

FORTY-EIGHTH REPORT

COMMITTEE ON PUBLIC UNDERTAKINGS

(1988-89)

(EIGHTH LOK SABHA)

**INDIAN PETROCHEMICALS CORPORATION
LIMITED PROJECT IMPLEMENTATION**

**(MINISTRY OF INDUSTRY—DEPARTMENT OF
CHEMICALS AND PETROCHEMICALS)**

[Action taken by Government on the recommendations contained in the
15th Report of the Committee on Public Undertakings (Eighth Lok Sabha)]



Presented to Lok Sabha on.....

Laid in Rajya Sabha on.....

**LOK SABHA SECRETARIAT
NEW DELHI**

July, 1988/Asadha, 1910 (Saka)

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**COMMITTEE ON PUBLIC UNDERTAKINGS
(1988-89)**

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INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to submit the Report on their behalf, present this 48th Report on Action Taken by Government on the recommendations contained in the 15th Report of the Committee on Public Undertakings (Eighth Lok Sabha) on Indian Petrochemicals Corporation Limited—Project Implementation.

2. The 15th Report of the Committee on Public Undertakings was presented to Lok Sabha on 10 March, 1987. Replies of Government to all the recommendations contained in the Report were received on 22 February, 1988. The replies of Government were considered by the Committee on Public Undertakings on 10 June, 1988. The Committee also considered and adopted this Report at their sitting held on 10 June, 1988.

3. An analysis of the Action Taken by Government on the recommendations contained in the 15th Report (1986-87) of the Committee is given in Appendix II.

NEW DELHI ;

July, 21, 1988

Asadha 30, 1910 (S)

VAKKOM PURUSHOTHAMAN

Chairman,

Committee on Public Undertakings.

CHAPTER I

REPORT

The Report of the Committee deals with the action taken by Government on the recommendations contained in the Fifteenth Report (Eighth Lok Sabha) of the Committee on Public Undertakings on Indian Petrochemicals Corporation Ltd.—Project Implementation which was presented to Lok Sabha on 10 March, 1987.

2. Action Taken Notes have been received from Government in respect of all the 19 recommendations contained in the Report. These have been categorised as follows :—

- (i) Recommendations/observations that have been accepted by Government
Sl. Nos. 1, 3, 5—10, 12, 13 and 15.
- (ii) Recommendations/observations which the Committee do not desire to pursue in view of Government's replies
Sl. Nos. 4, 11, 14 and 18.
- (iii) Recommendations/observations in respect of which replies of Government have not been accepted by the Committee
Sl. Nos. 2, 16, 17 and 19.
- (iv) Recommendations/observations in respect of which final replies of Government are still awaited

NIL

The Committee will now deal with the action taken by Government on some of their recommendations :

A. Responsibility for non-preparation of realistic cost estimates of projects

Recommendation Sl. No. 2 (Paragraphs 1.34—1.35)

3. The Committee had observed that the cost estimates of Olefins Project and Downstream Units originally assessed at Rs. 157.50 crores in 1970-71

were initially revised to Rs. 331.93 crores in 1973-74 and were finally revised upwards to Rs. 346.33 crores against which the actual expenditure amounted to Rs. 338.35 crores. This represented an increase of 120 per cent over the original estimated cost. The Committee felt that in the interest of expediting project implementation and keeping down the cost, the Ministry should have ensured preparation of realistic project estimates and effective monitoring through monthly or quarterly reports.

4. The Committee were also surprised to find that Government had only now realised that realistic cost estimates and time schedules were the two main essentials for approval of the projects although the Committee had stressed as far back as 1974-75 the importance of these imperatives. The Committee felt that had the IPCI and Ministry cared to implement the recommendations of the Committee in their letter and spirit, it would not have been necessary to revise the cost estimates so frequently and the huge escalations could have been avoided. The Committee recommended that Government might go into this aspect and fix responsibility and take further necessary action under intimation to the Committee.

5. Government have in their reply stated that the observations made by the Committee have been noted. However, since the matters are old, it is felt that no purpose will be served by taking up the exercise to fix responsibility for non-preparation of realistic cost estimates of the projects. However now a two stage clearance viz. initial scrutiny of viability of project and thereafter the investment approval of the firmed up cost estimates for detailed engineering, equipments, etc., has been introduced. As a result of this, the cost estimates are now being formulated on a more realistic basis. Further, the close monitoring systems adopted have also led to implementation of projects within cost and time limits.

6. The Committee are not satisfied with the Government reply that "since the matters are too old, no purpose will be served by taking up the exercise to fix the responsibility for non-preparation of realistic cost estimates of the project." While taking a serious view of the non-compliance of their recommendation, the Committee strongly desire that the Government should immediately investigate into the matter with a view to fixing responsibility even at this late stage for the preparation of unrealistic project estimates which ultimately resulted in an increase of 120% over the original estimated cost. The Committee would like to be apprised of the result of enquiry made in the matter within 3 months of the presentation of this report.

B. Constraints faced by IPCL for completion of projects

Recommendation Sl. No. 7 (Paragraph 1.40)

7. The Committee observed that among the constraints faced by the IPCL in their project implementation programme were that the time cycle required for the DGTD clearance, international tendering, evaluation of offers and selection of suppliers, tying up of foreign exchange, award of import licences and opening of letters of credit in banks nominated by selected suppliers was quite long. Another major factor hindering the timely completion of projects was stated to have been the failure of indigenous engineering industry to adhere to their delivery schedules. The Committee desired that Government should carefully analyse the constraints faced by IPCL and the suggestions made by them to overcome these and take necessary remedial measures in the matter.

8. Government have stated in their reply that the constraints have been carefully analysed with a view to expedite necessary Government clearance for the projects. For instance, for the mega project, viz. Maharashtra Gas Cracker Complex (MGCC) being implemented by IPCL, the procedures for clearance of capital goods and turn-key projects have been simplified. For this purpose, Government has set up a Special Committee of Secretaries in view of the importance attached to this mega project and the need for its implementation according to the prescribed time schedule.

9. The Committee find that the Government have set up a Committee of Secretaries to expedite clearance and timely implementation of mega project viz, Maharashtra-Gas Cracker Complex. The Committee would like to be apprised of the main recommendations of the Secretaries' Committee and also about the progress made in the implementation of the above mentioned mega project within three months of the presentation of the Report to Parliament.

C. Installation of Captive Power Plants

Recommendation Sl. No. 10 (Paragraphs 2.40 & 2.41)

10. One of the major constraints affecting production in IPCL's plants was power shortage, voltage fluctuations and trippings which resulted in sudden plant shutdowns leading to process problem. In order to overcome this problem the IPCL proposed in August, 1973 to install a 25 MW power plant consisting of 2 Turbine Generation sets of 12.5 MW at an estimated cost of Rs. 5.68 crores, mainly to enable safe shutdown of plants in case of sudden stoppage of power. This proposal made by the Board of Directors in

August 1973 was approved by PIB in August, 1975 and finally by the Government in February, 1978 so that it took almost 5 years to reach the approval stage. Thereafter orders were placed by IPCL on BHEL in July, 1979 and the first set was installed in March, 1982 while the second set was commissioned in September, 1982 only. In the nine years period which elapsed between the time the proposal was initiated and the time the sets were actually commissioned, the estimated cost went up from Rs. 5.68 crores to Rs. 7.26 crores. Though the extent to which frequent power shutdown affected the life of costly equipment is not ascertainable, a rough idea of the total production loss can be had from the fact that with each power trip there is a potential production loss of Rs. 1.5 crores. The Committee expressed their displeasure at the utter lack of planning and the scant regard on the part both of IPCL and the Ministry for timely implementation of the important projects like captive power plants.

11. The Government have stated in their reply that the proposal for setting up of two 12.5 MW power generation facility by IPCL was required to be considered in the context of actual requirement of power by IPCL, availability of steam within the plant, the overall supply position from Gujrat Electricity Board. It was also necessary to consider with reference to installation of oil fired boilers as installation of such boilers was discouraged at that time. Besides, it was also necessary to consider with reference to total energy concept. All this required consultation with other Departments such as Energy, Finance, etc. IPCL was also advised to discuss the problem with BHEL and finally IPCL submitted a revised proposal. This proposal was also considered in consultation with other departments/agencies and then final approval was given in February, 1978.

12. The Committee are not convinced of the justification advanced by Government for the inordinate delay both at the level of IPCL and the Ministry in sanctioning and commissioning of power plants to overcome the constraints of power shortage, voltage fluctuations and tripping etc. The Committee also fail to understand as to why it took the Government five years to convince itself of the need of IPCL, to have Captive Power units to mitigate situation arising due to power interruptions from outside. The total 9 years delay i.e. 5 years in sanctioning the project and 4 years in its actual commissioning resulted in the increase in cost estimates from Rs. 5.68 to Rs. 7.26 crores. While expressing their displeasure on the utter lack of planning both on the part of IPCL and the Ministry, the Committee hope that in future such delays would not be allowed to recur in the implementation of important projects like the setting up of Captive Power Plants etc. and that such eventualities are foreseen and taken care of at the initial Planning stage.

D. Frequent revision of Cost Estimates*Recommendation Sl. No. 12 (Paragraph Nos. 2.64 & 2.65)*

13. The Committee noted that a feasibility report envisaging capital investment of Rs. 3.49 crores for the manufacture of lower acrylates was prepared by IPCL in April, 1975. Another feasibility report for the manufacture of higher acrylates requiring capital investment of Rs. 3.82 crores was prepared in November, 1975. A revised feasibility report for the manufacture of 10,000 tonnes of acrylates was prepared at an estimated Cost of Rs. 13.67 crores in February, 1977 and was approved by Government in December, 1977. Thus the cost estimates of Rs. 7.31 crores projected in the earlier feasibility reports of 1975 were pushed up to Rs. 13.67 crores in February, 1977. Further as a result of detailed engineering, the cost was revised in February, 1980 to Rs. 18.86 crores and was approved by the Government in December, 1980. As a result of upward revision of cost estimates, the internal rate of return anticipated came down to 19.10 per cent against the earlier anticipation of 27.5 per cent. Though the project was first envisaged in April, 1975, the schedule for mechanical completion after prolonged gestations period was fixed as December, 1981. The project for the lower acrylates was actually completed in June, 1982 and that for higher acrylates in November, 1982.

14. In their reply, Government have informed the Committee that the feasibility reports prepared previously were not based on detailed technical and equipment data and therefore, estimates were required to be revised. Now after initial learning phase in project planning and project implementation machinery more accurate cost estimates are being made by IPCL.

15. The Committee are shocked to observe that the feasibility reports prepared by IPCL for the revised Acrylates Project were not based on detailed technical and equipment data as a result of which the estimates were revised so frequently. In Committee's view this is a clear case of failure in project planning and project implementation machinery as a result of which the actual cost of the project was much more than the projected cost and implementation schedules were also not adhered to. The Ministry can also not be absolved of their responsibility in this regard. While expressing their unhappiness the Committee desire that the Government should ensure that in future projects are formulated on realistic basis so as to avoid the frequent revision and re-revision of cost estimates.

E. Second DMT expansion Project

Recommendation Sl. No. 16 (Paragraph 2.92)

16. The Committee noted that IPCL had undertaken a second DMT expansion project at a cost of Rs. 15.50 crores. This expansion project, which would bring up the total capacity to 40,000 MT per annum of DMT on completion was expected to be completed by 1988. The Committee hoped that all necessary measures would be taken by IPCL to adhere to the time schedule for completing the expansion project with a view to avoid cost and time overruns.

17. Government have stated in their reply that the scope of the DMT expansion project is being revised to implement only the methanolysis portion of the project and other improvements leading to capacity being increased nominally from 30,000 tonnes to 32,000 metric tonnes per annum, as against the earlier expansion plan of upto 40,000 TPA. The scheme is due for completion in 1988 at a cost estimate of Rs. 6.2 crores. In reply to the Audit observation that "the revised second DMT expansion project submitted to Government in September, 1986 for sanction has not been approved so far" the Department of Chemicals and Petro-chemicals has stated that the Government has informed IPCL that since the cost estimates for the revised scheme is less than 20 crores, which is within their Board's power, there is no need for Government specific approval subject to the condition that the scope of the project is not changed.

18. The Committee are constrained to observe that the scope of the DMT expansion project, earlier undertaken by IPCL for completion by 1988 to increase the total capacity from 30,000 to 40,000 MT per annum, is now being revised to increase the capacity marginally to 32,000 MT per annum only. The revised expansion project estimated to cost Rs. 6.2 crores and scheduled to be completed in 1988, though heavily slashed, was submitted to the Government for approval in September, 1986. The Government is stated to have informed IPCL that "since the cost estimates for the revised scheme is less than Rs. 20 crores, which is within their Board's power, there is no need for Government specific approval". It is really very strange that the IPCL's Board is unaware of its power in regard to sanctioning of projects. Even now Government have not stated whether the revised project has been approved or not. The Committee are surprised to note that even the Government's representatives on IPCL's Board did not advise the Board with regard to its powers to sanction projects upto an amount of Rs. 20 crores. This shows that either the Government's representatives did not take interest in the affairs of IPCL or they were

totally unaware of the above position. The Committee take serious view of this inordinate delay in the sanctioning of revised second DMT Project. They expect the Government to ensure that the project is completed within the scheduled time i.e. in 1988.

F. Study of relative economics of DMT and PTA

Recommendation Sl. No. 17 (Paragraph 2.93)

19. The Committee were informed that all over the world the polyester manufacturers were changing over from DMT to PTA as the feed-stock material for the production of polyester fibre. It was accepted that PTA gave superior yield and economics in operation. In USA, Europe, Japan and other East Asian countries PTA was being increasingly used and among the advanced industrialised nations Japan stands out as the major country that uses only PTA as it is considered to be cost effective. In India the first plant for production of DMT with an installed capacity of 24,000 tonnes was commissioned by IPCL in 1973. The capacity of this plant was subsequently expanded at a cost of Rs. 6 crores to 30,000 tonnes. In 1975-76, in Government of India owned Bongaigaon Refinery and Petrochemicals a DMT project with 45,000 MT capacity, was taken up and commissioned in March, 1985. Currently the IPCL were in the process of further expanding their DMT production capacity ; which was likely to be completed in 1988. In the context of the general trend in the industrial world to go in for PTA in preference to DMT as the main feed-stock for polyester industry, which is considered to be better and more efficient raw material, the Committee found it difficult to appreciate why the Government of India chose a first generation product viz. DMT and went on creating fresh and expanding existing capacities. The relative economics of the two products did not seem to have been considered at any stage with any seriousness.

20. Government have stated in their reply that even today the relative share of usage of dimethyl terephthalate (DMT) and purified terephthalic acid (PTA) in the world for the manufacture of PSF/PFY fibres is in the ratio of 55 : 45. However, IPCL does not have any major plans to expand any further its capacity of DMT plant.

21. The Committee are not convinced with the reply given by the Government. They feel that Government have not thoroughly examined the relative economics of the two products viz. DMT and PTA. During the course of his evidence, the Secretary, Department of Chemicals and Petrochemicals had himself informed the Committee that :

“DMT is going to increase from 3.8 million tonnes to 4.3 million tonnes in a period of five years whereas in the case of PTA, in 1984 it was 3.4 million tonnes, a little less than DMT, and in 1990, it is going to become 5.06 million tonnes, much more than DMT. In fact, in 1990, the ratio between PTA and DMT in our situation will be much better in favour of PTA as compared to the international position. In 1984, the ratio of DMT and PTA was 49:51 and in 1990, the ratio will be 42:58.”

22. The Committee, therefore, recommend that in view of the contradictory replies given by the Government, Government should set up an independent expert Committee to examine the matter in all its ramifications with a view to settle this controversy of the superiority of PTA over DMT once for all and the findings of this body may be communicated to the Committee.

G. Utilisation of DMT capacity

Recommendation Sl. No. 19 (Paragraph 2.96)

23. The Committee desired to be apprised as to how the DMT capacity created in Bongaigaon Refinery as late as in 1985 was being utilised. A similar assessment of the utilisation of the DMT capacity by the private sector company who were permitted to import a second hand plant needed to be made to ascertain how far the import of an old technology involving huge foreign exchange outgo was economically justified.

24. The Deptt. of Chemicals and Petrochemicals have stated in their reply that the Government has examined the utilisation of DMT capacity. The demand for DMT has picked up and it is selling at fully capacity. The production of DMT in Bongaigaon Refinery and Petrochemicals Ltd. (BRPL) has picked up though the capacity utilisation compared to the installed capacity is low. BRPL is however, setting up its production unit of polyester staple fibre with captive use of DMT. Bombay Dyeing is producing close to its installed capacity. Similarly IPCL's capacity utilisation is likely to be more than 80%. Thus, there seems to be no difficulty in the manufacture and sale of DMT.

25. However, the Audit has observed that “The Government reply does not explain how the decision was economical to import DMT technology as against PTA which was superior. The fact that they are able to sell the whole product is hardly a justification in the controlled market. The Committee's question regarding import of outdated technology has remained to be answered.”

26. The Government's reply is silent with regard to Committee's recommendation as to how far the import of old technology involving huge foreign exchange was economically justified. The Government reply has also not explained as to how the import of DMT technology was economical and superior to that of PTA technology. The Committee are unable to appreciate the circumstances in which IPCL went on increasing its DMT capacity with outdated technology while at the same time the private companies were being permitted to set up plants based on imported PTA technology which has been admitted to be more efficient. While reiterating their original recommendation, the Committee would like the Government to make an immediate assessment of the utilisation of DMT capacity by Private Sector Company and also justification for the import of second-hand plant involving huge foreign exchange by that company. The Committee would also like to be apprised of the result of this assessment within three months of the presentation of this Report.

CHAPTER II

RECOMMENDATIONS THAT HAVE BEEN ACCEPTED BY GOVERNMENT

Recommendation Sl. No. 1 (Paragraphs 1.31 to 1.33)

The Committee on Public Undertakings of Fifth Lok Sabha which reviewed the performance of Indian Petrochemicals Corporation Limited in April, 1975 had inter alia, gone into the reasons for variations in project cost estimates and delay in commissioning of projects of IPCL. In their 64th Report (1974-75) the Committee had recommended that estimates in DPR should be as realistic as possible taking into account all foreseeable items of expenditure and be based on correct data to obviate necessity of frequent revision of estimates, that IPCL and Government should take measures to control at least those factors (like timely supplies of material) which can be controlled and that the management of IPCL should take advantage of modern management techniques like PERT, etc. to guard against the usual inadequacies and pitfalls in the matter of ensuring sequence and adherence to delivery schedules.

In the action taken replies furnished by Government the Committee had been assured that effective timely measures were being taken to control, as far as possible, the factors responsible for increase in the cost estimates of the projects and that all possible measures to ensure that there is no further slippage in the project schedules were being undertaken.

A review of the cost estimates and the time schedules of the projects undertaken by IPCL, thereafter, however, reveal in unmistakable terms that no lessons have been learnt by IPCL management from their past experience. The project planning and implementation machinery remains as weak as before. The cost estimates of each project have been subjected to frequent revisions and time schedules have been revised from time to time so as to render the setting of targets a futile exercise.

Reply of the Government

The observations made by the Committee have been noted. The project planning and implementation machinery in IPCL has been strengthened. Two separate groups have been set up by IPCL—one on Policy Planning under the

CMD and the other on Project Planning under the Executive Director (Research and Development). As a result, commissioning of certain projects, such as two major steam raising builders, first phase of gas turbine power plant and polypropylene Copolymer plant, has been achieved within the cost and time limits.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87—PC. III (Pt. I) dated 22.2.1988]

Recommendation Sl. No. 3 (Paragraph 1.36)

The Committee find that in order to cut delays Government have now reportedly streamlined the procedure for clearance and approval of the projects and the procedure for import of technology has also been simplified. Under the two stage clearance procedure now being adopted by PIB, the approvals are given in the first stage for incurring the expenditure towards technology purchase, selection of consultant, preparation of Feasibility Report etc. based on which detailed project reports for investment decisions are submitted as a second stage of the proposal. The Committee not with satisfaction that Government have at last realised that in large technology oriented projects, the complete technology, scope of equipment, scope of various sub-technologies get fully identified through Detailed Project Report and that the recent DPR's are being prepared in accordance with the recommendations of the Committee made in their 64th Report. The Committee trust that in order to avoid frequent revisions in cost estimates, Government would in future thoroughly scrutinise initially the cost estimates from all angles before according approval and critically watch timely implementation of the projects to avoid undue escalations.

Reply of the Government

With the introduction of two stage clearance for the projects, the Government initially scrutinises the viability of the proposal and thereafter approval of realistic cost estimates based on firmed up cost estimates for detailed engineering, cost of equipments, etc. is accorded. A close watch is also being maintained through monthly flash reports in respect of mega projects. In addition, Government have drawn up Annual Action Plan which is monitored closely on a quarterly basis for timely completion of the projects.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87—PC. III (Pt. I) dated 22.2.1988]

Recommendation Sl. No. 5 (Paragraph 1.38)

The Committee fail to understand the logic behind laying down the schedules by the Company if these were not to be scrupulously adhered to. It can be said without the risk of contradiction that the schedules of completion of Olefins Project and Downstream Units were not realistically drawn. This is amply confirmed by the Secretary, Department of Chemicals and Petrochemicals himself who while referring to the time schedules of the project deposited before the Committee that "I find that the project cycle issued at the time was for 33 months. It was rather ambitious because even today a project of that complexity cannot be executed in 33 months' time or even if it is envisaged, it cannot be of the order of the plan and it might take a few months more." He also stated that the total time taken for clearance and for giving approval of the project can be controlled if it is controlled properly. This is exactly what the Committee have been emphasising from time to time that most of the factors leading to time and cost overruns in the implementation of the various projects were such which could be controlled by the Management or the Government provided there was a will to do so.

Reply of the Government

The observations made by the Committee have been noted. IPCL has been asked to prepare schedules for completion of the project more carefully and realistically and to adhere to the same so that time and cost overruns could be avoided. These are also being monitored at Government level.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87--PC. III (Pt. I) dated 22.2.1988]

Recommendation Sl. No. 6 (Paragraph 1.39)

The Committee note that Government have now made certain institutional arrangements for monitoring timely implementation of the projects like :

- (i) Preparation and updating of bar-charts indicating the key milestones for project activities at the commencement of work on the projects and monthly review of implementation by IPCL in association with Engineers India Limited :
- (ii) Receipt of monthly reports of progress of implementation from IPCL :
- (iii) Quarterly progress review meetings with the Ministry ; and

(iv) Regular monitoring of major projects in hand.

The Committee feel that if the Ministry had closely monitored implementation of the Olefins Projects and Downstream Units, identified areas of slippages and had taken timely corrective measures, such huge delays would not have occurred. The Committee expect that with proper use of the monitoring systems now devised and adequate inter-ministerial coordination, wherever required, it would be possible hereafter to ensure timely completion of the projects undertaken.

Reply of the Government

As mentioned by the Committee, there is close monitoring at Government level.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals O.M.
No. 40012/1/87—PC. III (Pt. 1) dated 22.2.1988]

Recommendation Sl. No. 7 (Paragraph 1.40)

Among the constraints reportedly being faced by IPCL in their project implementation programmes, the CMD has listed out a number of impediments which came in their way. It has been stated that the time cycle required for the DGTD clearance, international tendering, evaluation of offers and selection of suppliers, tying up of foreign exchange, award of import licences and opening of letters of credit in banks nominated by selected suppliers is quite long. Another major factor hindering the timely completion of projects is the failure of indigenous engineering industry to adhere to their delivery schedules. The Committee have no doubt that all these factors are such which could be monitored and controlled with appropriate interaction between the various agencies involved. The Committee would particularly like the Government to carefully analyse the constraints faced by IPCL and the suggestions made by them to overcome these and take necessary remedial measures in the matter.

Reply of the Government

The constraints mentioned by the Committee have been carefully analysed with a view to expedite necessary Government clearance for the projects. For instance, for the mega project, viz. Maharashtra Gas Cracker Complex (MGCC) being implemented by IPCL, the procedures for clearance of capital goods and turn-key projects have been simplified. For this

purpose, Government has set up a Special Committee of Secretaries in view of the importance attached to this mega project and the need for its implementation according to the prescribed time schedule.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87—PC. III (Pt. 1) dated 22.2.1988]

Comments of the Committee

(Please see Paragraph No. 9 of Chapter 1 of the Report)

Recommendation Sl. No. 8 (Paragraph 1.41)

IPCL is new in the process of setting up a new complex at Nagothane, Maharashtra at an approved cost of Rs. 1167 crores and the capital expenditure on the complex during the Seventh Plan period was expected to be of the order of Rs. 955 crores. Going by the past experience of IPCL in the matter of project implementation, the Committee cannot but caution the Government to keep a strict watch and ensure that the project of this magnitude gets executed within the time frame settled well in advance. The Committee need hardly emphasise that delays in project implementation have grave financial and economic implications. Organising project construction activities to ensure timely completion was, therefore, a major responsibility not only of the project management but of the Government also. The procedures, practices and organisation involved in project construction and implementation, therefore, require critical analysis and review.

Reply of the Government

Based on critical analysis and review of the procedures, practices and management input required for timely implementation of Maharashtra Gas Cracker Complex, the project is being implemented with tight control on completion schedules of individual plants and the project as a whole. Chairman and Managing Director, IPCL holds regularly monthly review meetings with the consulting organisation, Engineers India Limited and MGCC personnel to check the progress of the project against schedule and arrest slippages wherever likely to occur. Apart from this, the concerned Director of the projects and the task force for individual plants regularly review progress of design, engineering, procurement, construction, etc. A system of monthly flesh report is in operation to apprise the Ministry of Programme Implementation on monthly progress of the projects against agreed milestones and of major problems, if any. Separately Government of Maharashtra has also constituted a Committee (for infrastructure facilities

and other amenities for development of petrochemical complex at Nagothane to resolve outstanding problems with the various State Government agencies, etc. involved in the timely completion of this project. Apart from the quarterly review meetings, the implementation of MGCC is being monitored at the highest level in the Department of chemicals and Petrochemicals.

Further, the procedures for clearance of capital goods and turn-key projects for this mega complex, have been simplified. Government has set up a Special Committee of Secretaries in view of the importance attached to this mega project and the need for the implementation according to its prescribed schedule.

[Ministry of Industry, Deptt. of Chemicals & Petrochemicals
O.M. No. 40012/1/87—PC. III (Pt. I) dated 22.2.1988]

Recommendation Sl. No. 9 (Paragraphs 2.12 to 2.16)

The Committee find that IPCL submitted to the Government a Feasibility Report for the manufacture of 35,000 tonnes per annum of PVC at an estimated capital expenditure of about Rs. 22 crores in December 1974. Since the Gujarat State Fertilizers Company Limited which was planning to set up a PVC plant to utilise Ethylene from IPCL dropped the proposal, IPCL submitted a Revised Feasibility Report in January 1977 at an estimated cost of Rs. 45.27 crores. The project was approved by Government in December 1977 for an investment of Rs. 43.35 crores. In September, 1981 the cost of the project was further revised upwards to Rs. 74.16 crores on the ground that the original estimates were based on preliminary information with no firm data regarding equipment specifications etc., the estimates of which had been worked out on the advice of Engineers India Limited. The approval of Government for the revised project report was received in December, 1982 for Rs. 75.66 crores. The project was actually commissioned in August, 1984 and the actual cost on completion of the project was Rs. 70.36 crores.

It is distressing to find that a project conceived in December 1974 was actually completed and commissioned in August 1984 *i.e.* after a lapse of a full decade. The Chairman-cum-Managing Director was candid enough to admit that the implementation of this particular project "does not leave a very satisfactory taste, even with a good record of the enterprise." The frequent revisions of estimates resulted in huge cost escalation and consequent delays in completion of the project. It is interesting to analyse that between

December 1974 and November 1977 the Government could not take a decision on the proposal given by IPCL. This pushed up the cost-estimates of the project from Rs. 22 crores to Rs. 45 crores. After Government approval had come, it took IPCL another two year to finalise the choice of technology and in September 1981. When the revised estimates were prepared the cost of the project went up from the estimated Rs. 45 crores to Rs. 74 crores.

Not only the estimates had to be revised too often, IPCL could not keep their schedule of completion of the plant as originally envisaged. The VC/PVC plant which was originally due for mechanical completion in July, 1983 was actually completed in January/March, 1984 and the actual commissioning was done in March/August, 1984. The main reasons for delay in completion of the plant have been attributed to delay in delivery of equipment by indigenous vendors, poor response from foreign vendors for certain specific pumps and delayed receipt of process package and consequent delay in detailed engineering.

The Committee also find that the delay in completion of the PVC plant had primarily affected the Ethylene production which had to be restricted to the intake of LDPE and EG plants with consequent reduction in the production of co-products. Audit has brought out that the value of production loss due to under-utilisation of capacity was Rs. 267.61 crores. The loss was computed with reference to the actual cost per unit. IPCL has contended that the value of production loss of Rs. 267.61 crores during the year 1978-79 to 1981-82 is based on shortfall in production computed with achievable capacity as the base and actual unit of cost of production in the respective years. According to the company, the actual unit cost of production is relevant only to the actual volume of production and not to the achievable capacity. In the company's view the value or production loss comes to Rs. 175.00 crores. Whatever be the quantum of production loss in monetary terms, the important point that stands out is the fact that there has been avoidable delay in the completion of the project and this delayed completion has resulted in significant loss of production. The Committee cannot but deplore this huge loss suffered by the Company on account of delay in completion of the PVC plant.

At this stage the Committee can only express the hope that IPCL would have taken suitable lessons from their experience of tardy implementation of the project and would not allow the same thing to be repeated in the projects now under implementation or those which will be undertaken in future.

Reply of the Government

Based on its earlier experience in implementation of the projects at Baroda, IPCL have taken adequate steps to ensure timely implementation of projects at Baroda and at Nagothane.

[Ministry of Industry, Deptt. of Chemicals & Petro-chemicals
O.M. No. 40012/1/87—PC.-III (Pt. 1) dated 22.2.1988]

Recommendation Sl. No. (Paragraphs 2.40 and 2.41)

This is yet another typical case of bad handling of a project by IPCL and the Government. One of the major constraints affecting production in IPCL's plants was power shortage, voltage fluctuations and trippings which resulted in sudden plant shutdowns leading to process problems. In order to overcome this problem the IPCL proposed in August, 1973 to set up a 25 MW power plant consisting of 2 Turbine Generation sets of 12.5 MW at an estimated cost of Rs. 5.68 crores, mainly to enable safe shutdown of plants in case of sudden stoppage of power. This proposal made by the Board of Directors in August 1973 was approved by PIB in August, 1975 and finally by the Government in February, 1978, so that it took almost 5 years to reach the approval stage. Thereafter orders were placed by IPCL on BHEL in July, 1979 and the first set was installed in March, 1982 while the second set was commissioned in September, 1982 only. In the nine years, period which elapsed between the time the proposal was initiated and the time the sets were actually commissioned, the estimated cost went up from Rs. 5.68 crores to Rs. 7.26 crores. Though the extent to which frequent power shutdown affected the life of the costly equipment is not ascertainable, a rough idea of the total production loss can be had from the fact that with each power trip there is a potential production loss of Rs. 1.5 crores.

It is unfortunate that it took 5 years to convince the Government that IPCL needed its own power unit to ensure against power interruption from outside. There has also been delay on the part of the project implementation authorities as it took more than four years to commission a plant, which according to the Secretary, Department of Chemicals and Petrochemicals should not have taken more than 25 to 30 months for commissioning. The Committee are constrained to express their displeasure at the utter lack of planning and the scant regard on the part both of IPCL and the Ministry for timely implementation of the important projects like captive power plants,

Reply of the Government

The proposal for setting up of two 12.5 MW power generation facility by IPCL was required to be considered in the context of actual requirement of power by IPCL, availability of steam within the plant, the overall supply position from Gujarat Electricity Board. It was also necessary to consider with reference to installation of oil fired boilers as installation of such boilers was discouraged at that time. Besides, it was also necessary to consider with reference to total energy concept. All this required consultation with other Departments such as Energy, Finance, etc. IPCL was also advised to discuss the problem with BHEL and finally IPCL submitted a revised proposal. This proposal was also considered in consultation with other departments/agencies and then final approval was given in February 1978.

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

[Ministry of Industry, Deptt. of Chemicals & Petrochemicals
O.M. No. 40012/1/87—PC. III(Pt. I) dated 22.2.1988]

Comment of the Committee

(Please see paragraph No. 12 of Chapter I of the Report)

Recommendation Sl. No. 12 (Paragraphs 2.64 and 2.65)

The Committee note that a feasibility report envisaging capital investment of Rs. 3.49 crores for the manufacture of lower acrylates was prepared by IPCL in April, 1975. Another feasibility report for the manufacture of higher acrylates requiring capital investment of Rs. 3.82 crores was prepared in November, 1975. A revised feasibility report for the manufacture of 10,000 tonnes of acrylates was prepared at an estimated cost of Rs. 13.67 crores in February, 1977 and was approved by Government in December, 1977. Thus the cost estimates of Rs. 7.31 crores projected in the earlier feasibility reports of 1975 were pushed up to Rs. 13.67 crores in February, 1977. Further as a result of detailed engineering, the cost was revised in February, 1980 to Rs. 18.86 crores and was approved by the Government in December, 1980. As a result of upward revision of cost estimates, the internal rate of return anticipated came down to 19.10 per cent against the earlier anticipation of 27.5 per cent. Though the project was first envisaged in April, 1975, the schedule for mechanical completion after prolonged gestation period was fixed as December, 1981. The project for the lower acrylates was actually completed in June, 1982 and that for higher acrylates in November, 1982.

The above recital of key milestones for the acrylates project reveal how the feasibility reports for the projects were being prepared in IPCL on the basis of incomplete information. The project formulation was in the nature of haphazard guess-work entailed frequent revision and re-revision of estimates. No wonder the actual costs always much more than the projected costs and the completion schedules could never be adhered to.

Reply of the Government

As has been mentioned earlier, the feasibility reports prepared previously were not based on detailed technical and equipment data and therefore, estimates were required to be revised. Now, after initial learning phase in project planning and project implementation machinery, more accurate cost estimates are being made by IPCL.

[Ministry of Industry, Deptt. of Chemicals & Petrochemicals
O.M. No. 40012/1/87—PC. III (Pt.I) dated 22.2.1988]

Comments of the Committee

(Please see paragraph No. 15 of Chapter I of the Report)

Recommendation Sl. No. 13 (Paragraphs 2.66 and 2.67)

The Committee were informed during evidence that the technology for the manufacture of Acrylates had been closely guarded by multinationals who did not want to share their technology. To develop self-reliance in this field IPCL requested National Chemical Laboratory to develop a workable process for reproducibility and subsequent scale up. NCL developed processes for the manufacture of different Acrylates which were reviewed by EIL and IPCL and a Feasibility Report was submitted to Government in December, 1976. NCL had built a pilot plant on bench scale reactors having a capacity of 500 g/ batch for developing their technology. This pilot plant (laboratory scale) was thereafter translated into commercial plant and the Company put up a plant with a capacity of 10,000 tonnes per annum (5000 tonnes of lower Acrylates and 5000 tonnes of higher Acrylates). The equipment specifications in the case of higher acrylates were based on the preliminary pilot plant information supplied by NCL.

The Committee note that production of lower Acrylates (the technology for which was supplied by M/s. Asahi Chemicals, Japan) had stabilised and their imports had been discontinued. But, serious problems were faced in

the higher Acrylates plant due to deficiencies in the technology developed by NCL. The main drawbacks noticed by IPCL in the Higher Acrylates plant are the operational and design deficiencies which were not revealed in the laboratory work carried out by NCL. The C&MD had also stated during evidence: "we are not out of woods, because we are learning from deficiencies in the process, in the design parameters." Due to plant deficiencies local demand for higher acrylates could not be met which was otherwise made good through imports valuing Rs. 166.44 lakhs during 1983-84 and 1984-85. The Committee feel that in view of the highly sophisticated technology required in production of Acrylates it was expected of IPCL to have gone in for an integrated prototype pilot before venturing into a project of 10,000 tonnes capacity. Why the normal intermediate stage of a prototype pilot plant was not gone through before setting up a plant for commercial production of 10,000 tonnes of Acrylates, has not been convincingly explained. The Chairman-cum-managing Director, IPCL made the plea that because of financial constraints it was not considered wise to make an investment of about Rs. 3 crores on a prototype pilot plant even though such a prototype was desirable. The Secretary, Department of Chemicals and Petrochemicals, however, has opined that this was a case of over-confidence on the part of NCL, FIL and IPCL, which was not called for and it is a case of error of judgement. The Committee are constrained to say that the project was neither well conceived nor properly executed. Even after the setting up of the plant imports of higher acrylates are being made and the plant itself needs to be modified for the rectification of the deficiencies noticed after implementation. The Committee would like to emphasise that desirable modifications in the plant may be carried out expeditiously.

Reply of the Government

Since Acrylates Plant was started up in 1982-83, several improvements have been brought about in the operating conditions in close contact with National Chemical Laboratory scientists. Several components/hardwares have been replaced wherever deficiencies were established. Except for 2-ethyl hexyl acrylate, the Acrylates Plant is producing regularly methyl acrylate, ethyl acrylate and butyl acrylate and is meeting substantially the requirements of Indian market.

[Ministry of Industry, Deptt. of Chemicals & Petrochemicals
Q.M. No. 40012/1/87—PC. III (Pt. I) dated 22.2.1988]

Recommendation Sl. No. 15 (Paragraph 2.91)

It is also regrettable that there was delay of about 17 months from the scheduled date in the completion of the expansion project and the delay resulted in avoidable loss of indigenous production and imports of DMT of the order of Rs. 1.88 crores. The Committee deplore this undue delay in commissioning of the plant and consequent avoidable loss of foreign exchange due to imports.

Reply of the Government

The observations of the Committee have been noted. The reasons for slippages were non-availability of vendor data from foreign manufacturers for engineering and equipment poor response from vendors delay in issue of import licence and foreign exchange and non-availability of raw material with the fabricators, etc. The delay in commissioning the plant is regretted.

[Ministry of Industry, Deptt. of Chemicals & Petrochemicals
O.M. No. 40012/1/87—PC.III (Pt. I) dated 22.2.1988]

CHAPTER III

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

Recommendation Sl. No. 4 (Paragraph 1.37)

The Committee note with regret that not only were there frequent revisions of cost estimates, but also the schedules of completion of the projects were frequently revised. The Olefins Projects which were originally scheduled to be completed between 1973 to 1975 were actually commissioned in 1978. In accordance with the Detailed Project Report and Feasibility Report, as against a period of 33 months envisaged for completion of the projects from the date of effect of foreign engineering contract, the schedule of completion was revised as many as five times and the delay ranged between 28 months to 60 months. Similarly, in the case of Downstream Units, the Feasibility Report originally assessed a period of 26 to 33 months for completion of the plants from the date of effect of foreign engineering contract but the schedules in this case were also revised five times and the delay in completion of the projects ranged between 26 months to 41 months. Such heavy delays in completion of the projects cannot but be considered as abnormal. The Committee have no doubt in saying that the quality of the feasibility studies left much to be desired.

Reply of the Government

Government have stressed the need for better preparation of feasibility studies which are closely scrutinised before initial approval. A close watch is also being maintained through monthly reports in respect of mega projects. In addition, Government have drawn up Annual Action Plan which is monitored closely on a quarterly basis for timely completion of the projects.

[Ministry of Industry, Deptt. of Chemicals & Petrochemicals
O.M. No. 40012/1/87—PC.III (Pt. I) dated 22.2.1988]

Recommendation Sl. No. 11 (Paragraphs 2.42 and 2.43)

Apart from the two 12.5 MW Turbo Generators commissioned in 1982, the Company decided in December 1982 to have a techno-economic study for a 60 MW Captive Power Plant. On the basis of a study done by M/s Tata

Consulting Engineers, the Company prepared a Feasibility Report in June, 1983. The proposal to set up a 60 MW power plant at an estimated cost of Rs 72.51 crores (including foreign exchange component of Rs. 31.75 crores) was approved by the Board of IPCL on 4.5.1984, by the Public Investment Board on 6.12.1984 and was sent by the Ministry of Petroleum to the Cabinet Committee on 19.1.1985 for approval. This was finally cleared by the Government on 8th July, 1985. As stated by the Department, IPCL has been given permission to place orders for equipment in January, 1986 and according to IPCL it will take 30 months after Government's approval to commission the power plant. Thus the project initiated in December, 1982 is likely to be commissioned sometime in first half of 1988. The Committee cannot but emphasise that the project clearance should be accorded priority at all levels and the cumbersome procedures involved in the process should be streamlined with a view to reduce delays. It is needless to point out that delayed clearance of projects not only adds to the cost of the project but vitiates the viability of otherwise well thought-out project and schemes.

The Committee are not happy to note that even after the commissioning of the two 28 MW power units, IPCL will not be totally self-reliant in the matter of its power requirements. Even then a small part of its power requirements will have to be met by the Gujarat State Electricity Board. The Committee feel that once a decision has been taken to permit an undertaking to go in for captive power plant, it seems a little ironical that even after providing such a facility at huge cost, the undertaking needs to depend on the vagaries of power supplies from the State grid. This could and should have been avoided.

Reply of the Government

On the basis of the requirement of existing units of expansion new projects, the power requirement was expected to increase to 82 MW by 1987-88. IPCL submitted a proposal for setting up of 3×28 MW gas turbine associated with waste heat boiler to meet the total power requirement. IPCL has also been drawing power from Gujarat Electricity Board to the extent of 49 MW besides installing 25 MW capacity power plant (2X12.5MW T.G. Sets). The proposal of IPCL for setting up of 3×28 MW captive power plant was considered in the inter-Departmental meeting and it was felt that the capacity of 3X28 MW gas turbine generator would be rather on the high side. Even if 2X28 MW sets are installed, it was considered that it would be adequate to provide the necessary cushion for possible shutdown. The investment cost on the 2X28 MW set was indicated as Rs. 79.75 crores.

Besides, it was also felt that since IPCL will continue to draw deficit power from the Gujarat Electricity Board for which expenditure has already been incurred, this investment would go infructuous in case it was decided that to draw power from Gujarat Electricity Board. Taking all these factors into consideration, it was decided that the IPCL may be asked to submit a revised feasibility report for setting up of gas turbines of 2×28 MW each.

It would thus be seen that IPCL's power generation will be of the order of 81 MW [($2 \times 28 \times 2$ TG Sets (2×12.5 MW))] as against the requirement of 82 MW and thus the dependence on State Electricity Grid will be quite low. The petrochemical complexes are energy intensive and as such it would be better to have some captive facility of a size which is good enough to provide some flexibility in the availability of energy.

[Ministry of Industry, Deptt. of Chemicals & Petrochemicals
O.M. No. 40012/1/87—PC.III (Pt. I) dated 22.2.1988]

Recommendation Sl. No. 14 (Paragraph 2.90)

The Committee note that the DMT plant of IPCL with an installed capacity of 24,000 metric tonnes per annum was commissioned in 1973. Keeping in view the growing demand for DMT by polyester fibre units in the country, an expansion programme for raising the capacity from 24,000 to 30,000 tonnes per annum was initiated. For this purpose, a feasibility report envisaging capital investment of Rs. 2.66 crores was approved by the IPCL, Board in July, 1976. Three months after i.e. in September, 1976 the cost estimates for the expansion programme were revised to Rs. 6.42 crores. In December, 1977, the Government approved these proposals for Rs. 5.60 crores. The expansion programme anticipated to be completed by May, 1981 was, however, completed in October, 1982. The loss of production as a result of the delay in commissioning as also the CIF cost of resultant imports during 1981-82 and 1982-83 work out to Rs. 1.88 crores. This case once again illustrates lack of sense of urgency and casualness on the part of IPCL in preparing project estimates and feasibility reports. After having approved a feasibility report involving an estimated expenditure of Rs. 2.66 crores, the IPCL had to prepare a revised estimate of Rs. 6.42 crores just within 3 months of the first report. Obviously the original estimates were unrealistic and based on incomplete data. The Committee do not find any justification whatsoever for IPCL rushing through a feasibility report which had to be revised and updated within an unbelievably short duration of 3 months. This is a typical case of poor project formulation and planning on the part of a public undertaking.

Reply of the Government

Initially IPCL proposed to expand the DMT Plant capacity from 24,000 to 30,000 MTA through debottlenecking i.e. by installing some balancing equipment at an incremental cost of Rs. 2.66 crores. Simultaneously, IPCL was also examining the question of installing certain other equipments in the DMT Plant for reliable and sustained operation of the plant at the expanded capacity level. IPCL held discussions in this regard with their process licensor, M/s. Dynamit Noble. Based on these deliberations, it was considered advantageous to go in for installation of a horizontal oxidator in the DMT Plant on considerations of better and reliable performance and energy saving. The proposal in this regard was received from IPCL on September, 1976 and after due consideration it was approved by the Government on 29.12.1977. It will thus be observed that it is not as if the cost estimates for the expansion project escalated from Rs. 2.66 crores to Rs. 6.42 crores based on some concept and that both were approved within a period of 3 months.

The cost estimate of Rs. 6.42 crores approved by the Government for the first time was on the basis of qualitatively expanded scope of the project proposals.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87—PC. III (Pt. I) dated 22.2.1988]

Recommendation Sl. No. 18 (Paragraphs 2.94 and 2.95)

The Committee find though PTA is not being manufactured in India at present an industrial licence has been issued to a private sector party for the manufacture of 75,000 tonnes of PTA annually and the plant is expected to be commissioned towards the end of this year. A letter of intent for setting up of another plant at Saleempur in U.P. for manufacture of PTA has also been issued in favour of M/s. PICUP. The Committee also find that new plants based on PTA are being set up in the country because PTA is more efficient and easily available. The textile industry is very keen to switch over from DMT to PTA to keep pace with the latest technological developments in the world and to effect savings in production. In fact the new polyester units are creating facilities for the use of both DMT and PTA. The bulk of the demand of PTA is currently being met through imports and the demand has gone up at an unexpectedly faster pace.

The Committee feel that in view of the tremendous increase in demand for PTA in the textile industry and since more and more units are shifting from DMT to PTA, the latter being cheaper and cost effective, IPCL should

examine the feasibility of developing a process either for converting DMT into PTA, in consultation with their process Licensor M/s. Dynamit Noble, or should go in for second generation PTA technology before DMT becomes totally obsolete in the fast changing technological developments in this field. The Committee have been informed that IPCL was keeping in readiness to go in for conversion from DMT to PTA and would approach the Government with the proposals, as soon as they were satisfied about the need for that.

Reply of the Government

Discussions held by IPCL with Dynamit Noble do not make an economic case for converting the existing DMT plant to PTA plant. With the improvements being made to existing DMT plant in recent months and with its low capital cost per metric tonne, the Corporation does not visualise any problem in marketing its product in the foreseeable future.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87—PC. III (Pt. I) dated 22.2.1988]

CHAPTER IV

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

Recommendation Sl. No. 2 (Paragraphs 1.34 and 1.35)

The Committee feel concerned to note that the cost estimates of Olefins project and Downstream Units originally assessed at Rs. 157.50 crores in 1970-71 were initially revised to Rs. 331.93 crores in 1973-74 and were finally revised upwards to Rs. 346.33 crores against which the actual expenditure amounted to Rs. 338.35 crores. This represents an increase of 120 per cent over the original estimated cost. The main reasons for increase in the cost over the initial estimates in the case of Olefins Project have been attributed to escalation in cost of equipment, increase in the quantity of equipment, increase in customs duty and handling charges, additional systems pre-production expenses and interest. Similarly in the case of Downstream Units the increase in cost was chiefly on account of customs duty and handling charges (Rs. 12.36 crores), escalation in equipment cost (Rs. 35.08 crores), new items (Rs. 42.90 crores), quantity changes and under-estimation (Rs. 26.65 crores), additional pre-production investment and management expenses (Rs. 10.37 crores), variations in exchange rates (Rs. 7.61 crores) and contingencies (Rs. 10.47 crores). All these reasons have been repeated time and again.

The Committee have no doubt that the foremost reason for revision of cost estimates was nothing else but inadequate project formulation. The Committee feel that in the interest of expediting project implementation and keeping down the cost, the Ministry should have ensured preparation of realistic project estimates and effective monitoring through monthly or quarterly reports. The Secretary, Department of Chemicals and Petrochemicals admitted during evidence that "the two reasons which were not being gone into at the stage of the approval of the project will be plugged now by getting more realistic cost estimates as well as time schedule". It is very surprising that Government have only now realised that realistic cost estimates and time schedule were the two main essentials for approval of the projects although the Committee had stressed as far back as 1974-75 the

importance of these imperatives. The Committee have no doubt that had the IPCL and Ministry cared to implement the recommendations of the Committee in their letter and spirit, it would not have been necessary to revise the cost estimates so frequently and the huge escalations could have been avoided. It is regrettable that the recommendations of the Committee in this regard were followed more in breach than in observance resulting in extra expenditure which could have been avoided. The Committee recommend that Government may go into this aspect and fix responsibility and take further necessary action under intimation to them.

Reply of the Government

The observations made by the Committee have been noted. However, since the matters are old, it is felt that no purpose will be served by taking up the exercise to fix responsibility for non-preparation of realistic cost estimates of the projects. However, now a two stage clearance, viz. initial scrutiny of viability of project and thereafter the investment approval of the firmed up cost estimates for detailed engineering, equipments, etc., has been introduced. As a result of this, the cost estimates are now being formulated on a more realistic basis. Further, the close monitoring systems adopted have also led to implementation of projects within cost and time limits.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87—PC.III (Pt. I) dated 22.2.1988]

Comments of the Committee

[Please see paragraph No. 6 of Chapter 1 of the Report]

Recommendation Sl. No. 16 (Paragraph 2.92)

The Committee find that IPCL has undertaken a second DMT expansion project at a cost of Rs. 15.50 crores. This expansion project, which will bring up the total capacity to 40,000 MT per annum of DMT on completion is expected to be completed by 1988. The Committee hope that all necessary measures will be taken by IPCL to adhere to the time schedule for completing the expansion project with a view to avoid cost and time overruns.

Reply of the Government

The scope of the DMT expansion project is being revised to implement only the methanolysis portion of the project and other improvements leading to capacity being increased nominally from 30,000 tonnes to 32,000 metric tonnes per annum, as against the earlier expansion plan of upto 40,000 TPA. The scheme is due for completion in 1988 at a cost estimate of Rs. 6.2 crores.

2. On this recommendation Audit has observed "that the revised second DMT expansion project submitted to Government in September, 1986 for sanction has not been approved so far".

PRESENT POSITION :

The Government has informed IPCL that since the cost estimates for the revised scheme is less than 20 crores which is within their Board's power there is no need for Government specific approval subject to the condition that the scope of the project is not changed.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87—PC.III (Pt. I) dated 22.2.1988]

Comments of the Committee

[Please see paragraph No. 18 of chapter I of the Report]

Recommendation Sl. No. 17 (Paragraph 2.93)

The Committee are informed that all over the world the polyester manufacturers are changing over from DMT to PTA as the feedstock material for the production of polyester fibre. It is accepted that PTA gives superior yield and economies in operation. PTA, which is the second generation product was commercially introduced as raw material for the polyester industry in 1965 and the share of PTA has grown from that time to current level of about 55 per cent. In USA, Europe, Japan and other East Asian countries PTA is being increasingly used and among the advanced industrialised nation Japan stands out as the major country that uses only PTA as it is considered to be cost effective. In India the first plant for production of DMT with an installed capacity of 24,000 tonnes was commissioned by IPCL in 1973. The capacity of this plant was subsequently expanded at a cost of Rs. 6 crores to 30,000 tonnes. In 1975-76, in Government of India owned Bongaigaon Refinery and Petrochemicals also a DMT project with 45,000 MT capacity was taken up and commissioned in March, 1985. Permission was also given to a Company in private sector to bring a second-hand plant for DMT production in 1981-82. This was installed in 1984. Currently the IPCL are in the process of further expanding their DMT production capacity ; which is likely to be completed in 1988. In the context of the general trend in the industrial world to go in for PTA in

preference to DMT as the main feedstock for polyester industry, which is considered to be better and more efficient raw material, the Committee find it difficult to appreciate why the Government of India chose a first generation product viz. DMT and went on creating fresh and expanding existing capacities. The relative economics of the two products does not seem to have been considered at any stage with any seriousness.

Reply of the Government

Even today the relative share of usage of dimethyl terephthalate (DMT) and purified terephthalic acid (PTA) in the world for the manufacture of PSF/PFY fibres is in the ratio of 55:45. However, IPCL does not have any major plans to expand any further its capacity of DMT plant.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87—PC.III (Pt. 1) dated 22.2.1988]

Comments of the Committee

[Please see paragraph Nos. 21 and 22 of Chapter I of the Report]

Recommendation Sl. No. 19 (Paragraph 2.96)

The Committee would also like to be apprised as to how the DMT capacity created in Bongaigaon Refinery as late as in 1985 was being utilised. A similar assessment of the utilisation of the DMT capacity by the private sector company who were permitted to import a second hand plant needs to be made to ascertain how far the import of an old technology involving huge foreign exchange outgo was economically justified.

Reply of the Government

The Government has examined the utilisation of DMT capacity. The demand for DMT has picked up and it is selling at full capacity. The production of DMT in Bongaigaon Refinery & Petrochemicals Ltd. (BRPL) has picked up though the capacity utilisation compared to the installed capacity is low. BRPL is however, setting up its production unit of polyester staple fibre with captive use of DMT. Bombay Dyeing is producing close to its installed capacity. Similarly, IPCL's capacity utilisation is likely to be more than 80%. Thus, there seems to be no difficulty in the manufacture and sale of DMT.

2. However, the Audit has observed that "the Government reply does not explain how the decision was economical to import DMT technology as against PTA which was superior. The fact that they are able to sell the whole product is hardly a justification in the controlled market. The Committee's question regarding import of outdated technology has remained to be answered.

[Ministry of Industry, Deptt. of Chemicals and Petrochemicals
O.M. No. 40012/1/87—PC.III (Pt. I) dated 22.2.1988]

Comments of the Committee

[Please see paragraph No. 26 of Chapter I of the Report]

CHAPTER V

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

-NIL-

**NEW DELHI ;
July 21, 1988
Asadha 30, 1910 (S)**

**VAKKOM PURUSHOTHAMAN
Chairman,
Committee on Public Undertakings.**

APPENDIX I

MINUTES OF THE 2ND SITTING OF THE COMMITTEE ON PUBLIC UNDERTAKINGS HELD ON 10.6.1988

The Committee sat from 16.00 hrs. to 16.45 hrs.

PRESENT

Shri Vaikom Purushothaman—*Chairman*

MEMBERS

2. Shri K.P. Singh Deo
3. Shri S.G. Gholap
4. Shrimati Sheila Kaul
5. Shri Mohd. Mahfooz Ali Khan
6. Shri Keshorao Pardhi
7. Shri Balwant Singh Ramoowalia
8. Shri K.H. Ranganath
9. Shri Harish Rawat
10. Shri E. Ayyapu Reddy
11. Shri S.D. Singh
12. Prof. Saif-ud-din Soz
13. Shri Dipen Ghosh
14. Shri Kamal Morarka
15. Shri V. Narayanasamy
16. Shri Raof Valiullah
17. Shri Virendra Verma

SECRETARIAT

1. Shri R.D. Sharma—*Director*
2. Shri Rup Chand—*Under Secretary*

The Committee considered draft Action Taken Report on 15th Report of Committee on Public Undertakings (1986-87) on Indian Petrochemicals Corporation Limited—Project Implementation and adopted it, subject to the modifications indicated in the *Annexure*.

The Committee authorised the Chairman to finalise the Report on the basis of factual verification by Ministry of Industry (Deptt. of Chemicals & Petrochemicals) Indian Petrochemicals Corporation Ltd. (IPCF) and Audit and to present the same to Parliament.

The Committee then adjourned.

ANNEXURE

MODIFICATIONS/AMENDMENTS MADE BY THE COMMITTEE IN THE DRAFT REPORT ON ACTION TAKEN ON 15TH REPORT (1986-87)

1. After Paragraph 2 add the following Paragraphs 3 to 6

*"A. Responsibility for non-preparation of realistic cost estimates
of projects*

Recommendation Sl. No. 2 (Paragraphs 1.34 and 1.35)

3. The Committee had observed that the cost estimates of Olefins Project and Downstream Units originally assessed at Rs. 157.50 crores in 1970-71 were initially revised to Rs. 331.93 crores in 1973-74 and were finally revised upwards to Rs. 346.33 crores against which the actual expenditure amounted to Rs. 338.35 crores. This represented an increase of 120 per cent over the original estimated cost. The Committee felt that in the interest of expediting project implementation and keeping down the cost, the Ministry should have ensured preparation of project estimates and effective monitoring through monthly or quarterly reports.

4. The Committee were also surprised to find that Government had only now realised that realistic cost estimates and time schedules were the two main essentials for approval of the projects although the Committee had stressed as far back as 1974-75 the importance of these imperatives. The Committee felt that had the IPCL and Ministry cared to implement the recommendations of the Committee in their letter and spirit, it would not have been necessary to revise the cost estimates so frequently and the huge escalations could have been avoided. The Committee recommended that Government might go into this aspect and fix responsibility and take further necessary action under intimation to the committee.

5. Government have in their reply stated that the observations made by the Committee have been noted. However, since the matters are old, it is felt that no purpose will be served by taking up the exercise to fix responsibility for non-preparation of realistic cost estimates of the projects. However, now a two stage clearance viz. initial scrutiny of viability of project and

thereafter the investment approval of the firmed up cost estimates for detailed engineering, equipments, etc., has been introduced. As a result of this, the cost estimates are now being formulated on a more realistic basis. Further the close monitoring systems adopted have also led to implementation of projects within cost and time limits.

6. The Committee are not satisfied with the Government reply that "since the matters are too old, no purpose will be served by taking up the exercise to fix the responsibility for non-preparation of realistic cost estimates of the project." While taking a serious view of the non-compliance of their recommendation, the Committee strongly desire that the Government should immediately investigate into the matter with a view to fixing responsibility even at this late stage for the preparation of unrealistic project estimates which ultimately resulted in an increase of 120% over the original estimated cost. The Committee would like to be apprised of the result of enquiry made in the matter within 3 months of the presentation of this report."

II. Renumber the existing paragraph Nos. 3—22 as 7—26.

III. Add at the end of renumbered paragraph 9

"Within three months of the presentation of the Report to Parliament."

IV. Substitute the recommendation made in paragraph 22 (renumbered as 26) as under :

"26. The Government's reply is silent with regard to Committee's recommendation as to how far the import of old technology involving huge foreign exchange was economically justified. The Government reply has also not explained as to how the import of DMT technology was economical and superior to that of PTA technology. The Committee are unable to appreciate the circumstances in which IPCL went on increasing its DMT capacity with outdated technology while at the same time the private companies were being permitted to set up plants based on imported PTA technology which has been admitted to be more efficient. While reiterating their original recommendation, the Committee would like the Government to make an immediate assessment of the utilisation of DMT capacity by Private Sector Company and also justification for the import of second-hand plant involving huge foreign exchange by that company. The Committee would also like to be apprised of the result of this assessment within three months of the presentation of this Report."

APPENDIX II

(Vide Para 3 of Introduction)

Analysis of action taken by Government on the Recommendations contained in the 15th Report of the Committee on Public Undertakings (Eighth Lok Sabha)

I. Total number of recommendations made	19
II. Recommendations that have been accepted by the Government (Vide recommendations at S. Nos. 1, 3, 5-10, 12, 13 and 15)	11
Percentage to total	57.89%
III. Recommendations which the Committee do not desire to pursue in view of Government's replies (Vide recommendations at S. Nos. 4, 11, 14 and 18)	4
Percentage to total	21.05%
IV. Recommendations in respect of which replies of Government have not been accepted by the Committee (Vide recommendations at S. Nos. 2, 16, 17 and 19)	4
Percentage to total	21.05%
V. Recommendations in respect of which final replies of Government are still awaited.	— Nil