

**2<sup>ND</sup> MEETING**

**HELD AT**

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

**ON**

**OCTOBER 5, 1981**



2nd

BRIEF RECORD OF THE SECOND MEETING OF SCIENTIFIC ADVISORY  
COMMITTEE OF DEPARTMENT OF PETROLEUM

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

Date : 5th October, 1981

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

The Committee confirmed the minutes of the 1st meeting held on June 22, 1981.

The Committee deliberated on various items given in the Agenda Note previously circulated. The summary of the discussions, itemwise, is given below:-

1. Utilisation of  $C_2/C_3/C_4$  fraction from cat crackers
  - a.1 Various alternatives of utilising the ethylene in the cat cracker gases were discussed at considerable length and it emerged that the two possibilities are open for consideration. The first one is using the lean stream for direct conversion to ethyl benzene or recovering pure ethylene from the stream to use in the manufacture of polyethylene or EDC. It was decided that the following studies may be undertaken:
    - i) At Gujarat IPCL would require pure ethylene for using in debottlenecking of LDPE plant. IPCL may prepare a study on the cost of purification of  $C_2$  stream from the cat cracker gases.
    - ii) An engineering company may be requested to examine the relative economics of recovery of pure  $C_2$  versus making ethyl benzene at location. It was also decided that the Department of Petroleum will review capabilities and quality of work of various

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design engineering companies for commission of this study from CIOB funds.

## s.2 C<sub>3</sub>/C<sub>4</sub> utilisation

Various considerations related to the availability of cat cracker streams, other raw materials, such as chlorine, sulphuric acid, ammonia, Syn. gas etc. and demand for the products were discussed in detail. The Committee deliberated relative merits of production of acrylonitrile vis-a-vis PP and it was the general consensus that production of PP may be more desirable taking into account the growth pattern, easy availability of acrylonitrile in the international market, etc. It was also decided that IPCL would submit a note on manufacture of filled PP grades in India for consideration in the next meeting.

## Suggested outlets for propylene/butylene

The following utilisation pattern at each FCC location was suggested:

- Gujarat: Propylene for expansion of PP plant of IPCL at Baroda from 30,000 to 55,000 MTW capacity.
- Maharashtra: The entire quantity to be pooled with propylene available from the proposed gas cracker in Maharashtra to sustain a PP plant of 60,000 MTW and about 10,000 tonnes of propylene for sale to Herdillia.
- Cochin: Propylene for the production of phenol by H&C.
- Madras: Propylene for the production of allyl chloride, Epichlorohydrin, propylene oxide/glycol and MEK.



Vizag: Production of exo-alcohols using both  $C_3/C_4$  streams.

Mathura: Production of exo-alcohols from propylene by pooling of propylene from Gujarat, if necessary.  $C_4$  stream for production of butadiene for merchant sale. For setting up of butyl rubber manufacturing facilities, it was decided that R&D work for development of the technology should be started with funds from SIDB or other source. Simultaneously, attempt should be made to explore the availability of technology from USSR and USA.

2. Production Pattern at the proposed Petrochemical complex at Usar in Maharashtra

The production of LDPE, Et/MEG, PP and styrene/polystyrene as proposed for the complex was accepted.

3. Higher alpha olefines

It was the general consensus that the manufacture of synthetic detergents from higher alpha olefines represents an attractive proposition and should be studied further. It was agreed that a preliminary project formulation report on this subject should be prepared as early as possible. It was also decided that various aspects of R&D work on alpha olefines would also be considered by Scientific Advisory Committee at a later date.

The proposal of BPCL regarding the conversion of  $C_{16}-C_{19}$  paraffins to olefin sulphates by the route proposed was not attractive and hence it was suggested that this need not be considered for making detergents.



4. Catalyst Development and Testing

It was decided that this item would be discussed in the next meeting.

5. EIL Engineering Experimental Centre

It was agreed in principle that the setting up of the proposed Centre by EIL was acceptable. However, the details would be discussed in the next meeting of the Committee.

6. Computer aided Design - Development of Simulation Package and Collection of data on selected coal chemicals

It was noted that this item did not fall within the purview of the Committee. The party may be asked to send their proposal to the Department of Science and Technology.

7. Preparation of Status reports

It was decided to discuss this item in the next meeting.

8. Secretary(P) suggested that the Scientific Advisory Committee may consider the product pattern of Haldia Cracker keeping in view the product pattern of Gujarat cracker as well as minimum downstream units for Haldia cracker to make it more viable.

Secretary(P) also suggested that R&D programme required for synthetic fibres and polymers may be discussed in a separate meeting.

File No. J-13013/3/81-Gen.

28.10.1981

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(Annexure - I)

2nd meeting of Scientific Advisory Committee of  
Department of Petroleum on 5.10.1981

Sl. No.	Name	Designation	Organisation
1.	Sh. M.M. Sharma	Professor	B.U.D.C.T. Bombay
2.	Sh. V.B. Gupta	Professor	I.I.T., Delhi
3.	Sh. I.B. Gulati	Director	IIP, Dehradun.
4.	Sh. B.D. Tilak	Chief Coordinator Castford	Indian Insti- tute of Education
5.	Sh. S. Varadarajan	Chairman	I.P.C.L.
6.	Sh. J.N. Baruah	Acting Director	RRL, Jorhat
7.	Sh. Loveraj Kumar,	Secretary	Deptt. of Petroleum
8.	Sh. M.P. Modi	Jt. Secretary	Deptt. of Petroleum
9.	Sh. K. Aghoramurthy	Adviser(PC)	- do -
10.	Sh. G. Jayaram Rao	Adviser(K)	- do -
11.	Sh. S.S. Sachdeva	Head	Saloom Pur Petrochemical Project, Task Force.
12.	Sh. D.N. Rihani	Sr. Supr. Engg.	E.I.L.
13.	Sh. K.C. Mehta	Sr. Research Manager	IOC, R&D Faridabad

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**3<sup>RD</sup> MEETING**

**HELD AT**

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

**ON**

**NOVEMBER 9, 1981**