C.P.U. No. 433

COMMITTEE ON PUBLIC UNDERTAKINGS (1980-81)

(SEVENTH LOK SABHA)

TWENTY-FIRST REPORT ON RASHTRIYA CHEMICALS AND FERTILIZERS LTD.

MINISTRY OF PETROLEUM, CHEMICALS AND FERTILIZERS

(Department of Chemicals and Fertilizers)

LOK SABHA SECRETARIAT
NEW DELHI

Presented to Lok Sabha and
Laid in Rajya Sabha on 28 April, 1981

April, 1981/*Vaisakha,* 1903 (*Saka*)

Price : Rs. 3.00

CORRIGENDA TO TWENTY-FIRST REPORT OF COMMITTEE ON PUBLIC UNDERTAKINGS (SEVENTH LOK SABHA)

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COMMITTEE ON PUBLIC UNDERTAKINGS
(1980-81)

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1. Shri H. G. Paranjpe—*Joint Secretary*
2. Shri T. R. Krishnamachari —*Chief Financial Committee Officer*
3. Shri S. P. Chanana —*Senior Financial Committee Officer*

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*Elected w.e.f. 28-11-1980 in the vacancy caused by appointment of Shri P.A. Sangma as Deputy Minister.

STUDY GROUP III ON PUBLIC UNDERTAKINGS UNDER MINISTRIES OF DEFENCE, ENERGY, IRRIGATION, INFORMATION AND BROADCASTING, HOME, PETROLEUM & CHEMICALS, SHIPPING AND TRANSPORT AND SOCIAL WELFARE

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2. Shri B. K. Nair—*Alternate Convener.*

3. Shri Harikesh Bahadur

4. Shri Harisinh Bhagubava Mahida

5. Shri R. Ramakrishnan

6. Shri Ravindra Varma

7. Shri Shrikant Verma

INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to present the Report on their behalf, present this Twenty-First Report on Rashtriya Chemicals and Fertilizers Ltd.

2. The Committee's examination of the working o the Corporation was mainly based on the Report of the Comptroller and Auditor General of India Union Government (Commercial) 1978, Part III relating to Trombay Unit of the Fertilizer Corporation of India Ltd. (now part of Rashtriya Chemicals & Fertilizers Ltd.).

3. The Committee took evidence of the representatives of Rashtriya Chemicals and Fertilizers Ltd. on 28 and 29 October and 4 November, 1980 and of the Ministry of Petroleum, Chemicals and Fertilizers (Department of Chemicals and Fertilizers) on 15, 16 and 20 December, 1980. The Committee also took evidence of the representatives of the Fertilizer Corporation of India on 29 October and 4 November, 1980.

4. The Committee considered and adopted the Report at their sitting held on 21 April, 1981.

5. The Committee wish to express their thanks to the Ministry of Petroleum, Chemicals and Fertilizers (Department of Chemicals and Fertilizers) and Rashtriya Chemicals and Fertilizers Ltd. for placing before them the material and information they wanted in connection with the examination of the Corporation. They also wish to thank in particular the representatives of the Department of Chemicals and Fertilizers, the Rashtriya Chemicals & Fertilizers Ltd. and the Fertilizer Corporation of India Ltd. who gave evidence and placed their considered views before the Committee.

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

BANSI LAL,
Chairman
Committee on Public Undertakings.

NEW DELHI :

April 24, 1981.

Vaisakha 4, 1903 (*S*).

CHAPTER I

TROMBAY I & II

A. Commission of Enquiry

The operations of the Trombay I & II were reviewed in Sections II-B of the Audit Report (Commercial), 1968. The Committee on Public Undertakings examined this Audit Report in 1968-69 and *inter alia* made the following observations in paragraph 6.2 of their Twenty Sixth Report (Fourth Lok Sabha) :

> "6.2 The Committee are constrained to observe that there were a number of procedural and functional lapses on the part of the Management of which Government of India could have taken serious note but do not appear to have done so or exercised proper check and supervision. The Committee would urge that as suggested by them in Paragraph 2.27 an enquiry should be made to ascertain the reasons for entering into such defective agreements which have resulted in huge financial losses and continuous low production. Awarding of contracts to firms which had neither capacity nor experience to undertake them is also a sad affair. They would like to be informed of the findings of the enquiry, the names of the officers found responsible for these lapses and the action taken against them."

1.2 Government set up a single member commission (Bedi Commission) in August 1969, under the Commission of Enquiry Act, 1952, to enquire into the matter.

The terms of reference of the Commission were as follows :—

(i) to determine whether the then Managing Director of the Fertilizer Corporation of India Ltd. acted entirely in the interests of Corporation so far as the agreement entered into with M/s. Chemical Construction Corporation for the supply of Ammonia, Urea and Nitric Acid Plants was concerned; whether the dropping of claims worth Rs. 57.50 lakhs against the said Chemical Construction Corporation was justified and whether the terms of agreement entered into with the firm were in the best interests of the Corporation and to determine the responsibility for lapses, if any, in this case.

(ii) to investigate the reasons for awarding the contract for the Nitro Phosphate Plant to M/s. Chemical and Industrial Corporation of USA;

(iii) Arising out of (i) and (ii) above, to recommend the action that may be taken.

1.3 The Commission was to submit its report to Government within 3 months i.e., by November, 1969 but the Commission submitted its report in March, 1979. The report was laid by Government on the Table of Lok Sabha on 12 August, 1980.

1.4 On Issue No. (i), the Commission came to the conclusion that all normal procedural formalities to be observed in drawing up a contract with M/s. Chemical Construction Corporation of USA (Chemico) had, in practice, been observed. The selection of the contractor had been done by a technical committee; the contract has been drawn up in consultation with the Company's solicitors; the terms had been reviewed by the Board consisting of 15 Members and Government had also scrutinised the terms and approved of them. In the circumstances, even assuming that there were some shortcomings in executing the contract, the responsibility could not be fixed on any particular individual. According to the Commission the Managing Director acted in the best interest of the Corporation.

1.5 As regards the latter part of issue no. (i) the Commission concluded "To sum up, I hold that though the amount of Rs. 57.50 lakhs (which the FCI gave up) ostensibly seems to be huge, yet taking all the circumstances into consideration, I am of the view that it was paltry one; the Supplemental Agreement was essential, and ultimately proved to be beneficial to the Corporation and the dropping of the claims for the said amount was justified."

1.6 On issue No. (ii) the Commission concluded that in view of the findings on facts and circumstances, no action should be taken against Shri B. C. Mukherji, ex-Managing Director of the Fertilizer Corporation of India or any other respondent in regard to this issue and recommended that the matter should be dropped as "any further probe into it will be futile and worse than useless".

1.7 Government after carefully considering the findings of the Commission, agreed with its conclusions, and treated the matter as closed.

1.8 One of the reasons why the Bedi Commission could not complete its proceedings for as many as 10 years was a stand taken by the Fertilizer Corporation of India on item No. (ii) of the terms of Reference of Bedi Commission. On 7th August, 1969 i.e. within 2 days of the issue of Government's Resolution setting up of the Commission, the FCI approached Government suggesting deletion of aforesaid item. The Secretary, Ministry of Petroleum and Chemicals was not impressed by this plea and in his reply dated 25 August, 1969 to the Corporation stated :

> "We are, however, unable to understand why the evidence you will be called upon to produce before the Commission against item (ii) of the Commission's term of reference should embarass you in the pursuit of your claim against C&L before the arbitrators... If, however, on further careful consideration, you continue to feel that the enquiry into the circumstances of the C&I contract would, in fact put you up at a disadvantage, there is nothing to prevent you from representing before the Commission against the continuance of this part of the enquiry and seek a postponement till after the disposal of the arbitration proceedings."

1.9 On 25 October, 1969, the Fertilizer Corporation of India submitted an application before the Bedi Commission for adjournment of enquiry on item (ii). Government pleaded before the Commission that "they do not wish to take any contentious attitude on this issue but prefer to leave it to the best judgement of the Commission since the FCI apprehends prejudice to the arbitration proceedings." Government also pointed out that the Commission of Inquiry is not a court and it had been appointed for a limited period only. The Commission passed the following order on 8 February, 1970 :—

> "From the gist of the pleadings of the parties given above it appears that there is force in them. There is no connection between the terms of reference of the Commission stated in sub-paras (i) and (ii) of paragraph 1 above. The parties to the inquiry relating to sub-para (i) are different from those in sub-para (ii) of the terms of reference in paragraph 1 above. The amount involved is a few crores. Under the circumstances, it would be appropriate to record the evidence in respect of inquiry mentioned in sub-para (i) of paragraph 1 above for the time being. After that is concluded, I will consider how to proceed with the inquiry mentioned in sub-para (ii) of paragraph 1 above."

1.10 The Committee wanted to know the basis on which the FCI thought that enquiry by the Commission would prejudice its case before the International Chamber of Commerce. The Secretary, FCI explained in evidence (October, 1980) :

> "It was on the basis of discrete enquiry by high powered Committee under Dr. Hussain Zaheer that this award was given to them (M/s. Chemical & Industrial Corporation of USA)....After our dealing with them, they had miserably failed; they did not provide a plant which was contracted for. So, before the International Chamber of Commerce, we were telling rather pleading before the Tribunal that C&L had failed."

The witness added :—

> "The Commission of Inquiry which was set up under the act was a public commission; and accidentally C&I lawyer who was appearing before the Tribunal was directly concerned with the commission also—Mr. G. B. Pai. We had taken the advice at that time of the Addl. Solicitor General of India—Shri F. S. Nariman, whose advice was that if FCI deposes before the Commission simultaneously along with the proceedings, this is going to prejudice its case....It was the considered opinion and conscious decision at the level of the Corporation's top management that if we proceed simultaneously before the Commission as well as the Tribunal, because of the high stakes involved to the tune of crores of rupees, our interests would be prejudiced."

1.11 Asked whether FCI did not know earlier that item No. (ii) was also to be enquired into. The Committee were informed by the Secretary.

FCI that the FCI were not consulted by Government before laying down terms of reference of Bedi Commission. On a query whether at the time of finalising the terms of reference of Bedi Commission, the fact that FCI's dispute with C&I was pending with the ICC, Paris was taken into consideration by Govt., the Secretary, Department of Chemicals & Fertilizers said (December, 1980) :—

> "Government were aware of the fact that this item was under arbitration, but I find from the file that at the time of appointing the Commission, they did not specifically take this into account."

1.12 When the Commission wanted to take evidence of Shri B. C. Mukherjee on issue No. (i) only, it was argued on his behalf (July 1971) that he would be put to inconvenience if he was examined then so far as contract with M/s. Chemico was concerned and then again when the contract for nitrophosphate plant was enquired into. The Commission sustained this objection and stated in its order of 31-7-1971 that though the parties in the two references were different and the contract in each case was also different, Shri B. C. Mukherjee was common and important respondent in both the cases. As such it would not be desirable to split the enquiry and report.

1.13 The Committee enquired whether Government and the Corporation took any action to controvert the Commission's impression that there was some force in Shri Mukherjee's argument. The Secretary, FCI said :—

> "The FCI and the Government did not take any further action on Mr. Bedi's order."

1.14 As the Corporation reportedly did not agree with Shri Mukherjee's contention, the Committee pointed out that it should have contested the Commission's order. The witness conceded saying "Apparantly, Yes".

1.15 Department of Chemicals and Fertilizers intimated (February 1981) that they had obtained the advice of the Ministry of Law on the plea of FCI that proceedings on item No. (ii) before the Bedi Commission would prejudice their case. The advice of the Ministry of Law was :

> "Having regard to all the aspects of the matter including the opinion of Shri C. K. Daphtary, Counsel for the Fertilizer Corporation of India, I think it would be in the fitness of things if term No. (ii) of the terms of reference to the Bedi Commission be deleted, though that might in the circumstances cause some embarrassment to the Government. This course commends itself in the matter. if prejudice, which might otherwise be caused to the Corporation before Bedi Commission in respect of its heavy claim against C&I.C., and ultimately to the Government of India, is to be avoided."

1.16 On the basis of the advice of the Ministry of Law, Department of Chemicals & Fertilizers issued a Resolution on 3rd June, 1972 omiting item No. (ii) from the terms of reference of Bedi Commission.

1.17 In his application dated 30th July, 1972 Shri B. C. Mukherjee objected to the deletion of item No. (ii) by Government and contended that once a reference had been made to the Commission the entire jurisdiction in the matter vested in the Commission. Bedi Commission sustained the objection raised by Shri Mukherjee and held that there was nothing in the provisions of the Commission of Enquiry Act, 1952 which gave power to the Government of India to withdraw, delete or amend a reference made to a Commission. As the Commission wanted to proceed with the enquiry on issue No. (ii) also, Government of India and FCI moved separate writ petitions in October, 1972 in the Delhi High Court praying for issue of writ of mandamus to the Commission. The writ petitions were admitted and interim stay was granted on 1-12-1972 against the Commission's order to proceed with the enquiry on issue No. (ii).

1.18 The Committee wanted to know whether before filing writ petition in the Delhi High Court, the Corporation realised that the Commission had been constituted by Government on the basis of the Parliamentary Committee's Report on Trombay Unit and that such a move would delay and ultimately frustrate the whole process. In reply, Secretary, FCI, pointed out in evidence that :—

> "In this inquiry for all practical purposes, the FCI was being treated as an accused. In spite of that, the Corporation did its best, considered this aspect and it was decided that we should not Permit the commission to frustrate the efforts made by the Public Undertakings Committee. That is why we filed the writ petition in the Delhi High Court."

1.19 The Committee desired to know whether instead of moving the High Court in this matter it would not have been better for Government to wind-up the Commission. The Secretary, Department of Chemicals and Fertilizers deposed :—

> "This was considered but the Government (We) came to the conclusion that this course would be less liable to criticism. In other words, they thought that a more appropriate course would be to file a writ petition."

1.20 The Committee were further informed that Government was aware of the fact that Shri B. C. Mukherjee had left the services of the FCI and become a General consultant. He had many parties as his clients. M/s. Chemico against whom the Corporation had preferred claims was one of them.

1.21 Despite the Government of India having withdrawn issue No. (ii) and the Delhi High Court having stayed the proceedings in regard to it, the Commission did not agree to proceed and consequently there was no progress in the enquiry. It was only after the ICC, Paris had finalised its award and Government restored issue No. (ii) in the terms of reference of the Commission vide its Resolution of 1st October, 1977 and withdrew the petitions pending in the Delhi High Court that the Commission proceeded further with its enquiry into all the three issues and gave its report on 29th March, 1979.

1.22 The Committee desired to know when the ICC, Paris had finalised its award in early 1976 (notified on 1-11-1976) why did the FCI take almost 1 year and 9 months to go to the Court for the vacation of the Interim Stay. The Secretary, FCI stated : "We were waiting for the award".

1.23 The Committee wanted to know the total expenditure incurred on Bedi Commission. The Ministry in a note (October, 1980) intimated that in addition to the expenditure of Rs. 7.40 lakhs incurred by Government on Bedi Commission, the Fertilizer Corporation of India had incurred an expenditure of about Rs. 2.82 lakhs making a total expenditure of about Rs. 10.22 lakhs. It was clarified by a representative of FCI in evidence that the expenditure incurred by FCI was on account of rent paid by FCI for the Commission's office.

B. ***Arbitration on Claims Against Plant Supplies***

1.24 According to the Audit Report (Commercial), 1978, Part III on Trombay Unit of the Fertilizer Corporation of India (now part of Rashtriya Chemicals and Fertilizers Ltd.) the claims against the plant suppliers of Nitro Phosphate Plant and Methanol Plant for non-fulfilment of guarantees, defective equipment, design deficiency, etc. were referred to arbitration in November, 1968 (Nitro Phosphate Plant) and October, 1968 (Methanol Plant).

1.25 Rashtriya Chemicals & Fertilizers Ltd. intimated in a note (February, 1981) that the decision to refer dispute in respect of Nitrophosphate Plant under I.C.C. Rules was taken at the FCI's Board meeting held on 29 February, 1968. The proceedings in respect of this plant commenced on 24 May, 1971 and concluded on 4 December, 1975. The reference to Arbitration under Indian Arbitration Act in respect of Methanol Plant was, however, taken at the level of Director (Finance) and Managing Director and the position later reported to the FCI's Board on 20 July, 1971.

1.26 The total amount of claims preferred by the FCI against C & I in respect of Nitrophosphate Plant was for Rs. 4.23,14,030.00 plus US $ 260,192.10. Counter claims made against FCI were for US $ 2,18,29,863.20. According to the Award dated 1 November, 1976 of the Arbitration Tribunal (ICC, Paris), the FCI|RCF has to receive Rs. 1,42,80,370.90 and US $ 15,482.40 and has to pay US $ 18,560.34 to IDI Management which had taken over the interests of C & I on 1 July, 1970.

1.27 Explaining the delay in notification of the award of the Arbitration Tribunal (ICC, Paris) the Secretary, FCI said in evidence :—

> "The date of award is 1st November, 1976. The award was ready. Administrative charges to the tune of US $ 21,965 were payable by the foreign party. They were not paying this and finally they did not pay. We got a letter from the Secretary General, ICC, Paris, that he had the award in his custody and that he could notify the award only if this amount was paid; in case the FCI was interested in getting the award, they should pay US $ 21,965. This matter was considered by our

Board of Directors and finally this amount was remitted by us and the award was notified on 6th February, 1979."

1.28 Though the award was unanimous, IDI Management did not pay the amount of Rs. 143 lakhs. The FCI/RCF, therefore, initiated proceedings in the USA Court in September, 1979 for enforcement of the award. But IDI Management challenged the award. Dealing with the objections raised by IDI, the witness stated in evidence :—

> "When the award came in our favour and we filed the proceedings in the United States Court for the enforcement of the arbitral award, they have now raised the objections in the US Court at Cincenneti, Ohio that Mr. Sen, who acted as one of the arbitrators was associated with the FCI, that he had financial dealings with the FCI, and therefore, the award was perverse to that extent and should not be enforced. This is a very serious point according to the law of America and advised to us by the American lawyers. But we are trying to meet with this point and we have already met this point and we have taken the opinion of the former Chief Justice, Mr. J. C. Shah that this type of procedure is absolutely not wrong. We have filed Shah's opinion in the Court of the USA. This is the only issue, according to our foreign lawyers, which is standing in our way and that is why we have to keep our fingers crossed for the present as to how things take shape in the USA Court."

1.29 The Committee enquired whether legal position about Mr. Sen acting as one of the Arbitrators was not known to the FCI. The Secretary, FCI explained :

> "So far as the legal position in India is concerned we follow the English law and as far as UK is concerned, there is nothing wrong in it. As you yourself know, today one is our advocate and tomorrow if there is a dispute we nominate that advocate as an arbitrator and particularly, in our legal history in India and UK there is no objection to this type of arrangement because the senior advocates have no direct links with the party."

1.30 The Committee desired to know whether IDI had raised any other objection to the enforcement of the award. The RCF submitted in a note (February, 1981) that the other objections raised by the defendants against the award of ICC, Paris were as under :—

(i) that petitioners' award should not be recognised and enforced as it has not become binding on the parties because the Indian Courts are entitled to and are, reviewing the award on the merits ;

(ii) that recognition and enforcement of the nitrophosphate award must be refused in so far as the Arbitrators awarded lost profits to FCI as such an award is beyond the power of the arbitrators under the contract is irrational, and is in manifest disregard of the law ;

(iii) that the rules of the ICC do not bar IDI from ascertaining any defence in this court ;

(iv) that petitioners are not entitled to interest on any sum which they may recover after the date of the award ; and

(v) that petitioners are not entitled to recover the sums they voluntarily paid to the ICC for Arbitration Costs.

1.31 The Secretary, FCI stated in evidence that the prospects of recovery of the amount of the award of Rs. 143 lakhs were fifty-fifty. The Committee were informed that FCI/RCF had already spent about Rs. 9.56 lakhs on enforcement proceedings in respect of award on Nitrophosphate Plant.

1.32 In October, 1974, FCI had filed a petition in the Delhi High Court for setting aside the majority award given by the same tribunal on Methanol Plant under which FCI was to pay Rs. 27.6 lakhs to the IDI. The matter is stated to be pending with the High Court. Meanwhile the IDI Management had moved the Delhi High Court and obtained a money decree for that amount. FCI has deposited the amount of Rs. 27.6 lakhs with the Delhi High Court.

1.33 Asked why FCI deposited the amount of Rs. 27.6 lakhs when the same party i.e. IDI Management had failed to pay the award of Rs. 143 lakhs in respect of Nitrophosphate Plant, the witness explained that Delhi High Court had already asked the IDI Management to furnish a Bank Guarantee from a Nationalised Bank before drawing the decretal amount so that if the FCI wins its appeal for setting aside the award, the Bank can, guarantee refund of that amount to the RCF.

1.34 The Planning and implementation of Trombay I & II Projects consisting mainly of Ammonia, Urea, Suphala (Nitrophosphate), Nitric Acid, Sulphuric Acid and Methanol Plants commissioned during 1965-66 by the Fertilizer Corporation of India, was reviewed by the Committee during 1968-69. The projects suffered from low production and losses. The Committee had also noticed that agreements entered into for supply of plants were defective and that there were a number of procedural and functional lapses on the part of the management. On the basis of recommendations of the Committee in their 26th Report (Fourth Lok Sabha), Enquiry Commission (Bedi Commission) was set up in August, 1969. The Commission went into the agreements entered into with M/s. Chemical Construction Corporation (USA) for the supply of Ammonia, Urea and Nitric Acid Plants and the award of contract for the Nitro Phosphate Plant to M/s. Chemicals and Industrial Corporation (USA). The Commission was expected to report within three months, i.e. by November 1969. However, it was only in March, 1979 that the Commission submitted its report, which was laid before Parliament in August, 1980. Government after considering the findings of the Commission agreed with its conclusions and treated the matter as closed. Thus it has taken nearly 10 years to inform Parliament of the outcome of the enquiry instituted on the basis of recommendation of a Parliamentary Committee. Such delays could frustrate the purpose. An expenditure of Rs. 10.22 lakhs was incurred on the Commission. The Committee are, therefore, constrained to deal with the delay.

1.35 The Committee were informed that within two days of the setting up of the Commission of Enquiry, the Fertilizer Corporation took up with the Government, after taking legal advice, the advisability of postponing the enquiry into one of the Commission's terms of reference that related to the contract with the supplier of Nitro Phosphate Plant, Chemical and Industrial Corporation (USA). This was on the ground that the Fertilizer Corporation's claims against the supplier of the plant were under arbitration by an Arbitral Tribunal set up by the International Chamber of Commerce. The reaction of the Government was that the enquiry was not likely to prejudice the arbitration proceedings and that it was open to the Fertilizer Corporation to make a suitable submission to the Commission. In an order passed in February 1970, the Commission was of the view that there was force in the submission of the Corporation. However, when the ex-Managing Director, against whom the enquiry was directed, objected to the exclusion of one of the issues from the enquiry, the Commission sustained the objection (July, 1971). Thereafter fresh legal opinion was obtained by the Fertilizer Corporation and the matter was again taken up with the Government. On consultation with the Ministry of Law, the Government withdrew (June, 1972) the relevant issue from the terms of reference. This was contended (July, 1972) by the ex-Managing Director stating that the Government had no power to amend the terms of reference. The Commission again sustained his objection. Thereupon the Government and the Fertilizer Corporation had to file (October, 1972) separate writ petitions in the Delhi High Court. The High Court stayed the proceedings of the Commission in regard to the issue in question, but the Commission did not proceed with the remaining issues. It was only after the arbitration award was finalised and the Government restored (October, 1977) the relevant issue in the terms of reference of the Commission and the petitions pending in the Delhi High Court were withdrawn, that the Commission proceeded further and gave its report in March, 1979.

1.36 The Committee regret that the Government though aware of the arbitration proceedings did not specifically consider the implications either on their own or in consultation with the Fertilizer Corporation before deciding upon the terms of reference of the Enquiry Commission. This lapse created all the delay and difficulties besides entailing considerable wasteful expenditure. Further, when the Commission did not agree to proceed with the remaining issues it was open to the Government to wind-up the Commission and set up a new Commission with limited terms of reference but this option was understandably not exercised. The result of all this was that the Commission which was expected to take 3 months took nearly 10 years to complete its work. The Committee desire that learning a lesson from this said Experience Government should lay down suitable guidelines and clarify the legal position of Commission of enquiry to obviate such delays and wasteful expenditure in future.

1.37 Incidentally, although in terms of the arbitration award the plans suppliers of the Nitro Phosphate plant were to pay Rs. v43 lakhs, the award has been contested in a US court and the chances of recovery are not rated high. A su mof Rs. 9.56 lakhs has already been spent on enforcement proceedings. The Committee would await the outcome. The Committee recommend that in future contracts with foreign parties also should provide for arbitration only under Indian Arbitration Law.

C. Supplemental Schemes

1.38 Trombay I & II Complex suffered from losses and low production. To overcome the deficiencies, a Rehabilitation Scheme, a Debottlenecking Scheme and a Diversification Scheme were taken up and implemented between 1968 and 1979.

(i) *Rehabilitation Scheme*

1.39 The Ammonia, Urea, Nitrophosphate and Methanol Plants of Trombay I and II Complex were functioning much below their rated capacity mainly because of poor design, equipment deficiencies and certain operational problems, various rehabilitatory measures were considered by the Corporation. In August, 1967, Board of the Fertilizer Corporation of India approved the following proposals :—

(a) Replacement, additions and modifications to the existing plants at a total cost of Rs. 100.20 lakhs.

(b) Installation of a Phosphoric Acid Plant (Capacity 100 tonnes a day; cost Rs. 150 lakhs) to eliminate import of di-ammonium-phosphate.

(c) Creation of a Special Cell for implementation of the Project (including Phosphoric Acid Plant) within three years.

1.40 According to the Audit Report (Commercial), 1978 at the instance of the Board, the progress of implementation of programme at (a) above, was reported to the Board on 11 February, 1969. Thereafter progress and actual expenditure on this programme were not reported to the Board, nor was the consequent improvement in the performance of these plants evaluated. The Ministry had informed Audit, that no further progress report was submitted as the same was not asked for by the Board and there was no well developed management information system at that time. RCF have admitted (October 1980) in a note that though they had at that time a regular system of submission of status reports to the General Manager of Trombay Unit, a system of reporting the progress to the Board/Central Office of FCI did not exist.

1.41 This programme was to be completed within 3 years i.e. by August, 1979. RCF intimated (October 1980) that 5 key items of the programme involving a cost of Rs. 39.59 lakhs could not be installed by that time. Actual date of installation of these items was as under :—

		Date of completion	
(1)	Drive Unit for Naphtha Charge Pump . . . . (Ammonia Plant)	March	1972
(2)	Protective Barrier or Relocation of Naphtha Charge Pump (Ammonia Plant)	April,	1972
(3)	Additional Boiler to increase Steam Generation Capacity	April,	1973
(4)	New Screens of higher capacity and better design . . . (Nitrophosphate Plant)	August,	1975
(5)	One Steam drum in Gas Generation Section . . . . (Ammonia Plant) .	April,	1976

1.42 Asked if there was any delay in placing orders for these 5 items, the Chairman & Managing Director of RCF revealed in evidence (October 1980) that :—

> "All these items were ordered immediately after the cell was constituted in the first three years but actual installation took more time because that had to be integrated with the shut down plan of the units so that overall production did not suffer too much."

1.43 As regards actual expenditure, on this programme, RCF have reported in a note (October 1980) that they had spent Rs. 80.78 lakhs on it. The reason why the expenditure has been less than the estimates, was that certain items of the programme were later on dropped.

1.44 As regards installation of a 100 tonnes a day Phosphoric Acid Plant at Trombay as part of the Rehabilitation Scheme, the Audit Report had pointed out that while approving the Corporation's proposal in August, 1968 for installation of a 100 tonnes a day (30,000 tonnes per annum) Phosphoric Acid Plant at an estimated cost of Rs. 1.50 crores on turnkey basis within a period of 20 months, the Ministry had desired that tenders for supply of imported equipment should be invited only from Germany, Japan, USA and UK. The Ministry had also made it clear that before placing orders or making any foreign exchange commitment, FCI should obtain from Government specific release of foreign exchange. Instead of calling for tenders, for getting the job executed on turnkey basis, the FCI decided in May 1969 to entrust installation of this Plant to the P & D Division. Even though most of the Phosphoric Acid Plants operating all over the World were based on the dihydrate process, the Corporation went in for Nissan hemi-hydrate process by entering into an Agreement in May, 1970 for this process with the International Ore and Fertilizer Corporation. The Agreement was approved by Government in November, 1970.

1.45 Defending the FCI's decision to entrust the job to their P & D Division, the representative of FCI said in evidence :—

> "The P & D Division was a division of the FCI and its main functions are doing research and development work and engineering work for production of fertilizers and similar chemicals. It was an effort to develop the indigenous know-how and technology. Therefore, when we were thinking of putting up a phosphoric acid plant based on foreign technology, our P & D Division said that they also know about it and why not try their technology."

1.46 The Committee wanted to know if comparative economics of installing Phosphoric Acid Plant on turnkey basis by engaging a foreign consultant or having it built indigenously was worked out before awarding the work to P & D, the RCF intimated (October 1980) in a note that "such analysis was not done as P & D was part of the Corporation." When the Committee pointed out that the fact that P & D was part of FCI was all the more reason, why such an evaluation should have been got done through an independent agency Chairman and Managing Director of RCF conceded that "it should have been done".

1.47 Asked if it is open to a public sector undertaking to change the scope of the project after it has been cleared by Government, the witness pleaded that the change in scope was approved by the Board and the Ministry was, however, informed of it in August 1969. The witness, agreed with the Committee that such an intimation cannot be deemed as formal approval of Government. The Committee were informed that this matter was not formally referred to the Government till the contract with Inter Ore was finalised.

1.48 RCF intimated that FCI had gone in for Nissan process on the consideration that by-product gypsum would be suitable for cement and card board industries. This expectation had not materialised. Off-take of gypsum is stated to be low because wall-board manufacture has not come up in the country so far. However, during the last three years (1977-78 to 1979-80), out of 263,185 m.t. of gypsum produced at this plant, RCF was able to sell 81,533 m.t. only of net sales value of Rs. 16.31 lakhs to cement industry and for soil conditioning in Agriculture.

1.49 Audit reported that according to the tentative time schedule drawn up in September, 1970, the Phosphoric Acid Plant was to be completed by June, 1973. In January 1973, the P & D Division estimated that the project would be ready for commissioning in May or June 1974. The Plant was actually commissioned in January, 1975. The plant thus took over seven years for completion after it was approved by Government in August, 1967. Explaining this inordinate delay in commissioning, the RCF intimated (October 1980) :—

> "Delay was mainly due to late receipt of certain equipment i.e. gear box for crystallizer agitator, diesel generating set for emergency power and the lime caking unit for effluent treatment. The delay in the first 2 equipments was mainly due to late receipt of foreign exchange, import licence which delayed the ordering schedule. Lime slaking unit was not envisaged in the original design. Subsequently when Bombay Municipal Corporation insisted on stringent effluent regulations, it was decided to install this unit. Order was placed after details of effluent treatment and disposal was finalised. The Unit was received at site in November, 1974. Erection was completed in December, 1974".

1.50 Asked how Government kept a watch to see that projects were commissioned on time, the Department of Chemicals & Fertilizers intimated (March 1981) :—

> "Government keeps a watch on the progress of implementation of the projects from the periodical reports received from the undertakings and by reviewing them in quarterly review meetings. The representatives of the Govt. who are on the Board of the Companies also keep a watch on the progress of implementation of the various schemes."

1.51 It was pointed out by Audit that under the Agreement entered into by the Corporation with Inter Ore in May, 1970, Inter Ore was liable to the extent of lump sum licence and know-how fees, if it failed to meet performance guarantee attached to the Phosphoric Acid Plant. Performance guarantee tests were not carried out within one year of guarantee i.e. by 1 January, 1976 because of deficiencies and repeated failures of equipment. These test runs were not carried out even when two supervisory officials from Nissan were in Trombay from 5/22 November, 1974 to 27 February, 1975. Test runs were, however, conducted from 5 to 8 January, 1976 i.e. few days after the expiry of the guarantee period and the Board informed that there was no limitation on the plant on account of system concept of design for which Nissan alone could be held accountable.

1.52 The Committee wanted to know whether conducting performance Guarantee tests long after the commissioning of the plant had been the normal practice with the Corporation and if so, what was the sanctity of providing for such a clause in the contracts/agreements etc. for performance guarantee if it was not enforced. The RCF in a note furnished subsequently stated :—

> "Performance guarantee tests can be carried out when the plant stabilises after commissioning. When the stabilisation took longer time than scheduled guarantee test got delayed. The normal practice is to conduct guarantee test soon after it is demonstrated that the plant can run on sustained basis for some time as per contract".

1.53 RCF in a note intimated (January 1981) that the original project estimate of Rs. 1.50 crores (January 1968) of Phosphoric Acid Plant had undergone as many as 5 revisions. Details are given below :—

	(Rs. in lakhs.)
1. January 1968 TFR Estimate	150.00 Approved by Govt.
2. November 1970	322.04
3. September, 1971	334.22 Approved by Govt.
4. February 1973	387.05 Approved by Board and noted by Govt.
5. February 1975	503.38 Considered by the Board.
6. February 1976	504.40 Approved by Govt. on 28-2-79.

1.54 The escalation in cost from Rs. 1.50 crores to Rs. 5.04 crores has been attributed to various causes including (i) change in scope (Rs. 0.96 crores), (ii) inadequate provision in the earlier estimates (Rs. 0.71 crores), price escalation and the increase in financing charges, etc. (Rs. 1.84 crores).

1.55 Government was so much exercised about frequent revisions in project estimates of this Plant that when in April, 1973, the Corporation submitted to the Govt. a revised estimate of Rs. 3.87 crores referred to above, the Department of Chemicals & Fertilizers had to write to the FCI on 5-2-1974 that in view of the delay involved in the commissioning of the plant and the likely increase in the project cost, there was no point in approving the cost of Rs. 3.87 crores. Thereafter, final cost estimate of Rs. 5.04 crores was approved by the Government in February 1979.

1.56 The Committee pointed out that in this case, the Corporation had obtained approval to the final estimate of Rs. 5.04 crores in February, 1979 i.e. 4 years after commissioning of the Plant. Asked if this did not tantamount to presenting revised estimate to Govt. as a fait accompli, the Chairman and Managing Director of RCF said in evidence :—

> "What you have said is absolutely correct. There is one point there. Every year an annual plan is made and got approved by the government. The Government is aware that the expenditure is going on."

1.57 In this connection the Department of Chemicals and Fertilizers intimated in a note that on 23 November, 1978 Government had issued guidelines to avoid such situation of Government being faced with a fait accompli and that the same are being followed now.

1.58 The object underlying the setting up of Phosphoric Acid Plant was to eliminate the use of imported di-ammonium phosphate. This object had not been fully achieved because as pointed out by Audit, the Plant has failed to achieve the rated capacity of 30,000 tonnes per annum, year-wise production at this Plant was as under :—

Year	Production (Tonnes)
1974-75	1,148
1975-76	. 11,958
1976-77	. 17,369
1977-78	. 16,418
1978-79	. 20,032
1979-80	. 20,534

1.59 In this connection, the Ministry had intimated (November '78) Audit as follows :—

(a) But for the persistent failure of the rubber lining and other equipment, the production of phosphoric acid would have been much higher. While rubber lining failure accounted for loss of production to the extent of 24 per cent during 1975-76 to 1977-78, the failure of other equipment was responsible for shortfall in production to the extent of 30 per cent in 1975-76 and 5 per cent in 1976-77 and 1977-78.

(b) Trombay completely switched over to the use of indigenous rock (Udaipur rock) which has higher silica content as compared with the imported rock envisaged for plant. This has resulted in a number of modifications and intensive maintenance.

1.60 Referring to the problem of failure of rubber lining, RCF in a Note assured the Committee that "with improved technique of rubber lining and the better experience, the rubber lining failures are on the decline."

(ii) *Supplementary Gasification Scheme*

1.61 According to Audit Report a Supplementary Gasification Scheme was approved by the FCI's board in June, 1969 and Government in November, 1969 to increase the capacity of the Ammonia Plant from 1.06 lakh tonnes to 1.19 lakh tonnes per annum and that of Methanol Plant from 0.18 lakh tonnes to 0.375 lakh tonnes per annum at a total cost of Rs. 2.29 crores.

1.62 After implementation of this Scheme in February, 1974 it was found that as against the anticipated increase in the capacity of the Ammonia Plant by 13,200 tonnes per annum based on gasification only 2642 tonnes of Ammonia in 1974-75 and 1570 tonnes in 1975-76 was produced. Thus the steps taken to rehabilitate the Ammonia Plant had not fructified and the plant remains de-rated.

1.63 In this connection the Ministry had intimated (July, 1978) to Audit that after the commissioning of the Supplementary Gasification facility, the Unit had the option to divert more gas to the Ammonia Plant for bringing up the plant to the designed level but this could not be done because fluctuation in frequency in power supply posed a major and continuing problem from 1973-74. RCF has in a note intimated (October, 1980) that to cope with this problem, the Corporation has since installed an Air Compressor at a cost of Rs. 64.95 lakhs. The order for this Compressor was placed on BHEL in September, 1976.

1.64 On completion of the Gasification Scheme, Methanol Plant was to produce at total capacity of 0.375 lakh tonnes per annum. As against, the plant produced 29,144 tonnes in 1974-75, 27,038 tonnes in 1975-76 and 35,956 tonnes in 1976-77. It was only in 1977-78, that the Plant could achieve that capacity, production in 1977-78 being 41,610 tonnes. Low capacity-utilisation in this Plant has been attributed by the RCF to low off-take by consumers of Methanol and constraints like power shortage, credit squeeze and increase in excise duty on the plastic material to the tune of 56 per cent.

1.65 The Committee have been informed by RCF in evidence that the book value of Plant and equipment (old reformer section) in the original Methanol plant which was rendered redundant as a result of implementation of Supplementary Gasification Scheme was Rs. 11 lakhs.

1.66 This scheme was implemented jointly by the Trombay Unit and the P & D Division of the FCI. According to a note received from RCF, P & D had in their tentative time schedule drawn up in September, 1968 indicated that the scheme would be executed within 30 months from the zero date. Later after reviewing the progress of the scheme in November, 1970, P & D set forth March, 1973 as the date of completion. The scheme was completed in February, 1974. As stated by Audit, the delay in commissioning had occurred due to :—

(i) abnormal pressure drops.

(ii) failure of P & D catalyst which was found disintegrating during operation and had therefore to be replaced by two varieties of CCI's catalyst alongwith P & D catalyst.

(iii) damage to the gas duct of the waste heat refractory system.

1.67 RCF in a note, intimated that there was a delay of 19 months on part of the Bharat Heavy Plates and Vessels Ltd. in the execution of order for supply of waste Heat recovery system due to lock out, power out, etc.

1.68 As regards cost escalation on Supplementary Gasification Scheme, Audit reported that the original project estimate of Rs. 2.29 crores was revised to Rs. 3.06 in November, 1970. Actual expenditure on the Scheme amounted to Rs. 3.46 crores and was approved by the Board in August, 1978 i.e. 4-1/2 years after the plant was commissioned. In a note furnished to the Committee, RCF intimated (January, 1981) that though in this case guarantee test was performed in February, 1974, it was only towards the end of 1976 that the P & D after watching the sustained performance of the plant, was satisfied that no further modification or addition was called for in Ammonia and Methanol Plants P & D had prepared a final estimate in May, 1977 but as their Head Office had desired to have further information/clarifications, the estimate could be finalised only in April, 1978.

1.69 The final estimate after it was approved by RCF Board on 16 August, 1978 was forwarded to Government on 24-8-78. Before approving the final estimate, the Ministry called for details of this scheme as per the feasibility Report in November, 1978. The requisite information was given to Government in October, 1980. Explaining delay of about 2 years in furnishing information to Government RCF intimated :

> "The TEFR called for by the Ministry was not readily available and subsequently Ministry's letter (calling for the information) was misplaced in our office and therefore escaped attention."

(iii) *Debottlenecking Scheme*

1.70 The Corporation prepared at the instance of World Bank, a Scheme known as Debottlenecking Scheme to remove bottlenecks in achievement of rated capacities of NPK and Urea Plants of Trombay I and II Complex.

1.71 As stated in the Audit Report the NPK plant was designed to produce 2.70 lakh tonnes of Complex fertilizer by Carbonitric process and 3.30 lakh tonnes by sulphonitric process. The plant was taken over from the contractor though it had not achieved its rated capacity and was rehabilitated on the new process after modifications and replacement of certain equipment so as to produce 2.10 lakh tonnes per annum of N. P. K. complex fertilizer with the composition 15 : 15 : 15. Debottlenecking Scheme envisaged utilisation of the spare capacity in certain sections of the N. P. K. Plant by adding two granulator driers with matching equipment and connected civil works. The Scheme was intended to produce 40,500 tonnes of complex fertiliser per annum additionally on the basis of surplus nitric acid (13000 tonnes) available from the existing Nitric Acid Plant. This was to be raised to 1.20 lakh tonnes when Nitric Acid Plant under Trombay IV Expansion Project was commissioned. The Scheme was approved by Board in December, 1972 and by Government in June 1973 at an estimated cost of Rs. 2.67 crores.

1.72 The Scheme was to be completed within 18 months (i.e. by December, 1974). It was actually completed in August, 1975 because of delay in placing orders for certain equipment such as venturi scrubber and motors for the blowers. There was, however, no production till October 1975, as the equipment were on trial run and there were also frequent failures of the equipment. No performance tests appear to have been carried out. The actual expenditure on the scheme amounted to Rs. 2.04 crores (including Rs. 0.36 crores in foreign exchange). According to the analysis of componentwise expenditure furnished by the Ministry in November, 1978, the saving in the actual outlay occurred under 'Plant and equipment' and 'Financing and other charges'.

1.73 The composition of the complex fertilizer 15:15:15 was changed after the commissioning of the debottlenecking scheme. Instead of Suphala of 15:15:15 grade the product obtained was A.P.S.N. of 20:20:0 composition. The Ministry explained (November 1978) to Audit that the change in the product was necessitated on account of the following factors :—

(i) At the time of commissioning of the debottlenecking scheme, it was noticed that the existing Plant could fully utilise the available production of nitric acid from the old Nitric Acid Plant. The debottlenecking section was thus available for alternative use. Accordingly, a new product A.P.S.N. 20:20:0 was developed with the use of surplus dilute sulphuric acid from the concentrated Nitric Acid Plant and phosphoric acid with the marginal use of nitric acid.

(ii) The proposal to produce A.P.S.N. was approved by the Board in March, 1976. The new product enabled the Plant to produce more nitrogen and P_2O_5.

1.74 As regards delay in placing orders for certain equipments referred to in the Audit Report, RCF intimated (October 1980) that :—

(i) There was slight delay in obtaining import licence for venturi-scrubber, which was received on 25-5-1974.

(ii) As regards electric motors for blowers there was change in layout due to which the motor capacity had to be increased from 150 Horse Power to 200 Horse Power involving amendment of order.

(iii) Due to change in layout, the static pressure of the blower had to be revised involving placement of fresh order.

1.75 RCF further intimated that as there was no outside agency involved with the design and layout of the debottlenecking schemes, no performance test was carried out.

1.76 According to Audit modifications to the Urea Plant to increase its designed capacity from 300 tonnes to 430 tonnes a day and to reduce consumption of ammonia and steam, were approved by Government in June 1973. These modifications were suggested after a study by M/s. Technip for which a sum of Rs. 1.42 lakhs was paid to them. The modifications were to cost Rs. 1.29 crores (including Rs. 0.54 crores in foreign exchange). By the time (September 1974), it was decided that it was possible to do. Government had approved the Trombay V Expansion Scheme which made these modifications unnecessary.

1.77 Asked if it was not possible to proceed with the modifications in Urea Plant side by side with the implementation of Trombay V Project, so that the sum of Rs. 1.42 lakhs paid to M/s. Technip for Study undertaken by them on modifications to the urea plant under the debottlenecking scheme was not rendered infructuous, the RCF in a note pointed out that :—

> "Since the Ammonia required for additional Urea production was ultimately to come from the Trombay-V Ammonia Plant, the question was to convert this into Urea either entirely on the Trombay-V Urea Plant or partly on the debottlenecked old Urea Plant and partly on the new plant. It was considered desirable to convert all the available ammonia in a standard 1000 MT Urea Plant."

(iv) *Diversification Schemes*

1.78 Because of delay in stabilising production, the Plants were not operating at full capacity, leading to losses. To improve the profitability of the Trombay Unit, the following diversification schemes were launched with the idea to market the surplus intermediary products of by-products or converting marginal amount of intermediary products or byproducts into highly remunerative industrial products for which there was a ready market :—

Sl. No.	Name of plant under diversification programme.	Date of sanction	Date of completion/ commissioning	Uses
(1)	(2)	(3)	(4)	(5)
1.	Ammonium Bicarbonate Plant	January 1966	September 1968	Used in bakeries and pharmaceutical industries.
2.	Concentrated Nitric Acid Plant	February 1967	July 1972	Used by chemical industry.
3.	Sodium Nitrite/Nitrate Plant	June/ September 1969	February 1973	Used in manufacture of pharmaceuticals, glass, dyes, intermediates explosives, etc.
4	Carbon Black Plant	October 1966	December 1970	Used in the rubber industry and for manufacture of printing inks, paints and dry cells.
5.	Methylamine Plant	November 1969	December 1974	Used in the manufacture of rayon tyre cord and leather, and in manufacture of industrial chemicals.
6.	Dimethylether Recovery Plant	April 1970	February 1973	A by-product from the Methanol Plant used as a replacement for methanol in certain processes.

Note : The Dimethylether Recovery Plant commenced Commerical production in October, 1975.

1.79 According to the Ministry, the primary objective of Diversification Schemes was to productively utilise the intermediates, co-products, where and when available after meeting the requirement of the fertiliser manufacturing programme based on prevailing economics, market and plant conditions. The attempt was to maximise contribution to the fixed cost and ensure optimum profitability.

1.80 The Ministry further informed (November 1978) Audit that :

(i) As against a total investment of Rs. 315.69 lakhs the cumulative profit earned upto 31st March, 1978 amounted to Rs. 106.75 lakhs, after charging interest and depreciation.

(ii) Most of these plants are based on indigenous technology and many of them needed extensive trials and experimentation.

1.81 The expectation that profitability would improve as a result of diversification scheme did not materialise in the case of Methylamine Plant, Dimethylether Recovery. Plant, Sodium Nitrite/Nitrate Plant and Plants were able to earn cumulative profits of Rs. 43.54 lakhs and lakhs, Rs. 9.85 lakhs, Rs. 15.31 lakhs and Rs. 50.71 lakhs respectively upto 1977-78. Ammonium Bicarbonate and concentrated Nitric Acid Plants were able to earn cumulative profits of Rs. 43.54 lakhs and Rs. 170.24 lakhs respectively upto 1977-78.

1.82 Since it was noticed from the Audit Report that in case of Ammonium Bicarbonate Plant, Sodium Nitrite Nitrate Plant, no guarantee tests for plant capacity and consumption norms were conducted, the Committee wanted to know why the preformance guarantee tests were not insisted upon. The RCF in a note intimated that since these plants were based on "In-house" (P&D) design and engineering, there were no formal guarantees to be proven.

1.83 In the various schemes implemented through P&D Division, either no guarantee test was provided in the Memorandum of Understanding or no such test was conducted. Asked if the argument that as no outside agency was involved in the design and engineering of these plants, no guarantee is necessary, is accepted, it could result in costly experiments within the public sector without any one taking responsibility for it, the Ministry, in a note pleaded (March 1981) :—

"Since the P&D Division was a part and parcel of FCI and its services were availed of by operating units at cost without any margins being allowed either for covering risks or making profits, it was not considered necessary to have formal arrangements as between the two Divisions of the same company in the form of a contract stipulating formal guarantees and penalties. Memoranda of Understanding were drawn up primarily to define division of responsibilities so that no particular aspect of implementation plan was lost sight of. In every case where engineering services were provided, the expected performance and the design performance was also done on commissioning each scheme and P&D Division had the obligation to see that performance matched the design."

1.84 The Trombay I and II Complex suffered from losses and Low production. In order to overcome the deficiencies, a Rehabilitation Scheme, a Supplementary Gasification Scheme, a Debottlenecking Scheme and a Diversification Scheme were taken up. There were delays in implementing these schemes. There were changes in scope without specific approval of the Government. There were also changes in the processes midway. All these had escalated the cost. The Schemes were implemented between 1968 and 1979. The production was still below capacity.

1.85 The Rehabilitation Scheme envisaged besides setting up a Phosphoric Acid Plant (cost : Rs. 1.5 crores), replacements, additions and modifications to the existing plants at an estimated cost of Rs. 100.20 lakhs (later revised to Rs. 83.61 lakhs). The scheme was approved by the Board in August, 1967 and was to be executed within 3 years. A review made in September, 1970 indicated that 5 key items involving a cost of Rs. 39.59 lakhs had not been installed. Although a special cell was set up in 1967 to monitor the implementation of the scheme, it was only on 11 February, 1969 and that too at the instance of the Board that a progress report on implementation of this Scheme was submitted for the first time. Further progress was neither reported to the Board nor called for by it. Thus after sanctioning the rehabilitation scheme in 1967, the Board did not bother to keep itself abreast of the progress of this scheme. This lapse cannot but be deplored.

1.86 While conveying Government's approval in principle to the installation of Phosphoric Acid Plant of the capacity of 100 tonnes per day of P_2O_5 at an estimated cost of Rs. 1.5 crores on a turnkey basis within a period of 20 months, the Ministry had desired that tenders for the supply of imported equipment for the plant should be invited only from Germany, Japan, USA and U.K. The Ministry had also made it clear that before placing any firm orders or making any foreign exchange commitment, FCI should obtain from Government specific release of foreign exchanges. Instead of following this course of action, the Corporation decided in May, 1969 to entrust installation of this plant to its P & D Division. Even though most of the Phospheric Acid Plants operating all over the world were based on dihydrate process, the Corporation went in for Nissan's hemi-hydrate process and entered into an agreement with International Ore and Fertilizer Corporation (Inter Ore) for that process without obtaining prior approval of Government. The Corporation should have made an assessment of the comparative advantages of having the job executed on turn-key basis through a foreign contractor. It failed to do that. The project estimates of the Phosphoric Acid Plant were revised by the Corporation as many as five times. The project cost went up from Rs. 1.50 crores to Rs. 5.04 crores. There was delay in commissioning of the Plant. It was commissioned in 1975. The final cost estimate of Rs. 5.04 crores was approved by Government in February 1979. There has thus been no clear concept of the plant initially and piecemeal changes have taken place. These had resulted in needless cost escalation.

1.87 Under the Agreement entered into by the Corporation with Inter Ore in May, 1970 for Nissan hemi-hydrate process know-how the Inter Ore was liable to the extent of lump sum licence and know-how fees, if it failed to demonstrate its performance guarantee. Performance guarantee tests were however not carried out within the guarantee period of one year because of deficiencies and repeated failures of equipment. Test runs were, however, conducted a few days after the expiry of the guarantee period and the Board informed that there was no limitation on the plant on account of system concept or design ofr which Nissan alone could be held accountable. The performance of the plant did not bear out this. As against the rated capacity of 30,000 tonnes per annum, the highest level of production achieved so far was 20,534 tonnes in 1979-80. The result was that shortage of Phosphoric Acid had to be made good by the continued use of imported diammonium phosphate. Thus the object of setting up this plant has not been achieved fully so far. It is distressing that the plant was initially accepted without performance guarantee test and contractor absolved of liability.

1.88 The Supplementary Gasification Scheme was taken up to restore the capacities of Ammonia and Methanol Plants. Neither the cost estimates nor the Schedule of commissioning was adhered to. The original project estimates of Rs. 2.29 crores was revised in November 1970 to Rs. 3.06 crores. The actual expenditure was higher still i. e. Rs. 3.46 crores. It was approved by the RCF Board in August, 1978, 40-1/2 years after the commissioning of the plant. There was a further delay of 2 years in furnishing information to Government as the Techno-economic Feasibility Report called for by the Ministry was not readily available and what is worse the Ministry's letter itself was misplaced in RCF's office. The approval of Government is yet to be accorded. According to the Schedule of commissioning, as determined in November, 1970, the facility was to be established by March, 1973. There was however delay of about a year before it became operational. The delay in commissioning was mainly due to P&D Division having used in the Reformer their own catalyst which was found to be disintegrating during operation and had to be used along with two varieties of CCI's catalysts. The initial experiment thus did not prove to be a success.

1.89 The Debottlenecking Schemes prepared at the instance of the World Bank to remove bottenecks in the existing NPK Plant was completed in August, 1975 instead of in December, 1974 as scheduled. The delay in this case has been attributed to delay in placing orders for certain equipments. After the scheme was commissioned, the composition of the complex fertilzer was changed in March, 1976 from Suphala 15 : 15 : 15 to APSN 20 : 20 : 0. After a study made by M/s.Technip for which a sum of Rs. 1.42 lakhs was paid, certain modifications to the Urea Plant at an estimated cost of Rs. 1.29 crores were proposed and approved by Government in June, 1973. When in September, 1974. Government approved the Trombay V project, modifications to the Urea Plant become unnecessary and the expenditure of Rs. 1.42 lakhs rendered infructious. Here again a piecemeal approach is clearly evident.

1.90 The Deversification Schemes was launched by the Corporation to improve the profitability of the Trombay I and II Units. Of the six plants covered by this scheme, Ammonium, Bicarbonate and concentrated Nitric Acid plants were able to earn cumulative profits of Rs. 43.54 lakhs and Rs. 170.24 lakhs respectively upto 1977-78, the operations of Methylamine Plant, Dimethylether Recovery Plant, Sodium Nitrite/Nitrate Plants and Carbon Recovery Plant resulted in cumulative losses to the exten of Rs. 30.53 lakhs, Rs. 9.85 lakhhs, Rs. 51.31 lakhs and Rs. 50.71 lakhs respectively upto 1977-78. No formal performance guarantees were provided in the case of certain plants as for example the Ammonium, Bicarbonate and Sodium Nitrite/Nitrate plants on the plea that these plants were based on "In-house (P&D) design and engineering" and that there were no formal guarantees to be proven. Now that the P&D Division has become a separate company, in future the contracts with them should provide for performance guarantee in order that there may not be any costly experiments within the Public Sector any more.

CHAPTER II

TROMBAY IV AND V

A. Trombay IV Project

2.1 In July, 1970, Government of India approved the Trombay IV Project for setting up a Complex Fertilizer Plant, Nitric Acid Plant, Steam Generation Plant and Water treatment Plant at an estimated cost of Rs. 43.60 crores (including Rs. 10.03 crores in foreign exchange). The Complex Fertilizer Plant was to utilise 1.79 lakh tonnes of imported ammonia to produce 6.60 lakh tonnes of Complex Fertilizer (20:20:0 grade) with 60 per cent of water soluble P_2O_5 employing sulphate recycle process developed by M/s. Stamicarbon of Holland. The Corporation paid a basic design fee of Rs. 8.64 lakhs to M/s. Stamicarbon for supplying the basic package based on sulphate recycle process.

2.2 The capital requirements of this project were re-assessed by the Fertilizer Corporation of India in October, 1971 at Rs. 57.68 crores (including Rs. 16.43 crores in foreign exchange). In view of substantial foreign exchange involved Government posed this project to the World Bank. An Appraisal Mission of the World Bank examined this project in December, 1971 and concluded that the "Project was not suitable for financing due to complexity of the process, high capital costs, difficulties of marketing a relatively low nutrient product with low phosphate water solubility and low economic return."

2.3 Accordingly, the scope of this Project was revised. There was no change in the percentage (60) of phosphate water solubility but the projejct now provided for crystallization process. The result was that the basic design fee of Rs. 8.64 lakhs already paid to M/s. Stamicarbon for sulphate recycle process became infructuous and was written off by the Board in June, 1975. The revised project envisaged a Nitric Acid Plant and a Nitrophosphate Plant to produce 3.75 lakh tonnes per annum of complex fertilizers (20:20:0 grade) by utilising one lakh tonnes of imported ammonia and using Crystallization process. The capital cost of the revised project was estimated by the Corporation at Rs. 37.5 crores (including foreign exchange component of Rs. 13.80 crores) excluding the capital outlay required for Ammonia terminal facilities. Later the projejct cost was revised by the Corporation to Rs. 44.01 crores (including foreign exchange component of Rs. 18.99 crores) and approved by Government in October, 1974. In June, 1974 the World Bank had agreed to give $ 33 million as loan for Trombay IV.

2.4 In November, 1975, the project cost was again revised from Rs. 44.01 crores to Rs. 76.27 crores. The revised estimate was approved by the Board in July, 1977 and by Government in October, 1978. The project cost has, thus escalated by Rs. 32.26 crores i.e. by about 75 per cent.

2.5 The Department of Chemicals and Fertilizers intimated (March, 1981) that before approving the revised project estimate of Rs. 76.27 crores in 1978, Government had analysed the reasons for the aforesaid escalation in the project cost. These reasons are :

(Rs. in lakhs)

(i) Change in scope like increase in Boiler capacity and pressure and consequent increase in the water treatment facilities, augmentation facilities for storage, effluent treatment for facilities etc.	540.00
(ii) Change in parity in Foreign Exchange	383.00
(iii) Price escalation	1538.00
(iv) Provision not made for in the earlier estimate	15.00
(v) Provision to cover inadequacies in the earlier estimates . .	83.00
(vi) Variation in working capital	160.00
(vii) Variation in financing charges	172.00
(viii) Variation in customs duty, taxes, handling charges and freight .	335.00
TOTAL	3226.00

2.6 Actual expenditure incurred on Trombay IV upto June, 1980 amounted to Rs. 75.43 crores. As regards economic viability of Trombay IV Project the Department of Chemicals & Fertilizers has pointed out that Techno-economic feasibility-cum-detailed project Report was prepared for Trombay IV and V together in April 1974 and approved by Government in October, 1974. This report had provided for a return on capital of 9.8 per cent and internal rate of return of 13.16 per cent. As against this, final estimates of Trombay IV envisaged a return on capital of 18.5 per cent and internal rate of return of 17.5 per cent.

Delay in Commissioning

2.7 After the offers of various international firms were evaluated by a Technical Committee, the Board accepted the offer of M/s. Udhe both for Nitric Acid and Nitrophosphate Plants. Subsequently at the instance of World Bank, the Corporation re-invited in March, 1973 tenders from firms earlier contracted to update their bids. M/s. Udhe was selected for Nitrophosphate Plant and M/s. Davy Power Gas, Berlin for Nitric Acid Plant. According to the approved project Report, Trombay IV was to commence commercial production in April, 1977. A review of the progress made in August, 1975, however, indicated that the commercial production would start from November, 1977 due to delay in delivery of certain major equipment for the Nitric Acid, Nitrophosphate and Steam Generation Plants. The Plant started trial production from 1 April, 1978 and went into commercial production from 1 January, 1979.

2.8 Department of Chemicals & Fertilizers claimed (March, 1981) that they were regularly posted with monthly reports on the status of the project prepared by Trombay authorities in a format approved by the World Bank for submission to them. This gave information on the progress of various activities, in comparison to accepted project schedule, the slippages, if any, and their impact on schedules, the finance statements and expenditure progress with deviations and likely effects on costs, etc. The progress report it has been stated, was based on PERT/CPM tchnique. In addition to scrutiny of these reports and rendering assistance to the project to the extent Government help could be of use, review meetings were held in the Ministry, generally every quarter, where the progress of the project was critically reviewed and appraised. Despite these measures, commissioning of the project, it will be seen was delayed by 1 year and 8 months.

2.9 During the course of commissioning of the Trombay IV Project, it was observed that Ammonium Nitrate Phosphate Plant would be able to achieve only 66 per cent of its capacity because of design deficiencies in certain areas *viz.*, refrigeration capacity, Mud Filtration and crystallizer capacity and centrifuge performance. A rehabilitation scheme was, therefore, drawn up by the corporation in consultation with the Contractors (M/s. Udhe) at an estimated cost of Rs. 280 lakhs. The contractor agreed to bear Rs. 126 lakhs in foreign exchange (out of total cost of Rs. 280 lakhs) and provide free engineering and supervisory services. The Committee have been informed by the RCF that under the contract liability of the contractor was only DM 541,800 (Rs. 22.78 lakhs) plus DFL 400,000 (Rs. 15 lakhs).

2.10 Chairman and M.D. of RCF admitted in evidence that though responsiblity for these deficiencies is that of the contractor, who it was stated, was not liable to meet the entire expendiure because the contract entered into with them in this case had provided for only a limited liability. The witness added "The total cost of the contract in the sense of license fee, know how and basic engineering fees is about Rs. 1.6 crores. He (*i.e.* contractor) is already paying Rs. 1.26 crores by way of charges for equipment, which are deficient."

2.11 Asked why a provision for only a limited liability was made in this contract the witness said :

> "Till recently all the contracts have been limited. In recent times, we found that consultants are agreeing to unlimited liability."

2.12 In the Guidelines issued by the BPE on 10 April, 1967 it was provided that "Government should make suitable provisions in future agreements with the consultants so as to fix their liability for defective designs and bad workmanship." The Committee wanted to know why while entering into this contract, the FCI did not go by the BPE guidelines. The Department of Chemicals and Fertilizers, in a Note, furnished after evidence stated :

> "The contracts entered into by FCI do contain provisions for such liability while issuing Notice Inviting Tenders. FCI asked the

bidders to quote the maximum liability, they were willing to take. Evaluation was made keeping in view the offers."

2.13 Trombay IV project covering mainly Nitric Acid and Ammonium Nitrophosphate Plants was approved by Government in July, 1970 at an estimated cost of Rs. 43.60 crores to produce 6.60 lakh tonnes of complex fertilizers (NPK 20:20:0) with 60 per cent water soluble P_2O_5 by employing sulphate recycle process developed by Stamicarbon of Holland. The Project was to be based on imported ammonia. An assessment made by the Corporation in October, 1971 placed the capital requirements of this project at Rs. 57.68 crores. Government posed this project to the World Bank for financing in view of the substantial foreign exchange involved. How unsound was this project as formulated by the Corporation and initially approved by Government can be gauged from the fact that an appraisal mission of the World Bank came to the conclusion that the project was not suitable for financing due to complexity of the processes, high capital cost, difficulties of marketing a relatively low nutrient product with low phosphate water solubility and low economic return. It is clear that the Fertilizer Corporation did not explore the possibility of increasing production in the existing NPK and Urea plants which were working at 60 to 65 per cent of the capacities, instead proposed to instal additional capacities at a heavy cost to the exchequer. The Committee note that it was only after the World Bank Mission had made a suggestion that the Corporation finalised the debottlenecking scheme for Trombay I and II. The result was that the size of Trombay IV project could be pruned, the intake of imported ammonia reduced and the project cost cut down. The revised Trombay IV envisaged production of 3.75 lakh tonnes of complex fertilizers per annum at a cost of Rs. 37.5 crores excluding the capital outlay required for ammonia terminal facilities. The revised project was to use crystallisation process. As as result of the change from the sulphate recycle process to crystalization process for production of the complex fertilizer, the basic design fee of Rs. 8.64 lakhs already paid by the Corporation to M/s. Stamicarbon of Holland became infructuous.

2.14 It is indeed distressing that there is hardly any plant or project at Trombay which was commissioned on time or within the estimated cost Trombay IV project which was scheduled to commence commercial production in April, 1977 could not start even trial production by that time. The trial production started a year later and commercial production 9 months thereafter. The project estimate was revised from Rs. 37.5 crores to Rs. 44.01 crores. In November, 1975, the project cost was again revised to Rs. 76.27 crores.

2.15 The Ammonium Nitrophosphate plant was not expected to achieve the rated capacity beyond 66 per cent because of design deficiencies in certain areas. The Committee have been informed that a Rs. 280 lakhs rehabilitation scheme has already been drawn up by the Corporation in consultation with the contractor. The Committee, however, note that the contractor will bear Rs. 126 lakhs (in foreign exchange) as against fees aggregating Rs. 160 lakhs payable to him and the liability limit of Rs. 38.22 lakhs under the contract. That the contractor could accept a liability far in excess of the limit laid down in the contract tells its own

story. The Committee desire that the Ministry of Law should be consulted in the matter and if their examination shows that there is any lacuna in the contract such lacuna should be avoided in future. Further, the Committee would stress that the guidelines issued by Government in April, 1967 in regard to contractual liability for defective designs and workmanship should be strictly adhered to.

B. Trombay V Project

Project-Cost

2.16 Trombay V Project comprising of a 900 tonnes per day ammonia plant and 780 to 860 tonnes per day Urea Plant based on fuel oil as feedstock, at an estimated capital cost of Rs. 111.40 crores (including foreign exchange component of Rs. 27.80 crores) was approved by Government in October, 1974. Later there was switch over from Fuel Oil to Naptha and then to Bombay High gas as feed stock on the basis of which the original project cost would have been Rs. 90.25 crores. The project cost was, however, revised to Rs. 169.97 crores and approved by RCF Board in August 1978 but Government accorded approval in April, 1980 for Rs. 166.09 crores (including a foreign exchange component of Rs. 45.07 crores).

2.17 The Department of Chemicals and Fertilizers intimated (March, 1981) that before giving their approval to the revised cost estimate. Government had analysed the reasons for increase in the cost from Rs. 90.25 crores to Rs. 169.97 crores. These reasons are :—

(i) Price Escalation	Rs.	62.57	crores
(ii) Parity Charges	Rs.	1.45	crores
(iii) Change in scope	Rs.	7.19	crores
(iv) Changes in Taxes, freight etc. . .	Rs.	1.94	crores
(v) Inadequate provisions	Rs.	2.23	crores
(vi) No provision made earlier but found necessary subsequently .	Rs.	4.34	crores
TOTAL :	Rs.	79.72	crores

2.18 The RCF intimated that the expenditure of Rs. 156.77 crores has been incurred on this Project upto 30-9-80. Department of Chemicals and Fertilizers indicated (March, 1981) that the Project is expected to be completed within the sanctioned estimate of Rs. 166.09 crores.

2.19 The Committee pointed out that incurring of expenditure in excess of the original project estimate year after year without Government's approval even after the project cost had escalated by as much as 60 per cent was irregular and against the procedure laid down by the P.I.B. The Chairman and M.D. of RCF conceded:

> "I agree with you that it was not all right but this is what is happening."

2.20 The Witness pointed out that while preparing project cost estimates, no provision to take care of forward escalation is made. He added :

> "As far as we know in all our estimates, this defect is there ... we have made it known to the Ministry also......... ...The issue has not been taken up by us formally".

2.21 As regards economic viability of the Trombay V Project, Department of Chemicals and Fertilizers has intimated (March, 1981) that an analysis carried out by the Project Appraisals Division of the Planning Commission had indicated an economic internal rate of return of 13.9 per cent with a Urea price of $210 and without any Premium on foreign exchange. It was stated that despite the aforesaid increase in cost estimates, the profitability of Trombay V is expected to remain the same because of existence of retention price system scheme under which cost of the plant is taken into account while fixing the retention prices.

2.22 Asked if the Ministry agreed that retention price formula covered up the inefficiency of a fertilizer project, the Department of Chemicals and Fertilizers stated :

> "While the capital cost of the Project is taken into account by the Fertilizer industry coordination Committee (FICC) for fixing the retention prices of the products of a company, it does not mean that FICC accepts the cost estimates approved by Government as sacrosanct.
>
> FICC carries out its own examination to satisfy itself that the cost of the project is justified and does not cover inefficiencies. If it is not satisfied about inclusion of certain items in the estimates, it could disallow them while calculating the retention prices."

2.23 In this connection, the Committee have been informed (March, 1981) by the Department of Chemicals & Fertilizers that while approving the revised cost estimates of a Project, the Cabinet had taken a serious notice of the fact that the expenditure above the originally sanctioned amount had been incurred without obtaining Cabinet approval and that expenditure sanction had been issued from time to time without such approval, with the result that the Cabinet was faced with a fait accompli. The Cabinet therefore had directed that such a situation must not be allowed to recur in future. Suitable instructions were issued by the Ministry of Finance (Department of Expenditure) in this regard on 14th June, 1978.

2.24 On 31st May, 1980 the Ministry of Finance is stated to have addressed a letter to the Secretary, Department of Chemicals and Fertilizers pointing out that :—

> "The increasing number of cases in which the cost estimates of projects have had to be significantly revised upwards for various reasons has been adversely commented upon in the meetings of the Informal Consultative Committee and in other forums.

The Finance Minister has also expressed unhappiness over this development and has emphasized the need for a more thorough appraisal of projects before approval is accorded. I am writing this letter to you to seek your cooperation in a realistic assessment of the costs of projects referred to IFC and PIB so that cases requiring large cost revision become only exceptions and not the rule."

Commissioning of the Project

2.25 In the implementation plan drawn up by the FCI in June, 1975, it was stipulated that the prime agency for execution of Trombay V project would be the P&D Division of FCI assisted by a Foreign Consultant, who would supply the licence, basic, design documents, supervision for preparation of detailed engineering, construction, commissioning and other similar services. The Plan had recommended that for Urea Plant, enquiries should be made from six firms viz Snam Progetti of Italy, Fredrich Udhe of West Germany, Kelogg continental of Holland, M/s. Heurtey of France, Toyo Engineering Corporation of Japan and Technimont of Italy.

Govt. (Nov. 1975) after considering FCI's technical assessment that Urea process of Snam Progetti has an edge over other processes and that this Company had won the contract for the Urea Project at Phulpur (IFFCO) on the basis of competitive quotations, and also of the need to put through the project at the maximum speed and revival of the Italian Credit, informed the FCI of the Govt.'s decision that FCI may now recommence negotiations with Snam Progetti for the process know-how and engineering portion of the Urea Plant of Trombay V project and obtain a written undertaking that they would buy Engineering services and equipment for a value of 10 million dollars over a 3 years period for export.

2.26 While agreements for technical know-how were finalized with M/s. Snam Progetti, Hallor Topsoe and Benfield, those for design, engineering and procurment had been entered into with Snam Progetti and Fertilizer (Planning and Development) India Ltd. The Committee were informed that no fresh competitive offers were necessary from these companies as FCI already had know-how contracts with them for the earlier plants with sliding scale of fees for subsequent plants. Before selecting the SNAM process for urea for Trombay V, a comparative evaluation of the capital costs and production costs of generally accepted technologies at the time was made by the Committee of Directors of FCI. Following were the evaluation figures based on a thousand tonnes per day urea plant.

Technology	Capital Costs (in Rs. lakhs)	Production costs (without profit element) (in Rs. per tonne/ Urea)
Technimont	2010	895/891
SNAM	1972	866
Stamicarbon	2008	908

2.27 According to the Project Report approved by the Ministry in October, 1974, Trombay V Project was to commence commercial production in April, 1978. The Chairman and M.D. of R.C.F. revealed during evidence that the Project is now likely to be commissioned in July, 1981.

2.28 In a note furnished after evidence, Department of Chemicals and Fertilizers have attributed (March, 1981) the main reasons for delay of more than 3* years in the commissioning of Trombay V Project to the following:

1. delay in basic engineering by the foreign engineering contractors;
2. delay in the detailed engineering by FPDIL, the Indian Engineering Contractor;
3. delay in procurement of raw materials for fabrication of indigenous equipments;
4. delay by the contractors in ordering a number of imported and indigenous items; and
5. delays in receipt of imported and indigenous equipment due to strikes, lock outs, power cuts, etc. in vendor shops.

2.29 Asked if contract with Snam had provided for penalty in the event of delay in supply of basic engineering for this project, Chairman and M.D. of R.C.F. said in evidence :

"There are penalties for delays and also for not fulfilling the capacity requirements but there is a ceiling on penalty".

2.30 As regards delay on the part of the BHEL the witness stated :

"The BHEL was to give all the compressors by September—December, 1979. They will now complete the delivery schedule by February, 1981. So about 14-17 months' delay is there."

2.31 Yet another project which suffered from time slippage and cost escalation was Trombay V fertilizer project. According to the approval accorded by the Government in October, 1974, Trombay V which envisaged settling up of a 900 tonnes per day Ammonia plan and 782 to 860 tonnes per day urea plant at an estimated cost of Rs. 111.40 crores was to commence commercial production in April, 1978. The Amonia Plant was to be based on fuel oil as feed stock. Later it was decided to have a plant primarily to process naptha but capable of changing over to Bombay High gas as feed stock. The cost of the project was revised to Rs. 169.97 crores in August, 1978. The variation between 1974 and 1978 cost estimates works out to Rs. 79.72 crores on the basis that the original estimate for the gas based project would have been Rs. 90.25 crores. The revised estimate was approved by Government only in April, 1980 by which time the actual expenditure vastly exceeded the approved

*At the time of factual verification, RCF intimated that contract for Trombay V project was not placed for a Fuel Oil based plant but insted, subsequently, a contract based on Naphtha/Gas was awarded stipulating completion by July, 1980. On the basis of completion as given in this contract, the delay would be more than one year original estimate. The Committee deprecate this tendency on the part of public enterprises to exceed the sanctioned costs and present a fait accompli to Government. This tendency should be curbed

2.32 Incidentally the Committee note that the cost estimates prepared from time to time do not provide for any escalation element and that these are at constant prices applicable to the year in which the estimates are prepared. The Committee feel that while this procedure will hold good for preparing feasibility report as it could be assumed that in an inflationary situation both project costs and benefits would increase more or less in the same order. But while preparing the detailed cost estimates a fair approximation of the cost over the entire construction period has to be attempted. This would obviate frequent revision of the estimates. This question should therefore, be gone into by the Ministry of Finance.

2.33 The Committee have been informed that Trombay V project is likely to be commissioned only in July, 1981. This delay of more than 3 years has been attributed to delay on the part of foreign engineering contractor; delay in the detailed engineering by FPDIL, the delay in procurement of raw materials for fabrication of indigenous equipment, delay in receipt of imported and indigenous equipment etc. The Committee note that the Ammonia to be produced in Trombay V was to be partly used for the Ammonium Nitrophosphate production in Trombay IV, it is, therefore, unfortunate that the commissioning of Trombay V is delayed and the Ammonia continues to be imported for Trombay IV.

2.34 After reviewing the implementation of Trombay I & II projects in 1968-69 and examining now the execution of the supplemental schemes, which were taken up to overcome the deficiencies of Trombay I & II units, and the expansion projects, Trombay IV & V, the Committee are left with an impression that the project formualtion and implementation were marked an ubiquitous piecemealness of approach. The Authorities have not evidently learnt much from the past experience. Lack of foresight and coordination, wrong choice of technology, defective contracts, absence of monitoring and control of physical and financial progress of projects, non-enforcement of performance guarantee and disregard of financial discipline are some of the outstanding features of the style of their functioning and These have endured. The Committee's findings should, there fore, be carefully studied and improvements in the system made. This should be the responsibility of the Administrative Ministry. It should be particularly ensured that in future projects are completed under time bound programme in order to avoid cost escatation and less of production. The Committee. would urge immediate action in this regard as the prestigious Projects like Thal Vaishet Project, which ertails an outlay of Rs. 889 crores, have been taken up for implementation. Any lapse of the kind noticed earlier would prove to be very costly indeed.

CHAPTER III

THAL VAISHET PROJECT

3.1 The project consists of two 1350 tonnes per day Ammonia Plants, three 1500 tonnes per day Urea Plants, three 275 MT|hour steam generation plants and a captive power plant of 30 MW capacity. The process plants are to be based on Associated|natural gas from Bombay High and Bassein offshore Gas Fields. It was claimed that this will be the biggest fertilizer plant in India and will be the largest single producer of Urea from any one location in the world. The world Bank had agreed to finance the foreign exchange component of $ 250 million for the Ammonia and Urea Plants. The Project was scheduled to be completed within 45 months of signing the agreement with Engineering contractors for the Ammonia plant. The expected completion date was indicated as March, 1983. The Project was approved by Government in May, 1979. There were initially delay in project formulation. The delay was mainly due to difficulties in the location of the site which was initially identified as Rewas/Mandwa and changed to Tarapore and finally to Thal Vaishet after selection of Tarapore was opposed by the Maharashtra Legislature.

3.2 In August, 1977 a Working Group set up by Govt. on 23rd July, 1977 under the Chairmanship of Shri K. C. Sharma, then Chairman and M. D. of the Fertilizer Corporation of India (assisted by Shri Paul Pothen, M. D. IFFCO, Shri B. B. Singh, C & MD NFL, Shri Ramaswamy R. Iyer, JSFA, Department of C & F and Shri S. Sunder, Director, Department of C & F) recommended that tenders for licence know-how basic design and engineering for two gas based fertilizer plants proposed to be set up South of Bombay should be invited from overseas engineering consultant who are willing to :

(a) Avail of the services of P & D in detailed engineering and the at same time be willing to take responsibility for the timely completion and satisfactory performance of the plants.

(b) Provide the process know-how, basic engineering package on the basis of a sliding scale of fees and supervision for detailed engineering to P & D on an agreed basis for repetitive use in future.

(c) Together with P & D, to enter into a consortium Agreement with the owner company guaranteeing timely completion and satisfactory operation of the plants.

3.3 Another working group was set up in October, 1977 under the Chairmanship of Shri L. Kumar at that time Adviser (Planning Commission) (assisted by Shri S. M. Kelkar, Shri Ramaswamy R. Iyer, Joint Secretaries, Shri Paul Pothen, M. D. IFFCO, Shri K. C. Sharma, C & MD, FCI and Dr. S. K. Mukherjee as Members to "short list" international consultants for setting up the Ammonia and Urea plants to be erected South of Bombay.

After reviewing a list of 40 engineering Consultants prepared by the FCI, the Group recommended in their Report submitted to Government in December, 1977 that the bids be invited from following 6 consultants for Ammonia Plants :

1. Pullman Kellogg (USA)
2. Toyo Engineering Company (Japan)
3. C. F. Braun (USA)
4. Technimont (Italy)
5. Haldor Topsoe (Denmark)
6. Humphreys & Glassgow (UK)

3.4 In August, 1978 a separate working group under the Chairmanship of Shri L. Kumar (and consisting of S/Shri Paul Pothen, B. B. Singh, Duleep Singh, H. H. Jethanandani, D. G. Rao, S. M. Kelkar and Ramaswamy R. Iyer). was asked to draw up the procedures for selection of the consultant including the parameters to be considered and the criteria for evaluation of the bids. The Group gave its report in two parts. The Group suggested that for evaluating bids, "the selection will not be governed solely by the quantum of fees quoted but will also depend upon the other equal or more important factors that affect the operating life of the plant". These included besides the quoted fee, the cost of setting up the plant, on the basis of the process and know how package to be supplied by the bidder, the cost of operating the plant for a period of 10 years, any adjustments needed to provide the difference in the completion time guaranteed by the different bidders and the on-stream efficiencies likely to be achieved.

3.5 The bids received from the aforesaid six engineering consultants for ammonia plants were evaluated by a Negotiating Committee set up under the Chairmanship of Shri Paul Pothen, M. D. (IFFCO) and Chairman, FPDIL (and consisting of Shri Duleep Singh, C & MD, R C F, Shri B. B. Singh, C & MD, NFL and Shri H. H. Jethanandani, Executive Director, FPDIL). Negotiations were held with three lowest bidders viz. M/s. C. F. Braun, M/s. Pullman Kelogg and M/s. Toyo Engineering Corporation and the bids re-evaluated.

3.6 On the basis of the aforesaid evaluation, the Negotiating Committee recommended in March, 1979 that the bid of M/s. C. F. Braun may be accepted because (a) theirs is the lowest offer (b) Braun technology represents the lowest energy consumption and (c) the technology enables conversion of almost all the ammonia produced into urea.

3.7 Thereafter Department of Chemicals & Fertilizers made its own evaluation. After taking into consideration all the relevant facts, the Special Committee of Secretaries endorsed on 16 June, 1979 the recommendation of the Paul Pothen Committee to award the contract for the ammonia plants at Thal Vaishet to M/s. C. F. Braun and desired the Department of Chemicals & Fertilizers to direct the owner R C F and the Indian Engineering Company (FPDIL) to negotiate and finalise a formal agreement with M/s. C. F. Braun keeping certain aspects in view. The Committee was of the view that Department of Chemicals & Fertilizers should ensure that the offer for the second set of plants (i.e. Hazira) was availed of within the validity period and that if necessary, the validity period should be suitably extended.

3.8 On 20 August, 1979, the Department of Chemicals and Fertilizers sent the following Telex Message to Chairman & M. D. of RCF :—

> "Government have approved of the proposal to award the contract for the Ammonia Plants of Thal Vaishet to M/s. C. F. Braun subject to certain conditions. Conditions are being Communicated separately. Please arrange for commencement of contract negotiations with Braun at the earliest. Negotiating team would include represetatives of the Ministry, RCF and IFFCO. Constitution of a team would be finalised on 23rd August."

3.9 Asked if the aforesaid decision was for 2 ammonia plants of Thal Vaishet or for 2 ammonia plats of Hazira as well, the Secretary, Department of Chemicals and Fertilizers said :

> "My understanding was that the technology of CF Braun had been accepted for all the 4 plants."

3.10 The conditions subject to which Government had approved award of contract to M/s. C.F. Braun were spelt out by the Department in their D.O. letter dated 21 August, 1979 to Chairman & M.D., R.C.F. These conditions *inter alia* were :—

(1) The transfer of technology agreement should be suitably worked out so that there is complete transfer of technology to FPDIL. The transfer of technology agreement should also spell out the sliding scale of fee ; basis for expatriate assistance etc. for subsequent plants, i. e. plants from the fifth plant onwards. Attempts should be made to see that FPDIL is in a position to set up plants entirely on its own without any external assistance so that no fee becomes payable to C. F. Braun after a certain number of plants are set up.

(2) In negotiating the contract, the owner/FPDIL should attempt to reduce the provision for man-months of expatriate assistance and thereby, the cost of such assistance, taking into account special expertise that may be available without diluting Braun's responsibility for timely completion and satisfactory commissioning of the Project. The agreement should provide that the payment towards man-months of expatriate assistance should be only for the actual man-months utilised and subject to a maximum of agreed man-months.

(3) The owner/FPDIL should ensure that the terms and conditions for expatriate assistance were in accordance with the guidelines laid down by the Special Committee of Secretaries.

(4) The contract in respect of licence and know-how should provide for the transfer of information in respect of improvements/modifications carried out in the Braun technology for as long a period after commissioning as possible and for a periodical review of such developments.

(5) The contract should ensure that rectifications/modifications in the plant to be carried out at the contractor's cost in the event the guarantees are not fulfilled are completed within a specified time limit. The contract should also contain suitable provisions that would permit the owner to withhold reasonable significant part of the fees to be paid to Braun till all the guarantees including the guarantees in respect of consumption efficiencies are proven and the plants accepted, and if, for this purpose, modifications, are carried out, till after they are carried out and the guarantees are proved. The question of obtaining a bank guarantee in addition or the loss of production during the period of modifications undertaken to prove the guarantees may also be examined.

(6) RCF should ensure that the bids of M/s. Toyo and M/s. Pullman Kellogg, the next two lower parties remained valid till negotions with Braun were concluded.

(7) In short-listing suppliers of plant and equipment in consultation with the engineering consultants, RCF should ensure that the maximum opportunity is afforded to Indian parties.

(8) In determining the extent of design and engineering that will be caried out by Braun overseas, effort must be made to maximise the use of all domestic design and engineering capabilities.'

3.11 Accordingly Rashtriya Chemicals & Fertilizers negotiated a final draft contract with M/s. C. F. Braun and sent it to Government on 18 December, 1979. The Government, however, felt that several aspects of the recommendations made by the Committee of Secretaries for awarding the contract to C. F. Braun for both the sets of plants needed further consideration. Accordingly, Government of India constituted an Expert Committee under the Chairmanship of Shri B.B Singh, Cairman, IFCI, for advising on the selection of consultants for the ammonia plants of the gas based fertilizer projects, to be set up at Thal Vaiset and Hazira. Other Members of this Expert Committee were Sarvashri D. C. Gami, M. D. GSFC, Dr. S. S. Baijal, Ex-Chairman, FAI, K. V. Raghavan, C&MD of EIL, Duleep Singh, Chairman & M.D. of RCF, Paul Pothen, M. D. IFFCO, K. S. Sarma, C&MD, FPDIL. The Expert Committee was requested to examine the point whether taking all relevant factors into consideration, it would be desirable to choose the same consultant for both sets of plants i.e. Thal Vaishet and Hazira.

3.12 On 19 April, 1980, Government of India enlarged the terms of reference of the Expert Committee and directed that this Expert Committee should also assess the relative merits of all the six parties who had offered bids for the ammonia consultancy.

3.13 The B. B. Singh Committee was unanimous in recommending the selection of C. F. Braun for one set of plants (Thal). The Committee, had concluded *inter alia* :

> "However, the said negotiated draft contract would require important improvement in regard to (a) legal commitments for performance guarantee, penalties, breach of contract, etc. and (b) non-dilution of TOT even if no commitment is made for more than two plants i.e. one complex".

3.14 There was difference of opinion among the members of the Singh Committee regarding relative grading of three other consultants, namely, Topsoe, Kelogg and Toyo.

Details are given below :

Members	Grading		
1. Shri B.B. Singh 2. Shri Sarma	1. Topsoe	2. Toyo	3. Kelogg
3. Shri Raghavan	1. Kelogg	2. Topsoe	3. Toyo
4. Shri Baijal 5. Shri Paul Pothen 6. Shri Gami 7. Shri Duleep Singh	1. Kelogg	2. Toyo	3. Topsoe

3.15 The B. B. Singh Committee was also divided on the question of desirability of having one consultant for both Thal and Hazira Complexes. The majority view in the Committee (Shri B. B. Singh, Bijal, Gami and Raghavan) was that taking all factors into consideration the risk involved in having one consultant for both the emploxes was not of an acceptable degree. Other Members of the Group felt that the risk involved was not such which would negate concrete advantages likely to accrue from having one consultant.

3.16 The Expert Committee's report was received by Govt. on 13 June, 1980. The matter was thereafter referred to a Committee of Ministers on 29 July, 1980. According to the Press Note issued by Government on 17 September, 1980, the Committee of Ministers (it was clarified in evidence that this Committee was erroneously referred to as Cabinet Sub-Committe in the Press Note) accepted the majority view point of the B.B. Singh Commitee and recommended that two consultants may be appointed for the two complexes separately. The Committee also felt that with sufficient gas reserves now established to support a large number of such plants it would be advantageous to have two of the most advanced ammonia technologies for application in future plants at nominal license fee. The Committee were of the view that this consideration should outweigh any possible financial savings that may result from having one consultant for the two complexes.

3.17 The following reasons were advanced by the Committee of Ministers for not accepting that B. B. Singh Committee's recommendation for engaging C. F. Braun as consultant :—

(i) The recommendation of the Expert Group for giving one set of plants to C. F. Braun suffered from several drawbacks. The main consideration in recommending C. F. Braun was the low energy consumption in the technology offered by them. Even in this respect the manner in which Braun agreed to undertake responsibilities and liabilities virtually loosened this foundation. Thus Braun's responsibility in the failure to achieve rated capacity was limited to the extent that such failure was attributable to "the Consultants negligence." In effect this was no guarantee of the efficacy of the technology or its performance.

(ii) Braun have had no experience of having built and operating a plant in India. This was a matter of considerable significance as earlier proven technologies had floundered in Indian conditions.

(iii) The contract offered by Braun suffered from several legal lacunae. Braun refused to take responsibility for overall project schedule and limited their responsibility to only aspects arising out of their negligence. Their offer in respect of transfer of technology, in case only one set of plants was awarded was equivocal.

(iv) the technology offered by Braun was developed by them in the early sixties and further progress in the field of 'forward looking' technology could not be expected from them. This was particularly so in the context of its acquisition by Santa Fe International a large oil drilling and related construction firm, when it future in the field of ammonia consultancy would be uncertain.

(v) According to information available, out of the 19 ammonia projects, around the world in the last two years, Braun was invited only once, Kellogs 11 times and Topsoe 16 times.

3.18 Of the remaining five bidders, Technimont did not respond to the invitation by the Expert Group for revised bids and the Group had unanimously graded Humphreys and Glasgow as last. This left the choice to three bidders, namely, Haldor Topsoe, Pullman Kellogs and Toyo Engineering Corporation. The offer of Toyo was based on Pullman-Kellogs technology who had themselves put in a bid and the Committee of Ministers felt that it would be more advantageous to deal directly with Kellogs.

3.19 The Evaluation Committee set up earlier had not recommended Topsoe mainly on the ground that they had not involved a strong engineering contractor and their alternative offer of series 200 ammonia technology involving low energy consumption had not been put to commercial use, The Committee of Ministers noted that now Topsoe proposed to join Snamprogetti, a strong contractor, for undertaking the Bombay High projects. Snamprogetti had already been given the contract for the Urea Plants at Thal-Vaishet and if Topsoe were to be given the ammonia contract then there would be much better coordination.

3.20 The Committee of Ministers was also stated to have taken note of the fact that working experience, now available, of the series 200 Ammonia technology also offered better future prospects. Pullman-Kellogs, the other consultants selected, have considerable experience of working in Indian conditions and have designed and completed ammonia plants at Coromandel, Kalol and Phulpur. They have an involvement in almost 75 per cent of the present day large plants to their credit and the Evaluation Committee had recognised their credentials as eminent engineering contractors in the ammonia industry. They have successfully transferred technology to third parties.

3.21 The Committee wanted to know if the Secretary, Department of Chemicals and Fertilizers had received any letter from Delhi representative of Toyo Engineering India Ltd., in which a reference about political changes in India had been made the witness stated:

"There certainly was a message from Toyo about reconsideration."

3.22 In a note furnished after evidence, the Department furnished a copy of letter dated 22 March, 1980 from the Director of Toyo Engineering India Ltd., addressed to the Secretary, Department of Chemicals & Fertilizers quoting a telex message from Pullman Kellogs, USA sent to the President of Toyo Engineering Corporation, Japan. An extract from the telex message is reproduced below:—

"It is our understanding that the subject project is undergoing a new breath of life. I also understand that the present political changes in India may favour Toyo and Pullman Kellog competitive position. I hope for both of us that this is correct. And whilst I naturally hope that my company would be awarded the contract, I would wish that no chances are missed for your company to have an equal opportunity. It is with this in mind that I wish to confirm to you that if your company should enter into negotiations for or be awarded this contract, Pullman Kellog will supply to your customer the portion of the contract concerning the transfer of technology, and I would be most grateful if your representative in India would be so informed."

3.23 Asked if the aforesaid letter was brought to the notice of the Minister, the Department of Chemicals and Fertilizers intimated in a note furnished after evidence that:—

"Since the letter did not warrant any action, it was filed. It was not brought to the notice of the Minister."

3.24 The Committee drew attention to the fact that even the B.B. Singh Committee in their Report, submitted to Government on 13 June, 1980, unanimously recommended acceptance of the offer of C.F. Braun for fertilizer plants at Thal and desired to know what happened thereafter to warrant a change. In reply, the witness explained that:—

"On 21st June, the Department recommended to the Minister of Petroleum & Chemicals to accept the unanimous view (i.e. C. F.

Braun for the first set of plants). On 24th June, the Petroleum & Finance Ministers said, 'let it go to the Cabinet'. On 7th July, the Department submitted a note. The Cabinet considered it and decided that the matter should be looked into by a Committee of Ministers. On 29th of July, a Committee of Ministers was appointed."

*3.25 The Committee desired to know if before placing the matter before the Cabinet, views of the Ministers of Agriculture and Finance were obtained. In reply the witness disclosed :—

"The Agriculture Ministry had said in their note that for Hazira they were in favour of Braun. The Finance Ministry made no recommendation."

However, according to the Department of Chemicals & Fertilizers a copy of the draft note as approved by Minister Petroleum, Chemicals & Fertilizers was simultaneouly sent to the Ministry of Agriculture for their concurrence to the note. In reply to this the Ministry of Agriculture wrote that they had no comments to offer at the stage but the Minister for Agriculture would offer his views at the meeting of the Committee.

3.26 The Committee asked that as offer of C. F. Braun was not acceptable to the Committee of Ministers because they had no experience of having built and operated a plant in India, did Haldor Topsoe whose name had been recommended by that Committee have any such experience in India. In reply the witness recalled .

"There are plants starting from Shri Ram Chemical Plant Kota, Nangal, Panipat, Bhatinda, Trombay-5 and Namrup-3 which is the latest where Topsoe technology has been associated and Topsoe have worked."

3.27 To the Committee's query if Topsoe had set up any plant in India independently, the witness admitted :—

"Topsoes have not constructed any plants on their own."

3.28 Referring to the plea of Committee of Ministers that the technology offered by Braun was developed by them in the early sixties and further progress in the field of forward looking technology could not be expected from them especially in the context of its acquisition by Sonta Fe International, a large oil drilling and related construction firm, the Committee desired to know if it is a fact that even Topsoe whose offer had found

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*At the time of factual verification "the Department of Chemicals and Fertilizers pointed out that the views of the Ministry of Agriculture were received after the Note, as finalised had been submitted to the Cabinet Secretariat. The views of the Ministry of Agriculture were also sent to that Secretariat for being placed before the Cabinet committee on Economic Affairs.

favour with the Committee of Ministers, is owned by Snam Progetti. The witness said :

> "50 per cent shares are owned by Snam Progetti. Snam is also the urea consultancy contractor. It is also engineering concern. In this particular offer they had arrangements with Snam."

3.29 The Committee also wanted to know if Pullman Kellogg had been purchased by Wheelabrator Fry and if so how is it that while such a point was considered as a minus point in the case of Braun but was ignored in the case of Pullman Kelogg. In reply witness stated :

> "It did not come about at the time of consideration, it came later."

3.30 Asked if Government would consider this point even now, the witness replied in the negative.

3.31 The Committee asked how the offer of Haldor Topsoe was found to be "comprehensive and attractive" and whether the Committee of Ministers had the advantage of any superior technical advice. All that the witness could say was :

> "I can't say 'superior technical advice', they have gone into what I may say weighty non-technical reasons"...The Cabinet decision merely accepts the recommendations of the Committee of Ministers which say : "The offer by Topsoe for transfer of technology is comprehensive and attractive."*

3.32 As regards comparative economics of Braun & Topsoe on the basis of protovisions contained in the proposed contract between Braun and RCF and approved contract between Haldor Topsoe and RCF, the Department has pointed out that :—

1. The gross fees payable to Haldor Topsoe are less by about 5.05 million US dollars than the fees payable to C.F. Braun.
2. The energy consumption in the case of Haldor Topsoe is less by 0.011 million kcals per tonne of Ammonia than that of Braun.
3. However, the guarantees works cost of Haldor Topsoe is higher by Rs. 6.65 per tonne of ammonia.
4. There is no appreciable difference in the other performance guarantees.
5. CO_2 availabilities guaranteed by Haldor Topsoe and Braun is 1700 tonne per day and 1740 tonne per day respectively. The CO_2 availability in both cases is stated to be adequate to convert ammonia to the rated urea output.

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*At the time of factual verification, Department of Chemicals and Fertilizers pointed out that Secretary was not associated with all the discussions of the Committee of Ministers and that the evidence quoted in p 3.31 above was given by him in the context of the reasons given in the Press Note only".

6. Transfer of technology in the case of Haldor Topsoe will be simultaneous with the work on Thal Project. Braun, on the other hand, had in their letter dated 30 May, 1980 to the B. B. Singh, Committee stated, *inter alia,* that "the degree and depth of this transfer will depend on the number of plants for which we obtain contracts".

3.33 The Department of Chemicals and Fertilizers further explained that:

"The Guaranteed works cost of Haldor Topsoe for the Thal Vaishet Project comes to Rs. 561.80 per tonne of ammonia against a figure of Rs. 555.15 per tonne of ammonia guaranteed by C.F. Braun. The difference between the two at 80 per cent capacity utilisation works out to about Rs. 47.40 lakhs per annum and the discounted value of this over a ten year period is about Rs. 3 crores. As against this, the gross fees payable to Haldor Topsoe are lower by about Rs. 5.05 crores compared to the gross fees payable to C.F. Braun for the two plants at Thal Vaishet."

3.34 As regards project estimates of Thal Vaishet the Committee wanted to know the latest estimate. In reply Chairman & M.D. of RCF stated in evidence:

"June 1978 estimate approved by the Government was Rs. 511.34 crores. Our latest estimate based on Zero date of 1, January, 1981 is Rs. 889 crores."

3.35 The Committee wanted to know if the revised estimate of Rs. 888.8 crores has been approved by Government. In reply, the Secretary, Department of Chemicals & Fertilizers stated in evidence (December, 1980):

"It has not yet come to Government. It has not been scrutinised by the Government."

3.36 In a note furnished after evidence, the Department of Chemicals and Fertilizers intimated the following reasons for cost escalation:—

	Extent of increase
	(Rs. in crores)
1. Escalation in the cost of certain items due to change of the Zero date from 1-1-79 to 1-1-81	91.4
2. Change of scope particularly in the service Boiler	29.3
3. Under provision on certain items in the earlier estimate	51.2
4. Escalation during construction	121.4
5. Increase in finance changes	35.0
6. Payment towards railway line	9.3
7. Increase in contingencies (Calculated at 10.2%)	41.7

3.37 It has been pointed out by the Department that if on the basis of the norms adopted by Government and the PIB no provision is made for escalation during construction and the provision for contingencies is limited to the same percentage as in the approved estimate, the estimated cost of the project would work out to Rs. 732.6 crore only.

3.38 The World Bank had agreed to finance the foreign exchange component of 250 million (about Rs. 200 crores) for the Ammonia and Urea Plants of Thal Vaishet. The project Agreement dated 20th August, 1979, between the World Bank and RCF had provided among other things, that in order to assist RCF in the process design and engineering, procurement, construction and start-up of the ammonia and the Urea plants under the project, and design of pollution control measures RCF shall obtain licences and plant design and employ consultants whose qualifications, experience and terms and conditions of employment shall be satisfactory to the Bank.

3.39 In a note furnished after evidence, the Department of Fertilizers and Chemicals have intimated to the Committee that :

> "The World Bank did not accept the selection of Haldor Topsoe as consultants because according to them, the proposed arrangements did not ensure satisfactory and timely completion of the project with an acceptable degree of risk, since Haldor Topsoe did not, according to the Bank, have demonstrated experience in terms of prime responsibilities for the construction of a composite ammonia plant of the capacity. The Bank, therefore, held that the condition regarding appointment of consultants remained unfulfilled and the loan agreement stood terminated after December, 1980."

3.40 The gas-based Thal Vaishet Fertilizer Project, which would be the world's largest single producer of urea from any one location, was approved by government in May, 1979 at a cost of Rs. 511.34 crores. The project mainly consisting of two 1350 tonnes per day Ammonia plants and three 1500 tonnes per day urea plants was expected to be commissioned within 45 months of signing of engineering contract for the Ammonia Plants. There was, however, inordinate delay in selection of Engineering Consultants and according to a revised estimate the project would cost Rs. 889 crores. The Committee, therefore, went into the delay.

3.41 A need for foreign engineering consultants having been felt for this project as well as the project at Hazira, six international engineering concerns were indentified (December 1977) for inviting bids for the ammonia plants. These were M/s. C. F. Braun (USA), Haldor Topsoe (Denmark), Humphreys & Glassgow (U.K.), Pullman Kellogg (USA), Technimont (Italy) and Toyo Engineering Company (Japan). Bids were invited from these parties for the two ammonia plants to be set up at Thal Vaishet. The parties were also asked to quote their fees in case the two plants at Hazira were also awarded to them. The bids received were examined by a Negotiating Committee, which was assisted by an Evaluation Committee Thereafter negotiations were held with the three lowest bidders and the bids reevaluated. The intention then seems to have been to have the same technology for both Thal Vaishet and Hazira plants. The Department of

Chemicals & Fertilizers also made its own evaluation. All the evaluations showed that the offer of M/s. C. F. Braun was the lowest. The matter was then considered by the Special Committee of Secretaries on Fertilizer Projects which recommended (June 1979) selection of M/s. C. F. Braun as the consultants. The recommendation was accepted (August 1979) by Government. A draft contract was also finalised (December 1979).

3.42 There was, however, a reconsideration of the issue by the Government after January 1980. An expert committee was set up to consider the relative merits of all the six parties and to examine whether it would be desirable to choose the same consultant for both sets of plants. All the parties were then asked to update their bids. The Expert Committee while recommending (June 1980) that M/s. C. F. Braun be selected as the consultant for the plants at Thal Vaishet, felt that the negotiated draft contract would require improvement in regard to legal commitments for performance guarantees, penalties, breach of contract etc. and non-dilution of transfer of technology even if no commitment was made for more than two plants. The majority view of the committee was that taking all factors into account the risk of having one consultant for both Thal Vaishet and Hazira projects was not of an acceptable degree. The whole matter was then referred (July 1980) to a Committee of Ministers. The committee accepted the majority view of the Expert Committee but the unanimous decision that M/s. C. F. Braun should be selected as the consultant for Thal Vaishet plants was turned down mainly on the ground that M/s. C. F. Braun had no experience of having built and operated a plant in India and the proposed contract suffered from legal lacunae. They were of the view that Haldor Topsoe should be selected for That Vaishet proect and Pullman Kellog for Hazira project. This was accepted by the Government (September 1980).

3.43 The matter has already been discussed in Parliament. The Commitee note that there are important policy issues involved. The anxiety of the government seems to have been to balance the economy consideration against the reliability of the technology in Indian conditions and the need for a choice between forward looking technologies for future application. The Committee also note that according to government there will not be any financial loss in accepting the final offer of Haldor Topsoe and rejecting that of M/s. C. F. Braun. The Committee trust that this has been borne out by an expert evaluation. However, the fact remains that on account of the delay of nearly 2 years in fixing up the consultant the cost of the Thal Vaishet project has considerably increased. The Committee, therefore, desire that there should be a clear policy and a well-designed procedure for selection of foreign consultants to enable expeditious decisions. The Committee trust that the claims of Haldor Topsoe especially in regard to construction costs would actualy materialise. A strict watch on the performance would be necessary and any further tie up with them should be decided on the basis of this performance.

CHAPTER IV

WORKING RESULTS

A. Production Performance

(i) Plant-wise Production Performance

4.1 The production performance of various Plants of Trombay Unit during the last 5 years was as under :—

S. No.	Plant	Annual Rated Capacity (Lakh tonnes)	Actual Production (Lakh tonnes)				
			1975-76	1976-77	1977-78	1978-79	1979-80
1.	Ammonia Plant	1.16					
		1.06 (From March 1969)	0.81	1.03	1.03	1.02	1.04
		1.19 (From Feb. 1974)					
2.	Urea Plant	0.99	0.80	1.04	1.06	1.03	1.07
3.	N.P.K. Plant	15 : 15 : 15 Grade					
		2.10 (Existing Plant)	1.81	1.82	2.14	2.65	2.65
		3.30 (From August 1975 after DBN)		Nil			
		20 : 20 : 0					
		1.80 (Existing Plant)	0.22	0.59	0.13	0.04	Nil
		(APSN—DBN)	0.13	0.29	0.15	..	..
4.	Nitric Acid Plant	1.056	0.85	1.06	0.98	0.62	0.41
5.	Sulphuric Acid Plant	0.66					
		0.99 (From June 1977)	0.43	0.56	0.69	0.84	0.86
6.	Methanol Plant	0.18					
		0.375 (From Feb., 1974)	0.27	0.36	0.42	0.34	0.40

4.2 It will be seen from the above table that while production in Urea, and Methanol Plants has picked up in recent years, Ammonia, N.P.K. and Sulphuric Acid Plants have not achieved their rated capacity in any year so far, despite implementation of Rehabilitation, Supplementary Gasification and Debottlenecking Schemes in the case of Nitric Acid Plant, capacity was achieved in 1976-77. These schemes have been discussed in detail in the earlier Chapter of this Report.

(a) *Ammonia Plant*

4.3 The Corporation had informed Audit (February, 1977) that apart from low enquipment performance, break downs and longer time taken for maintenance, power problem was another factor which was responsible for low production in Ammonia plant. Note furnished by RCF indicates that though power problem had surfaced in 1973-74 and continued for the subsequent two years, FCI placed order for an additional air compressor with BHEL only on 18 September, 1976 and for the expansion engines with a firm in Japan on 25 May, 1976. These items were received and installed in February and April, 1977 respectively.

4.4 The RCF have admitted (October, 80) that low level of production at Ammonia Plant had resulted in :

(i) Loss of production of Urea and Complex Fertilizers on account of Ammonia feed limitation. The loss of Urea was 228 tonnes, 2,059 tonnes and 382 tonnes in 1975-76, 1977-78 and 1978-79 respectively and loss of Suphala 915 tonnes and 132 tonnes in 1975-76 and 1978-79, respectively.

(ii) Import of Ammonia, Foreign Currency equivalent of imported ammonia consumed during the years 1973-74 to 1979-80 amounted to 14.29 crores.

(b) *Urea Plant*

4.5 According to the analysis made by the Trombay Unit, the major factors responsible for shortfall in production in Urea Plant upto 1975-76, were lack of ammonia and Carbon dioxide (when Ammonia Plant tripped) and break down of equipment.

4.6 As pointed out by Audit higher production of Urea in 1975-76 was because ammonia limitation was overcome by purchase of Ammonia from external sources viz. imports and indigenous ammonia bought from Indian Farmers Fertilizer Cooperative Ltd. Production in 1976-77 and 1977-78 exceeded the rated capacity on account of over-rated production on certain days.

(c) *N.P.K. Plant*

4.7 As against the original capacity of 900 tonnes a day of 16 : 13 : 0 grade and 1,100 tonnes a day of 12.9 : 12.8 : 0 grade, the capacity of NPK Plant with the new process of 15 : 15 : 15 grade was fixed in 1972-73 at 700 tonnes a day for 15 : 15 : 15 grade (or 2.10 lakh tonnes per annum) and 600 tonnes a day (or 1.80 lakh tonnes 20 : 20 : 0 grade on the basis of stream efficiency of 300 days in a year). FCI informed Audit that the attainable capacity was determined on he best judgement of the Management and no Committee was constituted to study and fix the capacity.

4.8 That aforesaid reduction in the capacity of N.P.K. was not warranted could be clear from the fact that as pointed out in the Audit Report, the plant had budgeted from 1972-73 to 1974-75 for production of 15 : 15 : 15 grade at a level higher than the capacity of 2.10 lakh tonnes and in fact produced 2.46 lakh tonnes in 1972-73. Production and Efficiency report for January, 1974 has also indicated that for determining production plans, the capacity of the Plant had been rockoned at 800 tonnes a day (or 2.40 lakh tonnes).

4.9 The Committee, therefore, wanted to know if the capacity of NPK Plant which was fixed by the Management on "best judgement" needed to be re-assessed RCF, in a note, maintained that :

> "A study of the production achieved over the years would indicate that the estimate of achievable capacity was reasonable keeping in view the achievable stream days and rate of production."

4.10 The Committee enquired if the expectation that with the Debottlenecking Scheme (discussed in the earlier chapter), the capacity of N.P.K. Plant could increase from 2.10 lakh tonnes to 3.30 lakh tonnes of 15 : 15 : 15 grade had materialised, RCF intimated (January, 1981) :—

> "It was expected that after debottlenecking the capacity will increase from 210,000 to 330,000 MTPA. However this, expectation has not been realised. The debottlenecking so far done is not adequate to give the desired substantial increase in capacity. The best achievement so far is 270,000 MT in 1978-79."

4.11 The shortfall in production in N.P.K. during 1978-79 and 1979-80 has been attributed by RCF to (i) power dips and failures, (ii) process water shortage, (iii) shortage and bad quality of raw materials, (iv) Shortage of intermediate, (v) equipment break-downs and material handling limits and (vi) process problems.

(d) *Nitric Acid Plant*

4.12 Audit Report pointed out that Nitric Acid Plant had not achieved the rated capacity of 1.056 lakh tonnes in any year except in 1976-77. The shortfall in production was ascribed to (i) failure of nitric acid supply pumps and line, (ii) poor performance of turbo compressor and (iii) Leaky tail gas heater and poor absorption efficiency on account of plugging of cooling coils in the absorption towers.

(e) *Sulphuric Acid Plant*

4.13 As stated in the Audit Report, the Unit has entered into a contract in 1974 with the Design Engineering Division of the Fertilizers and Chemicals Travancore Limited (FACT) for conversion of the Sulphuric Acid Plant to double absorption system for pollution control and at the same time for increasing the capacity of the Sulphuric Acid Plant to 300 tonnes a day (or 99,000 tonnes per annum). The scheme estimated to cost Rs. 136.54 lakhs (including foreign exchange of Rs. 27.94 lakhs) was sanctioned by

Government in March, 1975. This estimate was further revised to Rs. 155.86 lakhs (including foreign exchange of Rs. 38.18 lakhs) which was sanctioned by the Ministry in November 1977. The scheme was completed and commissioned in June, 1977 at a cost of Rs. 143.59 lakhs.

4.14 Despite conversion of the Sulphuric Acid Plant to double absorption system in June, 1977, the Plant has not been able to achieve the enhanced rated capacity of 0.99 lakh tonnes. The production was 0.69 lakh tonnes in 1977-78, 0.84 lakh tonnes in 1978-79 and 0.86 lakh tonnes in 1979-80.

4.15 Asked if the problems standing in the way of achievement of rated capacity of Sulphuric Acid Plant had been identified, and attended to, RCF intimated (October, 1980) in a note, that :—

> "The problems identified were mainly repair and replacement problems and have since been attended to and the plant is capable of full capacity production."

4.16 RCF have informed the Committee (January, 1981) that as production in Sulphuric Acid Plant from 1974-75 had been less than the requirements of Sulphuric Acid for other plants *viz.* NPK Plant, CNA Plant and Phosphoric Acid Plant, the Unit had to purchase Sulphuric acid to meet, their requirements. Extra expenditure involved in purchasing Sulphuric Acid from outside during the years 1976-77 to 1979-80 instead of producing it at the Sulphuric Acid Plant amounted to Rs: 61.60 lakhs.

4.17 In this connection, RCF, however, pointed out that had Sulphuric Acid been not purchased from outside production of concentrated Nitric Acid and phosphoric acid would have suffered and that the loss in production on this account would have been to the tune of Rs. 203.56 lakhs.

(f) *Methanol Plant*

4.18 An analysis of the reasons for shortfall made in the Production and Efficiency Report indicated that process troubles and stabilisation, low equipment performance, leaks in the reformer and harp assembly and high stocks of methanol (in 1974-75 and 1975-76) were mainly responsible for nonattainment of capacity upto 1975-76 in Methanol Plant.

The Ministry informed (July 1978) Audit as follows :

> "The main problem in the Methanol Plant was the capacity limitation of the reformer and the unsatisfactory nature of the catalyst. The reformer has design deficiencies and even with the best catalyst available in the market, only 60 per cent of the capacity utilisation was possible. With supplementary gasification, the plant is producing to full capacity."

4.19 RCF have intimated (January, 1981) that as production at Methanol Plant was less than the rated capacity they had imported 32,181 tonnes of Methanol of the total value of Rs. 3.38 crores during the period 1969-70 to 1976-77.

4.20 Landed Cost per tonne of imported methanol as compared to the cost of production of methanol at Trombay was as follows :—

Year	Actual cost of production per tonne (Rupees)	Landed cost per tonne of imported methanol in Rupees
1969-70	1,514.00	1,494.00
1970-71	1,175.00	..
1971-72	1,141.00	1,202.00
1972-73	..	..
1973-74	1,515.00	1,438.00
1974-75	2,435.00	3,260.00
1975-76	2,523.00	..
1976-77	2,377.00	1,970.00
1977-78	2,192.00	..
1978-79	2,684.00	2,176.00

B. Financial Results

4.21 Rashtriya Chemical & Fertiliers Ltd. was incorporated on 6 March, 1978 on the re-organisation of the erstwhile Fertilizer Corporation of India and National Fertilizers Ltd. The paid up capital of the company was Rs. 167.48 crores as on 31 March 1980. The cumulative profits of RCF after adjusting the losses as on 31 March, 1980 amounted to Rs. 45.83 crores.

4.22 Net profit earned since 1975-76 has been as under :—

Year	Net profit after past period adjustment
	(Rs./Crores)
1975-76	(—)1.39
1976-77	(+)7.59
1977-78	(+)6.87
1978-79	(+)8.14
1979-80	(+)11.04

(Note : Information upto 1977-78 relates to Trombay Unit of erstwhile Fertilizer Corporation of India and that for 1978-79 and 1979-80 relates to RCF as a whole).

furnished by the Ministry in November, 1978 indicated the following trends

4.23 Profit or loss for each product is not worked out by the unit. However, profit/loss statement as prepared on the basis of final accounts and in the profitability of different products :

Profit(+)/Less(—) (Rs. in lakhs)

Products	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
(1) Fertilizers						
(i) Urea .	(—)69	(—)131	(—)311	(—)464	(—)139	(—)44
(ii) Suphala .	536	549	700	106	403	1238
(2) Industrial Products						
(i) Methanol .	91	85	326	276	303	365
(ii) Others .	250	247	106	12	167	229

4.24 The Corporation intimated that the principal reason for losses despite Urea Plant having produced more than the rated capacity in 1976-77 and 1977-78 was that the net realisation could not cover the cost at the prevailing controlled selling price fixed by the Government. Retention price for Urea was introduced only from November, 1977 and since then Urea Plant has been making profits. It has been pointed out that the cost of production is high as the plants are based on technologies of the sixties and do not have the economics of scale available in current Ammonia Urea plants. There was, it has been stated, no increase in cost due to imported ammonia, as it was cheaper then Unit's own production.

4.25 As regards declining trend of profitability of Suphala, the Corporation have stated that decline in profit for 1975-76 was mainly due to payment of excise duty on Complex Fertilizers (about Rs. 400 lakhs), reduction in the selling price of Suphala from July 1975 and higher cost of imported ammonia due to payment of customs duty.

4.26 The profit, cost and other details in respect of Suphala for the years 1977-78, 1978-79 and 1979-80 are given below :—

Profit	1977-78	1978-79	1979-80
		(Rs. in lakhs)	
Suphala 15 : 15 : 15	172.81	160.12	1.02
Suphala 20 : 20 : 0	64.97		..
APSN 20 : 20 : 0			
	237.78	160.12	1.02
Net Realisation (Rs. per MT) for Suphala 15 : 15 : 15	1294.26	1289.40	1447.12
Cost of Sales (Rs. per MT) for Suphala 15 : 15 : 15	1225.15	1209.32	1446.77

4.27 The Corporation stated, in a note that as far as the year 1979-80 which had fully year's impact of retention prices is concerned, the profitability of fertilizers should be considered as a group and not product-wise, since the basis adopted by FICC for distribution of inputs among the products is not the same as was adopted by the Company. The combined profitability of the fertilizers is as follows :—

(Rs. lakhs)

	Profit		
	1977-78	1978-79	1979-80
Urea	(—)43.92	36.14	23.01
Suphala	237.78	160.12	1.02
ANP	..	137.97	447.05
	193.86	334.23	471.08

4.28 The Corporation has claimed that their production plan is optimised to maximum profit. The decision to make only Suphala 15 : 15 : 15 as against a combination of grades, to make APSN in the debottlenecking section, to maximise use of phosphoric acid to discontinue production of Sodium Nitrate/Nitrite, etc. are stated to be examples of this effort.

4.29 The Corporation has intimated that it has taken the following steps to improve the profitability of the various fertilizers produced at Trombay plant :—

1. Maximisation of production.
2. Revamping of plants.
3. Control over consumption of materials and utilities.
4. Improvements in inspection and maintenance practice.

C. Cost Control

4.30 *Control System.*—The Audit reported that as in the case of other Units, Trombay Unit is also following a system of process costing for ascertaining the cost of production of the various end products and intermediate products.

4.31 The following features of the system deserve mention :—

(a) While the product-wise costs are worked out profit or loss is not worked out for each product and reconciled with the profit or loss shown in the financial accounts. The Corporation has stated (February 1977) that whenever there was any significant change in the input or output, the product-wise profitability was worked out invariably.

(b) Based on the plan of production as mentioned in the original budget estimates and the revised estimates, the variable and fixed costs of each product are estimated and actual costs based on actual production are compared inter se. The estimates of cost so drwn up are treated as standard costs. In certain cases, standard costs differ from these estimates on account of the adoption of a different volume of anticipated production.

4.32 As stated above, the estimated costs of production are based on the revenue budgets for a given volume of production for a particular period. The establishment of standard cost, based on the attainable capacity and norms of consumption for raw materials and utilities, and the calculation of variances between these standard costs and the budgeted and actual costs, would serve as a more effective managerial tool for purposes of cost control.

4.33 The Committee desired to know whether the management considers that establishment of standard cost would serve as a more effective managerial tool for purposes of cost control and if so, what steps have been taken in this direction. The Corporation have in a note intimated :—

"Management presently controls cost by controlling the quantity of production and physical consumptions of materials and utilities for which standards have been laid down. However, this leaves out the unit price of inputs which though generally beyond the control of management, can be taken into account by having the system of Standard Cost. Management is now considering using a Standard Cost System based on retention price norms."

4.34 The Committee enquired that in respect of each product, what were the areas which offer scope for control or reduction in cost and whether the management was satisfied with the measures taken and results obtained. The Rashtriya Chemicals & Fertilizers Ltd. in a note furnished by them stated that the major areas of cost reduction in all products were increased production and reduced consumption of raw materials and utilities. It has been claimed that continuous day-to-day monitoring of production and consumption with reference to targets is being done. Wherever production was affected due to market constraints, continued efforts, it has been stated, are being made to explore new avenues/outlets for use of their production. It has, however, been pointed out that as the plants were ageing, rehabilitation plan has been worked out for all key plants to prolong life and in the process also upgrade technology.

D. Annual General Meetings

4.35 The First Annual General Meeting of the Rashtriya Chemicals and Fertilizers Limited i.e. for the year 1978-79 was held on 29 August, 1979. The notice for this meeting was issued on 8 August, 1979. The Committee noticed that the accounts and the statutory auditors as well as Director's Report were realy on 28-8-1979. The comments of the Comptroller and and Auditor General of India under Section 619(4) of the Companies Act, 1956 were available only on 29-8-1979. The Committee was intimated by the Corporation that the consent for sending the documents less than 21 days before the meeting to be held on 29-8-1979 under Section 171(2) and 219(1) was obtained on 17-8-1979 from the shareholders.

4.36 For the Second Annual General Meeting (1979-80) the notice was issued on 15th September, 1980 for the meeting to be held on 24th September, 1980. The consent for shorter notice and shorter notice for Agenda was obtained by the Corporation from all the shareholders on 22nd September, 1980 under Section 171(2) and 219(1) of the Companies Act, 1956. Although the meeting was held on 24th September, 1980 but as the accounts were not ready by that time, the meeting was adjourned to be held again on 15th October, 1980.

4.37 During both the years i.e. in 1978-79 and 1979-80, the Corporation obtained the consent for issuing shorter notice and shorter notice for agenda, after they had issued notices for the Annual General Meetings, although the Companies Act stipulates obtaining of the consent before issuing notices for the Annual General Meetings.

4.38 Asked why there was a laxity on the part of the company in dealing with the General Body Meetings and presenting the accounts in time, the C.M.D. RCF assured during evidence :—

"We would avoid it in future."

4.39 The Committee desired to know whether there was any difficulty in preparation and presentation of accounts in time. The representative of Corporation explained that this year (1979-80) they had difficulty because the retention price for the fertilizer was not announced then and it was announced only on 10th September, 1980. He further stated that they had to take into account the price for the year starting from April 1979.

4.40 It was intimated to the Committee that for taking into consideration the profits for the year the announcement of retention price by the Government was very important. The Committee pointed out that a note could have been added to the accounts that they are subject to announcement of retention price by Government and the profits adjusted in the next year's accounts instead of withholding them. The Chairman and Managing Director of RCF reacting to this statement said :—

"We had in fact presented the accounts. But the Board of Directors mentioned that since it was a major thing, the accounts should be prepared only after the announcement of the retention price. That is why we got this difficulty."

4.41 The Committee pointed out that although the Indian Companies Act, 1956 provides that with the consent of the shareholders shorter notice and shorter agenda could be issued, but at least sufficient time should be given to the shareholders to study the documents for contributing fruitfully for the benefit of the Corporation. The witness stated :—

"We have taken note of it, and in future, we will give 21 days notice."

4.42 The production performance of the Company is not quite satisfactory. The rated capacity of the old Ammonia Plant was reduced from 1.16 lakh tonnes per annum to 1.06 lakh tonnes per annum in March, 1969. Even this reduced capacity has not been achieved in any year so far, despite the fact that the Supplementary Gasification Scheme completed in February, 1974 was expected to raise the capacity to 1·19 lakh tonnes annually. The Committee recall here the assurance held out by the then management in 1969 (vide para 3.14 of 26th Report of Committee on Public Undertakings (Fourth Lok Sabha) that the Plant was reasonably well on the road to rehabilitation. Unfortunately this assurance has not been kept up. Slippage in production has been attributed to low equipment performance, break downs, longer time taken for maintenance and power problems. The shortfall affected the production of urea until terminal facilities for handling imported Ammonia were ready in 1973-74. During the period 1973-74 to 1979-80, Ammonia was imported at a cost of Rs. 14.29 crores. Although it was expected that after debottlenecking the capacity of the NPK plant will interance from 2.10 lakh tonnes to 3.30 lakh tonnes per annum, the best achievement so far has been 2.70 lakh tonnes in 1978-79. Similarly the expected increase in capacity for Sulphuric

Acid production also did not materialise. This caused procurement of the acid from outside to the extent of Rs. 61.60 lakhs during 1976—80. Thus the implementation of Trombay I and II and the supplemental schemes have not as yet yielded the expected results. The position calls for a critical study to improve the working results.

4.43. As on 31st March, 1980, the cumulative profits of RCF after adjusting the losses were Rs. 45.83 crores. The Committee have reasons to believe, after examining the working of RCF, that the profits are there because of the retention price for fertilizer. There should be a machinery to ensure cost efficiency of fertilizer units. Of the products of RCF, urea is clearly unprofitable. The cost of production in old Ammonia and Urea Plants are stated to be high because the plants are based on technologies of the sixties, and do not have the economies of scale available in current Ammonia and Urea Plants. The company is following a system of process costing for ascertaining the cost of production of various end products and intermediate products but profit or loss on each product is not worked out. Estimated costs of production are based on the revenue budget for a given volume of production for a particular period. The Committee have been informed that the Management is now considering using of Standard Cost System based on the retention price norms. The Committee desire that the system should be settled in consultation with the C & AG of India.

4.44. The Annual General Body Meetings were held either at short notice or without circulating of documents in advance along with the notice. The Company obtained ex post facto consent of the Shareholders. For the meeting held on 29 August, 1979 the documents were handed over to the Shareholders at the meeting. The Committee expect meaningful participation by the shareholders in the General Body Meetings. They would therefore stress that adequate notice should be given and the documents should be circulated sufficiently in advance.

BANSI LAL,

Chairman,

Committee on Public Undertakings

Vaisakha 4, 1903 (S)

New Delhi,

April 24, 1981

APPENDIX

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

S. No.	Para No.	Conclusions/Recommendations
1	2	3
1	1.34	The planning and implementation of Trombay I & II projects consisting mainly of Ammonia, Urea, Suphala (Nitro phosphate), Nitric Acid, Sulphuric Acid and Methanol plants commissioned during 1965-66 by the Fertilizer Corporation of India, was reviewed by the Committee during 1968-69. The projects suffered from low production and losses. The Committee had also noticed that agreements entered into for supply of plants were defective and that there were a number of procedural and functional lapses on the part of the management. On the basis of recommendations of the Committee in their 26th Report (Fourth Lok Sabha), an Enquiry Commission (Bedi Commission) was set up in August, 1969. The Commission went into the agreements entered into with M/s. Chemical Construction Corporation (USA) for the supply of Ammonia, Urea and Nitric Acid Plants and the award of contract for the Nitro Phosphate plant to M/s. Chemical and Industrial Corporation (USA). The Commission was expected to report within three months, i.e., by November 1969. However, it was only in March, 1979 that the Commission submitted its report, which was laid before Parliament in August, 1980. Government after considering the findings of the Commission agreed with its conclusions and treated the matter as closed. Thus it has taken nearly 10 years to inform Parliament of the outcome of the enquiry instituted on the basis of recommendation of a Parliamentary Committee. Such delays could frustrate the purpose. An expenditure of Rs. 10.22 lakhs was incurred on the Commission. The Committee are, therefore, constrained to deal with the delay.
2	1.35	The Committee were informed that within two days of the setting up of the Commission of Enquiry, the Fertilizer Corporation took up with the Government, after taking legal advice, the advisability of postponing the enquiry into one of the Commission's terms of reference that related to the contract with the supplier of Nitro phosphate plant, Chemical and Industrial Corporation (USA). This was on the

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		ground that the Fertilizer Corporation's claims against the supplier of the plant were under arbitration by an Arbitral Tribunal set up by the International Chamber of Commerce. The reaction of the Government was that the enquiry was not likely to prejudice the arbitration proceedings and that it was open to the Fertilizer Corporation to make a suitable submission to the Commission. In an order passed in 1970, the Commission was of the view that there was force in the submission of the Corporation. However, when the ex-Managing Director, against whom the enquiry was directed, objected to the exclusion of one of the issues from the enquiry, the Commission sustained the objection (July 1971). Thereafter fresh legal opinion was obtained by the Fertilizer Corporation and the matter was again taken up with the Government. On consultation with the Ministry of Law, the Government withdrew (June 1972) the relevant issue from the terms of reference. This was contended (July 1972) by the ex-Managing Director stating that the Government had no power to amend the terms of reference. The Commission again sustained his objection. Thereupon the Government and the Fertilizer Corporation had to file (October 1972) separate writ petitions in the Delhi High Court. The High Court stayed the proceedings of the Commission in regard to the issue in question, but the Commission did not proceed with the remaining issues. It was only after the arbitration award was finalised and the Government restored (October 1977) the relevant issue in the terms of reference of the Commission and the petitions pending in the Delhi High Court were withdrawn that the Commission proceeded further and gave its report in March 1979.
3	1.36	The Committee regret that the Government though aware of the arbitration proceedings did not specifically consider the implications either on their own or in consultation with the Fertilizer Corporation before deciding upon the terms of reference of the Enquiry Commission. This lapse created all the delay and difficulties besides entailing considerable wasteful expenditure. Further, when the Commission did not agree to proceed with the remaining issues it was open to the Government to wind up the Commission and set up a new Commission with limited terms of reference; but this option was ununderstandably not exercised. The result of all this was that the Commission which was expected to take 3 months took nearly 10 years to complete its work. The Committee desire that learning a lesson from this sad experience Government should lay down suitable guidelines and clarify the legal position of Commissions of enquiry to obviate such delays and wasteful expenditure in future.

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4	1.37	Incidentally, although in terms of the arbitration award the plant suppliers of the nitro-phosphate plant were to pay Rs. 143 lakhs, the award had been contested in a US court and the chances of recovery are not rated high. A sum of Rs. 9.56 lakhs has already been spent on enforcement proceedings. The Committee would await the outcome. The Committee recommend that in future contracts with foreign parties also should provide for arbitration only under Indian Arbitration Law.
5	1.84	The Trombay I and II Complex suffered from losses and low production. In order to overcome the deficiencies, a Rehabilitation Scheme, a supplementary Gasification Scheme a Debottlenecking Scheme and a Diversification Scheme were taken up. There were delays in implementing these schemes. There were changes in scope without specific approval of the Government. There were also changes in the processes midway. All these had escalated the cost. The schemes were implemented between 1968 and 1979. The production was still below capacity.
6	1.85	The Rehabilitation scheme envisaged besides setting up a Phosphoric Acid Plant (cost: Rs. 1.5 crores), replacements, additions and modifications to the existing plants at an estimated cost of Rs. 100.20 lakhs (later revised to Rs. 83.61 lakhs). The scheme was approved by the Board in August, 1967 and was to be executed within 3 years. A review made in September, 1970 indicated that 5 key items involving a cost of Rs. 39.59 lakhs had not been installed. Although a special cell was set up in 1967 to monitor the implementation of the scheme, it was only on 11 February, 1969 and that too at the instance of the Board that a progress report on implementation of this scheme was submitted for the first time. Further progress was neither reported to the Board nor called for by it. Thus alter sanctioning the rehabilitation scheme in 1967, the Board did not bother to keep itself abreast to the progress of this scheme. This lapse cannot but be deplored.
7	1.86	While conveying Government's approval in principle to the installation of Phosphoric Acid Plant, the capacity of 100 tonnes per day of P_2O_5 at an estimated cost of Rs. 1.5 crores on a turnkey basis within a period of 20 months, the Ministry had desired that tenders for the supply of imported equipment for the plant should be invited only from Germany, Japan, USA and U.K. The Ministry had also made it clear that before placing any firm orders or making any foreign exchange commitment, FCI should obtain from Government specific release of foreign exchange. Instead of following this course of action, the Corporation decided

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		in May, 1969 to entrust installation of this plant to its P & D Division. Even though most of the Phosphoric Acid plants operating all over the world were based on dihydrate process the Corporation went in for Nissan's hemi-hydrate process and entered into an agreement with International Ore and Fertilizer Corporation (Inter Ore) for that process without obtaining prior approval of Government. The Corporation should have made an assessment of the comparative advantages of having the job executed on turn-key through a foreign contractor. It failed to do that. The project estimates of the phosphoric Acid plant were revised by the Corporation as many as five times. The project cost went up from Rs. 1.50 crores to Rs. 5.04 crores. There was delay in commissioning of the plant. It was commissioned in 1975. The final cost estimate of Rs. 5.04 crores was approved by Government in February 1979. There has thus been no clear concept of the plant initially and piecemeal changes have taken place. These had resulted in needless cost escalation.
8	1.87	Under the agreement entered into by the Corporation with Inter Ore in May, 1970 for Nissan hemi-hydrate process know-how the Inter Ore was liable to the extent of lump sum license and know-how fees, if it failed to demonstrate its performance guarantee. Performance guarantee tests were however not carried out within the guarantee period of one year because of deficiencies and repeated failures of equipment. Test runs were, however, conducted a few days after the expiry of the guarantee period and the Board informed that there was no limitation on the plant on account of system concept or design for which Nissan alone could be held accountable. The performance of the plant did not bear out this. As against the rated capacity of 30,000 tonnes per annum, the highest level of production achieved so far was 20,534 tonnes in 1979-80. The result was that shortage of Phosphoric Acid had to be made good by the continued use of imported di-ammonium phosphate. Thus the object of setting up this plant has not been achieved fully so far. It is distressing that the plant was initially accepted without performance guarantee test and contractor absolved of liability.
9	1.88	The Supplementary Gasification scheme was taken up to restore the capacities of Ammonia and Methanol plants. Neither the cost estimates nor the schedule of commissioning was adhered to. The original project estimate of Rs. 2.29 crores was revised in November 1970 to Rs. 3.06 crores. The actual expenditure was higher still i.e. Rs. 3.46 crores. It was approved by the RCF Board in August, 1978, 4-1/2 years after the commissioning of the plant. There was a further delay of 2 years in furnishing information to Government as

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		the techno-economic Feasibility Report called for by the Ministry was not readily available and what is worse the Ministry's letter itself was misplaced in RCF's office. The approval of Government is yet to be accorded. According to the schedule of commissioning as determined in November, 1970, the facility was to be established by March, 1973. There was however delay of about a year before it became operational. The delay in commissioning was mainly due to P & D Division having used in the Reformer their own catalyst which was found to be disintegrating during operation and had to be used along with two varieties of CCI's catalysts. The initial experiment thus did not prove to be a success.
10	1.89	The Debottle-necking Scheme prepared at the instance of the World Bank to remove bottlenecks in the existing NPK Plant was completed in August, 1975 instead of in December, 1974 as scheduled. The delay in this case has been attributed to delay in placing orders for certain equipments. After the scheme was commissioned, the composition of the complex fertilizer was changed in March, 1976 from Suphala 15:15:15 to APSN 20:20:0. stetAfter a study made by M/s. Technip for which a sum of Rs. 1.42 lakhs was paid, certain modifications to the Urea Plant at an estimated cost of Rs.1.29 crores were proposed and approved by Government in June 1973. When in September, 1974, Government approved the Trombay V Project, modifications to the Urea Plant became unnecessary and the expenditure of Rs. 1.42 lakhs rendered infructuous. Here again a piecemeal approach is clearly evident.
11	1.90	The Diversification Scheme was launched by the Corporation to improve the profitability of the Trombay I and II Units. Of the six Plants covered by this scheme, Ammonium Bicarbonate and concentrated Nitric Acid Plants were able to earn cumulative profits of Rs. 43.54 lakhs and Rs. 170.24 lakhs respectively upto 1977-78, the operations of Methylamine Plant, Dimethylether Recovery Plant, Sodium Nitrite/Nitrate Plants and Carbon Recovery Plant resulted in cumulative losses to the extent of Rs. 30.53 lakhs, Rs. 9.85 lakhs, Rs. 15.31 lakhs and Rs. 50.71 lakhs respectively upto 1977-78. No formal performance guarantees were provided in the case of certain Plants as for example the Ammonium Bicarbonate and Sodium Nitrite/Nitrate Plants on the plea that these plants were based on "In-house (P & D) design and engineering" and that there were no formal guarantees to be proven. Now that the P&D Division has bcome a separate company, in future, the contracts with them should provide for performance guarantee in order that there may not be any costly experiments within the Public Sector any more.

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12	2.13	Trombay IV Project covering mainly Nitric Acid and Ammonium Nitrophosphate Plants was approved by Government in July, 1970 at an estimated cost of Rs. 43.60 crores to produce 6.60 lakh tonnes of complex fertilizers (NPK 20:20:0) with 60% water soluble P_2O_5 by employing sulphate recycle process developed by Stamicarbon of Holland. The project was to be based on imported ammonia. An assessment made by the Corporation in October, 1971 placed the capital requirements of this project at Rs. 57.68 crores. Government posed this project to the World Bank for financing in view of the substantial foreign exchange involved. How unsound was this project as formulated by the Corporation and initially approved by Government can be gauged from the fact that an appraisal mission of the World Bank came to the conclusion that the project was not suitable for financing due to complexity of the processes, high capital cost, difficulties of marketing a relatively low nutrient product with low phosphate water solubility and low economic return. It is clear that the Fertilizer Corporation did not explore the possibility of increasing production in the existing NPK and Urea Plants which were working at 60 to 65 percent of the capacities, instead proposed to instal additional capacities at a heavy cost to the exchequer. The Committee note that it was only after the World Bank Mission had made a suggestion that the Corporation finalised the de-bottlenecking scheme for Trombay I & II. The result was that the size ofTrombay IV Project could be pruned, the intake of imported ammonia reduced and the project cost cut down. The revised Trombay IV envisaged production of 37.5 lakh tonnes of complex fertilizers per annum at a cost of Rs. 37.5 crores excluding the capital outlay required for ammonia terminal facilities. The revised project was to use crystalisation process. As a result of the change from the sulphate recycle process to crystalization process for production of the complex fertilizer, the basic design fee of Rs. 8.64 lakhs already paid by the Corporation to M/s. Stamicarbon of Holland became infructuous.
13	2.14	It is indeed distressing that there is hardly any plant or project at Trombay which was commissioned on time or within the estimated cost Trombay IV project which was scheduled to commence commercial production in April, 1977 could not start even trial production by that time. The trial production started a year later and commercial production 9 months thereafter. The project estimate was revised from Rs. 37.5 crores to Rs. 44.01 crores. In November, 1975, the project cost was again revised to Rs. 76.27 crores.

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14	2.15	The Ammonium Nitrophosphate plant was not expected to achieve the rated capacity beyond 66 per cent because of design deficiencies in certain areas. The Committee have been informed that a Rs. 280 lakhs rehabilitation scheme has already been drawn up by the Corporation in consultation with the contractor, The Committee, however, note that contractor will bear Rs. 126 lakhs (in foreign exchange) as against fees aggregating Rs. 160 lakhs payable to him and the liability limit of Rs. 38.22 lakhs under the contract. That the contractor could accept a liability far in excess of the limit down in the contract tells its own story. The Committee desire that the Ministry of Law should be consulted in the matter and if their examination shows that there is any lacuna in the contract such lacuna should be avoided in future. Further, the Committee would stress that the guidelines issued by Government in April, 1967 in regard to contractual liability for defective designs and workmanship should be strictly adhered to.
15	2.31	Yet another project which suffered from time slippage and cost escalation was Trombay V fertilizer project. According to the approval accorded by the Government in October, 1974, Trombay V which envisaged setting up of a 900 tonnes per day Ammonia plant and 780 to 860 tonnes per day urea plant at an estimated cost of Rs.111.40 crores was to commence commercial production in April, 1978. The Ammonia plant was to be based on fuel oil as feed stock. Later it was decided to have a plant primarily to process Naphtha but capable of changing over to Bombay High gas as feed stock. The cost of the project was revised to Rs. 169.97 crores in August, 1978. The variation between 1974 and 1978 cost estimates works out to Rs.79.72 crores on the basis that the original estimate for the gas based project would have been Rs. 90.25 crores. The revised estimate was approved by Government only in April, 1980 by which time the actual expenditure vastly exceeded the approved original estimate. The Committee deprecate this tendency on the part of public enterprises to exceed the sanctioned costs and present a *fait accompli* to Government. This tendency should be curbed.
16	2.32	Incidentally the Committee note that the cost estimates prepared from time to time do not provide for any escalation element and that these are at constant prices applicable to the year in which the estimates are prepared. The Committee feel that while this procedure will hold good for preparing feasibility report as it could be assumed that in an inflationary situation both project costs and benefits would increase more or less in the same order. But while preparing the detailed

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		cost estimates a fair approximation of the cost over the entire construction period has to be attempted. This would obviate frequent revision of the estimates. This question should therefore be gone into by the Ministry of Finance.
17	2.33	The Committee have been informed that Trombay V project is likely to be commissioned only in July, 1981. This delay of more than 3 years has been attributed to delay on the part of foreign engineering contractor ; delay in the detailed engineering by FPDIL, the delay in procurement of raw materials for fabrication of indigenous equipment, delay in receipt of imported and indigenous equipment etc. The Committee note that the Ammonia to be produced in Trombay V was to be partly used for the Ammonium Nitrophosphate production in Trombay IV. It is, therefore, unfortunate that the commissioning of Trombay V is delayed and the Ammonia continues to be imported for Trombay IV.
18	2.34	After reviewing the implementation of Trombay I & II projects in 1968-69 and examining now the execution of the supplemental schemes, which were taken up to overcome the deficiencies of Trombay I & II units, and the expansion projects, Trombay IV & V., the Committee are left with an impression that project formulation and implementation were marked by ubiquitous piecemealness of approach. The authorities have not evidently learnt much from the past experience. Lack of foresight and coordination wrong choice of technology, defective contracts, absence of monitoring and control of physical and financial progress of projects, non-enforcement of performance guarantee and disregard of financial discipline are some of the outstanding features of the style of their functioning and these have endured. The Committee's findings should, therefore, be carefully studied and improvements in the system made. This should be the responsibility of the Administrative Ministry. It should be particularly ensured that in future projects are completed under time bound programme in order to avoid cost escalation and loss of Production. The Committee would urge immediate action in this regard as the prestigious projects like Thal Vaishet project which entails an out lay of Rs. 889 crores, have been taken up for implementation. Any lapse of the kind noticed earlier would prove to be very costly indeed.
19.	3.40	The gas-based Thal Vaishet Fertilizer Project, which would be the world's largest single producer of urea from any one location, was approved by government in May, 1979

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		at a cost of Rs. 511.34 crores. The project mainly consisting of two 1350 tonnes per day Ammonia plant and three 1500 tonnes per day urea plants was expected to be commissioned within 45 months of signing of engineering contract for the Ammonia Plants. There was, however, inordinate delay in selection of Engineering Consultants and according to a revised estimate the project would cost Rs. 889 crores. The Committee, therefore, went into the delay.
20.	3.41	A need for foreign engineering consultants having been felt for this project as well as the project at Hazira, six international engineering concerns were identified (December 1977) for inviting bids for the ammonia plants. These were M/s. C.F. Braun (USA), Haldor Topsoe (Denmark), Humphreys & Glassgow (U.K.), Pullman Kellogg (USA), Techniment (Italy) and Toyo Engineering Company (Japan). Bids were invited from these parties for the two ammonia plants to be set up at Thal Vaishet. The parties were also asked to quote their fees in case the two plants at Hazira were also awarded to them. The bids received were examined by a Negotiating Committee, which was assisted by an Evaluation Committee. Thereafter negotiations were held with the three lowest bidders and the bids reevaluated. The intention then seems to have been to have the same technology for both Thal Vaishet and Hazira plants. The Department of Chemicals & Fertilizers also made its own evaluation. All the evaluations showed that the offer of M/s. C.F. Braun was the lowest. The matter was then considered by the Special Committee of Secretaries on Fertilizer Projects which recommended (June 1979) selection of M/s. C.F. Braun as the consultants. The recommendation was accepted (August 1979) by Government. A draft contract was also finalised (December 1979).
21.	3.42	There was, however, a reconsideration of the issue by the Government after January 1980. An expert committee was set up to consider the relative merits of all the six parties and to examine whether it would be desirable to choose the same consultant for both sets of plants. All the parties were then asked to update their bids. The Expert Committee while recommending (June 1980) that M/s. C.F. Braun be selected as the consultant for the plants at Thal Vaishet, felt that the negotiated draft contract would require improvement in regard to legal commitments for performance guarantees, penalties, breach of contract etc. and non-dilution of transfer of technology even if no commitment was made for more than two plants. The majority view of the committee was that taking all factors into account the risk of having and consultant for both Thal Vaishet and Hazira projects was

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		not of an acceptable degree. The whole matter was then referred (July 1980) to a Committee of Ministers. The committee accepted the majority view of the Expert Committee but the unanimous decision that M/s. C.F. Braun should be selected as the consultant for Thal Vaishet plants was turned down mainly on the ground that M/s. C.F. Braun had no experience of having built and operated a plant in India and the proposed contract suffered from legal lacunae. They were of the view that Halder Topsoe should be selected for Thal Vaishet project andPullman Kellogg for Hazira project. This was accepted by the Government (September 1980).
22.	3.43	The matter has already been discussed in Parliament. The Committee note that there are important policy issues involved. The anxiety of the government seems to have been to balance the economy consideration against the reliability of the technology in Indian conditions and the need for a choice between forward looking technologies for future application. The Committee also note that according to government there will not be any financial loss in accepting the final offer of Halder Topsoe and rejecting that of M/s. C.F. Barun. The Committee trust that this has been borne out by an expert evaluation. However, the fact remains that on account of the delay of nearly 2 years in fixing up the consultant the cost of the Thal Vaishet project has considerably increased. The Committee, therefore, desire that there should be a clear policy and a well-designed procedure for selection of foreign consultants to enable expeditious decisions. The Committee trust that the claims of Haldor Topsoe especially in regard to construction costs would actually materialise. A strict watch on the performance would be necessary and any further tie up with them should be decided on the basis of this performance.
23.	4.42	The production performance of the Company is not quite satisfactory. The rated capacity of the old Ammonia Plant was reduced from 1.16 lakh tonnes per annum to 1.06 lakh tonnes per annum in March, 1969. Even this reduced capacity has not been achieved in any year so far, despite the fact that the Supplementary Gasification Scheme completed in February, 1974 was expected to raise the capacity to 1.19 lakh tonnes annually. The Committee recall here the assurance held out by the then management in 1969 *vide* para 3.14 of 26th Report of Committee on Public Undertakings (Fourth Lok Sabha) that the Plant was reasonably well on the road to rehabilitation. Unfortunately this assurance has not been kept up. Slippage in production has been attributed to low equipment performance, break downs, longer time taken for maintenance and power problems. The shortfall affected the production of urea until terminal

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		facilities for handling imported Ammonia were ready in 1973-74. During the period 1973-74 to 1979-80, Ammonia was imported at a cost of Rs. 14.29 crores. Although it was expected that after debottlenecking the capacity of the NPK plant will increase from 2.10 lakh tonnes to 3.30 lakh tonnes per annum, the best achievement so far has been 2.70 lakh tonnes in 1978-79. Similarly the expected increase in capacity for Sulphuric Acid production also did not materialise. This caused procurement of the acid from outside to the extent of Rs. 61.60 lakhs during 1976—80. Thus the implementation of Trombay I and II and the supplemental schemes have not as yet yielded the expected results. The position calls for a critical study to improve the working results.
24.	4.43	As on 31st March, 1980, the cumulative profits of RCF after adjusting the losses were Rs. 45.83 crores. The Committee have reasons to believe, after examining the working of RCF, that the profits are there because of the retention price for fertilizer. There should be a machinery to ensure cost efficiency of fertilizer units. Of the products of RCF, urea is clearly un-profitable. The cost of production in old Ammonia and Urea Plants are stated to be high because the plants are based on technologies of the sixties, and do not have the economies of scale available in current Ammonia and Urea Plants. The company is following a system of process costing for ascertaining the cost of production of various end products and intermediate products but profit or loss on each product is not worked out. Estimated cost of production are based on the revenue budget for a given volume of production for a particular period. The Committee have been informed that the Management is now considering using of Standard Cost System based on the retention price norms. The Committee desire that the system should be settled in consultation with the C & A G of India.
25.	4.44	The Annual General Body Meetings were held either at short notice or without circulating of documents in advance along with the notice. The Company obtained *ex post facto* consent of the Shareholders. For the meeting held on 29 August, 1979 the documents were handed over to the Shareholders at the meeting. The Committee expect meaningful participation by the Shareholders in the General Body Meetings. They would therefore stress that adequate notice should be given and the documents should be circulated sufficiently in advance.

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