



PS - GC file

CHT/AKA/GC/1492

Date: 12<sup>th</sup> October 2009

To

All Members of the Governing Council / General Body of CHT  
(As per list enclosed)


Dear Sir,

Sub: **Minutes of 28<sup>th</sup> Meeting of the Governing Council (GC) of CHT**

Please find enclosed the Minutes of the 28<sup>th</sup> Meeting of Governing Council (GC) of CHT, held on 18<sup>th</sup> September 2009 at Shastri Bhavan, MOP&NG, New Delhi, duly approved by the Chairman, Governing Council of CHT for kind information and necessary action.

Thanking you,

Yours faithfully,

 12/10/2009  
(B.D. Ghosh)

Executive Director (Offtg) /  
Member- Secretary, Governing Council-CHT.

Encl.: As above

**Members of the Governing Council / General Body of CHT**

1. Shri R.S.Pandey,  
Secretary,  
Ministry of Petroleum & Natural Gas,  
Shastri Bhavan,  
**New Delhi-110 001**
2. Shri S.Sundareshan,  
Additional Secretary,  
Ministry of Petroleum & Natural Gas,  
Shastri Bhavan,  
**New Delhi-110 001**
3. Shri P.K.Sinha,  
Additional Secretary & FA,  
Ministry of Petroleum & Natural Gas,  
Shastri Bhavan,  
**New Delhi-110 001**
4. Shri L.N.Gupta,  
Joint Secretary (Refineries),  
Ministry of Petroleum & Natural Gas,  
Shastri Bhavan,  
**New Delhi-110 001**
5. Shri Apurva Chandra,  
Joint Secretary (Marketing),  
Ministry of Petroleum & Natural Gas,  
Shastri Bhavan,  
**New Delhi-110 001**
6. Shri D.N.Narasimha Raju,  
Joint Secretary (E),  
Ministry of Petroleum & Natural Gas,  
Shastri Bhavan  
**New Delhi-110 001**

7. Shri Arun Kumar,  
Secretary,  
Oil Industry Development Board,  
301, World Trade Centre,  
3<sup>rd</sup> Floor, Babar Road,  
**New Delhi-110 001**
8. Shri S.Behuria,  
Chairman,  
Indian Oil Corporation Ltd.,  
3079/3, Sadiq Nagar,  
J. B. Tito Marg,  
**New Delhi - 110 049**
9. Shri Arun Balakrishnan,  
Chairman & Managing Director,  
Hindustan Petroleum Corporation Ltd.  
Petroleum House,  
17, Jamshedji Tata Road,  
**Mumbai-400 020**
10. Shri Ashok Sinha,  
Chairman & Managing Director,  
Bharat Petroleum Corporation Ltd.  
Bharat Bhawan, 4 & 5 Currimbhoy Road,  
P.O. Box No. 688,  
Ballard Estate,  
**Mumbai-400 038**
11. Shri K.K.Acharya,  
Managing Director,  
Chennai Petroleum Corporation Ltd.  
536, Anna Salai,  
Teynampet,  
**Chennai-600 018**

12. Shri B.C.Tripathi,  
Chairman & Managing Director,  
Gas Authority of India Limited,  
16, Bhikaiji Cama Place,  
R.K.Puram,  
**New Delhi-110 066**
13. Shri M.Rohatgi,  
Chairman & Managing Director,  
Engineers India Ltd.  
EIL Bhawan, 1, Bhikaiji Cama Place,  
**New Delhi-110 066**
14. Shri B.K.Das,  
Managing Director,  
Numaligarh Refinery Limited,  
6<sup>th</sup> Floor, Tolstoy House,  
15 - 17, Tolstoy Marg,  
**New Delhi-110001**
15. Shri U.K.Basu,  
Managing Director,  
Mangalore Refinery & Petrochemicals Ltd.,  
Regd. Office: Kuthethoor,  
**P.O. Via Katipalla,**  
Mangalore - 575 030
16. Dr.M.O.Garg,  
Director,  
Indian Institute of Petroleum,  
P.O. Mohkampur,  
**Dehradun-248 005**
17. Shri B.D.Ghosh,  
Executive Director (Offtg.) / Member - Secretary, Governing  
Council,  
Centre for High Technology,  
5th Floor, Core -6, SCOPE Complex,  
Lodhi Road,  
**New Delhi-110 003**

**Minutes of the 28<sup>th</sup> Meeting of the Governing Council (GC) of  
Centre for High Technology (CHT) held on 18<sup>th</sup> September 2009 at  
Shastri Bhavan, MOP&NG, New Delhi**

- 1.0 Shri S.Sundareshan, Additional Secretary, P&NG chaired the Meeting. The list of the participants is **annexed**.
- 2.0 Shri B.D.Ghosh, Executive Director (Offtg), CHT welcomed the Chairman and Members of the Governing Council and other participants to the Meeting.
- 3.0 Chairman, Governing Council opened the proceedings with query on achievements and value addition by CHT. ED, CHT mentioned that CHT was created as a dedicated technology cell for development of own capabilities and competence for self reliance in the hydrocarbon sector. CHT has been associated in assessment, adoption and development of technologies for refineries, performance evaluation and improvements, dissemination of information, centralised pool / data base, various programmes of MoP&NG, fuel quality improvement, R&D Projects, etc.
- 4.0 Director (R) IOC said that in the initial days no forum was available where information / data on process units of Indian Refineries was available. CHT filled that void. CHT coordinated for all the refineries and brought in international developments and practices.

MD CPCL said that CHT has undertaken Benchmarking of all the PSU Refineries for two consecutive years as well as gap bridging exercise at four refineries, which has been beneficial to our refineries.

Chairman expressed the need to review the utility and contributions of CHT.

**5.0 Confirmation of the Minutes of the last (27<sup>th</sup>) Governing Council (GC) meeting (Agenda Item No. 1.0):**

Since no comments were received on MOM of 27<sup>th</sup> GC, ED CHT requested to confirm the minutes.

Joint Secretary (R) mentioned that IRBIP Phase-II Agreement signed between CHT and Shell GSI on 24<sup>th</sup> July 2008 for the four coastal refineries was not put up to the earlier GC for approval. CHT clarified that only after the go-ahead given by the respective oil companies, the agreement was signed.

*The Minutes of the Meeting circulated by CHT vide letter No. CHT/AKA/GC/442 dated 9<sup>th</sup> July 2008 were confirmed and adopted by GC.*

**6.0 Review of Action Points of the 27<sup>th</sup> GC meeting (Agenda Item No. 2.0):**

The following points emerged out of discussions on Actions:

**6.1 Integrated Refinery Business Improvement Programme (IRBIP) Phase-I at BPCL Kochi, IOC Mathura, CPCL Manali and HPCL Visakh through Shell GSI (Agenda Item No. 2.1):**

6.1.1 CHT explained the status of approved projects being implemented at the four refineries including benefits, schedule of implementation and final completion under IRBIP Phase-I. Revised total net benefit of approved PFIs for all 4 refineries amounts to 85 MM US\$ / year (36 cents / bbl). These PFIs are expected to be implemented by mid 2010 except for PFIs which would require shutdown.

6.1.2 On a query from the Chairman regarding the benefits IRBIP Phase-I has given to Refineries, Director (R) BPCL explained about the process and the specific schemes Shell has suggested to BPCL Kochi and that implemented.

Some of such schemes are minimisation of product quality give-away, yield improvement for Heavy Naphtha & VGO, reducing flare purge gas rates, reliability improvement of critical equipment etc. The benefits are also replicated in other refineries.

6.1.3 Director (R) IOC mentioned that Indian knowledge and available expertise in the field is limited. IOC refineries themselves are implementing various performance improvement schemes, but if we can capture better knowledge, experience and advice to do even better there is no harm in lining up foreign consultant. Even today, process technologies are being imported as no indigenous technology is available. Chairman GC agreed with the views expressed by Director (R) IOC.

6.1.4 JS (R) said that there is a need to document the indigenous technologies developed and their implementation. CHT informed that the Scientific Advisory Committee (SAC) has formed Committees on commercialization of R&D projects.

6.1.5 CHT was advised to document the benefits of IRBIP Phase-I and share the same with all refineries.

6.2 **Manpower Requirement of CHT** (Agenda Item No.2.4):

Chairman informed that the issue of availability of manpower vis-à-vis its requirement by CHT will be discussed in a separate meeting and thereafter, appropriate view will be taken.

6.3 **Integrated Refinery Business Improvement Programme (IRBIP) under Phase-II** (Agenda Item No.2.5):

6.3.1 ED, CHT explained the status of Business Improvement programme at 4 coastal refineries under Phase-II. For the

IRBIP Phase-II fresh global 'Expression of Interest' (EOI) has been invited as per the advice of MOP&NG. It was informed that EOI has been floated on 29<sup>th</sup> June 2009. Offers from 4 parties viz. KBC, DNV, Shell and Exxon Mobil KBR were received against the EOI. These parties were short-listed after joint review by CHT, BPCL, HPCL and MRPL and the three parties except DNV were found meeting the required criteria. Bid document has been prepared jointly with the participating oil companies and is under finalisation to invite tender under two bid system.

6.3.2 Director (R) IOC said that IOC Haldia Refinery can-not be included for Phase-II performance improvement programme as number of major projects are under implementation which will be commissioned by 2010. This will result in change of base line data and take time for stabilization.

6.3.3 CHT said that the Phase-II exercise is taken up on centralised basis based on the requests of OMCs. Further, for more than one refinery, we can get better terms and bargain as well as sharing the improvement / recommendations among refineries.

6.3.4 *The GC decided that OMCs / refineries having constraints in participation in the IRBIP Phase-II programme through CHT may advise CHT within the next 15 days.*

6.4 **Coal to Liquid Fuels Technology Development by EIL (R&D) and BPCL (R&D) (Agenda Item No. 2.6):**

6.4.1 CHT informed that MOU for the project has been signed and 1<sup>st</sup> payment released. Major activities under the project are Mathematical model for FT reactor and basic

flow sheet development, hydrodynamics simulation using CFD, Syn gas clean up and conditioning and preparation of process design package and costing of demonstration plant. The project will also involve setting up of experimental facilities for FT catalyst development, kinetic and Hydrodynamic study, pilot facility for gasifier, process parameter optimisation and product characterisation.

6.4.2 EIL mentioned that the work for the project will be undertaken at two locations i.e. EIL Gurgaon and BPCL Greater Noida.

6.5 **Participation in joint studies under Asia-Pacific-Partnership (APP6) on 'Carbon capture & storage and IGCC technology' (Agenda Item No.2.8):**

CHT informed that MOE&F has advised CHT to approach Ministry of Power, who is the nodal agency for these identified projects. Also CHT proposes to join the activities of International Sustainable Energy Exchange (ISEE) under IFQC as well as UNECE committee on sustainable energy to address the subject issue.

6.6 **Organisation of 15<sup>th</sup> Refinery Technology Meet (RTM) during 2009 (Agenda Item No. 2.9):**

CHT informed that 15<sup>th</sup> Refinery Technology Meet is organised in association with Chennai Petroleum Corporation Limited from 5-7<sup>th</sup> November 2009 at Mahabalipuram, Chennai. The theme of the RTM is "Harvesting Excellence through Knowledge Partnership: Challenges for the Hydrocarbon Sector".

6.7 **Organising Workshop on "Low Carbon Fuels and Emissions" in association with International Fuel Quality Centre (IFQC) (Agenda Item No. 2.10):**

CHT informed that focus would be on 'Hydrogen Energy'. As the nodal agency of MOP&NG for Hydrogen Corpus Fund (HCF), CHT would hold a Workshop with all the stake holders to initiate action and evolve a plan for development of hydrogen energy.

**7.0 New Proposals** (Agenda Item No. 3.0):

**7.1 Proposal for Technical Services Agreement (TSA) with world renowned and reputed consultant** (Agenda Item No. 3.1):

ED, CHT informed that Technical Services Agreement between CHT and BP, Caltex and UOP USA were very useful in the past in providing technical advice, assistance and consultation, supply of standard specifications and best practices etc to our refineries and GAIL on man-hours basis.

In order to provide technical services on a centralised basis to the industry, CHT proposes to engage a major operating company-cum-reputed service provider on a limited tender basis, since no such arrangement is in place after March 2007.

Chairman observed that since the refineries have not given their requisition explicitly for engagement of a TSA, the proposal cannot be accepted for now.

*After receiving the feedback from refineries, CHT may again approach GC for consideration of the proposal.*

**7.2 Proposal for Commercialisation of CHT / OADB sponsored R&D projects / Technologies** (Agenda Item No. 3.2):

CHT informed that various R&D projects were taken up by IIP, EIL, IOC (R&D) with OADB funding which have potential for commercialization. Reference was made to the recommendations of Working Group constituted by Scientific Advisory Committee (SAC) on acceptance of technology based on which it is proposed to constitute a dedicated committee /

consortium under CHT with all participating companies to draw action plan to exploit commercialization aspects.

*Governing Council accorded is approval for constituting a Committee / Consortium under CHT to exploit commercialisation of completed R&D projects.*

**7.3 Proposal for Organising 16<sup>th</sup> Refinery Technology Meet (RTM) during 2010 (Agenda Item No. 3.3):**

ED, CHT informed that as a part of dissemination of information about latest developments and recent trends in the field of downstream hydrocarbon sector, CHT has been periodically organising Refinery Technology Meet on various Themes of immediate relevance to the Oil Industry.

CHT now proposes to hold the 16<sup>th</sup> RTM in association with Indian Oil Corporation Limited, the principal sponsor, in 2010. The expenditure for organising the Refinery Technology Meet is expected to be Rs.20 Lakhs, which will be shared by CHT and IOC on 50:50 basis.

*GC approved the CHT proposal for organising the 16<sup>th</sup> Refinery Technology Meet during 2010 in association with Indian Oil Corporation Limited involving contribution of Rs.10 Lakhs each from CHT and IOC.*

**7.4 Proposal for Performance Audit of Refineries (Agenda Item No. 3.4):**

ED, CHT informed that CHT has conducted energy audit and H<sub>2</sub> management studies earlier jointly with EIL. Based on the benchmarking exercise / IRBIP through Shell and suggestions made in various Activity Committee Meetings, CHT now proposes to undertake performance audit of PSU refineries to identify gaps for improvements. CHT proposed formation of Joint Performance Audit teams with experts from industry, EIL

for formulating methodology including development of data formats, data collection and validation, programme finalisation and audit.

*GC approved the CHT proposal to undertake Performance Audit of PSU Refineries to identify performance gaps for improvements through Joint Audit Teams constituted with experts from the industry.*

**8.0 Research & Development Activities (Agenda Item No.4.0):**

- 8.1 ED, CHT briefed the Governing Council about the activities of Scientific Advisory Committee (SAC) on Hydrocarbons of MOP&NG, Hydrogen projects recommended for funding from Hydrogen Corpus Fund and CTL project for funding through OADB / CHT.
- 8.2 ED, CHT briefed about the strategically important on-going Synthetic Aviation Lubricant (SAL) project funded both by CHT and participating organisations is being jointly executed by six organisations viz. IICT, IOCL-R&D, NAL, HAL, GTRE and CEMILAC which is expected to be completed by December 2009.
- 8.3 Governing Council was also appraised about the progress of nine other ongoing R&D projects funded by CHT / OADB. IIP mentioned that projects 'Development of Process for Oxidative Desulphurisation of Diesel' and 'Development of Polymer Modified Bituminous Binder' have been completed. There is no progress in the IIP project 'Development of Bio-catalytic Process for Desulphurisation of Diesel'. Other projects are at different stages of implementation in various CSIR laboratories, Academic Institutions and Research Organisations.

**9.0 Other Activities of CHT (Agenda Item No.5.0):**

- 9.1 **Status of Review of Auto Fuel Policy by the Committee constituted by MOP&NG (Agenda Item No.5.1):**

ED, CHT explained that Review of Auto Fuel Policy by the Committee constituted by MOP&NG is to be based on the Source Apportionment studies undertaken by various agencies in six cities and monitored by Ministry of Environment & Forests (MOE&F) and other relevant materials. Since source apportionment study report is not made available by MOE&F, only Interim report based on available data could be submitted by the three members Committee to MOP&NG in October 2008. Final report will be submitted only after availability of MOE&F study report.

Mandate of the Committee was also expanded to include LPG / CNG / H<sub>2</sub>-CNG as an auto fuel in final report. The discussions have been completed and the relevant report is expected to be submitted to MOP&NG by end September 2009.

**9.2 Report on other activities of CHT** (Agenda Item No. 5.2 and 5.3):

Other activities undertaken by CHT during the year 2008-09 and April-August 2009 were also presented. These included Activity Committee Meetings, CHT publications, MOP&NG Awards, Seminar / workshop on Pipeline operations and Quality Management, review of application for foreign technology collaboration and essentiality certificate, compilation and analysis of physical performance data of Refineries for QPR meeting at MOP&NG etc.

**10.0 Finance** (Agenda Item No. 6.0):

**10.1 Adoption of Annual Audited Accounts for the financial year 2008-09** (Agenda Item No. 6.1):

Governing Council reviewed and approved the Annual Accounts as placed by CHT for 2008-09 and adopted the following resolution:

*“Resolved that the Annual Accounts of the Centre for High Technology for the financial year 2008-09 as audited and reported upon by M/s Dhruv Agrawal & Co. Chartered Accountants and now placed before the Governing Council are approved”.*

CHT was advised to get the physical verification of assets as of 31<sup>st</sup> March done through the Auditors.

**10.2 Revised Budget Estimates for 2009-10 and Budget Estimates for 2010-11 (Agenda Item No. 6.2):**

*Governing Council approved the Revised Budget Estimates (RBE: 2009-10) and Budget Estimates (BE: 2010-11) of Centre for High Technology and tabulated below:*

(Figures in Rs. Lakhs)

Particulars	BE 2009-10	RBE 2009-10	BE 2010-11
Revenue Expenditure	687.55	730.60	654.60
Capital Expenditure	8.00	13.00	7.00
Projects:			
(a) R&D Projects	136.99	500.00	269.99
(b) Special Studies	330.00	1325.00	--
<b>Total</b>	<b>1162.54</b>	<b>2568.60</b>	<b>931.59</b>

**10.3 Appointment of Auditors to Audit the Accounts of CHT for the year 2009-10 (Agenda Item No. 6.3):**

The GC approved the proposal to appoint M/s Aggarwal Vineeta & Co, Chartered Accountant, 406-A, Indraprastha Tower; 6 Wazirpur Commercial Complex, Delhi-110 052 as Auditors of CHT for the Financial Year 2009-10 and passed the following resolution:

*“Resolved that M/s Aggarwal Vineeta & Co, Chartered Accountants, 406-A, Indraprastha Tower; 6 Wazirpur*

*Commercial Complex, Delhi-110 052 be appointed as Auditor to audit the Accounts of Centre for High Technology, Tax Audit and proprietary audit for the Financial Year 2009-10. It is further resolved that the Auditor viz., M/s Aggarwal Vineeta & Co be paid an Audit Fee of Rs.8000/- p.a., Tax Audit Fee of Rs.7000/- p.a. and Proprietary Audit fee of Rs.14,000/- p.a. and corresponding service tax thereof plus actual incidental expenses towards travel etc".*

The meeting ended with vote of thanks to the Chair.

## Annexure

**List of participants of 28<sup>th</sup> Governing Council (GC) Meeting & AGM (2008-09) held on 18.09.2009 at MOP&NG, Shastri Bhavan, New Delhi:**

S. No.	Name, S/Shri	Designation	Organisation
1.	S.Sundareshan	Additional Secretary	P&NG
2.	P.K.Sinha	AS&FA	MOP&NG
3.	L.N.Gupta	JS (Refineries)	MOP&NG
4.	T.S.Balasubramanian	FA&CAO	OIDB
5.	B.N.Bankapur	Director (R)	IOC
6.	R.K.Singh	Director (R)	BPCL
7.	Dr.M.A.Siddiqui	ED (R&D)	BPCL
8.	A.B.Sathe	ED (IT&S)	HPCL
9.	K.K.Acharya	MD	CPCL
10.	D.Chakravarty	Director (O)	NRL
11.	Dr.M.O.Garg	Director	IIP
12.	Ajay Deshpande	GM (R&D)	EIL
13.	Dr.R.N.Lahiri	AGM	EIL
14.	B.D.Ghosh	Executive Director (Offtg)	CHT
15.	A.K.Agarwal	Director	CHT
16.	S.K.Shukla	Addl. Director	CHT
17.	G.K.Dey	Addl. Director	CHT
18.	S.C.Das	Addl. Director	CHT
19.	Rakesh Narula	Addl. Director	CHT
20.	C.S.S.Narayna	Joint Director	CHT
21.	S.Chaudhary	Joint Director	CHT
22.	Subhasish Bose	Joint Director (Admn.)	CHT
23.	V.K.Suri	Joint Director (F)	CHT
24.	Rakesh Veer	Deputy Director (F)	CHT