3RD MEETING

HELD AT

DEPARTMENT OF PETROLEUM, MOPC&F, SHASTRI BHAWAN, NEW DELHI

ON

NOVEMBER 9, 1981

3rd

NO.J-13013/3/81-GEN.
GOVERNMENT OF INDIA
MINISTRY OF PETROLEUM, CHEMICALS & FERTILIZERS
(DEPTT. PETROLEUM)
*****

New Delhi, the 16th December, 1981.

1. All the Members of the Committee.

2. Shri V.V. Krishnan, Executive Director, Indian Petrochemicals Corporation Limited, P.O. Petrochemicals Distt. Baroda (Gujarat).

3. Shri B.R. Chaudhary Manager, Engineers India Limited, 4th Floor, PTI, Building, 4-Sansad Marg, New Delhi.

Subject: Brief Record of the 3rd meeting of Scientific Advisory Committee for Department of Petroleum held on 9th November, 1981.

Sir,

A copy of the draft record of the Third meeting of Scientific Advisory Committee held on 9th November, 1981 is sent herewith. Comments, if any, may kindly be furnished immediately.

T.N. Parameswaran

(T.N. PARAMESWARAN)
UNDER SECRETARY TO THE GOVERNMENT OF INDIA.
TELE.NO. 389297.

Encl: As above.

Copy with a copy of enclosures forwarded to :-

1. All JSs
2. Adv. (Refineries)
3. Adv. (Petro-chemicals)
4. Private Secretary to Secretary (P)

T.N. Parameswaran

(T.N. PARAMESWARAN)
UNDER SECRETARY TO THE GOVERNMENT OF INDIA.

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Brief Record of the 3rd meeting of Scientific Advisory Committee for Department of Petroleum

Venue: Conference Room, Department of Petroleum, Shastri Bhavan, New Delhi.

Date: November 9, 1981.

(A list of the participants is attached (annexure-I)

The Committee confirmed the minutes of the 2nd meeting held on October 5, 1981. The item-wise action taken on the various decisions taken during the last meeting were then discussed. The status of the actions taken and the further work to be done for the same are briefly given below:-

1. Utilisation of C_2/ C_3/ C_4/ fraction Cat Crackers

a) IPCL informed that as per their analysis the demethanizer top may not contain more than 600 MTA of ethylene and in view of this, it will not be economical to recover pure ethylene. This was accepted.

b) For the production of Ethyl Benzene from dilute ethylene available from FCC off gases, Adviser (PC) was requested to cont-act Badger giving specifications of the feedstock for their interest in offering the technology. He was also requested to contact NCL (Poona) for the work done in this field.

2. Filled Polypropylene

It was decided that IPCL Marketing and R&D Departments would contact the private sector companies engaged in the development of the filled grades to discuss the basis of the technology developed and transportation and storage problems for utilising PP powder and to determine what need to be done and by whom. This is to be done within a period of two weeks

3. Butyl Rubber Technology.

The discussions on this subject revealed that the Precess Chemistry was not as difficult as the Engineering involved in this technology. Secretary (Petroleum) informed that the licensors in USA and Canada may not be prepared to offer the technology and we may have to pursue with USSR who are willing to license the technology. IPCL was requested to pursue the procurement of butyl rubber samples from USSR Trade Commission to carry out extensive testing of the samples. IPCL

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was also requested to prepare along with the EIL a feasibility report on the design of a pilot reactor and accessories of an appropriate size for process development work on butyl rubber. They were also requested to contact IIP and NCL for the same.

4. ISRO Spin off technology for Elastomer/Plastic/Thermoset Research

It was decided that IPCL's R&D and P&D/Marketing personnel would hold detailed discussions with ISRO to examine possibilities of commercialisation of various products of ISRO for non-space applications. This is to be done within a period of one month.

5. Product pattern for Maharashtra Gas Cracker Complex

The Committee was informed that, based on the revised estimates, ethylene availability from the cracker may be of the order of 400,000 MT per annum and this may support a 100,000 MTA of Alfa Olefins plant in addition to the product pattern given earlier.

6. Higher Alfa Olefins

It was felt that the preliminary project formulation report on Higher Alfa Olefins should cover various application areas and demand potential for the same. The relative economics of the manufacture of LAB by the established route versus that based on Alfa Olefins should also be assesed. Adviser (PC) was requested to decide about an agency to undertake this work and the report to be submitted within a couple of months. It was decided that R&D work on relevant aspects should start after the project formulation report is studied.

The Committee felt that the question of alternatives for LAB feedstock (Kerosene) has to be looked into urgently. It was decided that EIL/IPCL should undertake a kerosene audit/resource investigations.

7. EIL Research Centre

A brief presentation of the feas-ibility report for the R&D Centre was made by the EIL. The members, in general, agreed that a facility of the kind proposed by EIL would be highly desirable and would be very useful to supplement the R&D work being done at various national laboratories. The members, however, felt that it would be desirable that a certain portion of the time of the R&D Centre is made available for undertaking investigations on a contract basis for other organisations within the country.

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The members raised a number of points on financing and locational aspects of the Centre. EIL was requested to bring out clearly the financial aspects connected with their proposal. It was agreed that the C&MD of EIL would discuss the entire proposal with the Secretary (Petroleum) and the proposal may accordingly be re-oriented to take into account the various points raised by the members. It was also agreed that Dr. Mukhopadhya and Mr. Choudhury of EIL will discuss the technical details with Prof. M.M. Sharma.

IPCL's Report on Catalysts Development and Testing.

IPCL explained briefly the various aspects of the Report. After a detailed discussion it was agreed that the following points should be included in the final report which would be submitted for consideration at the next meeting:

(a) The mono/bi-metallic reforming catalysts requirements may be segregated and projected. It was agreed that Adviser (Refineries) would convene a meeting with IIP, ACC and MRL on the above subject. Regarding F.C.C., catalysts, there was a general consensus that possibility of manufacture of this catalyst in the country exists but costs are going to be very high.

(b) The areas of Olefin metathesis reaction, oxidative dehydrogenation, strategy for the use of noble metal catalyst, slurry catalyst, etc. relevant to Indian conditions should be examined in the report. Also, possibility of commercial exploitation of the facilities should be borne in mind.

With the above comments, it was agreed that the IPCL's proposal, in principle, should be supported.

IPCL Research Centre

The physical facilities of the IPCL Research Centre, its programmes and proposed programmes were explained by IPCL. The Committee felt that the IPCL Reaearch Centre, being the only Petrochemical Research Centre in Public Sector in India, its activities and growth should be commensurate with the national objectives implied in its establishment. In the area of Polyolefins, the Committee expressed that urgent R&D work is needed for all polyolefins, especially HDPE and LLDPE. IPCL was asked to prepare a report on the strategy for R&D in processes for polyolefin manufacture (with emphasis on HDPE and LLDPE) and submit to the Committee for its next meeting by December 1981. The strategy should take into account the manufacturing programme being considered for the proposed petrochemical complexes likely to come up in the near future. It was also agreed that a strategy for PVC should be evolved.

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The Committee felt that in the area of synthetic fibres, very little organized research is being conducted in the country at the moment. IPCL in collaboration with FIL and Sasmira may study the problems associated with the Chemistry and Technology of synthetic fibres including spinning and finishing operations. The plan of action for this should be submitted to the Committee by the end of next month.

It was emphasised that IPCL should look into the important area of research activities with the absorption of technology. It was emphasised that IPCL should concentrate research activities in the chemical field and not in micro-biological processes.

Next Meeting:

It was decided that the next meeting of the Committee should be held on the 9th and 10th January, 1982.

LIST OF PARTICIPANTS WHO ATTENDED, THE THIRD MEETING OF SCIENTIFIC ADVISORY COMMITTEE FOR THE DEPARTMENT OF PETROLEUM HELD ON 9TH NOVEMBER, 1981.

Sl. No.	Name	Designation/Organisation
1.	Prof. M.M. Sharma	Professor of Chemicals Engineering, Deptt. of Chemical Technology, Bombay-15.
2.	Dr. Nityanand,	Director, Central Drug Research Institute, Lucknow.
3.	Shri V.B. Gupta	Professor of Textile Engg. Indian Institute of Technology, Delhi.
4.	Dr. B.D. Tilak	Chief Coordinator, Centre for Application of Science and Technology for Rural Development, Pune.
5.	Prof. Sukhdev	Director, Malti Chem Laboratory, Baroda
6.	Dr. C.R. Saxena	Dy. Director, Regional Research Laboratory, Hyderabad.
7.	Dr. V.S.B. Rao	Asstt. Director RRL, Jorhat.
8.	Shri K.K. Bhattacharya	Dy. Director, Indian Institute of Petroleum.
9.	Shri I.S. Bhardwaj	Head, Research Centre, IPCL
10.	Shri A.A. Krishnan	Executive Director (P), IPCL
11.	Shri T.S.R. Prasada Rao	Senior Scientist, IPCL
12.	Dr. S. Sivaram	Principal Research Officer, IPCL
13.	Shri K.N. Ponnani	Research Officer, IPCL.
14.	Dr. Y.N. Sharma	Principal Research Officer, IPCL
15.	Shri B.R. Choudhury	Manager, Engineers India Limited, N. Delhi
16.	Shri D.N. Rimani	SSE, Engineers India Limited, New Delhi.
17.	Shri K.C. Mehta	Senior Research Manager, IOC (R&D)

DEPARTMENT OF PETROLEUM

1.	Shri L. Kumar	Secretary
2.	Shri M.P. Modi	Joint Secretary
3.	Dr. K. Aghoramurty	Adviser
4.	Dr. G. Jayaramarao	Adviser
5.	Smt. Lalitha B. Singh	Project Officer
6.	Shri S.K. Luthra	Project Officer
7.	Shri F.B. Virani	Project Officer.