of norms suggested.

260. *The Committee suggest that suitable norms for employment of supervisory and operative staff and technical as well as non-technical personnel should be laid down so as to serve as a guide to the managements of future plants.*

H. Joint Management Council

Not set up at Nangal.

261. In order to promote cooperation between the workers and the managements, it has been recommended in the Third Five-Year Plan that Joint Management Councils should be set up in as many units as possible in the public as well as private sectors. Such a Council has not so far been set up at Nangal Unit. In evidence, the Committee were informed that a Joint Management Council would immediately be set up there, as and when conditions were favourable.

262. *The Committee understand that a special unit has been set up in the Ministry of Labour and Employment to assist public undertakings in the setting up of these Councils and working out the relevant details. They trust that the*

Corporation would take necessary action to organise a Joint Management Council at the appropriate time in consultation with the Ministry of Labour and Employment.

I. Grievance Procedure

263. Under the Industrial Disputes Act, 1947 the managements of industrial undertakings are expected to draw up, in consultation with their workers, and adopt a mutually agreed grievance procedure to deal with day-to-day grievances at the level of the undertakings. Such a grievance procedure has not been introduced at Nangal Unit so far. The Committee were informed that all grievances were settled expeditiously at lower levels in consultation with the Union. As such, it had not been considered necessary to introduce the grievance procedure there. The question of laying down such a procedure at the Trombay Project was stated to be under consideration. *The Committee urge that this statutory requirement should be complied with in respect of Nangal and any other defaulting unit of the Corporation as early as possible.*

Not introduced at Nangal.

VIII

FINANCIAL MATTERS

A. Resources

264. The authorised share capital of Fertilizer Corporation of India is Rs. 75 crores. The total issued and subscribed capital as on 31st March, 1964 amounted to Rs. 48·05 crores. The borrowings of the Corporation amounted to Rs. 35·31 crores, including Rs. 11·41 crores from the Agency for International Development, U.S.A. for the Trombay Project.

B. Ratio between Enquiry & Loans

Decision of the Board.

265. As to the reasons for not following Government's decision to have the equity capital and borrowings in the ratio of 1:1, the Committee were informed that in 1963 the Board of Directors decided as follows:—

> "The Board felt that when the Company's share capital stands at Rs. 50 crores, further funds should be obtained from Government as loans until, at any rate the equity loan ratio becomes 1:1. The Board felt that even thereafter efforts should be made to maintain the same 1:1 ratio between share capital and loan."

The Corporation has since then been largely taking additional funds in the form of loans as follows:—

(*Rs. in crores*)

	Capital	Loans
31-3-1961	39·63	12·29
31-3-1962	39·63	22·90
31-3-1963	42·08	31·45
31-3-1964	48·05	35·31

266. In evidence, the representative of the Ministry stated that the ratio of 1:1 had been adopted as a general guide. However, the Fertiliser Corporation was managing a number of units, some of which were under construction. It was usual in such cases to give a portion of capital in the form of equity so as not to burden the units under construction with a heavy debt liability. *The Committee hope*

that the above decision would be kept in view and the correct proportion between equity and loans reached before long.

C. Investment-Output Ratio

267. The table below shows the investment-output ratio of the various Units/Projects of the Corporation:— Position in various projects.

(Rs. lakhs)

Name of the Unit/Project	Investment	Value of output	Investment-output ratio	Investment per tonne of Nitrogen
				(Rs.)
1. Sindri Unit . . .	3,107·00	1,604·00	1:0·51	3,500
2. Nangal Unit . . .	3,000·00	1,084·23	1:0·36	3,600
3. Trombay Project . .	3,804·09	1,412·40	1:0·37	2,610
4. Namrup Project . .	1,802·97	520·30	1:0·28	3,740
5. Gorakhpur Project . .	2,656·97	738·70	1:0·27	2,932
6. Korba Project . . .	3,278·00	918·30	1:0·28	2,726

268. It will thus be seen that the investment-output ratio varies from 1:27 at Gorakhpur to 1:0·51 at Sindri.

269. In evidence the representative of the Corporation stated that information regarding investment-output ratio in similar factories abroad was not available. But capital investment in India was unavoidably heavy—about 60% higher than in U.S.A. or in Europe—due to:—

(i) Expenditure on freight, insurance and customs;

(ii) Purchase of equipment through engineering firms which added substantial margin of profit;

(ii) Establishment of small units;

(iv) Difficulties in procurement of stores; and

(v) Substantial outlay on unproductive works such as townships, hospitals, schools, etc.

270. It was, however, stated that the Corporation should aim at a ratio of 1 : 0·50. The representative of the Ministry stated that according to a recent study made for a new project, the ratio in the case of ammonia plant had worked out to 1 : 0·90 while it was much lower in the case of other plants. Asked whether in approving a Project, the investment-output ratio was not considered by Government, the representative of the Ministry stated that they had been learning progressively during the last few years. Previously

detailed calculations were not made but a stage was reached during the last two or three years when all the finer elements and tools of analysis were being employed in taking investment decisions.

Committee's Observations.

271. *The higher capital investment increases the cost of production and adversely affects the competitive position of an undertaking. The Committee regret that due emphasis was not placed by Government to the important aspect of investment-output ratio before according approval to projects from the very beginning. They were surprised to know that the Ministry had started considering this aspect only recently.*

272. *It is also surprising that although the first fertiliser plant in the public sector was commissioned about 15 years ago, comparative position obtaining in foreign countries on this important aspect is not available either with the Corporation or the Government till today. The Committee trust that efforts would now be made to collect such information and to carefully examine the investment-output ratio before sanctioning new projects in future.*

273. *While the investment per ton of output has been gradually reduced from project to project, efforts may be continued to reduce it further so as to bring it on par with the position prevailing in foreign countries.*

D. Cost of Production

Operating Units.

274. The estimated and actual cost of production at Sindri and Nangal Units are given below:—

(Per tonne)

	Estimated cost*	Actual Cost		
		1961-62	1962-63	1963-64
	Rs.	Rs.	Rs.	Rs.
Sindri Unit :				
(a) Ammonium Sulphate .	292·00	281·48	299·40	325·56
(b) Urea	474·00	535·22	515·07	552·26
(c) Double Salt . .	375·00	401·54	406·26	466·84
Nangal Unit :				
(a) Calcium Ammonium Nitrate	164·50	283·37	243·34	215·29
(b) Heavy Water (kg). .	353·52	..	489·78	323·15

*These are standard costs in the case of Sindri Unit.

275. As regards the cost of production at Sindri, it has been stated that besides increased expenditure towards major repairs to the plants, deterioration in quality of the materials has resulted in higher consumption ratios per ton of Ammonium Sulphate than anticipated. The consumption ratios of some of the main raw materials were stated to be as follows:— Reasons for difference at Sindri.

	As per design	*As at present*
Coking Coal (tonnes)	0·76	0·895
Coke (tonnes)	0·486	0·487
Gypsum (tonnes)	1·50	1·86
	93% purity	78%purity

276. Since there is little possibility of reduction in the cost of production of ammonium sulphate with the use of gypsum at Sindri, it is proposed to change the process of manufacture so as to eliminate its use. The cost of production of urea and double salt is stated to be higher, as the expansion plants are not capable of a load higher than 60/65 per cent of their full capacity.

277. *It is hoped that with the change in the process of production, installation of additional lean gas producers, reduction in staff strength, improved maintenance of plant and equipment, reduction in inventories and improvement in labour relations the cost of production at Sindri will come down substantially. The Committee trust that every effort would be made to bring the cost of production to the level of standard costs which should also be reviewed from time to time.* Efforts to be made to reduce cost.

278. With the increase in production, the cost of production at Nangal has progressively come down. The difference between the estimated and actual cost of production of calcium ammonium nitrate per tonne at Nangal has been stated to be due to the extra expenditure under the following heads:— Position at Nangal.

	Rs.
Electricity	17·55
Bags	18·46
Limestone	9·41
Share of Head Office expenses	2·00
Other items	4·00
	51·42

279. As regards heavy water it has been pointed out earlier that the plant is not working to full capacity. *The Committee trust that with improved maintenance and solution of corrosion problem of Electrolysis Plant etc., the production will increase to rated capacity, thereby reducing the cost of production. They also urge that concerted efforts should be made to control the costs, so as to reduce the cost of production of calcium ammonium nitrate also.*

Periodical Review suggested.

280. *The cost of production in the various units of the Corporation should be periodically reviewed with a view to finding discrepancies and locating areas for effecting economies.*

E. Norms for Process Costing

Tariff Commission's recommendation.

281. The Tariff Commission in its report (1955) had recommended that standards or norms should be set for proper process costing at each stage in Sindri. The Committee were informed that the actual cost of production for a quarter was compared with the corresponding period of the previous year but the costs of the various processes were not compared with the standard costs, as norms of production had not yet been laid down. Sindri management had found it difficult to do so due to fluctuations in the quality of coal and gypsum which were the main raw materials.

282. In evidence, it was stated that the norms of production had since been laid down for Sindri Unit on the basis of Kasturi Rangan's report and actual performance was compared with the standard costs. At Nangal, however, the standards have been worked out of each element of cost of calcium ammonium nitrate produced and reasons for variation, from the standards, if any, are examined.

283. *The Committee cannot help observing than no serious attention was given to the important aspect of laying down norms of production at Sindri for thirteen long years. This should atleast have been done after the Tariff Commission made a specific recommendation in* 1959. *The Committee would urge that such norms should be laid down in all future products of the Corporation from the very beginning.*

F. Retention Prices

284. The basis of price fixation for fertilisers produced at Sindri Unit was laid down by the Tariff Commission in 1959-60 after a detailed examination of the cost of Ammonium Sulphate produced there. Until then the retention

prices were fixed on purely *ad-hoc* consideration after discussion with the parties concerned. The price for Calcium Ammonium Nitrate produced at Nangal has also been determined on the recommendations of the Tariff Commission for fertiliser produced at Sindri, which were based on 'cost plus basis'.

285. The following retention prices have been fixed for the years 1964-65 to 1966-67:—

Sindri :

Ammonium Sulphate	Rs. 316	per M. ton	F.O.R. Sindri
Double Salt	Rs. 426		Do.
Urea	Rs. 582		Do.

Nangal :

Calcium Ammonium Nitrate	Rs. 256	Do. Naya Nangal

286. The Committee note that the retention prices for fertilisers fixed by Government earlier were valid upto March, 1962. The Board of Directors considered the matter in October, 1962 and approached Government for revision of these prices only in April, 1963, *i.e.* a year after the earlier prices ceased to be valid.

287. As to the reasons for delay it was stated that even before April, 1963, the Corporation had written to Government. In the meantime provisional prices had been fixed. Government, however, took sometime to decide whether the matter should be referred to the Tariff Commission, as was done in 1959-60, or some other method might be adopted. Ultimately in December, 1963, the matter was referred to the Chief Cost Accounts Officer of the Government of India.

288. *It will be appreciated that any material difference in the provisional and final retention prices would lead to considerable accounting difficulties. To avoid them, it is necessary that the question of prices should be referred to Government sufficiently in advance so that the retention price is fixed before the validity date of the earlier price expires. The representative of the Corporation as well as the Ministry agreed that the matter should have been referred to Government sufficiently in advance of the expiry period. The Committee trust that this aspect would be kept in view in future.*

G. Results of Working

Operating Units.

289. The results of working of Sindri and Nangal Units during each of the last three years are given below:—

	1961-62			1962-63			1963-64		
	Total capital employed§	Net Profit	% age	Total capital employed§	Net Profit	% age	Total capital employed§	Net Profit	% age
	(Rs. in crores)								
Sindri . .	31·81	0·26	0·8	31·01	0·60	1·9	29·48	0·42	1·5
Nangal . .	28·85	..	..	31·28	0·91	2·9	29·11	1·82	6·3

§Total assets minus current liabilities.

290. The net profits of the Nangal Unit are steadily rising but the position at Sindri which was commissioned as far back as 1951 seems very unsatisfactory especially when it is viewed against a margin of 10% allowed in the retention prices for the fertilisers. It has been stipulated in the Third Five Year Plan that "the public sector undertakings ought to secure adequate return on capital employed and contribute their full share to the increase in the portion of national resources devoted to investment." In his budget speech (1964-65) the Finance Minister also reiterated this point in the following terms:—

> "It is of utmost importance for our economy that enterprises in the public sector should not only make profits but should give a good dividend to the exchequer and yet be able to build up resources to finance their own expansion."

291. *The present unsatisfactory position at Sindri must obviously be due to many ills from which the Unit is suffering. The Committee recommend that effective steps be taken to rehabilitate the Unit and effect utmost alround economy so as to improve its financial position.*

H. Contribution of Fertiliser Corporation

Corporation neither consulted nor informed.

292. In reply to a question answered in Lok Sabha in 1962, the Minister of Planning had stated that a contribution* of Rs. 33 crores was expected from the fertiliser factories during the period of Third Five Year Plan. The Cor-

*This, according to the Third Plan, does not represent merely net profits; it also includes net accretions to depreciations reserve fund and other funds of the enterprise, the assumption being that these funds will be utilised for financing the expansion programme.

poration, however, intimated to the Committee that they had not prepared any such estimate nor had they been informed about it at any stage. Admitting that the position was not satisfactory the representative of the Ministry stated, in evidence, that he had to ascertain the figure from the Planning Commission.

293. The Corporation, however, informed the Committee that the total resources expected to be generated by their production units over the Third Plan period are expected to be of the order of Rs. 41.32 crores (including depreciation charges of Rs. 25.95 crores) after payment of interest of Rs. 5.16 crores on loans from the Government. These resources are being utilised for the development of new projects and expansion schemes.

294. *The Committee cannot help observing that the position is highly unsatisfactory. It was expected of the administrative Ministry to intimate the Corporation of the surpluses expected of it which should also ordinarily have been determined in consultation with it. It is surprising that neither estimates of surpluses were prepared in consultation with the Corporation nor were they communicated to them till the Committee enquired about it. What is more surprising is that even the representative of the Ministry was not aware of it and had to ascertain the position from the Planning Commission.*

Committee's Observation.

295. *The Committee recommend that Government should now study the performance of the Fertiliser Corporation from time to time with reference to the contributions expected of it. It would be desirable if the targets fixed and the actual performance in this regard are also indicated in the annual reports of the Corporation.*

Performance to be studied by Government.

IX

TOWNSHIPS

A. Cost

Cost at each Unit/ Project.

296. The Fertiliser Corporation has built or proposes to build townships for its employees at each Unit/Project. The total cost of these townships is stated to be as follows:

(Rs. crores)

Name of Unit/Project	Total cost of township	Total investment on the Unit/ Project	% age of (1) to (2)
	(1)	(2)	(3)
Sindri Unit	5·76	45·49	12·6
Nangal Unit . . .	3·75	31·20	12·0
Trombay Project . . .	2·61	33·40*	8·0
Gorakhpur Project . .	2·00*	26·57*	7·5
Namrup Project . . .	1·85*	18·03*	9·73
Korba Project . . .	1·40*	30·48*	4·58

*Estimated.

297. It will be seen that the cost of townships varies from 4·58 per cent of the total outlay on Korba Project to 12.6 per cent at Sindri Unit. In evidence, the representative of the Corporation admitted that the township at Sindri had been built on a very liberal scale. It was also stated that, except in unusual circumstances, the cost of township should normally be restricted to 7½ per cent of the total cost of a project.

298. *Since the investment on a township and the cost of maintaining it add considerably to the overheads of a project, the Committee feel that Government should consider the desirability of laying down an upper limit on the expenditure that could be incurred by a public undertaking on the construction of a township.*

B. Land Utilisation

299. It is noted that land utilisation on construction of townships in the projects of the Corporation has been on a lavish scale as follows:— Lavish Scale.

Place	Total area of township (acres)	Total No. of houses built or proposed to be built	Average no. of dwelling units in an acre
(1)	(2)	(3)	(4)
Sindri	5408	5502	1
Nangal	1989	2254	1·1
Namrup	417	900	2·1
Gorakhpur	350	1082	3
Trombay	288	1748	6

300. In evidence it was stated that as land was cheap at Sindri, there was one dwelling unit in an acre of land. But under the present conditions, there should be a norm of 6 to 7 dwelling units per acre of land. *The Committee trust that this would be kept in view while planning townships in future projects of the Corporation.*

C. Houses Built

301. The number of houses built in each township of the Corporation is given below:— (i) Number of houses built.

Name of Unit/ Project	No of houses built	Total staff strength	%age of (1) to (2)
	(1)	(2)	(3)
Sindri Unit	5502	8103	67·9
Nangal Unit	2254	3429	65·7
Trombay Project	1748	1803	96·9
Gorakhpur Project	1082	2000	54·1
Namrup Project	900	1362	66·07

302. *While only 54.1% of staff at Gorakhpur is proposed to be provided with residential accommodation, the township at Trombay would accommodate nearly 97% of the staff. It would thus appear that the size of townships and the percentage of staff to be provided with housing accommodation has in each case been decided on* ad hoc *considerations and no definite principles seem to have been followed. The Committee need hardly mention that the size of a township should be based on considerations like* Laying down of criteria suggested.

location of a project, availability of housing facilities in the neighbourhood etc. They would recommend that Government should lay down some broad criteria on the basis of which requirements of residential accommodation in a project may be determined by each industrial undertaking in the public sector.

303. Although it was proposed to provide residential accommodation to about 50 to 70% of the staff at Trombay, the staff requirements had initially been put at 3,000. Later on, when an assessment of the ultimate staff strength was made (1,803 persons) the number of houses built turned out to be on the high side. As stated in paragraph 304, over 400 houses are lying vacant. *The Committee trust that staff strength for each project would in future be determined in advance and the total number of houses/flats to be built decided on the basis of criteria laid down by Government.*

(ii) Houses vacant at Trombay and Nangal.

304. The Committee find that a large number of houses have been lying vacant in Nangal and Trombay Townships of the Corporation as follows:—

Project	Date	Number of houses vacant
Nangal	15-10-62	376½
	1-4-63	254
	1-4-64	67
Trombay	31-10-64	404

305. The Nangal Unit is stated to have suffered a loss of rent amounting to Rs. 30,000—Rs. 35,000 from December 1962 to March 1964.

306. At the rate of Rs. 5,000 per house the cost of vacant houses would work out to about Rs. 23.55 lakhs. The vacant houses at Trombay Project were stated to have been reserved for operational staff who would be recruited when the factory went into production.

Phasing of construction suggested.

307. *The above facts would indicate the need for construction of townships by the Public Undertakings according to a phased programme related to the actual requirements from time to time, so as to avoid blocking up of excessive capital and also reduce maintenance expenditure. The Committee trust that the Corporation would keep this in mind while putting up townships in its future projects.*

D. Industrial Housing Scheme

Advantage not taken by the Corporation.

308. In this connection the Committee note that the Units/Projects of the Fertiliser Corporation have not taken full advantage of the industrial housing schemes of the State Governments. Some of the progressive concerns in the private sector have mainly depended on the State Governments to provide housing accommodation to their industrial employees under the above scheme and have themselves built only the minimum number of houses near the factories for their operating staff. Such an arrangement is not only cheaper but also absolves them of the additional responsibility of administering the township. As a result, the management can devote more attention to problems relating to production. In evidence it was agreed that it should be possible for the Public Undertakings to indent on the housing schemes of the State Governments. *The Committee therefore recommend that before sanctioning the construction of a township by a public sector undertaking, Government should see if it is not possible for the Undertaking concerned to take advantage of the industrial housing scheme of the State Government concerned, so as to reduce its liability.*

E. Subsidy

Not availed of in all projects.

309. The Committee find that not all Units/Projects of the Corporation have taken advantage of the financial assistance and subsidy available to industrial employers under the subsidised industrial housing scheme. The subsidy received by Sindri and Nangal Unit is also not upto the scale laid down, as would be seen from the following table:—

	Subsidy received	Total cost of Township
Sindri Unit	Rs. 3 lakhs	Rs. 5·76 crores
Nangal Unit	Rs. 6·52 „	Rs. 3·75 „

310. This was attributed to the fact that a large portion of Sindri Township had been built before the introduction of the scheme. Maximum subsidy was stated to have been secured for Nangal township, subject to the limitations of the scheme. No subsidy had, however, been received for the Trombay project. The Corporation had approached Maharashtra Government but due to paucity of funds, the assistance was not made available. It was, however, admitted during evidence that the Corporation had not pursued the matter vigorously.

311. *Since the Fertiliser Corporation was able to get all the money required for putting up townships from the Central Government itself without any difficulty, they did not fully explore the possibilities of getting financial assistance and subsidy from the State Governments. The Committee urge that energetic steps should now be taken to secure the assistance available under this scheme.*

F. Hostels

312. The Corporation has set up six hostels (two each at Sindri and Nangal and one each at Trombay and Namrup Project) at a total cost of Rs. 31.63 lakhs. It is also proposed to construct an apprentice hostel at Gorakhpur project at a cost of Rs. 5.11 lakhs.

313. Out of two hostels at Sindri, one has since been converted into residential flats. One hostel at Nangal has also been converted into Graduate Apprentices Hostel. The second hostel at Nangal and the Namrup Hostel are not fully utilised, their present monthly occupancy ratio being only 22.5% and 26% respectively.

Need for continuance to be examined.

314. *The Committee suggest that in view of the low occupancy of these hostels, the need for their continuance as such may be examined. They also feel that instead of putting up large hostels to meet the temporary requirements during the construction stage of a project, the desirability of utilising a few residential flats for this purpose may be considered.*

G. Other Suggestions

315. (i) *At Namrup Project, the Corporation is recovering rent for houses allotted to employees at 5% in order to attract suitable personnel. The Committee understand that in addition to concessional rent, the employees are also paid project allowance on the scale laid down by Government. The desirability of charging concessional rent in addition to the project allowance may be considered.*

(ii) *The occupancy ratio in some of the guest houses of the Corporation (i.e. at Peddar Road, Bombay) is low. With a view to minimising avoidable expenditure, the desirability of closing down guest houses with low occupancy ratio, whether rented or owned by the Corporation, may be examined.*

X

MISCELLANEOUS

A. Distribution of Fertilisers

Present arrangement.

316. The sale and distribution of all nitrogenous fertilisers, whether produced in the country or imported from abroad, are managed by the Central Fertiliser Pool—a departmental agency under the Ministry of Food and Agriculture which is responsible for coordinating the requirements of fertilisers for various States. The Corporation is advised by the Central Fertiliser Pool of the annual allocation of fertilisers to the various States, who issue despatch instructions every quarter to the production units at Sindri and Nangal for despatching the fertilisers to the various consignees in the States. Despatches are also made by the fertiliser factories to plantations, on the basis of their indents and allocations to them by the Pool. The retail distribution to farmers is controlled by State Governments generally through the medium of Cooperative Societies. The State Governments are also required to take such measures as may be necessary to propagate the use of fertilisers by holding demonstrations and setting up model farms.

Views of the Corporation and Ministry of Food & Agriculture.

317. It was stated that the State Governments had failed to undertake detailed soil investigations to assess the types of fertilisers required for various soils, to educate the farmers in the use of fertilisers and to set up a business-like distribution system. It was further stated that the indigenous production of fertilisers, at present, fell far short of the demand but when, in the next few years, the fertiliser units, initiated during the Third Five-Year Plan, progressively went into production, the need for organising an efficient system of distribution would become necessary. The Corporation, therefore, suggested that it should be assigned complete responsibility for marketing all products of its different units. The Ministry of Food and Agriculture has, however, stated that it is not conducive to increasing the consumption of fertilisers, as long as indigenous production is inadequate to meet the demand and large imports have to be arranged with a price differential, as it will lead to inequitable distribution at varying prices in different parts of the country, to the disadvantage of both the producers and the consumers. A Committee has recently been set up to enquire into the present arrangements for distribution.

318. In evidence it was stated that considerable money had accumulated in the fertiliser pool in the process of buying and selling of fertilisers but no efforts had been made to educate the farmers and to popularise the fertilisers. The Corporation could undertake the responsibility of establishing a subsidiary company for popularising fertilisers and marketing the produce of their units, if they were permitted to charge some extra money per ton of production. The Corporation would, however, make use of the existing extension agencies in the field of distribution (e.g. State Governments, cooperative societies, Central Warehousing Corporation) and their efforts would be supplemental. The representative of the Ministry also stated that production units must be increasingly associated with the responsibility of promotion and distribution of fertilisers.

Organisation of a suitable system suggested.

319. The Fertiliser Distribution Enquiry Committee (1960), which examined the existing distribution arrangements, had suggested the setting up of a Central Fertiliser Marketing Corporation to undertake the functions performed by the Pool. Various bodies have since then pointed out that the existing distribution system is not conducive to the rapid expansion of consumption of fertilisers by the farmers and that such responsibility should rest with the factories themselves. *The Committee regret to note that no action has been taken on the positive recommendation for the setting up of a Central Fertiliser Marketing Corporation, which was made four years ago. Instead another Committee with, more or less, similar terms of reference has again been set up to examine the matter* de novo. *The Committee need hardly stress the urgency of organising an efficient system of distribution of fertilisers, particularly when a number of new fertiliser factories are being set up in the near future. They trust that immediate steps would be taken on the recommendation of the Enquiry Committee to organise a suitable system of distribution of fertilisers, in consultation with the concerned parties.*

B. Fabrication of Plant and Equipment

Recommendation of Production Committee.

320. The Fertiliser Production Committee had in 1955 suggested that steps be taken to eliminate or at least reduce dependance on foreign countries in respect of fabrication facilities. The Committee were informed that the Fertiliser Corporation had submitted to appropriate authorities in Government, about three years ago, the list of instruments, compressors and pumps required for the fertiliser industry in the years to come and the Ministry of Industry and Supply had been considering proposals for installation of a fabrication shop of 5,000 tonnes annual

capacity. The Fertilisers and Chemicals Travancore Ltd., were also setting up a fabrication shop. The Committee, however, note that a large part of the equipment for the various fertiliser projects is still being imported as would be seen from the following table:—

(Rs. in lakhs)

	Indian	Foreign
Trombay Project (Fertiliser Plant)	28·29	1211·18
Trombay Plant (Methanol Plant)	16·20	227·02
Gorakhpur Project . . .	..	1031·20
Namrup Project . . .	124·70	457·81
Korba Project	450·90	1027·10

321. In evidence the representative of the Ministry stated that no action was taken on the recommendation of Fertiliser Production Committee. It was, however, admitted that fabrication facilities were still inadequate in the country, particularly in regard to heavy vessels, high pressure pumps, compressors etc. A Working Group was stated to have been appointed to study the position in connection with the formulation of the Fourth Five-Year Plan. The Committee were subsequently informed that a fabrication plant with an initial capacity of 10,700 tonnes per annum was expected to be put up on a priority basis in the Fourth Plan.

322. *The progress of the fertiliser industry is closely linked up with the availability of fabrication facilities within the country, particularly in view of the foreign exchange difficulty and the high cost of imported .equipment. The Committee trust that fabrication capacity for the fertiliser industry would be established at an early date.*

C. Standardisation of Plants

323. In view of the proposal to put up more fertiliser plants in the near future, the Committee enquired whether sufficient attention had been paid to the standardisation of plants so as to reduce their capital cost, facilitate availability of spares, enable quick implementation of projects, training of personnel, maintenance etc. They were informed that there was scope for standardisation in certain sections of

fertiliser plant and the Planning and Development Division of the Corporation had been examining this aspect. *The Committee trust that a detailed study will be made with a view to evolve standard designs and specifications for equipment for the new fertiliser plants.*

D. Spare Parts

324. The Committee were informed that the manufacture of spare parts was being done in a small way. The Nangal Unit manufactured spares of the value of Rs. 3·10 lakhs till March, 1964. Their large-scale manufacture could not ordinarily precede the fabrication of equipment itself. Further, basic raw materials, like stainless steel, or heavy pressure items, were not available. Therefore, with the development of fabrication facilities in the country, the manufacture of spare parts would also progress. It, however, transpired that the Ministry of Petroleum and Chemicals had not approached the Heavy Engineering Corporation regarding production of spare parts.

325. *Very little attention has been paid so far to the manufacture of spare parts in the country which are so essential for the maintenance of any fertiliser plant. The Committee feel that with the present progress in engineering and steel industries, it should be possible to produce a large percentage of spare parts within the country. They trust that the Corporation will maintain close co-ordination with the fabricators in the country, and encourage them to meet the requirements of the various factories increasingly.*

E. Ancillary Industries

326. The Committee were informed that it had not been possible to develop any ancillary industry in the areas contiguous to production units except cement industry in Sindri. An attempt was being made in Trombay to further process by-products of the fertiliser factory/Methanol factory; such as higher alcohol, carbon pallets, carbon dioxide, etc. The representative of the Ministry stated during evidence that the scope for developing ancillaries might not be very large, as only specialised industries could be set up round about fertiliser factories, but it was the policy of Government to afford all facilities for the purpose. *The Committee urge the Corporation and its Units to play more positive role in the setting up of ancillary industries.*

F. Railway Siding

327. It has been represented to the Committee that the principles* laid down by Railways for providing facilities of railway siding result in increasing the capital cost of industrial establishments. The cost of such facilities was stated to be Rs. 112 lakhs at Sindri Unit and Rs. 42 lakhs in Nangal Unit; it is estimated to be Rs. 34.00 lakhs in Trombay, Rs. 25 lakhs at Namrup and 37.40 lakhs at Gorakhpur.

328. With a view to keeping the capital cost of new industries as low as possible, it has been suggested that the industrial undertakings concerned might bear the entire expenditure in respect of railway siding within the factory premises but the cost of work outside the factory should be borne by railways, subject, if necessary, to the applicant undertaking offering a minimum traffic as may be stipulated by and mutually agreed with the Railways. Should the undertaking, however, fail to honour the commitment, a penal charge per engine/wagon hour may be levied.

329. *Since any change in the present arrangement is likely to have far reaching repercussions on the railways and all the industrial undertakings the Committee suggest that the matter might be thoroughly examined by the Ministry of Railways in consultation with the Ministry of Finance to see if a change in the present position is called for in view of the difficulties referred to above.*

G. Renting of Locomotives

330. Besides four locomotives owned by Sindri Unit, they have hired two engines from Eastern Railway for shunting the wagons between the Marshalling Yard and the

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*Out side the applicant's premises, the cost of work which would have to be abandoned in the event of the siding being closed, *e.g.*, earthwork bridges (exclusive of girders), culverts, ballest, buildings etc. to be borne by the private party, in addition to the cost of land.

(ii) Outside the applicant's premises, the cost of works which would be removed by the railway administration in the event of the siding being closed e.g., sleepers, fastenings, points and crossing, girder work of bridges, fencing, signalling and interlocking appliances and machinery of any kind would be borne by the railway administration.

(iii) the overhead electric traction equipment whether on railway land or on private land to be paid for by the railway. Further exchange yard facilities are also provided and the question of incidence of cost on these works is decided on the basis of the merits of each case.

factory. The hire charges for these engines amounted to Rs. 17·68 lakhs during the last 3 years. In evidence it was stated that it was cheaper to purchase the locomotives and steps were being taken to purchase more of them.

331. From the relative economic of hiring the engines and their purchase as worked out by the Sindri Unit, it is noted that if 3 HGS Class of locomotives (second-class) are available in good condition, the expenditure will come down considerably and in any case the purchase involving capital outlay will yield a net return of not less than 36 per cent. *The Committee trust that the required number of locomotives will be purchased for Sindri.*

H. Installation of Tippler

332. The Railways indicated to the Sindri Unit early in 1962 that their movement of coal would in future be in box wagons only, instead of the four-wheeler wagons. In April, 1963, the Corporation indicated to the Railway Board that facilities for unloading box wagons would be developed within 16 to 18 months. However, a wagon tippler has not so far been installed for the purpose.

Reasons for delay.

333. The Committee were informed that the difficulties in the proposed change over had been explained to the railway authorities who had been requested to continue supplies in standard four-wheeler wagons. However, nearly 50 per cent. of coal requirements of coke oven had been coming in box wagons. These wagons involved manual unloading and consequently there was considerable delay in release of these wagons, involving heavy demurrage charges. The amount of extra annual expenditure involved in unloading was Rs. 96,764·50 in 1963-64 and the demurrage payable during the year amounted to Rs. 3·58 lakhs. Last year, estimates for the installation of a box wagon tippler had been prepared and the Board had approved its installation at an estimated cost of Rs. 20 lakhs. In the meantime, Railways once again started sending coal in the four-wheeler wagons. It was, therefore , considered necessary to get a definite indication from the railways as to their future mode of transport of raw materials to Sindri. Besides this question had also been linked up with the proposed change in the production process at Sindri.

Committee's Observation.

334. *The Committee regret to observe that a final decision to instal a tippler has not been taken so far. In the meantime the Unit continues to face difficulties in the unloading of raw materials, which affect production and*

involve additional expenditure on manual unloading, besides payment of demurrage to the Railways. The matter has now been linked up with the proposed change in the process of production which is likely to take time in materialising. The Committee urge that immediate action should now be taken in consultation with the Ministry of Railways to minimise delays in unloading and reduce unnecessary expenditure.

I. Vehicles

335. On 31st March, 1963 the Fertiliser Corporation had 173 staff cars and other vehicles in its various Units/ Projects and spent about Rs. 11 lakhs on their running and maintenance alone during the year 1962-63. Out of these, there were 7 staff cars in the Head Office of the Corporation. The Financial Adviser informed the Committee that the matter was being examined and it was proposed to withdraw some of the vehicles used during construction stage insofar as Trombay Project was concerned. The representative of the Ministry also agreed during evidence that there was scope for reduction in the number of vehicles in the various projects. *The Committee trust that a review of the requirements would urgently be made for effecting economy in the case of staff cars, vehicles, etc. It will also be desirable to lay down suitable norms based* inter alia *on the number of officers in a project, volume of work, distance from the nearest city, etc., for the guidance of managements of future projects of the Corporation.*

Need for economy and laying down of norms suggested.

J. Crash Programme

336. For setting up an additional capacity for fertilisers, Messrs. Bechtel Corporation of USA were authorised in September, 1964 to undertake feasibility study for establishment of fertiliser factories with total capacity of 1 million tonnes of nitrogen. 50 per cent. of the cost of the study ($250,000 as a target figure and $400,000 as an overall maximum appropriation) was to be shared by Government in Indian rupees.

Feasibility study.

337. In evidence it was stated that it was mainly for the purpose of getting foreign exchange and know-how that the American firm had ben engaged. Otherwise the feasibility study could be undertaken by the Fertiliser Corporation. As to the method of selecting Bechtel Corporation, the Committee were informed that their representatives saw some Ministers and offered to provide foreign exchange for Fertiliser Plants which were capital intensive.

338. *The Committee understand that Bechtel Corporation has submitted a feasibility report which is under Government's consideration. The Committee understand that some other firms have also evinced interest in putting up fertiliser factories in the country. They have no doubt that during further negotiations with Bechtel Corporation or other firms which have shown interest Government would try to get the best possible terms. All the same they would urge that the final arrangement should be so devised as to secure full association of Indian technical personnel at every stage of the work as also full utilisation and maximum development of whatever construction and fabrication facilities exist in the country.*

K. Position of Fertiliser Industry in other countries

Not known to the Corporation/ Ministry.

339. To enable the Committee to compare the performance of various units of the Fertiliser Corporation with similar factories abroad, comparative information on the following points was called for:—

(i) the time taken for commencement of production after entering into contracts;

(ii) estimated cost of a similar factory;

(iii) no. of persons employed in a factory of similar size and magnitude;

(iv) time taken to attain the rated capacity;

(v) cost of production item-wise; and

(vi) average profitability in this industry including the input-output ratio.

340. The Corporation stated that the above information in respect of fertiliser factories in foreign countries was not available. In evidence, it was stated that it was difficult to get exact information even through the officers deputed for study abroad or from an analysis of their balance sheets and profit and loss accounts.

341. *The Committee consider it absolutely essential for a progressive industrial undertaking to have an intimate knowledge of the working of similar undertakings abroad. This is particularly so in the present day competitive conditions when other countries are making rapid technological and other improvements. The Committee feel that Government should have atleast obtained such basic data from foreign experts/firms enaged to study the fertiliser Industry from time to time. They trust that the Corporation will now take necessary steps to keep in touch with the working of fertiliser factories in industrially advanced countries.*

XI

CONCLUSION

342. The foregoing Chapters have revealed a number of difficulties and shortcomings that were experienced by the Fertiliser Corporation in the operating units and in the planning and execution of new projects. The measures that are now necessary to improve the position have been indicated by the Committee at appropriate places in this Report.

343. The Committee find the Sindri Unit in a difficult situation. On the one hand, it is faced with the problem of obtaining raw materials of the right quality, *e.g.* gypsum and coal, and lack of standby equipment for certain plants. On the other, the Unit is beset with excessive manpower, surplus inventories and unhappy industrial relations. All these have affected production, its cost and consequently the profitability. Even though the position has not been satisfactory since 1959, no serious attempt has been successfully made to improve the position. It is now estimated that, in order to rehabilitate the unit, an additional investment of Rs. 15·11 crores will be required.

344. The Nangal Unit is also overstaffed and has not yet been able to reach its rated capacity, due largely to the absence of proper maintenance of plant and equipment.

345. As regards projects under construction, some of the important defects noticed in their planning and execution are indicated below;

(i) inadequate planning, including non-preparation of detailed project report;

(ii) difficulties encountered in the selection of sites, acquisition of land, etc.;

(iii) delays in finalisation of arrangements for basic needs like water, power, etc.;

(iv) delays in deciding the pattern of production and subsequent changes in the scope of project during the stage of execution;

(v) delays in commissioning of projects; and

(vi) revision in estimates of cost.

346. *It was expected of the Fertiliser Corporation that with its past experience in establishing fertiliser plants at Sindri and Nangal, it would avoid some of the mistakes that have been committed in its later projects. This has not been so largely due to the fact that the Corporation did not develop adequate managerial talent. Service officials with little experience of industrial projects were entrusted with the implementation of these projects. There were also frequent changes in the incumbency of these top posts, even during construction. It is time that the Corporation applied itself to the proper planning of projects and ensured that they are executed with the utmost speed and economy so as to avoid imports of fertilisers which have been a drain on our foreign exchange resources.*

347. *It appears that the Ministry was also not adequately equipped to scrutinise the schemes and proposals of the Corporation and to keep a continuous watch on its performance. It is also surprising that although the Ministry directed the Corporation to organise a Planning and Development Division at an enormous cost—the expenditure on salaries and allowances of Planning and Development Division alone amounts to Rs. 37 lakhs per annum—they have not taken steps to ensure that it is put to proper use with the result that the Division is languishing. The Committee hope that the Ministry would now play an effective role to ensure that the working of the Corporation is placed on a proper footing.*

348. *In the earlier Chapters, the Committee have suggested various matters for examination by the Bureau of Public Enterprises. They would like to be informed in due course of the action taken by the Bureau.*

PANAMPILLI GOVINDA MENON,
Chairman,
Committee on Public Undertakings.

NEW DELHI;
April 20, 1965.
Chaitra 30, 1887 (*S*).

APPENDIX I

(*Vide* Paragraph 174)

List of Directors of the Fertilizer Corporation of India Limited for the year 1964-65

1. Shri B. C. Mukharji,
   Chairman & Managing Director,
   Fertilizer Corporation of India Ltd.,
   F-43, South Extension Area, Part I,
   Ring Road, *New Delhi.*

2. Shri Lalbhai Patel,
   Sarbava Chambers,
   Sir Pheroz Shah Mehta Road,
   Fort, *Bombay.*

3. Syed B. Rahman,
   84, Jhowtola Road,
   Calcutta-17.

4. Shri Uma Dutta Shastri,
   C/o Shri Neki Ram Bhai,
   Manager, Gandhi Ashram,
   Hapur. (U.P.)

5. Shri T. Bullaiah,
   Nava Bharati Gurukul,
   Rajahmundry. (Andhra Pradesh).

6. Shri J. N. Bhardwaj,
   President,
   Nangal Fertilizer Workers' Union,
   4/II, Sector II,
   Naya Nangal. (Punjab).

7. Dr. Husain Zaheer,
   Director General,
   Council of Scientific & Industrial Research,
   New Delhi.

8. Shri K. L. Ghei,
   Additional Secretary,
   Ministry of Finance,
   (Departmen of Expenditure),
   New Delhi.

9. Shri R. L. Mehta,
   Additional Secretary
   Ministry of Labour & Employment,
   New Delhi.

10. Shri I. J. Naidue,
Joint Secretary,
Ministry of Food & Agriculture,
Department of Agriculture,
New Delhi.

11. Shri M. Ramakrishnayya,
Joint Secretary,
Ministry of Petroleum & Chemicals,
New Delhi.

12. Shri H. N. Sethna,
Director, Chemical Group,
Atomic Energy Establishment,
Trombay, Appollo Pier Road,
Fort, *Bombay.*

13. Shri M. K. K. Nayar,
Managing Director,
Fertilizers & Chemicals
Travancore Ltd.,
P .O. Udyogamandal,
Alwaye. (Kerala).

14. Shri B. Mukerji,
Executive Director,
Fertilizer Corporation of India Ltd,.
F-43, South
Extension Area, Part I, Ring Road,
New Delhi.

APPENDIX II

(*Vide* Paragraph 194)

List of Reports and Returns required to be furnished by the Corporation to Government

(A) *Budget*:

(i) Detailed annual revenue budgets and forecast profit & loss account of each production unit.

(ii) Annual budgets for additional capital expenditure of the production Units.

(iii) Annual budgets for project expenditure in respect of projects under construction.

(iv) An annual ways and means or 'cash flow' statement based on the budgets at items (i), (ii) and (iii) above.

(v) Monthly report regarding import under deferred payment terms.

(vi) Quarterly report regarding rupee expenditure incurred on Trombay Fertiliser Project.

(vii) Half yearly foreign exchange budget.

(B) *Operation Statements of Working Units*:

(i) Weekly and monthly production statements indicating production and distribution of the by-products and stock of the main products.

(ii) Monthly statements of cost of production.

(iii) Quarterly works cost statements.

(iv) Monthly statements of raw material stocks.

(v) Monthly operating accounts and balance sheet.

(vi) Monthly financial review of additional capital expenditure with reference to the estimated cost of each scheme and provision of funds as per the capital budget during the year.

(vii) Quarterly review on the movement of fertilizers.

(C) *Projects under construction*:

(i) Monthly financial review of project expenditure.

(ii) Monthly progress reports.

(D) *General*:

(i) Statement of non-recurring items of expenditure exceeding Rs. one lakhs each.

(ii) Quarterly review of financial and accounting arrangements.

(iii) Monthly ways and means statement.

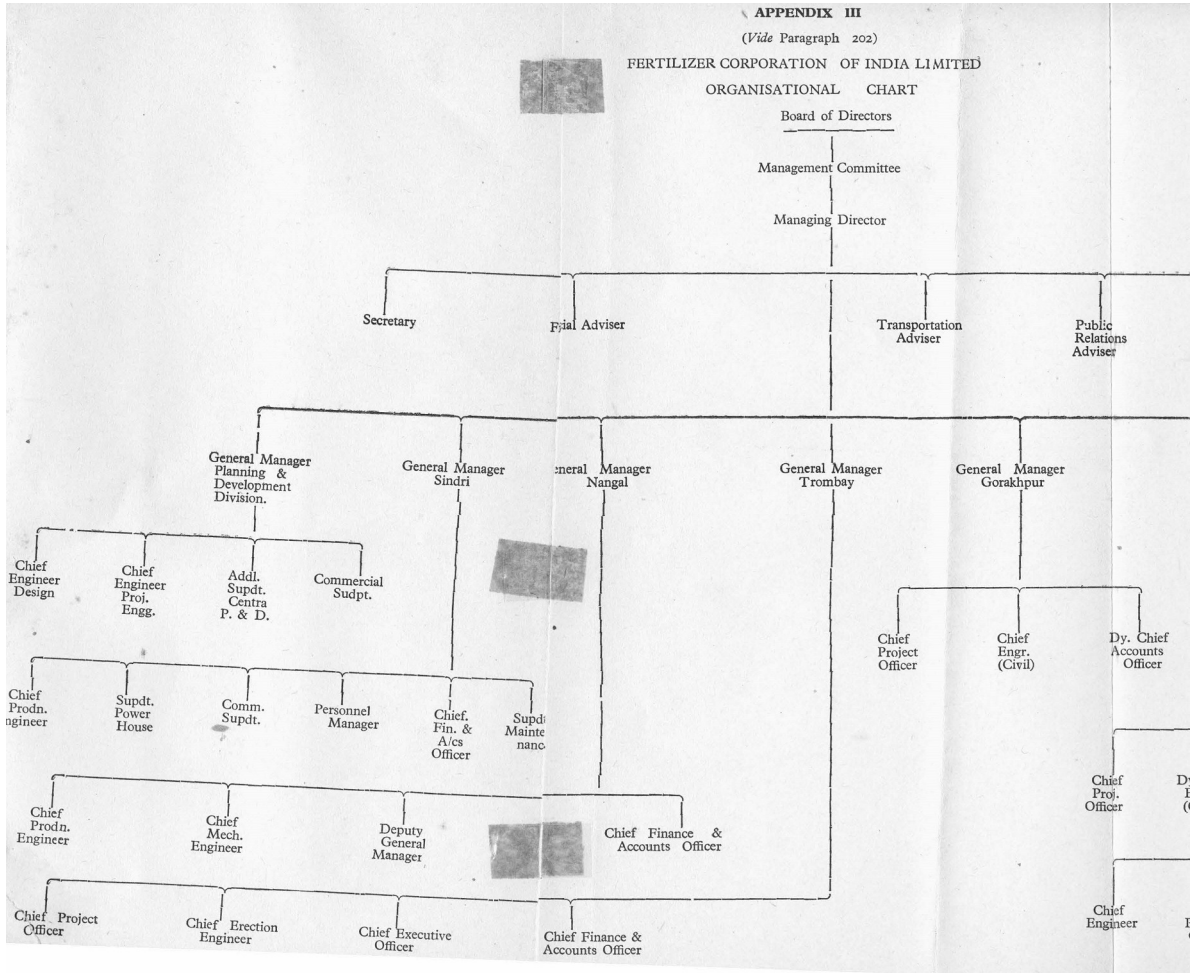
(iv) Staff statements for technical and non-technical departments.

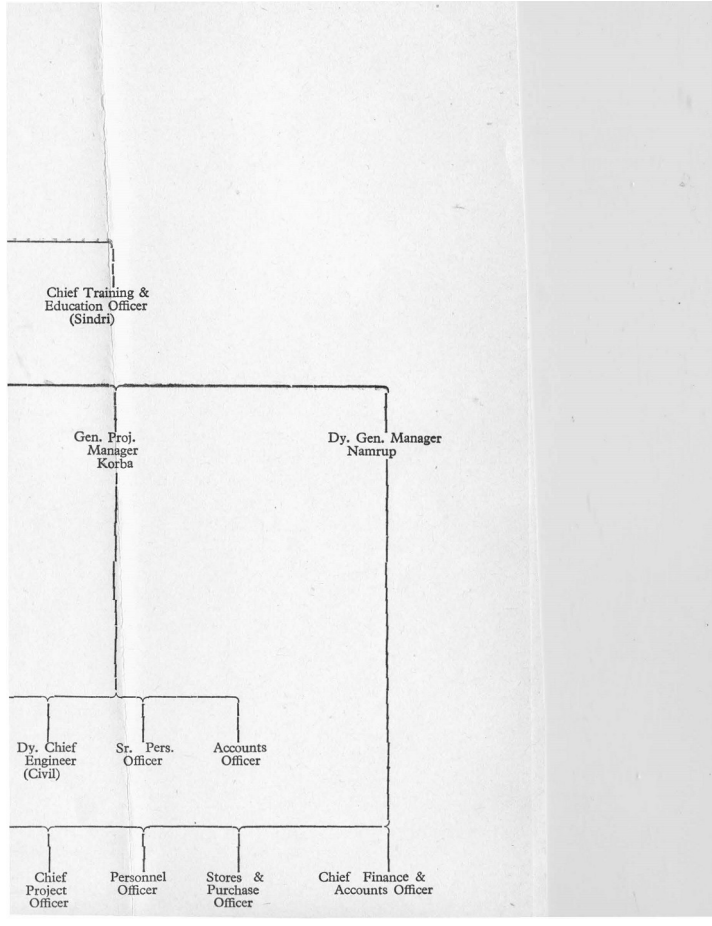
APPENDIX III

(*Vide* Paragraph 202)

FERTILIZER CORPORATION OF INDIA LIMITED

ORGANISATIONAL CHART




Chief Training & Education Officer (Sindri)
Gen. Proj. Manager Korba
Dy. Gen. Manager Namrup
Dy. Chief Engineer (Civil)
Sr. Pers. Officer
Accounts Officer
Chief Project Officer
Personnel Officer
Stores & Purchase Officer
Chief Finance & Accounts Officer

APPENDIX IV

Summary of Recommendations/Conclusions of the Committee on Public Undertakings contained in the Report

S. No.	Ref. to para no. of the Report	Summary of Conclusions/Recommendations
1	2	3
1	15	The question of inadequate spare equipment at Sindri, deterioration in the quality of raw materials (*viz.*, coal and gypsum) and the steps taken to overcome these problems are dealt with in paragraphs *infra*. The Committee, however, regret to observe that no steps appear to have been taken so far to improve the position although production at Sindri Unit has been much below the rated capacity all these years. In this connection paragraphs 66—73 may also please be seen.
2	19	The Committee regret to observe that there has been a delay of about 3 years in placing orders for additional equipment recommended by an Expert Committee for the Sindri Unit as far back as 1961 and that it would take another 2 years before it is actually installed. There has been delay on the part of the Corporation in deciding on the equipment to be installed. Thereafter, Government took 1¼ years to release foreign exchange. It is difficult for the Committee to appreciate why it was not possible for Government to arrange foreign exchange worth Rs. 20 lakhs which could have saved loss in production of fertilisers worth Rs. 10 crores by March, 1964 alone as also avoided their imports. It is clear that the need for additional machinery was not fully comprehended and the matter was not given the serious consideration that it deserved. The Committee recommend that Government

162(Aii)L.S.—11.

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		should examine the matter with a view to fixing responsibility for this unconscionable delay in a matter of this importance.
3	21	As the Indian farmer has now gained experience in the use of several varieties of fertilizers, the Committee are not sure if the production of double salt at present assumes the same importance as before. They feel that the acceptance of the suggestion in paragraph 20 would not only improve the economics of the unit but would also meet the demand of the Ministry of Defence for ammonium nitrate, which is in short supply and is of equal importance. The Committee recommend that the matter should be looked into in consultation with the Ministry of Food and Agriculture and an early decision taken.
4	23—25	The Sindri Unit has been compelled to frequently change the blend of coal, depending upon the quality of coal available. The Committee feel that fertiliser industry is no less vital to the country's economy than steel or other industries to which superior coal has been diverted. They would urge that suitable steps be taken by Government to allocate the right blend of coal for coke ovens, regularly and in adequate quantities.
5	26—29	The original design of the coke oven plant provided for both top charging and stamping operation. Stamping process was tried with one machine in 1955 and 1956. A second machine was imported from Germany sometime in 1957. But finally the stamping process was not adopted with the result that the machines are lying idle. It is apparent that the need for providing for both the processes in the coke oven plant would not have arisen if the specifications and samples of coal had been supplied to the plant manufacturers in advance. This omission has resulted in the import of two stamping machines

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		costing about Rs. 15 lakhs which have been lying idle for the last 8 years. Against the background of difficulty in providing foreign exchange worth Rs. 20 lakhs to the same unit subsequently, referred to in paragraph 19, the import of these machines, which are lying idle, appears incongruous.
6	30-31	It came to the notice of the Committee that unburnt coke discharged along with ash from the gas plant at Sindri has for the last 12 years been sold as waste material. Due to non-recovery of this coke, the Unit has suffered a total loss of approximately Rs. 27·36 lakhs. It is surprising that the need for recovering suitable coke from ash was not fully realised by the management during all these years, when they knew that the contractor was recovering and selling it outside. The Committee trust that the management would constantly endeavour to explore all possible avenues of economy and avoidance of waste, particularly in the consumption of raw materials, which account for over 50 per cent of the cost of production of ammonium sulphate.
7	34-35	The original agreement of Sindri Unit with Messrs. Bikaner Gypsums Ltd. for the purchase of gypsum expired in October 1960. But a fresh contract has not been executed so far. The Committee are surprised at the unbusinesslike manner in which the entire transaction has been dealt with by the Corporation. Although the proposed contractual period of five years is nearing completion the contract has not been concluded so far. This delay has provided the suppliers with an opportunity to demand higher prices which would affect the cost of production. Further, gypsum is an important raw material for the Sindri Unit and disputes could always arise with suppliers in regard to the quality and/or quantity of the material supplied. In fact, deterioration in the quality of gypsum is the chief problem of the

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		Unit at present. It was, therefore, necessary for the Corporation to safeguard its interests by executing a formal contract even before the expiry of the earlier contract. The representative of the Ministry admitted that the position was not satisfactory. The Committee urge that the formal contract should at least now be executed without further delay and hope that such cases would not recur in future.
8	36—39	In October 1961, though 27,898 tons of gypsum were shown as in stock in the books, in actual fact there was not even an ounce of gypsum at Sindri. The Committee are surprised that the only action taken by Government against the Resident Director for the shortage of 27,898 tons of gypsum costing about Rs. 14·00 lakhs which also resulted in shortfall in production at the Sindri factory was non-extension of his tenure. They consider that this was a matter which should have been investigated thoroughly and disciplinary action taken against the persons responsible therefor and that it was not enough to get such a serious lapse examined by the Financial Adviser only. The Committee regret that this was not done by Government. They suggest that an inquiry be conducted and responsibility fixed, if possible.
9	40	The Committee are not aware of the basis on which 4 per cent. of the gypsum received as per railway invoice was being written off at Sindri with effect from 21st September, 1956. The very fact that this practice was discontinued after the Financial Adviser examined the matter, would indicate that it was not justified. Normal business prudence required that only the actual difference between the weighments at Sindri and invoiced weights, subject to a reasonable limit, should have been written off. On the basis of average cost, the value of gypsum written off by the Corporation at the rate of 4 per cent. alone would work out to between Rs. 10 and Rs. 14 lakhs per annum. It is.

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		surprising that neither the local Chief Finance and Accounts Officer nor audit raised any objection to it and allowed the practice to continue for about five years.
10	42	The Committee were informed that gypsum received at Sindri was not tested for quality in order to ensure that payment was made according to the material received. Payments were stated to be made on the basis of tests done at the mines. In this connection the Committee understand that coal consuming industries in the private sector carry out chemical tests in the mines as well as sample checks at the receiving end and make payment according to the results obtained. The Committee recommend that the Corporation should adopt a similar procedure.
11	41—43	Till recently the consumption of gypsum at Sindri was estimated on the basis of theoretical requirements and the weighing machines had been by-passed for the last 5 years since gypsum which was in powdered form did not easily flow through bunkers and weighing machines. It has since been planned to weigh the material before it is processed. It is regrettable that this normal method of issuing materials for purposes of production was not introduced till 1962, *i.e.* 11 years after commencement of production.
12	44	Under a contract entered into by the Sindri Unit in 1952, the Corporation is committed to supply chalk sludge to the Associated Cement Company upto 1975. This agreement does not provide for revision of prices in relation to the cost of gypsum. The Committee realise that since the Sindri Unit was not allowed to put up a cement plant, a long-term contract had to be entered into to enthuse a private party to put up a cement factory. But, as stated by the Managing Director, a long-term agreement should have stipulated revision of prices to relate them to the increase in the cost of gypsum from time to time.
13	47	The equipment purchased at a cost of Rs. 11·42 lakhs would be able to recover only 7,500 tonnes of sulphate per annum from

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		Chalk at Sindri out of a loss of approximately 30,000 tons per annum. The Committee feel that the feasibility of recovering more sulphate needs to be examined.
14	48	It would be seen that besides deterioration in the quality of gypsum and presence of clay in it, which has affected its filterability, the arrangements for its procurement, testing of quality, despatch, receipt, storage and accounting leave much room for improvement. Even the contract with the suppliers which expired in 1960 has not been renewed as yet. Since gypsum accounts for as much as 40% of the cost of production, its importance in the economies of the Sindri factory cannot be minimised. One would have expected the management to make suitable arrangements in this regard from the very beginning and to investigate the reasons whenever they found any variations in the cost of production due to increased consumption of gypsum, deterioration in its quality, excessive loss in storage, or variation in the quantity despatched and received at Sindri. The Committee find that this has never been done despite the fact that gypsum has been a serious problem with the Unit for quite sometime. They consider that even now a comprehensive review of the arrangements regarding the supply of gypsum might be quite rewarding, since gypsum is likely to be used for a few more years at Sindri. The Committee suggest that the Corporation should undertake such a review as early as possible.
15	50—56	(i) The value of inventory at the Sindri Unit has been rising from year to year. The closing stock of raw materials on 31st March, 1964 represented about 2 or 3 months' consumption but in the case of stores and spares it was much in excess of requirements and worked out to about 16 and 62 months' consumption respectively. The Committee regret to observe that despite positive recommendations by the Tariff Commission and the Estimates Committee in 1959 and 1961 respectively, no concrete steps appear to have been taken to

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		reduce the excessive stocks of spares and stores at Sindri; additional purchases continued to be made and the situation was rather allowed to worsen. The explanation offered during evidence that excessive orders by the then Chief Engineer were placed as a measure of "abundant precaution" is also not convincing. It was expected of the Chief Finance and Accounts Officer, the Resident Director, the Board and the Government that they would exercise normal scrutiny of the proposals of the Chief Engineer for the purchase of spares and stores bearing in mind the past consumption, future requirements and procurement time involved. This was not done. The team of officers to go into the matter was appointed by the Board only in 1963 when the situation had already gone out of control. The facts revealed by the team are also disconcerting in that provisioning levels had not been fixed. Above all, the list of the spares available in the stores had not been circulated to the plant authorities.
	57	(ii) The Committee are also not sure whether it would be possible to utilise surplus spares etc., in the new projects since the plant and other equipment in all the Units are not identical. It is obvious that excessive inventories result in blocking of capital and interest payments thereon affect the cost of production. They also involve expenditure of foreign exchange as these spares are imported. There is also the danger of deterioration, wastage and pilferage during storage. The Committee urge that effective steps should at least now be taken to reduce the inventories both at Sindri and Nangal to the extent possible. One way of doing so would be to intimate to the D. G. S. & D. about the stores and spares surplus to the requirements of the Corporation so that they could be utilised by other fertiliser plants in the country.
16	58	The Stores Accounting Procedure Order (Provisional) 1952 followed in Sindri and the Stores Procedure Order at Nangal are not exhaustive. Further, stores at the Nangal Unit

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		are not being classified either according to their value or according to their procurement time. The Committee recommend that immediate action may be taken to lay down a comprehensive Stores Manual for the guidance of all the Units/Projects of the Corporation so that stores accounting problems and overstocking are avoided in the new Projects.
17	59-60	In 1960-61 and 1961-62, over 36,000 tonnes of coal meant for coke ovens at Sindri had to be diverted to Power House because it had weathered and was found unsuitable. The additional cost due to difference in the cost of coal for Power House and coking coal was stated to be Rs. 52,000 in respect of the above quantity. The Committee urge that due vigilance should be exercised to ensure proper and purposeful utilisation of stores and raw materials. They trust that energetic efforts would be made to find a market for the accumulated breeze also.
18	62-63	Hours lost on repairs etc. of urea, double salt and coke oven plants of the Sindri Unit have been going up. It is well known that poor maintenance causes frequent breakdowns in the plant and reduces the time available for production. It is therefore vital to production that plant and machinery are well maintained. It would be useful if a system of preventive maintenance is introduced in the Unit. This will not only reduce the volume of maintenance work but also the inventory of spares. It has particular importance in India where, due to shortage of foreign exchange neither replacement machines nor spares are readily available. The Committee trust that with the introduction of improved maintenance techniques, methods etc., the efficiency of the plant would improve.
19	64-65	Labour relations at Sindri have not been satisfactory during the last 2 years. It is expected of public undertakings that they would become model employers. Since these undertakings constitute social property, the workers

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		should also display a sense of responsibility and should not have an unnecessary agitational approach. The Committee need hardly state that complete cooperation between labour and management is very essential for the efficient working of any Unit. They feel that time has come when Government should make a comprehensive review of labour management relations in all the public undertakings and lay down suitable policies to be followed by them to ensure better industrial relations.
20	71	(i) It is unfortunate that the Sindri Unit which is one of the first major ventures in the public sector, has been facing heavy weather since 1959, and due to various reasons it has not been possible to work the plant to full capacity. Its rehabilitation is now estimated to cost Rs. 15.11 crores. Its chief problems are: (i) low production, (ii) inadequate supply of right type of raw materials, (iii) poor maintenance of plant and equipment, (iv) excessive inventory and above all (v) over-manning (paras 233-41) and unhappy labour-management relations. Even so, no positive steps appear to have been taken so far to rehabilitate the Unit and if a scheme is now approved and actively implemented the results are not likely to be achieved before 1970. Even at this stage there is vacillation on the part of the Board and the Government. Such a serious situation should normally call for immediate remedial measures. But here the situation has been allowed to take its own course. The Committee feel that between the construction of new Projects and the rehabilitation of the Sindri Unit, the latter should have been given higher priority by the management of the Corporation.
	72	(ii) The Committee find that the second scheme envisages the production of phosphatic fertilisers at Sindri and utilisation of by-product gypsum at Sindri itself. It is, however, not clear how the by-product gypsum thrown up by Durgapur fertiliser plant will be used. The Committee feel that its utilisation may also pose a

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		problem later on. They hope that the utilisation of that by-product would also be planned in time.
	73	(iii) From the varying proposals made by the Managing Director, during evidence and in writing later on, it is evident that no systematic study has been made to prepare a coordinated plan to rehabilitate the Sindri unit. The latest proposals call for radical changes in the production pattern of the Sindri Unit and will entail heavy investment. The Committee, therefore, recommend that Government should immediately set up an expert Committee to thoroughly examine the various alternative proposals made in this behalf and suggest a suitable scheme after considering technical, financial and other aspects. High priority should be given to this scheme so that the Sindri Unit is improved as early as possible.
21	78	The Corporation took about 6 to 7 years to erect and commission the fertilizer and heavy water plants at Nangal. Even after the consultants were selected, the time taken works out to 4½ and about 6 years respectively. From the dates of award of contracts for the fertiliser and heavy water plants, it took about 3½ and 4 years respectively. The delay in erection resulted in an additional expenditure of about Rs. 75 lakhs on departmental charges alone. The Committee trust that the Corporation would take suitable measures to avoid such delays in the new projects under construction. In this connection para 164 may also please be seen.
22	80	The delays and difficulties experienced in the Nangal Project which affected the timely completion of the plant are similar to those experienced by the other projects. With better planning, they could have been avoided. The Corporation should draw lessons from their experience at Sindri and Nangal and ensure their avoidance in future.

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23	83	The Committee do not understand why the preparation of a design for a storage silo at Nangal which was after all later made by the engineers of the Corporation themselves should have been earlier entrusted to foreign consulting engineers. This resulted in delay. The Committee trust that consultation with foreign engineers would be resorted to only when it is unavoidable.
24	86	(i) The final estimates of Rs. 31·20 crores for the Nangal Project are about 50% higher than the estimates prepared by the Fertiliser Production Committee in 1955. The Committee feel that detailed estimates should have been prepared by the Corporation immediately on receipt of project report from the consultants in 1956 and Government approval obtained thereto. That was not done. Instead, first revision in the estimates was thought of only in 1958. These estimates were also incomplete and were exceeded later on by about 15%. It is not known why Government was lax in this important matter and did not insist on detailed estimates being prepared particularly when the estimates of the Fertiliser Production Committee were known to be incomplete. The result has been that although the project was fully commissioned about 3 years ago, the final estimates have not yet been cleared by Government so far.
	87	(ii) Frequent revision in the estimates are not conductive to efficient working of a project. They affect the cost of production and vitiate the basic assumptions on which the project is based. The detailed estimates of projects should be prepared in a realistic way and efforts made to adhere to them.
25	93	It is surprising that the Punjab Government after having agreed to supply power at the rate of 2·6 pies per kwh to the Nangal Project demanded an increase to 2·9 pies per kwh when the Corporation had invested huge sums

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		of money in putting up a plant. It is not understood why the Central Government also pressed the Corporation to pay an increased rate. As this is an important matter which affects the economical working of the Unit, the Committee feel that Government should intervene and ensure that a fair and equitable agreement between the two parties is reached without delay.
26	98	The Committee would urge that necessary measures be taken to remedy the defects in the electrolysers at Nangal and instal additional cells without delay so as to avoid loss in production.
27	99	The Committee were informed that under normal operating conditions the Nangal Unit could manufacture 12·5 tonnes of heavy water in a year as against the rated capacity of 14·11 tonnes. This was partly due to the fact that maintenance in respect of heavy water plant could not be fully synchronised with the maintenance of other plants and partly due to low concentration of H.D. in feed hydrogen which in turn was caused by frequent shut-downs of electrolysers. The Committee trust that energetic steps would be taken to reach the rated capacity as early as possible.
28	102	It took the Corporation over two years to decide the sale price of heavy water to the Atomic Energy Department. This is somewhat surprising when the producer and the consumer are both wings of the Central Government. The Committee feel that in cases where prices are not agreed to in advance between the parties and differences persist, the feasibility of the Tariff Commission examining the cost of production and allowing reasonable margin of profit to the producing unit may be considered by Government.
29	105	The need for avoiding accumulation of fertilisers cannot be over emphasised. It results in locking up of capital, deterioration in storage, and can even lead to stoppage of production. The Committee, therefore, urge that suitable measures should be taken in co-ordination with

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		the Agricultural Extension Service of the Ministry of Agriculture to popularise fertilisers in areas where new plants are being put up, so as to ensure prompt off-take of fertilisers and avoid their transportation to far off places.
30	106—110	It has not been possible for the Nangal Unit to use oxygen in the electrolysis plant which is being let out in the atmosphere. The cost of production of the Nangal Unit is much higher as compared to similar factories abroad. Maximum utilisation of the existing resources is, therefore, essential for reducing the cost of production and improving its financial position. The Committee were informed that utilisation of oxygen would fetch about Rs. 60 lakhs p.a. They, therefore, recommend that the schemes for utilisation of surplus oxygen should be carefully examined and implemented without delay.
31	112	The Committee would urge that energetic efforts be made to solve the problems of failure of expansion turbine rotor in Nitric Acid Plant and also Corrosion in Condensators and ammonia vaporiser Plant at Nangal at an early date.
32	118	It is evident that the decision to set up a fertilizer plant at Korba by the Fertilizer Corporation of India was not preceded by a thorough study of its technical, financial and other aspects. The difficulties which have delayed the clearance of the project by Government are not unforeseeable and could well have been anticipated particularly when the United Nations Mission had expressed a doubt in the matter. The result has been that the Third Five Year Plan targets of fertilizer production would not be achieved, necessitating large imports. What is more, a part of land for the project has been acquired. 244 persons already employed there are idle and an expenditure of Rs. 30 lakhs would be rendered infructuous if ultimately a decision is taken not to proceed with the project. The Committee trust that Government would at least now carefully examine the economics of the proposed Korba plant expeditiously and take a final decision without further delay.

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33	119	The Committee recommend that Government might examine the present procedure regarding scrutiny of projects with a view to simplify and orient it so as to minimise delays in their sanctioning.
34	121	It would be clear that a uniform procedure has not yet been evolved in the matter of selection of sites and preparation of Detailed Project Reports by the Fertilizer Corporation. The Committee are also not sure if a well-defined procedure has been laid down by Government indicating the various stages in the implementation of industrial projects and the order and time sequence in which those steps are to be proceeded with. To avoid delays and inadequacies in the planning of projects, the Committee feel that it would be desirable to clearly spell out the types of studies that should be undertaken and the order in which they should be conducted before a project is finally approved by Government for implementation. They suggest that the Bureau of Public Enterprises might examine this matter with a view to prescribing a regular procedure for adoption in the case of all the industrial undertakings in the public sector.
35	122	The Committee feel that Government should not give approval to go ahead with a project, until its detailed project report has been prepared.
36	125	It is obvious that both the Gorakhpur and Namrup Projects suffer from locational disadvantages. The Committee are not sure whether better locations for these units could not be found in these areas. Location is one of the decisive factors in the economies of the working of a Unit. The Committee urge that greater care should be exercised before deciding the location of industrial projects in future and economic considerations should be the guiding factor in this regard.
37	126-27	The Fertiliser Corporation experienced considerable difficulty in the matter of acquisition of land for the Gorakhpur Project. The Committee feel that the present legal position is such

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		that land acquisition procedure tends to be protracted. Government should, therefore, review the legal aspect and take necessary steps with a view to speeding up land acquisition procedure for public undertakings.
38	129	The Committee note that no uniform policy is being followed by the Corporation in meeting the cost of land required for its Projects. As the cost of land accounts for 3 to 7 per cent of the total capital cost of a fertilizer project, the Committee are of the view that the Corporation should try to obtain as much assistance from the State Governments concerned as possible.
39	132	It would appear that the acquisition and utilisation of land in the earlier projects has been on a lavish scale. The importance of careful assessment of requirements of land and planning layout of factories and townships needs no special emphasis. Proper planning and laying down standards for land utilisation would lead to economy in land. The economy in land would in turn lead to lower maintenance cost and consequently reduced operational cost of the plant. The Committee recommend that the Corporation should exercise utmost economy in assessing land requirements and its utilisation for the fertilizer units in future. They further suggest that suitable norms should be laid down by the Corporation regarding utilisation of land for the future factories and townships.
40	135	The selection of a site is a basic, long-term and final decision for the location of an industrial enterprise. Even minor omissions at the time of initial soil investigations can prove to be very costly, as has happened in Namrup. The Committee, therefore, recommend that maximum care and attention should be devoted to detailed soil investigations initially so that chances of a bad location which saddle the project with additional cost and delays are minimised. It might also be examined whether detailed soil investigations could not be carried out against payment of a small compensation to the owners of the land.

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41	137	To undertake the execution of the project and invite tenders without finally deciding the product to be manufactured at Trombay were a serious lapse. In the fertiliser industry it is all the more necessary to decide the product pattern in advance as the product to be manufactured is supposed to be based on extensive trials and suitability to the soils for which it is intended. To avoid difficulties of the nature that arose at Trombay, the Committee feel that this is a matter which should receive the first attention while setting up industrial enterprises of this nature.
42	138-39	It was originally proposed to set up a fertiliser factory at Namrup with a capacity of 50,000 tonnes of ammonium sulphate and 50,000 tonnes of urea p.a. Subsequently, however, the capacity was altered to 50,000 tonnes of urea & 100,000 tonnes of ammonium sulphate, necessitating a change in the detailed project report and delaying execution of the project by about a year. The size of an industrial enterprise has to be determined after a thorough study of the requirements. The requirements of tea industry, the principal industry of that region, should have been foreseen. It is regrettable that this was lost sight of. The Committee would urge that such alterations in the capacity of projects during the course of their execution be avoided, as far as possible, as they involve unnecessary expense and delay.
43	142	The Committee regret that the setting up of the Town Gas Plant at Trombay was decided before making sure about the availability of the necessary feedstock or offtake of gas and without entering into a formal agreement with the State Government in this regard.
44	146	The Committee feel that the source of credit should be ascertained by an undertaking before inviting tenders for the plant and equipment required for a Project. In the case of Trombay Project tenders were invited before knowing the source of finance with the result that the earlier

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		effort proved to be a waste and it became necessary to refloat tenders from American sources when it was finally known that funds would be available from U.S., A.I.D. loan. Perhaps this was inevitable under present conditions in India. Restriction of the source of funds unnecessarily adds to the cost of the project, as has happened at Trombay. The Committee suggest that, as far as possible, untied credit should be made available for such big projects.
45	150	The timely commissioning and economic working of an industrial enterprise depends to a large extent on the timely supply of and reasonable rates for basic raw materials, like water and power. It is, therefore, essential that firm and satisfactory arrangements in regard to their supply should be made in the very beginning, preferably before starting the work, otherwise it would lead to difficulties.
46	151	The Committee note that the Maharashtra Government had earlier agreed to supply water and power at certain rates. After the location of the project was decided upon, higher rates were demanded. Their supply has also been delayed. Similar difficulties were experienced at Nangal as well. In the circumstances, the Committee suggest that the Central Government should enter into firm commitment with the State Government concerned with regard to these matters preferably before locating a Project in that State.
47	152-53	The Trombay Project was faced with the difficulty of loss of equipment in the Dockyard whose replacement delayed the timely completion of the Project. The value of such equipment and materials amounted to $54,795·14. A number of other items were lost but were recovered after a period ranging from three months to one year. Due to congestion at Bombay Port, a number of ships, some carrying critical items had also to be diverted to other ports, *viz.* Kandla, Calcutta and Cochin. The Corporation has since set up a Liaison Office at Bombay. The Committee hope that such losses will not recur.

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48	154	The Committee urge that necessary steps may be taken to clear the goods as early as possible, so as to reduce the demurrage charges in all the Projects of the Corporation. The avoidable delays in customs examination, if any, should be brought to the notice of the Ministry of Finance so that the procedure followed by the Customs Authorities is simplified.
49	158	Whatever the justification for the upward revision in the estimates of the Trombay Project, the Committee feel that a correct assessment of the cost should have been made at the earliest opportunity after ascertaining the source of finance and calling for quotations for plant and equipment. That was not done. The Committee feel that for proper financial control, Government should insist on detailed estimates of projects being prepared by the undertakings before according approval thereto. They hope that this would be done in future.
50	159	The Committee note that the project estimates for Namrup and Gorakhpur Projects prepared in February, 1961 and March, 1964 respectively, are still awaiting Government's approval. In the meantime, expenditure is being incurred. This is not proper and if a Project is not approved by Government it would lead to infructuous expenditure.
51	164	Every day's delay increases the capital cost of a project and defers production which in the case of a big fertiliser plant could be worth nearly half a million rupees. The Committee, therefore, recommend that the Corporation should at least now make a serious attempt to reduce the time taken in the erection and commissioning of its future projects.
52	165	The representatives of Chemical Construction Corporation who supplied the design of the compressor foundations of the Trombay Project, were not satisfied with the workmanship of the foundations and wanted some parts to be demolished, and rebuilt. They also doubted the strength and soundness of lean concrete on which compressor foundations were built.

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		The Committee feel that this unnecessary controversy which held up the work could have been avoided by mutual discussion before commencement of the foundation work.
53	168	It is hardly necessary to emphasise the need for setting up Cost Reduction Units in big projects where construction accounts for a substantial proportion of expenditure. Immediate steps should be taken to organise such a Unit in all the projects of the Corporation.
54	171	As the intention of preparing completion reports is to benefit from past experience, it would be worth-while preparing such reports for Sindri and Nangal as well. The Committee would suggest that the Planning and Development Division of the Corporation might undertake this task.
55	172	The Committee would recommend that after pooling all the experience of the industrial projects, Government should issue suitable instructions to all the project authorities so as to avoid similar mistakes.
56	173	The recommendations made by the Planning Commission in the Third Five-Year Plan had not been specifically brought to the notice of the Fertiliser Corporation. The representative of the Ministry agreed that it would be desirable for the administrative Ministries to do so. The Committee, however, feel that the Bureau of Public Enterprises should be entrusted with this task.
57	174—76	The number of Directors has varied from year to year. Such variation in the number of Directors gives an impression that the strength of the Board is determined on *ad hoc* basis. The size of a Board is to be related to the volume and variety of work, and the need to provide representation to various interests. The Committee suggest that some broad principles should be laid down to determine the strength and composition of the Board of Directors of the Public Undertakings for the guidance of all the Ministries.

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58	178	The Committee do not agree with the view that Additional Secretaries are not debarred from being appointed on the Boards. They feel that the considerations which weighed with the Government in deciding against Secretaries being appointed on the Boards of Public Undertakings, apply equally to Additional Secretaries. They have hardly the time for such duties. The Committee suggest that Government should issue suitable instructions to make the above decision applicable to Additional Secretaries as well.
59	179	At the time of reconstitution of the Board in 1964-65, two persons, one of whom is zamindar and social worker and the other an educationist were appointed as members. The Boards of industrial undertakings, like the Fertilizer Corporation, have to decide highly complex and technical issues. Its Directors should, therefore, bring with them qualifications and experience suited for the purpose. The Committee trust that this will be kept in view while appointing the Board of Directors in future.
60	180—83	Besides the Chairman-*cum*-Managing Director, there is no functional Director in the Corporation. The Board of a large-sized multi-unit industrial undertaking like the Fertilizer Corporation has to take various decisions regarding planning and policy matters. It has to provide guidance to new projects, initiate policy, and effect alterations in the overall plan, enter into foreign aid agreements, and agreements with suppliers, contractors, and the like. On the execution side also it has to deal with various issues and problems of an urgent nature involving unexpected bottlenecks and difficulties that might affect the progress of projects. The Committee feel that all this load of work would surely be too heavy for one Chairman-*cum*-Managing Director. In their opinion it would be advantageous to have a full-time Financial Director incharge of budget and accounts department and another full time technical director to

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		look after technical matters. These Directors would not only be a party to, and responsible for all the decisions of the Board with regard to the management and operation of the enterprise, but would readily indentify themselves with the objectives of the enterprise. Further such fulltime Directors would also gain the necessary training and experience for ultimately taking over as Managing Director. The Committee suggest that the matter may be examined by Government.
61	185	The Committee feel that there has been lack of forethought and planning in regard to the selection of a successor to the present Chairman-*cum*-Managing Director. A suitable understudy should have been appointed early enough who could take over on the retirement of the existing incumbent. Such an attempt has been made only in November, 1964. For not having done it, it became necessary to give extension of service to a retired officer for five long years which could have been avoided.
62	186	The Committee recommend that the desirability of giving representation to the following interests on the Board of Directors of the Fertiliser Corporation might be considered: (i) Agricultural Scientists; and (ii) Farmers' Organisations particularly because distribution functions are likely to be entrusted to the Fertiliser Corporation.
63	189	The delays in the implementation of projects in the public sector have largely been attributed to lack of adequate technical, economic and financial planning. In order that planning of projects is done in sufficient detail, and the progress of their implementation is watched, the Committee consider it necessary that Ministries responsible for administering big projects are staffed with suitable technical personnel. They regret to observe that even a specific recommendation made in the Third Five-Year Plan in this regard has not been implemented by the

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		Ministry of Petroleum and Chemicals so far. The Committee trust that the proposed Cell would now be organised at an early date.
64	191—93	There have been delays in the submission of quarterly reviews of Financial and Accounting Arrangements by the Financial Adviser of the Fertilizer Corporation. Timely reporting is essential for the efficient working of any organisation. Without it, serious "schedule slippages" or "cost overruns" might come to notice only after the opportunity for corrective action has been lost. The Committee trust that Government would issue suitable instructions to the Corporation clarifying the position regarding timely submission of these reviews without waiting for approval of the Board.
65	196	The Committee feel that the reports required to be submitted should be meaningful but not too numerous. With that end in view they suggest that the Bureau of Public Enterprises might examine the number and contents of reports presently submitted by the Public Undertakings to Government and the use to which they are put with a view to devising suitable form for submission of such reports.
66	198	In February 1962, the then Ministry of Commerce and Industry decided to undertake a study of the difficulties experienced by the Fertiliser Factories at Nangal and Sindri in effecting expeditious off-take of their production and requested the Corporation to furnish quarterly reports on the subject. Since then, progress reports on the subject continue to be furnished to the Ministry. This was a step in the right direction. After sometime the problem of accumulation of stocks had disappeared. Thereafter to have continued to get this report was not necessary and Government could have selected some other aspect or activity of the Corporation for this purpose.
67	199-200	The General Managers of the Products/Units of the Corporation submit periodical reports and returns in the prescribed forms for the

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		information of the Managing Director. The Committee consider it necessary that a summary of these reports with a clear analysis of physical progress, problems encountered and solutions should also be placed before the Board.
68	201	The monthly progress reports submitted by the project authorities do not indicate whether the progress of construction is on schedule. They simply state "steel 20 per cent erected" or "buildings 80 per cent complete", etc. The Committee feel that the form of these reports needs revision so as to clearly indicate whether the progress of construction is on schedule and within the estimated cost. They hope that the Bureau of Public Enterprises would look into the matter.
69	204	The strength of various Departments in the head office of the Corporation has generally been brought down during the last two years. The Committee, however, learn that no job analysis has been made so far. They recommend that that should be done.
70	205—07	The Corporation employs a Transportation Adviser at the Head Office. The Committee feel that the local transportation officer of the Unit/Project concerned should be in a position to attend to its transportation problems and any liaison with the Railway Board could be done by the Liaison Officer of the head office (Scale of pay Rs. 1,000—1,400). They feel that the post of the Transportation Adviser which was created to tide over a temporary difficulty, should not have been continued on a permanent basis. The reasons advanced for appointing a Transportation Adviser at the head office of the Corporation are such which apply equally to all multi-unit undertakings. The Committee are not convinced of the need for such an officer at the headquarters of the Fertiliser Corporation when other industrial undertakings like Heavy Engineering Corporation, Hindustan Steel Limited etc. with greater transportation problems do not have such officers at their head offices. The Committee, therefore, recommend

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		that the post of Transportation Adviser at the head office of the Corporation should be abolished.
71	208	The Board of Directors of the Corporation have recently decided to appoint an Industrial Relations Adviser at its head office. This is again a departure from the usual pattern followed by other public undertakings. It appears to the Committee that guiding principles should be laid down for the organisational set up at head offices of multi-unit undertakings. They suggest that the Bureau of Public Enterprises might make a comparative study of the organisational set up of the head offices of multi-unit undertakings in the public sector and private sector/foreign countries and lay down a broad pattern for the guidance of Public Undertakings which could be varied to suit the special requirements of individual undertakings.
72	210	(i) The Committee consider that the location of head office of each Public Undertaking should be decided after taking all relevant factors into consideration (its size, number of units, their location, stage of their execution, etc.) but such a decision should be based on certain broad principles. They suggest that the Ministry of Works and Housing should go into this question in consultation with the administrative Ministries concerned and lay down broad principles for locating the headquarters of Public Undertakings, consistent with their efficiency and economy, while keeping in view the need for relieving congestion in the capital. In this connection they would invite a reference to the recommendation contained in para 17 of the 50th Report of Estimate Committee (3rd Lok Sabha).
	211	(ii) The Committee trust that the question of location of head office of the Fertiliser Corporation would be re-examined in the light of the above remarks.

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73	212-13	The organisational set up of the operating Units as well as Projects under construction varies from project to project. The Committee realise that the size of Departments in a Unit/Project and the status of departmental heads would depend on the stage of construction or the scale of its operation. Nevertheless, they feel that the organisational set up of a Unit/Project should not be decided on *ad hoc* basis. It should be determined after a proper study of the needs of each Unit/Project because the absence of proper organisation and suitable officers to attend to specific functions from the very beginning, *e.g.*, absence of Stores Purchase Officer at Gorakhpur, can result in grave irregularities. To avoid such a situation, the Committee suggest that the Corporation might study the organisational set up of its various Units/Projects vis-a-vis their needs and remodel it accordingly. While doing so, they might also keep in mind the desirability of having common designations for similar functions in all the Units/Projects, so as to facilitate inter-plant transfers.
74	214	It was stated that the Commercial Superintendent at Sindri, was appointed as an experimental measure, in pursuance of a directive from Government. The Managing Director of the Corporation, however, saw no particular advantage in appointing such an officer. The Secretary of the Ministry promised to examine the matter and abolish the post, if necessary. The Committee hope that necessary action would be taken.
75	218	(i) A Planning and Development Division in a Corporation has a very vital role to play. It is very regrettable that having developed such an organisation it is not being usefully employed, and the experience and talent which have been built are being wasted, leading to frustration among the officers concerned. Government should give this matter immediate attention. The possibility of its services being made available to the private sector on payment of fees should be examined.

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	219	(ii) In the meantime, to assess the performance of the Division, it is essential that it should be run on purely commercial lines and charge the units/projects of the Corporation for the work undertaken on their behalf. Its accounts should also be published separately in the annual reports of the Corporation.
76	221	It is surprising that the management of a public sector plant (Rourkela Fertilizer Plant) was transferred from Hindustan Steel to the Fertiliser Corporation without settling the terms and conditions of the transfer. This led to disputes, difficulties and loss in production. The matter has attracted a good deal of public attention. The Committee hope that such a situation would not be allowed to recur.
77	225	The Committee regret to note that so far no systematic plan has been prepared by the Fertilizer Corporation to recruit, train and develop suitable personnel for top posts though one of its units has been in operation since 1951. This is vital for the efficient functioning of an expanding industrial undertaking like the Fertilizer Corporation. The appointment of service officials to these top posts in the early stages of an undertaking was understandable but it could hardly be justified at present. In view of its expanding activities and increasing needs for managerial personnel the Corporation should assess in advance its requirements for the next five years and take energetic steps to build up a team of top managers from amongst its engineers and administrators to man its future projects.
78	226-27	Top managerial appointments at the Trombay, Namrup and Gorakhpur Projects were made long after these were sanctioned. At the initial stages, a project is faced with numerous difficulties which baffle even the seasoned administrators. In order that the General Managers are able to overcome those difficulties and problems successfully, they should be

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		selected soon after a project is approved and given the necessary training and orientation. This had not been done in the case of service officials appointed to these positions by the Fertilizer Corporation. The Managing Director of the Corporation agreed that it was necessary. The Committee trust that this would be done in the case of future Projects of the Corporation.
79	228-29	There have been frequent changes in the incumbents of the posts of the General Manager at Sindri and Nangal. Similarly Trombay Project has had three different officers at the head in the construction stage itself. The efficient working of a Unit/Project depends, to a large extent, on the direction and guidance provided by the Chief Executive and it normally takes time to acquire sufficient knowledge of the problems and requirements of a Project. Frequent changes of these officers are not, therefore, desirable and might prove costly. On these considerations, continuity in top managerial posts is very essential, as was agreed to by the representative of the Corporation as well as the Ministry. The Committee have earlier suggested the development of suitable personnel for these posts. Till such time as the Corporation is able to throw up suitable managerial talent from within the organisation, incumbents of these posts should be selected with due care, based *inter-alia* on their experience in industrial undertakings. Further a minimum tenure of at least 5 years should be fixed for the incumbents of these posts.
80	230-31	The General Manager of Gorakhpur Project who was appointed to the post in April 1963 has since reverted to the U.P. State Service even before completing two years in the Corporation. It takes sometime for a person to familiarise with the working of an undertaking. With his transfer, the experience gained or knowledge acquired is lost and the project suffers. The Committee hope that this aspect would be taken into consideration while appointing top officers in future.

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81	232	Such of the service officers who have aptitude for industrial management and are found suitable for holding managerial posts in undertakings should be permanently absorbed. Such an arrangement would enable the undertaking concerned to form a nucleus of suitable officers and the officers would also develop a sense of loyalty to the undertaking. The Committee hope that this aspect would receive due attention.
82	238	(i) There has been no manpower planning in the Sindri Unit from the very beginning. Neither did the Project Report indicate the staff requirements nor was any work study or job evaluation done later on to assess its requirements accurately. That unhealthy competition between the heads of the departments to have more and more men under them than was necessary should have resulted in proliferation of staff indicates failure of the top management to fix norms of work or relate it to actual needs. What is more, about 1,400 persons were recruited for the expansion of the unit without an overall assessment of the staff requirements. Thus a good opportunity to absorb surplus personnel in the expansion of the plant was also lost. It is surprising that neither the Board of Directors nor the Government took note of this problem till 1959. Various Committees and specialist firms had subsequently to be appointed to assess the work-load and determine the staff strength entailing considerable labour and expenditure but a solution to the problem is not yet in sight.
	240	(ii) Messrs. Personnel & Productivity Services, which were asked to study the work-load and manpower requirements of non-technical departments of the Nangal Unit in 1962, proposed a staff strength of 711. As against this, the permanent set up of 1082 is proposed by the Unit and 1026 persons were in position in February, 1965. The Committee are surprised that the recommendations of the specialist firm made in 1962 have not been fully imple-

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		mented so far. They recommend that every effort should be made to bring down the staff strength of the Unit to the level suggested by the Personnel & Productivity Services.
	241	(iii) The Committee would urge that, after the General Manager of Durgapur Project has submitted his report, vigorous steps should be taken to reduce the existing surplus personnel at the Sindri and Nangal Units, either by transferring them to the other Projects of the Corporation or securing them suitable employment in other public undertakings with the assistance of the Ministry of Labour and Employment. The possibility of introducing a suitable scheme for voluntary retirement of surplus staff by payment of suitable compensation may also be considered. The Committee have no doubt that the Labour Unions would co-operate with the Corporation as it would have a salutory effect on the unit as well as the workers.
83	243-44	Though the productivity of labour has improved from year to year at Nangal, the position at Sindri has not materially changed during the last 3 years. Labour and establishment charges constitute an important element in the cost of production. It is absolutely necessary to keep down the establishment charges to the minimum possible. The Committee hope that various suggestions made in this Report *e.g.*, for better utilisation of men and materials, proper maintenance of plant and equipment and happier industrial relations would lead to greater productivity. They trust that the position will be constantly reviewed with reference to the norms laid down for the purpose and suitable remedial action taken when necessary.
84	246	The Committee feel that there is need for close watch on the recruitment of staff from the very beginning so that over-manning does not manifest in the new units. With that end

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		in view the Committee would like to suggest that:— (i) the staff strength for various stages of construction/operation of a project should be carefully assessed in the beginning itself and intimated to the General Manager; (ii) the number of personnel employed should be kept slightly below the assessed number; (iii) the strength assessed should in no case be exceeded, without prior approval of the Board of Directors; (iv) the Board and Government should also keep a continuous watch and periodically examine the staff strength of each project with reference to the estimated requirements; and (v) efforts may be made to absorb the surplus staff in the units of the Corporation in other public undertakings as far as possible.
85	250	(i) The provision of helpers for skilled workers as tool carriers without ascertaining the need therefor is not justified and is a waste of manpower. If Trombay project is able to do without these helpers, there is no reason why other projects cannot do without them. Since the appointment of helpers leads to overmanning and higher cost of production, the Committee suggest that their number should be reduced to the minimum.
	251	(ii) In this context, the Committee would commend the initiative shown by the General Manager of the Trombay Project (1964) in assessing the ultimate staff strength in the very beginning and successfully eliminating the employment of helpers. It happens rarely that the staff strength of a project as originally fixed at 3,000 is reduced to 1,803.
86	253	The Committee find that overtime at the Sindri and Nangal Units is not restricted to

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		skilled personnel only but is paid in all Departments including Stores, Personnel Administration, Security, Estate, Medical and Transportation Departments. There is thus need for reducing absenteeism and exercising strict control in the payment of overtime and avoidance of malpractices of the nature referred to in para 252. The Committee hope that suitable measures would be taken by the Corporation in this behalf.
87	254-55	On 31st March, 1964 there were 88 categories of technical and 161 categories of non-technical posts in the Nangal Unit. During evidence it was admitted that it was not desirable to have such a large number of categories of posts. Trade and scale classification had to be rationalised and their number reduced. The Managing Director agreed to make a comparative study of the position in other public undertakings. The Committee trust that necessary action would be taken to put this matter on a proper footing in all the projects of the Corporation.
88	257	(i) The supervisory staff at the Nangal Unit is on the high side. The Committee suggest that the number of supervisory staff may be reduced as much as possible.
	259	(ii) The ratio of non-technical to technical staff is higher at the Sindri and Nangal Units as compared to the Trombay Project. The Committee suggest that the position might be reviewed with a view to reducing the number of non-technical staff, as was agreed to by the Managing Director.
	260	(iii) The Committee suggest that suitable norms for employment of supervisory and operative staff and technical as well as non-technical personnel should be laid down so as to serve as a guide to the managements of future plants.
89	262	The Committee understand that a special unit has heen set up in the Ministry of Labour and Employment to assist public undertakings

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		in the setting up of Joint Management Councils and working out the relevant details. They trust that the Corporation would take necessary action to organise a Joint Management Council at the Nangal Unit at the appropriate time in consultation with the Ministry of Labour and Employment.
90	263	A Grievance Procedure has not been introduced at the Nangal Unit so far. The Committee urge that this statutory requirement should be complied with in respect of Nangal and any other defaulting unit of the Corporation as early as possible.
91	266	The Committee hope that the decision of Government to have the equity capital and borrowings in the ratio of 1 : 1 would be kept in view and the correct proportion between equity and loans reached before long.
92	271	(i) The higher capital investment increases the cost of production and adversely affects the competitive position of an undertaking. The Committee regret that due emphasis was not placed by Government to the important aspect of investment-output ratio before according approval to projects from the very beginning. They were surprised to know that the Ministry had started considering this aspect only recently.
	272	(ii) It is also surprising that although the first fertiliser plant in the public sector was commissioned about 15 years ago, comparative position obtaining in foreign countries on this important aspect is not available either with the Corporation or the Government till today. The Committee trust that efforts would now be made to collect such information and to carefully examine the investment-output ratio before sanctioning new projects in future.
	273	(iii) While the investment per ton of output has been gradually reduced from project to project, efforts may be continued to reduce it further so as to bring it on par with the position prevailing in foreign countries.

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93	277	It is hoped that with the change in the process of production, installation of additional lean gas producers, reduction in staff strength, improved maintenance of plant and equipment, reduction in inventories and improvement in labour relations the cost of production at Sindri will come down substantially. The Committee trust that every effort would be made to bring the cost of production to the level of standard costs which should also be reviewed from time to time.
94	279	The Committee trust that with improved maintenance and solution of corrosion problem of Electrolysis Plant etc., at Nangal, the production will increase to rated capacity, thereby reducing the cost of production. They also urge that concerted efforts should be made to control the costs, so as to reduce the cost of production of calcium ammonium nitrate also.
95	280	The cost of production in the various units of the Corporation should be periodically reviewed with a view to finding discrepancies and locating areas for effecting economies.
96	283	The Committee cannot help observing that no serious attention was given to the important aspect of laying down norms of production at Sindri for thirteen long years. This should at least have been done after the Tariff Commission made a specific recommendation in 1959. The Committee would urge that such norms should be laid down in all future projects of the Corporation from the very beginning.
97	288	It will be appreciated that any material difference in the provisional and final retention prices would lead to considerable accounting difficulties. To avoid them, it is necessary that the question of prices should be referred to Government sufficiently in advance so that the retention price is fixed before the validity date of the earlier price expires. The representative of the Corporation as well as the Ministry

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		agreed that the matter should have been referred to Government sufficiently in advance of the expiry period. The Committee trust that this aspect would be kept in view in future.
98	290-91	The net profits of the Nangal Unit are steadily rising but the position at Sindri, which was commissioned as far back as 1951 seems very unsatisfactory, especially when it is viewed against a margin of 10 per cent allowed in the retention prices for the fertilisers. The present unsatisfactory position at Sindri must obviously be due to many ills from which the Unit is suffering. The Committee recommend that effective steps be taken to rehabilitate the Unit and effect utmost all round economy so as to improve its financial position.
99	294	(i) The Committee cannot help observing that the position is highly unsatisfactory. It was expected of the administrative Ministry to intimate the Corporation of the surpluses expected of it which should also ordinarily have been determined in consultation with it. It is surprising that neither estimates of surpluses were prepared in consultation with the Corporation nor were they communicated to them till the Committee enquired about it. What is more surprising is that even the representative of the Ministry was not aware of it and had to ascertain the position from the Planning Commission.
	295	(ii) The Committee recommend that Government should now study the performance of the Fertiliser Corporation from time to time with reference to the contributions expected of it. It would be desirable if the targets fixed and the actual performance in this regard are also indicated in the annual reports of the Corporation.
100	297-98	The cost of townships varies from 4·58 per cent. of the total outlay on Korba Project to 12·6 per cent. at the Sindri Unit. Since the investment on a township and the cost of maintaining it add considerably to the overheads of a

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		project, the Committee feel that Government should consider the desirability of laying down an upper limit on the expenditure that could be incurred by a public undertaking on the construction of a township.
101	299-300	Land utilisation on construction of townships in the projects of the Corporation has been on a lavish scale. In evidence it was stated that as land was cheap at Sindri, there was one dwelling unit in an acre of land. But under the present conditions, there should be a norm of 6 to 7 dwelling units per acre of land. The Committee trust that this would be kept in view while planning townships in future projects of the Corporation.
102	302	(i) While only 54·1 per cent. of staff at Gorakhpur is proposed to be provided with residential accommodation, the township at Trombay would accommodate nearly 97 per cent. of the staff. It would thus appear that the size of townships and the percentage of staff to be provided with housing accommodation has in each case been decided on *ad hoc* considerations and no definite principles seem to have been followed. The Committee need hardly mention that the size of a township should be based on considerations like location of a project, availability of housing facilities in the neighbourhood, etc. They would recommend that Government should lay down some broad criteria on the basis of which requirements of residential accommodation in a project may be determined by each industrial undertaking in the public sector.
	303	(ii) Over 400 houses are lying vacant at Trombay. The Committee trust that staff strength for each project would in future be determined in advance and the total number of houses/flats to be built decided on the basis of criteria laid down by Government.
103	307	The facts stated in paragraph 304-06 would indicate the need for construction of townships by the Public Undertakings according to a

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		phased programme related to the actual requirements from time to time, so as to avoid blocking up of excessive capital and also reduce maintenance expenditure. The Committee trust that the Corporation would keep this in mind while putting up townships in its future projects.
104	308	The Units/Projects of the Corporation have not taken full advantage of the industrial housing schemes of the State Governments. The Committee therefore recommend that before sanctioning the construction of a township by a public sector undertaking, Government should see if it is not possible for the Undertaking concerned to take advantage of the industrial housing scheme of the State Government concerned, so as to reduce its liability.
105	311	Since the Fertilizer Corporation was able to get all the money required for putting up townships from the Central Government itself without any difficulty, they did not fully explore the possibilities of getting financial assistance and subsidy from the State Governments. The Committee urge that energetic steps should now be taken to secure the assistance available under this scheme.
106	314	The Committee suggest that in view of the low occupancy of the hostels set up by the Corporation, the need for their continuance as such may be examined. They also feel that instead of putting up large hostels to meet the temporary requirements during the construction stage of a project, the desirability of utilising a few residential flats for this purpose may be considered.
107	315	(i) At Namrup Project, the Corporation is recovering rent for houses allotted to employees at 5 per cent in order to attract suitable personnel. The Committee understand that in addition to concessional rent, the employees are also paid project allowance on the scale laid down by Government. The desirability of charging concessional rent in addition to the project allowance may be considered.

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		(ii) The occupancy ratio in some of the guest houses of the Corporation (*i.e.*, at Peddar Road, Bombay) is low. With a view to minimising avoidable expenditure, the desirability of closing down guest houses with low occupancy ratio, whether rented or owned by the Corporation may be examined.
108	319	The Fertiliser Distribution Enquiry Committee (1960), which examined the existing distribution arrangements, had suggested the setting up of a Central Fertiliser Marketing Corporation to undertake the functions performed by the Pool. Various bodies have since then pointed out that the existing distribution system is not conducive to the rapid expansion of consumption of fertilisers by the farmers and that such responsibility should rest with the factories themselves. The Committee regret to note that no action has been taken on the positive recommendation for the setting up of a Central Fertiliser Marketing Corporation, which was made four years ago. Instead another Committee with, more or less, similar terms of reference has again been set up to examine the matter *de novo*. The Committee need hardly stress the urgency of organising an efficient system of distribution of fertilisers, particularly when a number of new fertiliser factories are being set up in the near future. They trust that immediate steps would be taken on the recommendation of the Enquiry Committee to organise a suitable system of distribution of fertilisers, in consultation with the concerned parties.
109	322	The progress of the fertiliser industry is closely linked up with the availability of fabrication facilities within the country, particularly in view of the foreign exchange difficulty and the high cost of imported equipment. The Committee, trust that fabrication capacity for the fertiliser industry would be established at an early date.

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110	323	The Committee trust that a detailed study will be made with a view to evolve standard designs and specifications for equipment for the new fertiliser plants.
111	325	Very little attention has been paid so far to the manufacture of spare parts in the country which are so essential for the maintenance of any fertiliser plant. The Committee feel that with the present progress in engineering and steel industries, it should be possible to produce a large percentage of spare parts within the country. They trust that the Corporation will maintain close coordination with the fabricators in the country, and encourage them to meet the requirements of the various factories increasingly.
112	326	The Committee urge the Corporation and its Units to play more positive role in the setting up of ancillary industries.
113	328-29	With a view to keeping the capital cost of new industries as low as possible, it has been suggested that the industrial undertakings concerned might bear the entire expenditure in respect of railway siding within the factory premises but the cost of work outside the factory should be borne by the railways subject, if necessary, to the applicant undertaking offering a minimum traffic, as may be stipulated by and mutually agreed with the railways. Since any change in the present arrangement is likely to have far reaching repercussions on the railways and all the industrial undertakings the Committee suggest that the matter might be thoroughly examined by the Ministry of Railways in consultation with the Ministry of Finance to see, if a change in the present position is called for in view of the difficulties referred to above.
114	331	From the relative economic of hiring the engines and their purchase as worked out by the Sindri Unit, it is noted that if 3 HGS Class

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		of locomotives (second-class) are available in good condition, the expenditure will come down considerably and in any case the purchase involving capital outlay will yield a net return of not less than 36 per cent. The Committee trust that the required number of locomotives will be purchased for Sindri.
115	334	The Committee regret to observe that a final decision to instal a tippler has not been taken so far. In the meantime the Unit continues to face difficulties in the unloading of raw materials, which affect production and involve additional expenditure on manual unloading, besides payment of demurrage to the Railways. The matter has now been linked up with the proposed change in the process of production which is likely to take time in materialising. The Committee urge that immediate action should now be taken in consultation with the Ministry of Railways to minimise delays in unloading and reduce unnecessary expenditure.
116	335	The Committee trust that a review of the requirements would urgently be made for effecting economy in the case of staff cars, vehicles, etc. It will also be desirable to lay down suitable norms based *inter alia* on the number of officers in a project, volume of work, distance from the nearest city, etc., for the guidance of managements of future projects of the Corporation.
117	338	The Committee understand that Bechtel Corporation has submitted a feasibility report which is under Government's consideration. The Committee understand that some other firms have also evinced interest in putting up fertiliser factories in the country. They have no doubt that during further negotiations with Bechtel Corporation or other firms which have shown interest Government would try to get the best possible terms. All the same they would urge that the final arrangement should be so devised as to secure full association of Indian technical personnel at every stage of the work

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		as also full utilisation and maximum development of whatever construction and fabrication facilities exist in the country.
118	341	The Corporation stated that comparative information in respect of fertiliser factories in foreign countries was not available. The Committee consider it absolutely essential for a progressive industrial undertaking to have an intimate knowledge of the working of similar undertakings abroad. This is particularly so in the present day competitive conditions when other countries are making rapid technological and other improvements. The Committee feel that Government should have at least obtained such basic data from foreign experts/firms engaged to study the fertiliser industry from time to time. They trust that the Corporation will now take necessary steps to keep in touch with the working of fertiliser factories in industrially advanced countries.
119	346	(i) It was expected of the Fertiliser Corporation that with its past experience in establishing fertiliser plants at Sindri and Nangal, it would avoid some of the mistakes that have been committed in its later projects. This has not been so largely due to the fact that the Corporation did not develop adequate managerial talent. Service officials with little experience of industrial projects were entrusted with the implementation of these projects. There were also frequent changes in the incumbency of these top posts, even during construction. It is time that the Corporation applied itself to the proper planning of projects and ensured that they are executed with the utmost speed and economy so as to avoid imports of fertilisers which have been a drain on our foreign exchange resources.
	347	(ii) It appears that the Ministry was also not adequately equipped to scrutinise the schemes and proposals of the Corporation and to keep a continuous watch on its performance. It is also surprising that although the Ministry

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		directed the Corporation to organise a Planning and Development Division at an enormous cost—the expenditure on salaries and allowances of Planning and Development Division alone amounts to Rs. 37 lakhs per annum—they have not taken steps to ensure that it is put to proper use with the result that the Division is languishing. The Committee hope that the Ministry would now play an effective role to ensure that the working of the Corporation is placed on a proper footing.
	348	(iii) In the earlier Chapters, the Committee have suggested various matters for examination by the Bureau of Public Enterprises. They would like to be informed in due course of the action taken by the Bureau.

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