

From the desk of the Executive Director



Esteemed Readers,

Greetings!!

Green hydrogen is an alternative source of energy, India has a natural edge in green Hydrogen production due to favorable geographical conditions and presence of abundant natural elements. Hydrogen being the fuel of the future has the potential to overcome the challenges faced by fossil fuel industry. With a view to exploit the full potential of hydrogen, PSUs in Oil & Gas sector have taken several initiatives in the form of pilot projects. One of the first such pilot was based on utilization of 18% blend of hydrogen and CNG (H-CNG) for using as an alternative environment friendly fuel in

buses. Oil and Gas companies are also engaged in generation of green power through solar and wind energy which can be used to produce green hydrogen. There is a significant encouragement from GOI for generation of green power to produce Hydrogen/Ammonia. CHT is in the forefront of alternative movement and has been taking steps to encourage entrepreneurs and researchers to develop innovative technologies in the field of alternative energy including hydrogen.

This edition of CHT News Byte (CNB) highlights some of the key events held during the past quarters viz., Meeting of Expert Committee for Gasification projects, EOI to engage consultant for Petrochemical Benchmarking, Activity Committee (ACM) on Petrochemicals at CHT, Meeting of Joint Secretary (Refineries) with working in the area of Electrolysers, 33rd Meeting of the Executive Committee of CHT, Webinar on Issues & Challenges in transportation of hydrogen-CNG blend through distribution and Trunk Pipelines, ACM on 'Reforming and Isomerization-Advances Towards Petrochemicals' at Mathura in association with Mathura Refinery of IOCL. In addition, presentations on the PAT scheme and Energy Efficiency Awards Programme for refineries were organized. A screening committee meeting was also conducted at EIL for review of the proposals received under 3rd RFS for PM JIVAN Yojana for 2G Ethanol.

CHT celebrated World Environment Day on 5th June in which a tree plantation drive was organized. The International Day of Yoga on 21st June was also celebrated with lot of zeal by CHT employees.

CHT continues to play its role to share information and encourage innovation in areas like biofuels, hydrogen, efficiency improvement in refineries, digitalization of processes and such other segments of Oil & Gas industries. I would also like to share that the 25th RPTM, rechristened as Energy Technology Meet (ETM), is scheduled to be held from 15th-17th September 2022 in Mumbai.

Your suggestions are most welcome.

(Alok Sharma)
Executive Director, CHT

1. Meeting of Expert Committee for Gasification projects

The Meeting of Expert Committee constituted by CHT for the review of ongoing CTL projects by EIL/Thermax was held through Video Conferencing on 9th April 2022. The meeting was chaired by Sh. R. Ramachandran, former Dir (R), BPCL. Director-CHT welcomed the Chairman and the participants and gave the brief background of the gasification projects. EIL made a presentation on overall status of the CTL and 3D-CFD modelling projects. Thermax made a presentation on the developments in the area of gasifier design for processing high ash Indian coal. CIMFR, made a brief presentation on their proposal including catalytic gasification. After deliberation committee made few observations on the proposal and gave recommendations for consideration of SAC.

2. EOI on Petrochemical Benchmarking

CHT on behalf of Indian PSUs intends to engage experienced consultants for undertaking Performance Benchmarking of the major Petrochemical units to assess performance and identify gaps in performance. Accordingly, an EOI was floated on 20th April 2022 and responses were sought from the consultant. After receiving the information of the prospective consultants, necessary PQC will be prepared by the committee consisting of members from PSU companies for taking further course of action.

3. ACM on Petrochemicals

CHT has organized an Activity Committee Meeting (ACM) on Petrochemicals on 25th April 2022 at OIBD conference Hall. This was the first physical ACM after Covid and even Hybrid presentations were done. Oil PSUs, R&D institutes, Global vendors have presented the latest Demand and product availability scenario and also the latest developments in Petrochemicals. Delegates from Oil PSUs and Vendors have participated in large numbers. The meet was well appreciated by the industry. Shri Alok Sharma, ED-CHT welcomed the guests – Ms. Sukla Mistry, Dir-R, IOCL, Dr G. S. Kapur, ED-R&D (IOCL), speakers and all the delegates. Dr. G. S. Kapur delivered the Special address wherein he briefed about the Indian Polymer industry and the various activities taken up by IOC-R&D. Ms. Sukla Mistry has set the tone of the ACM by briefing about the Refining scenario and the need to integrate Petrochemicals with Refineries. Mr. Chandan Pal, DGM IOCL acted as Convener for the meet.



4. CHT Meeting with Joint Secretary (Refineries) on Electrolysers

In continuation of the meeting held with Hon'ble Minister on 2nd May 2022 on Green Hydrogen, a virtual meeting with Joint Secretary (Refineries) on Electrolysers was held on 11th May 2022. The meeting was chaired by Joint Secretary (Refineries) Shri Sunil Kumar. ED-CHT, Shri Alok Sharma welcomed the chairman and participants from India as well as outside India interested in joining hands for sustainable Green Hydrogen Mission in India. Joint Secretary (Refineries) had detailed interaction with private manufacturers / Suppliers for Electrolyser interested to set up facilities in India to promote Green Hydrogen. About 13 companies participated in the meeting. The chairman stressed upon green hydrogen initiatives taken by OMC for continuous supply of hydrogen in refineries and pilot studies being carried on mobility front. JS(R) asked the participants to put forward suggestions to support the policy intervention required from Govt. of India in area of Electrolyser manufacturing.



5. Executive Committee (EC) Meeting of CHT

The 33rd Meeting of the Executive Committee of CHT was held under the Chairmanship of Shri Sunil Kumar, Joint Secretary (R), MoPNG through Video Conference on 18th May'22. The meeting was attended by JS (M), MoPNG; DS (BR/OR), MoPNG; Dir (R), HPCL; MD, CPCL; MD, MRPL; MD I/C, NRL; ED(O), IOCL; ED(T), EIL; Head(R&D), HPCL; GGM(R&D), EIL; Head (R&D), GAIL. ED-CHT welcomed the Chairman and other members of the EC. IOCL made a presentation on Committee report on Crude Selection and procurement and NRL presented the Solomon Benchmarking Studies -Q1D1 from Design stage at NRL Expansion. CHT made a detailed presentation on the progress and status of various activities / initiatives taken-up by CHT since the last EC meeting. The presentation covered the Refinery Performance Improvement Programme (RPIP) of PSU Refineries; Reduction of Water Footprint in PSU refineries; Refineries MBN performance for 2021-22 vs PAT cycle targets; Status of Reference Fuel under make in India by EIL & IOC R&D; Status of Catalyst Manufacturing Unit; Petrochemical Benchmarking & Status on PM JI-VAN Yojana. EC approved three proposals for funding under HCF and one R&D proposal for funding under CHT/OIBD. EC also recommended one proposal under HCF for approval by GC. Other items discussed were: Standard for Hydrogen; Decarbonisation of Indian oil and gas sector and Manpower at CHT.

6. ACM on Digitalisation at BPCL Kochi Refinery

An overwhelming response was received in the event with delegates from all parts of the country. The meet was held in Hybrid mode with a total participation of 217 members (Online & Offline) to share various initiatives and best practices. 22 presentations were made by PSUs (IOCL, BPCL, HPCL, MRPL, EIL). Other private entities (NVIDIA, Aspentech, KBR, PTIA, Detect Technologies, AVEVA India, Halder Topsoe) presented their technologies during the meet. The presentation from the upstream sector was also given by Mr. Siddharth Kumar, DGH.



7. Issues & Challenges in transportation of H2 Blends through existing pipelines- CGD line & Trunk NG Pipeline

A Webinar on "Issues & Challenges in transportation of H2 Blends through existing pipelines- CGD line & Trunk NG Pipeline" was organized by CHT on 3rd June 2022 to enhance awareness about the challenges that are required to be overcome for transportation of Hydrogen -NG blend through pipelines and the solutions. Besides, the webinar is also intended to highlight safety requirements while handling hydrogen and how to ensure integrity of the existing natural gas pipelines.

Total five Presentations from M/s Rosen Inspection Service, M/s

DNV, Singapore, M/s GAIL India Limited, Indian Oil Corporation Ltd and M/s Magnum were presented. Shri Alok Sharma ED-CHT welcomed the presenter and the participants from entire Oil & Gas sector of India to this webinar and wishes that listeners gets benefited from the presentation and discussions.

provided the snapshot of PAT scheme and the achievements made by different sectors. JSR has given away the awards to best performers and has lauded the efforts of Indian Refining companies which could gear up to meet the demand post Covid.

8. CHT Meeting with M/s Aeroarc Pvt. Ltd.







An interactive meeting with M/s. Aeroarc Pvt Limited was held through Video Conferencing on 27th Jun'22. M/s. Aeroarc Pvt Limited made a detailed presentation on AI-driven, drone system for Refineries, Pipelines and Oil fields which can carry out their missions without human intervention. Oil companies were requested to evaluate the technology. Total 45 representatives from CHT, MoP&NG and O&G PSUs participated in the virtual meet.

9. CHT Meeting with M/s Algo8 AI

An interactive meeting with M/s. Algo8 AI was held through Video Conferencing on 28th Jun'22. Algo8 AI brings Data Science expertise and enables the digital transformation of a client into a data-driven organization. They offer customized solutions for applications in process-oriented industries. Total 35 representatives from CHT, MoP&NG and oil companies participated & interacted during the virtual meet with M/s. Algo8 AI.

10. Energy Efficiency Award programme for Petroleum Refineries under PAT Scheme on at OIBD Bhawan

To recognize the efforts and hard work by Petroleum Refineries for reduction in MBN and over achieving the energy reduction target under PAT, BEE in coordination with CHT organized an "Energy Efficiency award programme" on 15th June 2022 at OIBD Bhawan. Refineries made presentation on Energy saving measures during PAT-II cycle and elaborated their plans to achieve PAT-VI targets. ED-CHT welcomed the guests for the award distribution ceremony. Director General BEE has

Category: Awardee	Photographs
Refinery for Best MBN: RIL	
Refinery with highest reduction in MBN achieved: BORL	
Refinery with maximum number of ESCerts achieved: BORL	
Refinery with Best Energy Efficient Project implemented Best: HPCL-MR Second Best: BPCL-KR	 HPCL-MR  BPCL-KR
Best Energy Efficiency Practices by Refinery: NRL	

11. ACM on 'Reforming and Isomerisation- advances towards Petrochemicals'

CHT in association with Mathura Refinery, IOCL organised Activity Committee Meet (ACM) on "Reforming and Isomerisation-advances towards Petrochemicals" on 23rd June, 2022 at The Lalita Grand Hotel, Mathura.

During Inaugural session Shri A. K. Maiti, ED (Refinery -Head) delivered Presidential address and Theme address was given by Shri Alok Sharma ED-CHT. An overwhelming response was received for the event with delegates from all parts of the country. The meet was held in Hybrid mode with a total participation of approx. 150 members (Online & Offline) to share various initiatives and best practices. Out of total 18 presentations 14 presentations were made by PSUs (IOCL, BPCL, HPCL, MRPL, NRL, CPCL, BORL(BPCL)). Licensor M/s Axens, M/s KBR and M/s UOP presented their technologies during the meet. HPCL, R&D also gave presentation on designing bi-Functional Metal-Acid Catalysts.

It was an interactive and knowledge sharing session. This meet had truly resonated with CHT's role on knowledge dissemination for the benefit of the industry.



12. Processing of Proposal of Oil PSUs seeking relaxation for Global Tender Enquiry (GTE) for Tenders below Rs. 200 Crore

During the quarter CHT have received 58 Nos of proposals from OPSU's i.e from M/s BCPL, CPCL, HPCL, IOCL, MRPL seeking relaxation for GTE for tender below 200Cr. CHT have processed / recommended 37 proposals in this quarter and 21 proposals are under processing / awaiting clarification from OPSUs.

13. PM JIVAN Yojana

Under 3rd RFS of PM Jivan Yojna 3 Commercial and 4 Demo proposals were received. Proposals were reviewed by Select Committee on 21.06.2022 at EIL R&D Gurugram, chaired by EIL Chairman Ms. Vartika Shukla. The shortlisted proposals will be further presented at SAC during August 2022 for final selection.



14. Mission Q1 by 2030

During 33rd EC (of CHT), CHT presented the key findings from the Solomon Refinery Benchmarking Study 2020. EC Chairman Insisted that an action plan has to be prepared to achieve Q1 for all PSU refineries by 2030 for refineries with a capacity more than 3 MMTPA. Accordingly, a committee has been formed under CHT to look into the various aspects to achieve this target in coordination with refineries. The committee had its first meeting on 22.06.2022. During the meeting, NRL presented the Q1D1 approach and strategy adopted in tendering process for their expansion plan to 9 MMTPA with the help of EIL/ McKinsey ensuring that most of the units were designed to be in Q1 from Day1. Refineries agreed to share their plan for achieving the target EII by 2030 with the existing and approved plans for implementation.

15. पर्यावरण दिवस 5 जून 2022

उच्च प्रौद्योगिकी केन्द्र, कार्यालय में 5 जून, 2022 को पर्यावरण दिवस मनाया गया। इस दौरान श्री आलोक शर्मा, कार्यकारी निदेशक महोदय व अन्य अधिकारियों के द्वारा ओ.आई.डी.बी के प्रांगण में वृक्षारोपण किया गया। श्री आलोक शर्मा, कार्यकारी निदेशक ने सभी अधिकारियों/कर्मचारियों से अपील की कि वह भी अपने आस-पास एवं कार्यालय स्थल पर अधिक से अधिक पौधे लगाएं जिससे वातावरण तो शुद्ध होगा ही तथा हरियाली भी होगी।



16. योग दिवस - 21 जून 2022

भारत सरकार के तेल एवं प्राकृतिक गैस मंत्रालय के दिशा-निर्देशों के अनुरूप उच्च प्रौद्योगिकी केन्द्र में दिनांक 21 जून 2022 को आठवा अंतर्राष्ट्रीय योग दिवस मनाया गया। इस अवसर पर कार्यालय के अधिकारी श्री विजय सिंह, कार्यकारी सचिव ने सभी अधिकारियों एवं कर्मचारियों को कार्यालय में योगाभ्यास कराया जिसमें अधिकारियों एवं कर्मचारियों ने विभिन्न प्रकार की योग क्रियाएँ की जैसे अनुलोम-विलोम, आँखों के व्यायाम, सूर्य नमस्कार, आदि।



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