Rodali

House Journal of Numaligarh Refinery Limited



SOCIAL **DISTANCING** AND USE OF **MASKS**CAN PREVENT THE SPREAD OF **COVID-19**





SLNJLND

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Views expressed in this journal do not necessarily
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Dear Readers,

Extraordinary times call for extraordinary measures. We are going through uncertain and unpredictable times never before experienced in our lifetime or for that matter in that of our immediate forefathers. The outbreak of Covid-19, a black swan event of epic proportions has had a profound impact on work and life, making way for a new world order. Priorities have changed dramatically and so have the rules. The circumstances have sprung up a different world beyond our imagination; while revealing man's vagaries of over-exploitation of natural resources, over-consumption of goods and services that many feel have led to nature reclaiming itself and how! The vulnerability and fragility of humankind has made the world sit back and introspect, and for many instilled a deeper sense of gratitude for things that are often taken for granted. While grappling the loss of normalcy in our daily lives, we have gradually adapted ourselves to a new normal.

The response in NRL to combat Covid-19 has been prompt with the Company stringently adopting MHA norms of social distancing, masks & PPEs, hand hygiene and sanitisation. With that in place, our refinery maintained 24 x 7 optimal operations during the period of lockdown with minimum manpower and initial focus on maximising LPG yield so that common people do not suffer the brunt of scarcity of cooking gas.

Perhaps, the most impactful measure which has been a harbinger of a new normal in NRL has been embracing the 'Work from Home' policy for administrative and service departments, changing the entire ecosystem of our work life. This transformation has been facilitated by leveraging on e-office and video conferencing facilities that bring employees on board in a virtual world, the first of its kind experience in the Company. Our feature article on Work from Home explores its various facets and suggests ways to remain relevant, productive while experimenting on what works best for us.

Manoeuvring its course in a VUCA (Volatile, Uncertain, Complex, Ambiguous) world and steering NRL to achieve its potential and beyond has been truly a challenge that our MD has accomplished with élan, acknowledged aptly when he was awarded with the PSU Leadership Award.

Before the chaos of Covid-19 unleashed itself, the quarter was filled with events and activities that we have laid out for you to read in this issue of the journal. NRL along with other PSUs under MoPNG plunged head on to observe SAKSHAM 2020 – a campaign to raise mass awareness about the need for fuel conservation with added benefits of good health and cleaner environment. Another highlight of the quarter was the allocation of land to the Company to set up a Crude Oil Terminal in Paradip – a shot in the arm for the mega Refinery Expansion Project that the Company is assiduously pursuing.

All this and more is packed in this issue of Rodali, which I am sure you will devour page on page as you adjust to your new work-life routine.

Stay safe, stay positive and stay productive!

With regards.

Madhuchanda Adhikari

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Highlights of NRL's performance during Q4 and 2019-20

Capacity Utilisation

NRL's crude throughput during the fourth quarter of the year was 326 TMT. During the year, NRL's crude throughput was 2,383 TMT due to extended RTA, against MoU target of 2800 TMT.

During the year, operational availability of the refinery improved to 98% from 95% in the previous year. Refinery Turnaround (RTA) was successfully completed which was scheduled after a gap of 4 years.

During the year, NRL have achieved HSD production of 1611 TMT and LPG Bottling of 46 TMT.

Production Efficiency

During 2019-20, distillate yield was achieved at 89.6%.

Specific Energy Consumption (SEC) during the year was 64.97 MBN which was better than MoU target of 65.30 MBN. Specific Energy Consumption (SEC) during Q4 was 68.14.

Energy Intensity Index (EII) during the year was 86.34 against the internal target of 87. Energy Intensity Index (EII) recorded during Q4 was 87.48

Marketing Performance

- During the year 2019-20, product sales of 2361 TMT against production of 2299 TMT.
- NSPL throughput was 1348 TMT.
- Food grade wax production Brand "Pristene" was launched.
- During 2019-20, NRL exported 41 TMT of HSD to Bangladesh and Myanmar. Wax export was 525 MT. Total value of export including export was approximately USD 24 million.

Capital expenditure

Highest ever Capital expenditure at ₹536 Crore (prov.) was achieved against MoU target of ₹460 Crore during the period. In addition, investment in Joint Ventures (JVs) during the year was ₹34 Crore.

Projects completed

During the year, the following projects were completed –

- New SRU in August, 2019.
- New HRSG Stack during RTA.
- Modernization of TAS at NRMT in Dec'19.
- MS Revamp job in Jan, 2020

Ongoing / Upcoming Projects:

i) Refinery expansion from 3 to 9 MMT:

a) Status on NREP:

- Technical Management Consultant awarded to McKinsey & Co.
- MoU signed with AEGCL for construction of facilities for import of 120MW.

b) Status of Pipeline and COT:

- 200 acres of land was allotted by Paradip Port Trust (PPT) on long term lease to set up Crude Oil terminal at Paradip
- EIL appointed as EPCM for pipeline project.

ii) Indo-Bangla Pipeline Project:

NRL and Bangladesh Petroleum Corporation entered into a MoU for setting up a 129.5 KM product pipeline from NRL's Siliguri Marketing Terminal in India to Parbatipur in Bangladesh. The estimated cost involved in laying the pipeline is ₹346 Crore. The project will be implemented with Grant-in-aid support of ₹285 Crore from the Govt. of India for the Bangladesh portion of the pipeline. NRL's investment in the project will be ₹61 Crore. As on March, 2020, the overall physical progress achieved was 27%.

Investment in new JVs:

i) Assam Bio Refinery Pvt. Limited (ABRPL):

NRL has entered into a JV to set up a Bio-refinery for production of ethanol from bamboo bio-mass. The JV Company was incorporated as "Assam Bio-Refinery Pvt. Limited" on 04.06.2018 with equity participation of NRL (50%), Chempolis Oy, Finland (22%) and Fortum 3 B.V., Netherland (28%). The estimated cost of setting up the Bio-Refinery is ₹1,259 Crore and is targeted to be completed by September, 2021. As on March, 2020, the overall physical progress achieved was 9.3%.

ii) Indradhanush Gas Grid Limited (IGGL):

NRL is a partner with 20% stake in Indradhanush Gas Grid Limited (IGGL) which is executing Natural Gas Pipeline of 4.75 mmscmd capacity. Estimated project cost is ₹9,265 Crore. An amount of ₹5,559 Crore which constitute 60% of the total project cost of ₹9265 Crore has been sanctioned by the Government as Viability Gap Funding in January, 2020 to make the project viable. The gas pipeline will connect the all the eight North-eastern states i.e. Assam, Meghalaya, Tripura, Mizoram, Manipur, Nagaland, Arunachal Pradesh and Sikkim. Once implemented the

Performance Highlights

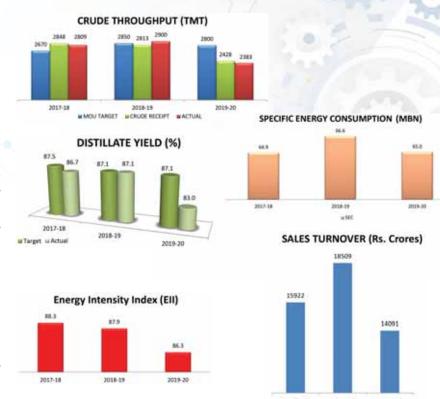
project is expected to ensure smooth supply of NG to help in ushering the states into Gas based economy and will help in rapid industrial development of the states.

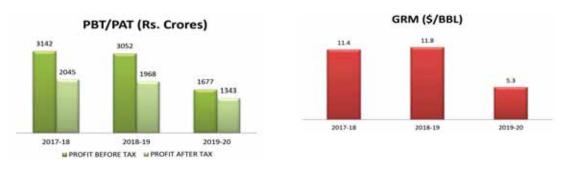
Financial Performance

- Sales turnover during the year 2019-20 at ₹14,091 Crore was achieved by the Company.
- During the year PBT was ₹1,677 Crore (provisional) while PAT during the year was ₹1,343 Crore (provisional).
- Gross Refining Margin during the year was \$5.30 per bbl (provisional).
- During the year 2019-20, contribution to the Central and State exchequer was ₹3361 Crore

MoU performance

The provisional self-evaluated MoU score for 2019-20 has been worked out under excellent rating.





Interim Dividend cheque presented to Government of Assam for the year 2019-20

The first interim dividend for the Financial Year 2019-20 was paid by NRL to Government of Assam on 1st March 2020. A cheque amounting to ₹136.23 Crore was presented to Hon'ble Chief Minister of Assam Shri Sarbananda Sonowal by our MD Shri S K Barua at the Assam Legislative Assembly premises in the presence of Industry and Commerce Minister, Govt. of Assam Shri Chandra Mohan Patowary, Commissioner and Secretary, Govt. of Assam Shri K.K. Dwivedi, Director (Technical) NRL Shri B I Phukan and other senior officials.



The Interim Dividend covers the first nine months of the financial year 2019-20 against Government of Assam's equity holding of 12.35 per cent in the Company.

Sequel to first Ell success story in NRL

(3rd in the series of articles)

Article 6

How much energy is used by rotating equipment in our Company and is that energy used efficiently?

Our company operates and maintains many pieces of rotating equipment, like pumps, blowers, fans, compressors, etc.

In addition to providing process functions, this rotating equipment; 1) is associated with large amounts of energy usage (i.e., Shaft Energy), 2) is costly to maintain, and 3) places a burden on refinery freshwater demand.

This article will illustrate our Energy Intensity Index™ (EII®) related improvements to reduce OpEx costs related to the Shaft Energy subcategory:

- Process Unit Fired-Heater Efficiency
- · Process Unit Fired-Heater Process Duty
- Steam Produced from Fired Fuel Sources
- Shaft Energy
- Data Quality
- All Other

The *Shaft Energy* category at NRL represents the energy associated with rotating equipment and electricity use:

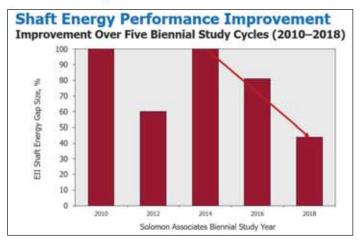
- Fired turbine generators (like GTG1 and GTG2)
- Internal combustion engines (like the emergency diesel generators)
- Topping or let-down steam turbines (like the STG and turbine-driven pumps, blowers, fans, compressors, etc.)
- Steam turbines associated with the condensing of steam (like the STG)
- Motor-driven pumps, blowers, fans, compressors, etc.
- · Net purchased electricity

The energy related to rotating equipment and power generation represents approximately 20% of the total energy consumed in our refinery.

The figure below shows the progress made in NRL to close the Shaft Energy performance gap identified by Solomon Associates.



B J Phukan, Director (Technical)



What has our Company done to close 56% of the Shaft Energy performance gap?

One of the most significant actions taken by the NRL team was to reduce condensing mode operation of the Steam Turbine Generator (STG).

Steam condensing turbines are not energy efficient.

Furthermore, steam condensing turbines in our refinery are associated with large amounts water lost to the atmosphere.

Other actions taken to close much of the Shaft Energy performance gap include:

- Operating the power recovery turbine in the Hydrocracker unit
- Replacing the aluminum fan blades in air coolers with fibre-reinforced plastic (FRP) fan blades
- Trimming pump impellers so that they are operating at peak efficiency
- Installing a variable speed motor (VSD) in the DHT Unit to control the recycle hydrogen rate
- Changing the loader valves in the Hydrocracker unit hydrogen makeup compressors to more efficient XP valves
- Replacing small reciprocating pumps with more efficient gear pumps
- Installing solar panels to efficiently generate electrical power

Technology Corner

There will be many more actions taken that impact the Shaft Energy performance gap:

- All compressors in newly commissioned units will be electrically driven, unless licensors specify a critical reason to use steam.
- The new bamboo-based biorefinery will transfer excess electrical power to our oil refinery where it will replace fossil fuel electricity production.
- Import 120 MW Power from 220 KV Grid owned by Assam Electricity Grid Corporation (AEGCL).

Our Company will see many benefits as we work together to completely close the Shaft Energy performance gap.

Article 7

Do we have confidence in the quality of the data used to measure energy efficiency performance of our Company?

The simple answer to this question is Yes.

Fuel energy burned in our refinery represents more than fifty percent (50%) of the Cash Operating Expense (OpEx) in our refinery.

The economic value of this fuel was assessed by Solomon Associates at ₹518 crore for calendar-year 2018.

To keep our Company competitive, the NRL team must make the most efficient use of this expensive and valuable fuel energy.

This can only happen when decisions are based on accurate and timely data, not just on "experience."

The phrase "you cannot manage what you cannot measure" is particularly relevant in this context.

This article will illustrate our Energy Intensity Index™ (EII®) related improvements to reduce OpEx costs related to the Data Quality subcategory:

- Process Unit Fired-Heater Efficiency
- Process Unit Fired-Heater Process Duty
- Steam Produced from Fired Fuel Sources
- · Shaft Energy
- Data Quality
- All Other

The *Data Quality* subcategory represents the level of confidence that Solomon Associates has with the benchmarking study input data supplied by our Company.

The most current benchmarking study report from Solomon Associates shows that the quality of the data used to measure energy efficiency performance of our Company is comparable

to the data quality in the most energy efficient refineries in the world.

NRL has made a significant investment in digital systems, procedures, and training to reach this high level for data quality.

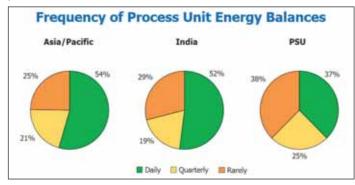
Examples of these investments include:

- InfoPlus.21 (IP21) collecting real-time data from instruments in the refinery and making those data available for analysis and quality checks.
- SAP capturing real-time data from the business process (B2B and B2C) and transactions.
- Tank Farm Management (TFM) capturing storage tanks inventories and integrating that data with SAP and IP21.
- Process Industry Modeling System (PIMS) enabling better refinery economic optimization.
- Energy Management System (EnMS) ISO 50001 providing a structured, organized, and consistent approach to energy KPI monitoring.
- Primavera scheduling for disciplined project management and risk analysis for refinery turnarounds and large projects.
- Monitoring of flare gas Control Valves (CVs) and Pressure Safety Valves (PSVs) to ensure that they are working properly.
- Calibrating measuring instruments per ISO norms to maintain specified precision and accuracy levels.

Some of the most important activities to confirm data quality are energy accounting and reconciliation at the overall refinery-level and at the primary process unit-level.

The figure below shows that 54% of the refineries in the Asia/Pacific region perform unit-level energy balances daily.

The percentage of refineries worldwide performing daily unit-level energy balances has been increasing in recent years.



The NRL team is committed to continuously improve the energy efficiency of our refinery.

This only happens when decisions in our Company are guided by timely and high quality data.

Article 8

What other factors have an impact on Energy Efficiency in NRL?

The energy efficiency in our refinery is impacted by the Assam crude oils that our refinery was designed to process into refined products.

These light sweet Assam crude oils give NRL certain advantages when compared to other refineries in the Asia/Pacific region that face challenges related to crude oil quality.

To illustrate this crude oil quality difference, the 0.24 wt % sulphur content in Assam crude oil is less than one-sixth the Asia/Pacific region average crude oil sulphur content as reported in the most current benchmarking study report from Solomon Associates.

The crude oil quality at NRL will change along with the capacity expansion to 9.0 MMTPA and the NRL team is considering this in the design of the expansion facilities.

This article will illustrate our Energy Intensity Index™ (EII®) related improvements to reduce OpEx costs related to the All Other subcategory:

- Process Unit Fired-Heater Efficiency
- Process Unit Fired-Heater Process Duty
- Steam Produced from Fired Fuel Sources
- Shaft Energy
- Data Quality
- All Other

The All Other category represents the energy associated with

Sulphur Recovery Unit (SRU), Tail Gas Recovery unit, Coke Calcination Unit (CCU), flare pilots, etc.

The energy efficiency of the SRU improved with the use of oxygen-enriched air from the Nitrogen Plant in the SRU combustion section.

Oxygen enrichment significantly reduces co-firing requirements in the SRU reactor burners.

There are also savings in fuel gas consumption in the SRU Tail Gas Incinerator.

The energy efficiency of the CCU was improved in the 2018 shutdown to repair insulation in the duct and kiln.

Additional energy efficiency improvement opportunity exists in the CCU by reducing the Volatile Combustible Matter (VCM) content in the Raw Petroleum Coke (RPC).

The VCM contained in RPC is consumed as fuel energy in the CCU.

The RPC VCM content of 11.6 wt % reported by our Company to Solomon Associates as raw material to the CCU is among the highest reported in the world.

For reference, the average CCU sees a RPC feed with 9.5 wt % VCM content.

Improvement in the design and operation of the Delayed Coker Unit (DCU) charge furnace is needed at NRL to reduce RPC VCM content to best benchmark levels.

Comprehensive improvement in energy efficiency means that the NRL team is looking in all areas of our refinery, like the SRU and CCU.

COVID-19 preparedness in NRI

NRL geared up to face the prevailing global medical exigency arising out of COVID-19 outbreak and the country wide lockdown imposed by the Govt. of India w e f 25th March 2020 to contain the disease.

The Company operated round the clock with bare minimum staff manning operations in its Refinery and two Marketing Terminals in Numaligarh and Siliguri. Refinery operations continued with employees and contract workmen working on 12-hour shifts observing complete social distancing.

The Refinery maximized its LPG production so that there is

no scarcity of the commodity in the event refinery production has to be reduced in view of lower demand of MS and HSD.

NRL employees are putting up a brave front in their line of duty in the light of the present circumstances, though precautionary steps including frequent sanitizing and use of proper Personal Protective Equipments (PPEs) is being religiously followed.

For administrative and service functions, Work from Home policy has been immediately implemented so that social distancing protocols are maintained.



NRL shines at Governance Now Awards

- MD honoured with PSU Leadership Award
- NRL bags award for Environment and Sustainability, Investment in Startups

ur MD Mr. S K Barua has been honoured with The PSU Leadership Award at the 7th PSU Awards function of Governance Now held in New Delhi on 19-02-2020. The award was presented to him by Hon'ble Union Minister of State for Heavy Industries and Public Enterprises, Shri Arjun Ram Meghwal. The honour is a glowing tribute to MD's strong leadership qualities combined with his vision and untiring dedication towards



of the Indian economy holds a lot of potential especially in the realisation of Government ambitious plan to make India a five trillion dollar economy by 2024. Not only that, a significant portion of India's GDP comes from PSUs.

- considered as the backbone

Our Company also won the award for **Environment and Sustainability, Investment in Startups** at the same function, which was also presented to MD at the award function.

the Company and the larger landscape of the Oil industry and the State of Assam. With more than 250 Central PSUs in the country, the award truly holds a lot of significance especially at a time when steering the Company forward in complex and dynamic business environment is fraught with challenges galore. Needless to say that Public Sector

Governance Now is a fortnightly publication on public policy and national affairs from SAB group. The PSU Awards instituted by them has been recognizing and honouring the efforts of PSUs that have been key to the country's economic growth and social development.

NRL Centre of Excellence for Sustainable Materials at IIT Guwahati inaugurated

With an objective to develop Sustainable / Bio-degradable materials from oil and bio refinery streams, NRL has tied up with Indian Institute of Technology Guwahati (IITG) to set up NRL Centre of Excellence (CoE) for Sustainable Materials in the IITG campus.

NRL Centre of Excellence (CoE) for Sustainable Materials was inaugurated on 14th Feb 2020 by Dr. Ramesh Pokhriyal, Hon'ble Minister of Human Resource Development, Government of India at IIT Guwahati in the presence of Prof. T G Sitharam, Director IIT Guwahati and our Managing Director Mr. S K Barua.

The Centre is the first of its kind academicindustrial collaborative venture with the broad objective of developing sustainable materials from various waste and by-



products sourced from multiple sectors like petroleum industries biorefineries and agro-industries.

An initial research grant of Rs. 4 Crore was granted through the CoE to the Chemical Engineering Department for the first project identified for 'Development of Bio-Degradable Plastics from Refinery and Bio-Refinery Streams. This project will facilitate pilot scale production of blown film grade poly (e-caprolecton) resin from bio-degradable waste products The Centre will provide a huge boost towards development of green technology, utilization of waste and sustainable materials including bio degradable plastics on a commercial scale.

Supply of Bharat Stage VI grade of Motor Spirit and High Speed Diesel commences

Nature RL has started supplying Bharat Stage (BS) VI grade of Motor Spirit (Petrol) and High-Speed Diesel (Diesel) from its refinery from end of February' 2020.

NRL had commissioned a Diesel Hydro Treater (DHDT) plant during 2018 with a project cost of around ₹1,000 Crore. This plant is capable of producing BS-VI grade of Diesel. Recently, NRL invested around ₹125 Crore for revamping its Motor Spirit plant to meet BS-VI specification of petrol which has also been commissioned during January 2020.

As compared to the present specification of BS IV grade of automotive fuel used in the country with a sulphur specification of 50 PPM, BS VI grade of automotive fuel has a much stringent sulphur limit of 10 PPM.

While the country will leapfrog from the current BS-IV grade fuel to BS-VI, which have emission standards equivalent to Euro-VI fuel from April 1, 2020, NRL has



begun supplying the ultra-clean fuel to the market **ahead of schedule** so that oil marketing companies taking supply from NRL can upgrade their inventory of automotive fuel – Petrol and Diesel, in their retail outlets and terminals well ahead of the timeline.

Land Allocated to Set up Crude Oil Terminal in Paradip

A significant milestone was achieved in NRL's concerted march towards implementing its mega integrated Refinery Expansion project.

200 acres of land was allotted to Numaligarh Refinery Limited (NRL) by Paradip Port Trust (PPT) on long term lease to set up **NRLs Crude Oil terminal in Paradip**. This facility will enable NRL to import Crude Oil at Paradip port to meet its requirement post Refinery Expansion from 3 to 9 MMTPA.

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An MoM was signed to this effect on

7th Feb, 2020 in Bhubaneswar between Sr CGM (Projects) NRL - Mr. A P Chakraborty and Dy. Secretary PPT - Mr. K Trirumoolar in presence of Chairman PPT - Mr. Rinkesh Roy, MD NRL - Mr S K Barua, Director (Technical) NRL - Mr. B J Phukan, Director (Finance) NRL Mr I Mittra and senior officials from both the organizations. An amount of Rs. 20 Crore was handed over by NRL to PPT as initial deposit for the land.

COSA Agreement with OIL

In a significant development, NRL and Oil India Limited (OIL) signed the Crude Oil Sales Agreement (COSA) for sale and purchase of crude oil on 12th March, 2020 at OIL's Pipeline Headquarters in Narengi, Guwahati. Shri Harish Madhav, Director Finance, OIL and Shri Indranil Mittra, Director Finance, NRL



signed the agreement on behalf of OIL and NRL respectively in the presence of Shri S.C Mishra, CMD, OIL and Shri SK Barua, MD, NRL and other senior officials of both the companies.

The COSA will come in effect from 1st April, 2020 to 31st March, 2025 that is for a term of 5 years. The agreement will streamline sale and purchase transactions of Crude Oil produced from fields in the North East India.

NRL participates in 24th Refining & Petrochemical Technology Meet (RPTM)

RL officials participated enthusiastically in the 24th RPTM held in BIEC-Bangalore from 19 to 21st January 2020 under the aegis of Centre for High Technology (CHT) and Chennai Petrochemicals Limited (CPCL). Our Director Technical Mr. B J Phukan presented a paper on 'Environment- best operating practices', which was well received by the house. NRL technocrats also presented posters on various subjects of importance during the poster session. Few of the topics were:



Director (Technical), Mr B J Phukan chairs a technical session during RPTM

- Digital monitoring and surveillance on real time basis in RTA'2019 – experience sharing;
- First of its kind PHE in APH of dual fired CDU/VDU furnace at NRL and
- A new cogeneration in post refinery expansion
- A novel concept of reducing carbon footprint by green energy recovery
- Use thermo-compressor to recover venting of LP steam



MD Mr. S.K. Barua with the participating team from NRL at RPTM

Visits

MD visits HPL and LPG Import facility of BPCL in Haldia

On 2nd Jan, 2020 MD Mr. S K Barua accompanied by GM (Marketing) Mr. Subrata Das, DGM (Logistics) Mr. Jayanta Goswami and CM (Project)-Kolkata visited Haldia Petrochemicals Limited (HPL) to inaugurate the dispatch of the first tank truck of MTBE to Numaligarh. The inaugural ceremony was hosted by the Executive Director-Plant, HPL Shri A.K. Ghosh in presence of other high officials of the Company.

NRL has placed an order on HPL for supply of 12,000 MT of domestic MTBE at the rate of around 2,000 MT per month. The product will be supplied by HPL on ex-works basis and transported by road to Numaligarh by NRL's approved transporters. The occasion marked HPL's maiden sale of MTBE in the domestic market. It is also the first time that NRL is procuring MTBE from domestic sources.

MD also visited the newly completed 'LPG Import Facility' of BPCL at Haldia. The facility has been developed at a project cost is around Rs. 1,100 Crore and has been completed in record time. It involves 7.5 km twin 18 inch



Inauguration of MTBE tanker loading on 2nd January 2020 at HPL, Plant Haldia

dia. pipelines from Haldia port to the Facility of which 3.5 km are underground with 'pipe-in-pipe' design. The twin pipes are for Propane and Butane respectively. These products will be received in two double-walled tanks and stored in mounded bullets after conversion into LPG. The entire Facility is automated with state-of-the-art technology. Less than 10 officers are expected to be involved in operation of the Facility.



MD planting a sapling at BPCL LPG Import facility at Haldia



In discussion with BPCL team at LPG import plant

Photo Speak

Yokogawa TAS rolls out Rail & Road loading



 ${\it Inside NRMT Control Room NRL \& YIL team with make shift consoles for commissioning}$



NRMT Road Loading Gantry

The first Rail Rake was successfully loaded on 8th Feb 2020 with new Yokogawa TAS (Terminal Automation System). In its maiden attempt, 25 nos of mixed Wagons could be loaded on full auto mode. Subsequently the Road Loading operations were taken on new TAS on 18th Feb, 2020 and all the 14 Nos. POL tanker loading bays at NRMT are now successfully commissioned and established on new YIL (Yokogawa India Limited) TAS, replacing the obsolete Honeywell TAS. NRL's Instrumentation, SAP & NRMT Operations in collaboration with YIL team achieved this feat working in close coordination. NRL has earmarked a capital outlay of Rs.9.21 Crores for modernisation of TAS for both its terminals at Numaligarh & Siliguri.





1st consignment of pipes being received in Bangladesh for Indo Bangladesh Friendship Pipeline (IBFPL) project on 17th February 2020 in presence of officials from both the sides



NRL Project team along with EIL and Bangladesh Petroleum Corporation Team visiting the site for Receipt Terminal of the IBFPL during review of the Project on 4^{th} March 2020



220 KV Grid Connectivity Overhead Line HT Tower foundation stone laying at Barua Gaon, near Khumtai in Golaghat on 14.03.2020. The 11 km line to Numaligarh will facilitate import of 120MW Grid Power. The entire project will be executed through Assam Electricity Grid Corporation Limited (AEGCL) on deposit work basis.



NRL participated in Special National Vendor Development Program in Petroleum & Steel Sector for SC/ST Entrepreneurs organised by DICCI (Dalit India Chamber of Commerce and Industry) at New Delhi on 13th January 2020

SAKSHAM 2020

SAKSHAM, acronym for 'Sanrakshan Kshamta Mahotsava' is an annual mass awareness campaign on petroleum product conservation spearheaded by Petroleum Conservation Research Association (PCRA) under the aegis of Ministry of Petroleum and Natural Gas with Public Sector Oil and Gas Companies actively joining hands to take the campaign forward and enhance its outreach to the grassroots.



Into its 3rd year, SAKSHAM 2020 was enthusiastically observed between 16th January to 15th February with the tagline 'Indhan Adhik na Khapayen, Aao Paryavaran Bachayen'. Other than sensitizing masses about the need for conservation and efficient use of petroleum products, the campaign endeavours to bring to fore health and environment benefits of limiting the use of petroleum products by adopting and imbibing basic lifestyle and behavioural changes. Cycling and walking instead of commuting in vehicles, carpooling, using public

transport, honing safe and eco-friendly driving skills, use of energy efficient vehicles, regular emission checks for vehicles, industrial and farm equipment, efficient cooking habits are some such simple changes that could go a long way in promoting conservation with the added benefit of health and environment protection.

SAKSHAM 2020 kick-started on 16th January 2020 in India Habitat Centre, New Delhi in a function inaugurated by Union Petroleum Minister Shri Dharmendra Pradhan. The Hon'ble Minister in his message stressed on the importance of fuel conservation and said, 'India imports sizeable amount of petroleum based sources of energy for driving her developmental needs. Conservation of oil & gas is of utmost importance as ever drop of oil saved will help us channelize our financial resources to other important sectors of the economy and thus contribute to nation building'. Dr. M.M Kutty,



Secretary, Ministry of Petroleum & Natural Gas emphasized on the need for conscious efforts towards fuel conservation by taking the conservation message to the masses. He said, 'By mid 2020, India will be the world's largest growth market accounting for 25% of global energy demand growth. Today 83% of India's crude oil requirement is met through import. The earnest efforts for petroleum conservation can help us to reduce the huge import burden. Every drop of oil saved will contribute to saving of foreign exchange. We also require to address the issues of climate change. Through SAKSHAM we intend to deliver a strong message that sustainable future demands conservation of natural resources'

As part of SAKSHAM campaign, Public Sector upstream/downstream Oil & Gas companies organised various activities/ programs across India. SAKSHAM Fit India Cycle Day, SAKSHAM Fit India Walkathon, Cycle Rallies, Mass

Rallies, Human Chains, conservation pledge taking amongst employees and stakeholders including online pledge taking, display of conservation messages on hoardings/digital displays, quiz competitions, workshops for drivers of commercial vehicles, seminars for housewives/cooks on adopting simple fuel saving measure, pollution check of all industrial equipment, emission check for vehicles, nationwide campaign through Radio, TV, digital Cinemas,

outdoor are some such programs with a focus on reaching out to various segments of fuel users. PCRA and oil companies are effectively utilizing social media platforms for various customized campaigns through Facebook, Twitter, MyGov platform- an endeavour to spread its reach amongst the masses. NRL as an active player in the oil and gas industry has been actively involved in taking forward most of the aforesaid initiatives identified by PCRA.

Glimpses of Saksham 2020





Display of hoardings in various locations



Distribution of leaflets on efficient cooking tips to ladies of NRL Township



Survey of Insulation effectiveness of heaters



SAKSHAM awareness program among teachers of Prayash Vidya Mandir, Numaligarh



Emission checks being carried out as part of SAKSHAM

SAKSHAM Cycle Day on 19th January 2020

Nature 19th January 2020, a day which was observed in 200 cities simultaneously across the country. Promoted under the slogan 'Ao Cycle Chalaye' to create awareness on health, environment and fuel conservation, the Cycle Day constituted of a 5 km 'Green Ride' starting from the Police Parade Ground, Silchar through Cachar College, Madhuramukh, Rongpur Ground to finally culminate at the starting point. The Cycle rally was flagged off by Deputy Commissioner, Cachar Smt. Barnali Sharma in presence of SP Cachar Mr. Manabendra Dev Rai, BJP District General Secy. Shri Kanad Purkayasta, Silchar Town Mandal President Shri Dwaipayan Chakravarty, District Sports Association President Shri Babul Hore, Sr. CGM (Mktg.

& BD) NRL Mr. B. Ekka, DGM (Corporate Communications) NRL Ms. Madhuchanda Adhikari and a host of other officials from NRL. The rally drew overwhelming response with students, youth, police personnel and civil society members participating enthusiastically. Earlier, DC Cachar Smt. Barnali Sharma spoke on the importance of conservation of petroleum fuels while stressing on the benefits of cycling on health as well as the environment. She urged the youth to take forward the novel initiative under SAKSHAM on a sustainable basis for realizing its greater benefits. In his welcome speech Sr.CGM (Mktg. & BD), NRL Mr. B. Ekka briefed about SAKSHAM 2020 campaign and initiatives taken by NRL.

Glimpses of Saksham Cycle Day 2020



DC Cachar Smt Barnali Sarma flags of the Cycle Rally



Flagging off function



Sr. CGM (Mktg. & BD) Mr. B . Ekka addressing the gathering



SP Cachar Mr. Manabendra Dev Rai cycles his way out from the start point

SAKSHAM Walkathon on 2nd February 2020

On 2nd February 2020, NRL organised SAKSHAM Fit India Walkathon yet again in Silchar with the purpose of drawing mass attention and sensitizing various groups of society on need and benefits of petroleum products conservation and how walking could help in the endaevour. The Walkathon was held as part of Walkathons organised in 624 districts simultaneously across the country on the same day.

The Walkathon was flagged off by Hon'ble MLA of Silchar Constituency Shri Dilip Kumar Paul, Deputy Commissioner, Cachar Smt. Barnali Sharma in presence of SP, Cachar Shri Manabendra Dev Ray, BJP District General Secy. Shri Kanad Purkayastha, Silchar Ward Commissioner Smt. Madhumita Sharma, Sr. CGM (CA)NRL Mr. Nikunja Borthakur, DGM(Corporate Communications)NRL Ms. Madhuchanda

Adhikari and a host of other dignitaries. Students from various schools and colleges of Silchar including NIT Silchar, members from the civil society and police battalion also thronged the event in large numbers. The Walkathon started from the Police Parade Ground to Premtala through Silchar Town and back to the starting point.

Earlier, Sr. CGM (CA)- NRL Mr. Nikunja Borthakur welcomed the dignitaries and participants to the SAKSHAM Walkathon. Thereafter, SAKSHAM pledge was administered amongst the gathering by DGM (Corporate Communications) NRL Ms. Madhuchanda Adhikari. During the inauguration session, Hon'ble MLA of Silchar Constituency Shri Dilip Kumar Paul reiterated the importance of imbibing values of fuel conservation amongst children and urged elders to set good examples for them. DC Cachar Smt. Barnali Sharma stressed on the importance of awareness in saving our environment from further damage. She said that walking has age-old proven health benefits and this year's tagline for Walkathon-'Burn fat not fuel' is sending across an apt message amongst the masses. Speaking on the increased use of petroleum products due to modern lifestyles, BJP Distt General Secy Shri Kanad Purkayastha urged everyone to consciously adopt walking and cycling in their daily routine and contribute to this nationwide conservation drive.

Glimpses of SAKSHAM Walkathon 2020



Flagging off by Hon'ble MLA of Silchar Constituency Shri Dilip Kumar Paul and Deputy Commissioner, Cachar Smt. Barnali Sharma



Lighting of ceremonial lamp to mark the auspicious beginning



Oath taking



DC Cachar Smt. Barnali Sarma delivering her speech



Hon'ble MLA Silchar Shri Dilip Kumar Paul urges the audience to make walking a habit



Sr. CGM(CA) NRL Mr. Nikunja Borthakur addresses the gathering



A view of the Walkathon across Silchar town

It is felt that the praiseworthy initiative of SAKSHAM will contribute hugely in making a difference in the existing conservation efforts made collectively by the Government and conscious citizens and agencies; lessening the burden of oil imports apart from positively contributing towards environment sustainability.



Republic Day

MD Mr S.K. Barua hoisting the National Tricolour on the occasion of 71st Republic Day at Numaligarh



Sr. CGM(Mktg & BD) Mr. Bruno Ekka hoisting the Flag on the occasion of Republic Day at NRL Corporate Office, Guwahati

International Women's Day

At Numaligarh

Forum of WIPS (Women in Public Sector) NRL Chapter celebrated International Women's Day(IWD) with 2 programs. On the eve of IWD, a workshop on 'Stress management' was organised in association with NRL Learning Centre with overwhelming participation of women employees.

Thereafter, on 8th March, WIPS, NRL members dedicated the day to women fraternity of nearby community. A half day program was organised



Women employees attending the workshop on Stress Management



 $Women\ perform\ a\ chorus\ to\ mark\ the\ celebrations$

where women from Khatiyakhuli Tejimola Mahila Samiti, Khatiakhuli Lakhika Samaroh, Kuruwabahi Mahila Sangha, Chandrakala Mahila Samiti, Khatiakhuli, and Kuruwabahi Satra Mahila Samiti were present. On behalf of NRL, including WIPS President, Chandana Borthakur and Secretary, Sarmistha Dutta along with women employees Geetali Kalita, Avantika Medhi, Usha Kakati, Gayotri Sarmah, Mitali Alam and many more members were present. The function was anchored by a WIPS member, Debahuti



WIPS NRL Chapter President Ms. Chandana Borthakur addressing IWD function



WIPS NRL Chapter Secretary Ms. Sarmistha Dutta handing over a token of appreciation to a participant



Dr. Barnali Deori shares health tips with participants

Borah. The welcome speech was delivered by WIPS president and the meeting started with a chorus performed by ladies of Khatiakhuli. Dr.Barnali Deuri, doctor of VKNRL hospital delivered a talk along with presentation on breast cancer awareness and preventive actions to be taken for Corona virus. Mr. Dilip Sarmah, Manager, Fire & Safety department of NRL delivered a talk on Fire and safety at home and made the ladies aware of the safety measures to be taken during use of LPG gas cylinder including a demonstration through video presentation. The sudden quiz was also arranged among the ladies on both the subjects and the women fraternity were encouraged by giving prizes. At the end of the function the ladies of Khatiakhuli presented a 'Diha Naam'. The function ended with vote of thanks delivered by a WIPS member, Savarna Rhitu Borpuzari.



A section of the audience



NRL Football Academy celebrated International Women's Day by organising a friendly match among players of Girls feeder centre.

In Guwahati

Guwahati Corporate Office Women employees also celebrated IWD Day on 8th March 2020, by visiting 'Jai Mata Di Lerela



Celebrations at the destitute home for women

Khudoi Memorial Trust Old Age cum Orphanage Home' at Mathgharia and interacted with the 30 women inmates as well as children. A cultural program of Bihu dance and



Planting a sapling to mark the day

Observances

recitation was showcased by the inmates of the Old Age cum Orphanage Home. DGM (Corp. Comm) Ms. Madhuchanda Adhikari delivered an inspirational speech on Women Empowerment, encouraging the women community to lead a fulfilled life by supporting each other and complimented Smt Premalata Saikia Chairperson, Lerela Khudoi Memorial Trust for her noble work of taking care of the destitute women. The program included distributing food items followed by lunch at hotel 'The Guwahati Address', Zoo Tiniali near Ambika Petrol Pump for all participants.

CSR News

NRL signs MoU with Assam Cancer Care Foundation



An MoU was inked between NRL and Assam Cancer Care Foundation (ACCF) on 17th Jan 2020 to equip the upcoming radiotherapy block

annexed to Barpeta Medical College & Hospital. The total estimated cost of the Project is to the tune of 16.83 Crore.

The MoU was signed by Mr. Debasish Choudhury, Sr. Chief General Manager (HR & Legal), NRL and Mr. Gautam Chintey, Project Director, ACCF on behalf of NRL and ACCF respectively in presence of officials from both the sides at Numaligarh.

NRL will support ACCF to procure Cancer treatment equipment such as LINAC – True beam without SRS, HDR Brachytherapy, Dosimetry and Immobilization unit and CT Simulator.

Felicitation of Veteran Actors of Assamese Film Industry

NRL honoured two prominent and veteran actors of the Assamese film industry-Shri Nipon Goswami and Smt. Vidya Rao Nair for their outstanding contribution to Assamese film industry and the society as a whole. MD NRL Mr. S K Barua felicitated the veteran artists and handed over a cheque of Rs. 1.5 Lakh as a gesture of goodwill for their immense contribution to the society through their work in their respective residences on 13th Feb, 2020.



NRL MD S.K. Barua presents Citation & Financial Assistance to Smt. Vidya Rao



NRL MD S.K. Barua presents Citation & Financial Assistance to Shri Nipon Goswami





Fire & Safety Snippets

Activities carried out by Fire & Safety Department during the period of January to March' 2020

- Road Safety Week observed from 11th to 17th January' 2020
- Safety Awareness conducted at ASPU on 11th January' 2020
- Safety Awareness conducted at Workshop on 13th January' 2020
- Safety Awareness programme conducted at Gyan Marg Academy, Numaligarh on 22nd January' 2020.
- National Safety Week 2020 observed from 4th to 11th March' 2020. As the theme was "Enhance safety & health performance by use of advanced technologies", two new technologies were introduced at NRL.
 - a. Virtual Reality Fire & Safety Training module
 - b. Smart Fleet Management with GPS for tracking location & speed of Vehicles running inside Refinery.
- Safety Awareness conducted at SDU, SRU, DHDT, WHFU & CPP area on 6th March' 2020. Dr. Bijoy Sarma of OHC appraised the gathering about the dos & don'ts regarding Novel Coronavirus.

- 17th Offsite Disaster Mock Drill conducted on 17th March' 2020 in coordination with District Administration, Golaghat. Scenario was leakage of LPG from LPG Delivery Pump of LPG Mounded Bullet and subsequent fire at Railway Colony.
- Handed over the following items to District Disaster Management Authority, Golaghat on 3rd March 2020:
 - a. Heavy duty petrol chainsaw
 - b. Life buoys
 - c. Mega phone 12V
 - d. DCP type fire extinguisher 5 kg

Photo Gallery

Photo 1	Road safety week
Photo 2	Safety Awareness conducted at ASPU
Photo 3	Drawing Competition at Gyan Marg Academy, Numaligarh

Fire & Safety Snippets

Photo 4	Flag Hoisting and inauguration of National Safety Week 2020
Photo 5,6 & 7	Closing ceremony of National Safety Week 2020
Photo 8	Safety Awareness conducted at SDU
Photo 9	Demonstration of Virtual Reality Training Module

Photo 10 ,11 & 12	LPG Mounded Bullet during Offsite Disaster Mockdrill
Photo 13,14, 15 & 16	Railway Colony During Offsite Disaster Mockdrill
Photo 17	Press briefing after Offsite Disaster Mockdrill
Photo 18	Demonstration of newly introduced H2S Neutraliser





































Sports Wrap up for the Financial Year 2019-20

A. NRL participates whole heartedly in PSPB Inter Unit Tournaments

A healthy body leads to a healthy mind. This tenet has been the driving force of a sporting culture in NRL where employees are encouraged to imbibe a sporting spirit and participate in PSPB Inter Unit tournaments hosted by different Oil and Gas PSEs and other sports tournaments. The highlights of PSPB participations during FY 2019-20 are as follows:

- NRL earned 25 points from various competitions, achieving the 6th position amongst 12 member organizations of PSPB.
- The Company hosted two PSPB Events Volleyball and Carom
- For the first time, NRL won the 3rd position in PSPB Inter-unit Volleyball Tournament.
- In Squash, NRL Team achieved remarkable and unprecedented results (covered in subsequent article)
- In Athletics, NRL won 3rd position in high jump, again a first.
- In Golf, our Managing Director Mr. S K Barua himself participated inspiring the sporting culture in the Company.
- A total of 57 employees participated in Bridge, Volleyball, Football, Carom, Golf, Athletics and Squash.

 Due to Refinery turnaround (RTA 2019), NRL could not participate in a few other PSPB events.

B. Inter-Departmental Tournaments draw overwhelming employee participation

Inter-Departmental tournaments held during the FY 2019-20 are as follows:

- Inter –Departmental Football Tournament conducted where CISF team bagged the Champions Trophy while Maintenance Department were Runners-up.
- Inter-Departmental Volleyball Tournament 2019-20 conducted where CISF team again bagged the Champions Trophy while Operations Deptt. were Runners-up
- Inter Departmental Cricket Tournament 2019-20 conducted. Team A (Operation/TS/Inspection) bagged the Champions trophy while Team C (HR/GHY/SMT/Commercial) were Runners-up.

C. PSPB assisted Sports Camp

Two PSPB assisted Sports camps viz. Volleyball and Football were held during 2019-20 where about 65-70 players (children/adult) of NRL Township and nearby areas took part.

NRL Women shine in PSPB Squash

NRL Women team came out with flying colours in PSPB Squash Tournament in Jaipur. They bagged the 1st position in the Team event at the 2nd PSPB Inter Unit Squash Tournament held in Jaipur from 3rd to 7th March 2020. Ms. Ankita Sarkar and Ms.Mansi Motwani of NRL clinched the women's Winner and Runner's Up title respectively. Ankita Sarkar was declared the Best Player (Women) of the tournament.

In the Single Open (Men) event, Ali Hyder was Runner's Up while in Team Event (Men), NRL won the 2nd position. NRL also clinched the 2nd position in the Veteran category.



Glimpses of Interdepartmental Cricket tournament held on 1st and 7th – 8th March, 2020 at the NRL Township Main playground







Results of Inter Departmental Cricket Tournament 2019-20

- Winners Trophy 'Team A' (Ops/TS/DM)
- Runners up 'Team C' (SMT/GHY/HR/T&E/F&A/Comml/F&S/IA etc)
- Man of the Series Deepjyoti Deka, Manager (Inspection) - Team A
- Man of the Match Hridoy Mahanta, Officer
 (Operation-HCU) Team A
- Promising Player Alok Kumar, GET (HR-T&E) Team C

Final Match between Team A & Team C was held on 08.03.2020 and prize distribution was done immediately after the event.





MoPNG News

Cabinet approves Capital Grant as Viability Gap Funding to Indradhanush Gas Grid Limited for setting up the North East Natural Gas Pipeline Grid

 $8^{ ext{th}}$ January 2020 was a red letter day for the North East region.

The Cabinet Committee on Economic Affairs, chaired by Prime Minister Shri Narendra Modi, granted its approval as under:

- The North East Gas Grid project of Indradhanush Gas Grid Limited with viability Gap Funding/ Capital Grant at 60% of the estimated cost of Rs 9265 crore (Including interest during construction). Quantum of VGF would be capped at 60% of estimated project cost and would not be linked with upward capital cost variation.
- MoPNG shall identify milestones for major activities for this project and link the same for releases of capital grant of the project.
- For effective monitoring of the project implementation, a Committee comprising of officials from Ministry of Petroleum & Natural Gas, Department of Expenditure, Ministry of Development of North East Region, Ministry of Environment, Forest & Climate Change, and Department of Fertilizers, may be formed, which would periodically review the progress in implementation of the project and take steps to smoothen out any issues in execution.

- Total length of pipeline is 1656 KM and tentative project cost is Rs 9265 crore. As per the plan, Gas Pipeline Grid would be developed in the eight states of the North-Eastern region i.e. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
- The Capital Grant will provide natural gas supplies to various types of consumers viz. Industrial, PNG(Domestic), CNG (Transport) etc. and would immensely help in substituting the liquid fuels. The pipeline grid would ensure reliability and uninterrupted natural gas supplies to the consumers which otherwise gets severely affected due to various reasons in this part of the country.
- Availability of Natural gas across the region is expected to boost industrial growth without impacting the environment and would offer better quality of life to the people in general due to use of cleaner and green fuel.

Socio-Economic and Environmental Benefits

- Development of industrial climate in eight states of the north-eastern region i.e. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
- Reduction in the usage of kerosene, wood etc. due to increased usage of environment friendly fuel natural gas thereby improving the environment in the region.

- Improvement in the standard of living of peoples living in the region.
- It will boost Exploration & Production activities and connect regional gas sources with pipeline network for early monetisation of natural resources in the region.
- Possibility of installing bottling plants for LPG can be explored for reducing transportation cost. Uninterrupted supply of LPG and other value-added products can be ensured in the region which will bring energy security to the people in the area.

Background

To usher in Gas based economy and to increase the share of natural gas in country's primary energy mix, Government is taking focused steps viz. enhancing domestic gas production, expeditious development of gas infrastructure including pipelines, City Gas Distribution (CGD) networks and Re-gasified Liquefied Natural Gas (R-LNG) Terminals as well as development of Gas market by providing open access to gas infrastructure.

Indradhanush Gas Grid Limited (IGGL), a joint venture company of five CPSEs (IOCL, ONGC, GAIL, OIL and NRL) has been incorporated on 10.08.2018 to develop and operate Natural gas pipeline grid in North-East region. Petroleum & Natural Gas Regulatory Board (PNGRB) has also issued provisional authorization to IGGL on 14.09.2018 for the development of North-East Gas pipeline grid.

People

Superannuation

Adieu to Sr. CGM(Mktg & BD), Mr. Bruno Ekka

Mr. Bruno Ekka, Sr. Chief General Manager (Marketing & Business Development) superannuated from the services of NRL on 29.02.2020. The Company gave him a warm send off at the farewell meeting held in the Conference Hall of Corporate Office Guwahati on his final day at work. Present at the function were MD, Director(Technical), Head of HR, Head of Corporate Affairs,

officers of NRL Corporate Office and Marketing Office along with overwhelming representation from all NRL

entities viz. Officers' Association, Employees Union, Kaliyani Club and Rangchali Club. His exemplary service to the Company was lauded and acknowledged by speaker after speaker; who reminisced and recollected anecdotes and experiences manifesting his sterling qualities through which he commanded much respect and admiration from all quarters.

One of the pioneering members of the NRL family, Mr. Ekka is credited with nurturing and

shaping the HR function of the Company since its formative years, lending expertise and direction in different areas of HR including Administration, HRD, ER, IR, PR bringing in the highest level of dynamism and professionalism; which helped NRL stand tall in the industrial horizon of the State and the country. As Head of Marketing from April 2014, he infused values of collaboration and team spirit, thereby

holding the function in good stead. He joined NRL, Delhi office as Senior Manager (P & A) on deputation from BPCL on 18-12-1995 and opted to be absorbed in NRL ten years later in the year 2005. Mr. Ekka is a graduate from DHSK Commerce College, Dibrugarh University and studied Personal Management & IR from the prestigious XLRI, Jamshedpur.

Farewell and felicitations from different entities



Rangchali Club



NRL Officers' Association



NRL Employees Union



Kaliyani Club



Head of HR on behalf of NRL



A warm send-off

Greetings and felicitations



MD Mr S.K. Barua greets newly appointed Chief Secretary, Govt. of Assam -Kumar Sanjay Krishna on New Year's Day in Guwahati on taking over the top job of the State bureaucracy.



MD Mr S.K. Barua greets Director General of Police, Assam Police -Mr Bhaskar Jyoti Mahanta at his office in Guwahati on New Year's Day.



New Year 2020 greetings extended to Hon'ble Petroleum Minister Shri Dharmendra Pradhan from combined group of BPCL & NRL officials on 3rd January in New Delhi

Picture speak





MD Mr S.K. Barua addressing the Biennial session of Asam Sahitya Sabha on 3rd January 2020. NRL supported, Assam Sahitya Sabha instituted Biennial Mamoni Raisom Goswami award was presented during the function to eminent Marathi litterateur Shri Vishwas Patil by His Excellency the Governor of Assam Shri Jagdish Mukhi in presence of newly elected President of ASS -Dr. Kuladhar Saikia and a host of dignitaries at the main stage of the Sabha teeming with literary enthusiasts and people from all walks of life

Internship Training



175 students reported for Internship Training at NRL Training Centre on 21st January 2020

Achievers

Outstanding achievement by Mansi Motwani



Ms. Mansi Motwani, GET (Fire & Safety) secured first position in B E (Fire Engineering) 2019 from the premier National Fire Service College at Nagpur. Picture shows Mansi receiving the Medal of merit from Hon'ble Union Minister of Home Affairs, Govt. of India, Shri Amit Shah at a function held on 2nd January 2020.

We wish her a wonderful future and many more achievements!

Achievers

Sarmistha earns her MBBS



Ms. Sarmistha Choudhury, daughter of Mr. Amarendra Nath Choudhury DGM(Commercial) and Meenakshi Choudhury has completed her MBBS from ICARE Institute of Medical Sciences and Research and Dr. B.C.Roy Hospital, Haldia under 'The West Bengal University of Health Sciences'.

She is now pursuing her Internship in Dr. B.C.Roy Hospital, Haldia.

More accolades for Sanjay Das

Mr. Sanjay Kr. Das, Sr. Manager (Ware House) represented India in the '4th World Wide Pro-Qualifier IFA CLASSIC'2020 International Body Building Championship' organized by WFF International which was held at District Library Auditorium, Guwahati on 8th February' 2020 and won championship in performance category as well as overall championship. He has been selected for three forthcoming International Body Building Championship organized by WFF International based on his performance.





BPCL Director (Marketing), Mr Arun Kr. Singh and Director (Finance), Mr N Vijayagopal visited Numaligarh on 3rd February 2020.

In touch with

The Story of NRL - XIV

This is the 14^{th} in the series of articles chronicling the journey of NRL through the eyes of one of the founder members of NRL family



Dipak Chakravarty Former MD, NRL

Dr. R.A. Mashelkar Committee Report on "Auto Fuel Policy 2003" was approved by Govt. of India and decided to implement BS-III (Euro- III) and BS-IV fuel standards in the country. BS- III Standard was scheduled to be implemented by April 2005 whereas BS- IV by April 2010. Implementation of BS- III Specifications for MS implied that the Sulphur level to be brought down from 500 ppm to 150 ppm and at the same time Octane Number shall be improved from prevailing 88 to 91. Also, Benzene in MS to be reduced from 3% to 1%. In case of Diesel, Sulphur level to be reduced from 500 ppm to 350 ppm while Cetane Number to be increased from 48 to 51. In case of NRL, as MS was not in the product slate, new specification for MS was not applicable at that stage. NRL was producing Euro- II Diesel since 2003 with changes in Refinery operating philosophy. (This was discussed in the earlier Article). Production of BS- III Diesel by 2005 threw another challenge to NRL as no new capital investment was possible. It was again through brain storming sessions amongst Technical Services, Operations Groups, EIL and licensors endeavoured to experiment production of BS-III Diesel by adjusting operating

parameters in Hydrocracker and CDU and modifying operating philosophy yet again. That necessitated operating the CDU at 80% load and correspondingly, Hydrocracker at 100% +load. Capacity utilisation of the DCU could not be adjusted as it was needed to operate at 100% load due to processing of Vacuum Residue. The above meant that BS- III Diesel was possible to be produced with the existing configuration by modifying operating philosophy and at the cost of limiting Refinery overall capacity to 80% only. Production of Kerosene and ATF also would get affected due to requirement for diversion of higher quantity of Hydrocracker Kerosene to the Diesel Pool. LPG production also would reduce whereas Sulphur Recovery Unit to be operated at higher severity to recover additional quantity of elemental Sulphur. Though, economically it was not a sound proposition, the same was to be implemented considering mandatory requirement of making BS-III Diesel available in the Market by April 2005. Notwithstanding operating issues, it was a major achievement to be able to add BS-III Diesel to the Product Slate in December 2004 itself ahead of the scheduled date. As mentioned earlier, Sulphur Recovery Unit

In touch with

was to be operated at higher severity and at higher load. Resultant higher production of elemental sulphur was initially difficult to market due to lack of customers. Continued lower availability of Crude turned out to be a positive factor for operating the Refinery

at BS-III Diesel mode. It may be mentioned here that the Refinery Configuration was finalised during mid 1990s and commissioned in the year 2000 considering production of Diesel with 2500 ppm Sulphur. It was indeed a remarkable achievement that with the same design configuration and crude quality NRL was able to produce BS-III Diesel (350 PPM Sulphur) without any capital investment.

Since the days of Project implementation, NRL had always been putting emphasis on personnel and plant safety following the best practices, and adopting State-of-Art Safety Management Systems . All Oil Industry Safety Directorate Standards, National and International Standards applicable in Engineering, project execution, operations, maintenance etc. and also Licensors' / vendors' safety guidelines and protocols were built- in into the safety Management system. A healthy Safety Culture was also instilled amongst the employees. Within a very short spell of time NRL had received many Awards and Accolades from various Govt., Semi Govt. and private institutions/Organisations like MOP&NG, OISD, GreenTech Foundation etc.

To further improve the Safety Management system it was decided to adopt International Safety Rating System. ISRS was considered to be the best Benchmarking protocol and the most comprehensive Loss Control Management Evaluation System ever developed and practised world-wide. The prevailing Industry practice was to frame objectives for achieving ISRS Award levels 3-5 initially and then gradually progress towards Levels 7-8 over a period of time involving arduous task of Developing, Establishing, Integrating, Adapting, Absorbing, Maintaining and continually enhancing large number of Advanced Systems and Practices. It also demanded tremendous internal net working and Cross Functional Groups/Team activities by large number of employees for a sustained period beyond their functional responsibilities. With limited manpower and constrained resources it was not only a very difficult proposition but also a herculean task. However, with very high level of commitment, motivation, mutual discussions and brain storming sessions the employees of NRL with unstinted support and guidance of Management decided to break prevailing Industry practice and directly target an ISRS level- 8 Award at the first attempt itself. After putting in sustained efforts, hard work and commitment of each and every one involved, the ISRS- 8 protocol was developed within a period of less than a year. The same was offered for Audit in the first week of March 2003 to a team of Auditors appointed by DNV. The Audit team was led by an expert from Australia. After an in-depth Audit, DNV was fully satisfied with the compliance of the requirement of the Protocols and ISRS Level- 8 Award was granted as targeted in its very first attempt. It was indeed a rare achievement by any measure and perhaps NRL was one such organisations world -wide and the first in the Indian Oil Industry to achieve this feat. As the DGM (Operations) I was fortunate to lead the NRL team with support from all employees and Management. Looking back now it was definitely a big challenge for all of us. While hard work and commitment of everyone involved shall be recognised, special mention may be made of shri Debashis Choudhury, the then Sr. Manager (Inspection), for his efforts as the Chief Co-ordinator. Thus, in March 2003 NRL earned another feather in its Cap and became an ISRS-8 Refining Company - the first in the Country. In the very next year, it was decided to prepare for the ISRS Level -9 Award. New protocols were added and earlier protocols were enhanced and again with commitment, hard work and dedication of all involved the ISRS-9 protocols were completed and offered to DNV for Audit. The same had gone through an in -depth audit by DNV Auditors in December, 2004. On satisfactory completion of the audit DNV granted the ISRS Level-9 Award. A very rare and proud achievement for a young organisation. Shri Gopal Sarma, the then Sr. Manager (Inspection) was the Co-Ordinator for the ISRS Level -9 Task. With this achievement NRL

had established itself as an ISO and a ISRS Level -9 Petroleum Refining Company in the Oil Map of the Country and the World within a period of 5 years since commissioning of the Refinery.

The Coke Calcination unit was also commissioned successfully during 2004-2005 adding Calcined Coke as a new product to the Product slate.

The Marketing activities were stabilised and growth was also ensured by setting up uniquely designed State- of — the Art Retail Outlets within and outside the North East.In addition to the marketing offices set up earlier in Delhi and Guwahati, a new office was set up in Kolkata to look after the Marketing activities in the Eastern Region.

The financials of the Company also had improved over the years continuously registering yearly growth in Net profit. It may be mentioned here that NRL's request was considered by the Govt. of India and allowed 100% Excise Duty exemption on sale of Administered Products viz . MS and HSD w.e.f February 2000.It was however subsequently reduced to 50% effective March 2002 and the same relief was extended to all North East Refineries effective March 2002. The benefit of the above concession is still being enjoyed by

all North East Refineries. Since its very first year of operation, NRL had been registering growth in Profit and regularly paying Dividends to its stake holders. The Net Profits and Dividends paid to the stake holders since declaration of commercial operation of the Refinery in the year 2000 to the year 2004-2005 is shown below.(As the present Article covers NRL's activities upto 2004/05 these data have been picked up for this period only)

Year	Net profit (` Crs)	Dividend Paid (`Crs)
2000-2001	21.6	6.63
2001-2002	122.98	37.52
2002-2003	174.63	52.97
2003-2004	214.95	64.74
2004-2005	409.15	125.05

With increasing activities over the years, the Net profit has increased manifold today and NRL continues to grow as a Profit generating Company.

At the Corporate and Board Level there had been certain land mark developments during the period 2002 -2005.

Shri Ranjit Kumar Dutta, who had joined NRL at the initial stage of the Project, as an Officer on Special Duty in February, 1994 ,took over as the first Managing Director in August 1995. His Management skills, involvement, commitment, Co—ordination efforts , coupled with his Vision saw the completion of the project within time and without any cost over-run. He served NRL till 30th April 2002 and subsequently, took over as The C&MD of the prestigious Oil Exploration and Production Company, Oil India Limited.

Dr. Bhupati Kumar Das, the then Director(Finance) ,NRL took over as the Next Managing Director in November 2002. He was operating as the MD-In-charge and Director(Finance) during the period May 2002 till Nov 2002 before taking over as the Managing Director. Dr. Das led NRL through critical times, and gave a boost to the Marketing efforts for setting up of Retail outlets, SAP implementation and to the over all growth of the Company.

Shri T. K Ananthkumar assumed charge as the Director (Finance), in January 2004 and continued till January 2007. Subsequently, he joined Oil India Ltd as Director (Finance). During his tenure, Siliguri Marketing Terminal and the Duliajan—Numaligarh Gas Pipe line Projects were conceptualised.

Under the aegis of a committed and Visionary Management, spectacular growth and development were witnessed which paved the way for NRL to be recognised as a Technology savvy and safety oriented Organisation, with both Refining and Marketing activities, in India and also in the Global context.



After the lockdown, both employers and employees have eased into a new way of working — work from home (WFH). With new learnings emerging, WFH, a concept that was otherwise shunned by many and adopted by few, has gained more acceptance and is expected to become the new norm even after restrictions are lifted.

India Inc leaders and HR experts believe WFH is going to be the way forward for a large section of employees. This would, however, bring about a change in communication, employee-manager relations, 'work time' behaviour and would necessitate framing of new HR policies going forward.

Nestle India chairman and managing director Suresh Narayanan said, "We will all be facing a new normal when this crisis is over. Ways of working are expected to evolve, as the long lockdown periods have dispelled many of the

notions associated with effectiveness issues while working from home." Even before the statewide and restrictions national imposed on were commutes, progressive organisations like Hindustan Unilever decided to move entire office-based staff onto a WFH platform, without providing a time frame as to when this would revert to the old way of working.

are realising, with cost savings on real estate, there's a need for hot-desking. The new work model will be vastly different from the old paradigm." Goenka added that even after the lockdown is lifted, several employees may still have to work from home.

"We may need to understand how seating arrangements would be made at offices. Even after restrictions are lifted, we would need to maintain social distancing in conference rooms, in canteens and everywhere in offices," said Goenka.

Randstad India managing director & CEO Paul Dupuis said, "When people go back to work, it's not going to be the same arrangement across organisations. Some could think of having alternate weekly shifts as a new work arrangement. There will also be employees who may have anxiety issues

returning back to the office. Organisations may need to allow them to continue working from home."

While it appears to be certain that the post-Covid worklife would be different from what it used to be earlier, experts said this would require organisations to frame new HR policies to ensure a smooth shift to a new paradigm. Remote working is equal to a distant relation between

CHALLENGES GALORE

- ➤ In WFH mode, employees would be socially isolated from office teams with no personal interactions or chats
- Accountability and performance will be measured clearly
- Most communication will be written and transparent, negating importance of body language
- Discipline would be paramount — no naps or 'away'

- time during peak office hours
- Even if offices open again, social distancing may have to be maintained in all areas
 - Cos may divide the workforce into different teams, for instance, to come into the office in alternate weeks
- ➤ Some employees may also find it extremely difficult to go on office commutes again or even to return to the workplace

Family and career

an employee and an employer. That distance needs to be bridged by 'over-communication', said Shital Kakkar Mehra, a business etiquette and cross cultural coach, who believes WFH could lead to social isolation of employees.

"We are used to greeting people at water coolers, coffee machines, elevators, parking lots, and have some quick chats. Social isolation could pose a mental health problem. After Covid, HR's role will change dramatically in terms of engaging a workforce that is working remotely. They will have to ensure that teams stay connected through virtual lunch meets, for instance," said Mehra.

Accountability and ownership, too, will undergo a dramatic shift. Earlier, even if employees were at work, they may not have been as productive. They will now have to take up the ownership as productivity will be measured in black and white. Recently, an executive failed to show up for an internal digital meeting with team members. The reason: The executive had started taking siestas. Maintaining discipline is something most executives are talking about.

"It's important to maintain work hour timings and the duration in which you may be away at lunch or to attend to other personal tasks. However, each one may have their own peak productivity hour. Managers may need to respect that. Productivity may need to be redefined and based strictly on outcomes," said Mehra.

How will conflicts be resolved? Earlier, if an employee had an issue with his or her co-worker, they would walk across and talk it out. If unresolved, the matter would be escalated. "When you meet someone face-to-face, you can sense the body language. Those conversations may be difficult to execute digitally. One may now choose to either live with such conflicts or push it under a carpet, given the technological barriers. On the other hand, what we always wanted to say, but couldn't muster the courage, may now be possible, hiding behind the tech barrier," said Mehra.

In an office environment, usually a manager could get called in by a senior for a feedback session. Stress on articulation was important, but so was body language. "There will be more transparency in a digitally connected world. Informal chats too would now be in a written form. The language may have to become more polished. It will also serve as written proof of what a manager asked of his team members," said Mehra.

Source: http://timesofindia.indiatimes.com



Magh Bihu Celebrations

Magh Bihu, the joyous harvest festival of Assam was celebrated on 12th January 2020 with fervor and enthusiasm at Kaliyani Club. Kaliyanites enjoyed the evening with scrumptious Assamese Jalpan. Traditional

Bihu Husori performance entertained and mesmerized the members of Kaliyani Club. Unplugged Assamese music session added flavor to the Bihu celebrations.









Kaliyani Club Tennis Ball Cricket Tournament

The much awaited Kaliyani Club Tennis Ball Cricket Tournament was held from $15^{\rm th}$ – $20^{\rm th}$ February '2020 at NRL main playground. Almost 60 employees in the Men's category across four teams- Pitch Smashers, Black Panthers, Ferocious Strikers and Rampage Hitters played in the league matches to the delight of the cheering crowds.

The year 2020 also witnessed the ladies of NRL coming forward to display their cricketing skills and add to the spirit of the Kaliyani Club Tennis Ball Cricket Tournament. About 35 ladies across three teams - Infinity Strikers, The Groundbreakers and The Supernovas played with great enthusiasm.

The Men's Cricket grand finale was played on 18th

February'20 between Ferocious Strikers led by Mr. Raju Chetia and Black Panthers led by Mr. Pantha Gaurab Borah and the Women's Cricket grand finale was played on 20th February'20 between Infinity Strikers led by Mrs. Pooja Singh and The Groundbreakers led by Mrs. Manisha Hazarika which generated huge excitement in the spectators present in the ground.

Black Panthers team proved invincible by defeating Ferocious Strikers and on the other hand Infinity Strikers thrashed The Groundbreakers in the exciting finales and lifted the Winning trophies. Mr. Pantha Gaurab Borah and Ms. Mansi Motwani were adjudged Man and Woman of the Series respectively.













Bhogali Bihu festivities at Rangchali Club

Bhogali Bihu, the annual harvesting festival of Assam was celebrated with all festivities on 15.01.2020 at the Club premises. The traditional meji prajjwalan or burning of the ceremonial bonfire marked the start of the celebrations followed by serving of Bihu delicacies amongst members.



Workshop on National Pension Scheme

R angchali Club organised a workshop on National Pension Scheme (NPS) on 9^{th} & 10^{th} January, 2020 for the benefit and knowledge of all members.

Book fair organised

The Anwesha book fair was organised within the Club premises from 22th to 24th February, 2020.



Saraswati Puja celebrated

Members paid obeisance to the Goddess of Learning on the occasion of *Saraswati Puja* held on 29.01.2020 and sought her blessings. As part of the *Puja*, members and their families were offered *puspanjali*, *prasad* and *bhog*.



Seven-a-side Day & Night tennis ball cricket tournament

Rangchali Club organised sevena-side tennis ball cricket tournament amongst its members from 23th to 27th February, 2020 at the NRL main playground. Many teams joined in this tournament to make it a grand success.





Volleyball tournament held

Avolleyball tournament was organised amongst Club members on 16.02.2020 at the NRL main playground. The tournament ended in a spirited note witnessing huge participation.





Farewell to Mr Bruno Ekka

Founder President of DNest Club, Mr Bruno Ekka who superannuated from his services on 29th February, 2020 was given a warm send off by the Executive Body members in the evening of 27th February, 2020 at the 'Club House.'



DNest Annual Picnic

 $T^{\rm he}$ eagerly awaited DNest Picnic was organized on the $9^{\rm th}$ of February, 2020. Taking a welcome break from their regular routine, DNest family members enjoyed a fun filled and relaxing day at 'Chanaka Eco Camp.' Apart

from enjoying the serene river beach of the mighty Brahmaputra and its surrounding hills, members enjoyed a host of fulfilled activities like beach volleyball, rappelling, zip lining and exploring the area on Mountain Bikes.

Glimpses of Picnic





Assam Academic Excellence Award

Delhi Public School, Numaligarh added another feather to its cap by bagging the 'Academic Excellence Award' based on the outstanding performance for the Academic year 2018-2019. NEWS 18 ASSAM NE and NPS International School joined hands collectively in celebrating the selfless contribution of the Principals and

Teachers in Assam in building the future of the State. Mr U. C. Harbola (Principal, Delhi Public School, Numaligarh) and Mr. Mathew Joseph (PGT, Political Science) were felicitated on 4th January 2020 at NPS International School, Guwahati, for their assiduous contribution towards the school's growth.

Contribution for Armed Forces Flag Day Fund

Principal, Delhi Public School Numaligarh handed over a cheque worth Rs. 15, 918/-, which was a noble contribution from parents, students and DPS fraternity to the Deputy Commissioner Golaghat, Shri Bibhash Ch. Modi,

in presence of Jt. Director , Zila Sainik Welfare Board Mr B. Saikia on $18^{\rm th}$ January 2020. Both the high ranking officials conveyed their heartfelt gratitude to all DPSN members for their noble support.

Republic Day Celebration

elhi Public School, Numaligarh celebrated the 71st Republic Day in the school premises with great pride. The teachers and the students assembled in the basketball court making this monumental day a memorable one. The NCC cadets escorted Principal Mr. U.C. Harbola to hoist the National Flag. It was followed by the speeches given by two of the students, Karmishtha Nath (Class IX-B) and Uttirna Talukdar (Class XI-A). A speech was delivered by the Principal, wherein he highlighted the importance of our constitution and our duties as the citizens of India. He reminded the students of their duties which they need to fulfil to become better individuals in future.

The day was celebrated in all its solemnity and grandeur at Numaligarh in joint venture with NRL and its associates. The occasion was graced by Shri S.K. Barua (Managing Director, NRL) and other officials of NRL and CISF. The programme began by laying wreath at the Amar Jyoti Jawan by the Chief Guest and paying homage to the immortal soldiers. This was followed by the customary unfurling of the National Flag and singing the National Anthem.

An air of patriotic fervour permeated the atmosphere wherein students presented a bouquet of colourful program and marched in contingent along with the CISF personnel.







Art and Literary Fest

"Our truest response to the irrationality of the world is to paint or sing or write for only in such response do we find truth."Madeleine L' Engle

The days were 18th February 2020 and 9th March 2020, a day very clearly etched out as the day of the maiden Art and Literary Fest 2020.

Children from classes I to VIII were divided into categories based on their class and given themes on which they could either compose a poem or a short story or could convey their ideas through colours and sketch. The football field, the

basketball court and the volleyball court or the junior school open spaces were buzzing with busy bees at work. This day was lived to the fullest not just by the children but also by their teachers as they worked hand-in-hand in participating alongside the students. It was great fun and pleasure to watch the teachers sharing space and stationery kit with the students.

The event was an enriching, eye opening one which uncovered children to the beauty of English Literature and Art. A few teachers also participated in composing poems, stories and art. Overall, it was a great learning experience for

the students as well as teachers. Since every activity in school is conceived and designed with the growth of students in mind, this activity too ensured to motivate the students and teachers alike, in the form of prizes in each category.

Sukriti News

The children of Sukriti
Resource Centre had an
outdoor learning activity
inside NRL township as
outdoor learning experiences
to develop reflective and
inquisitive thinking along
with problem-solving
approaches in 'real' situations
and encourage holistic
development of children





Blessing Ceremony

"It's sad, but sometimes moving on with the rest of your life, starts with goodbye." - Carrie Underwood

The time had come to say goodbye to our beloved Class – XII Batch 2019-2020. Class XI with the guidance of the school, organized the Blessing Ceremony 2019-2020 on 8th February 2020. The program began with the Cake Cutting Ceremony, followed by Choir and Solo Song performance by students of Class XI. The Class XII students were given Folder Files as going away gifts by the school, which had in them a

personalized title (such as Mr. All Rounder) engraved in them. The three streams were given blessings by their respective Class Teachers during the 'Title Ceremony'. The Class XIIs thoroughly enjoyed the two dances prepared by the Class XI students, cheering them on all throughout. The Class XII students took their time to thank the school for everything, and every teacher for being their beacon light in the dark, all these years. With all the fun and enjoyment over, the much awaited day had finally come to an end, with a dinner.

Activity Prize Day

The Activity Prize Day for the session 2019-2020 was organized at the Junior Wing on 8th February 2020 with great zest and vehemence. The excellence achieved by the determined and committed students in various spheres was celebrated and given due recognition. The achievers were

awarded with certificates and mementoes by Principal Sir and Senior Mistress- Mrs Namita Borah. The students of Classes II and III presented an English group recitation and a melodious choir.

National Safety Week Observation

"Safety is not just a slogan; it's a way of life."

To make the students aware of the traffic rules and safety measures that one should follow while moving on the road, a Poster Making Competition on the theme 'Road Safety' was organized for the students of Classes IV and V.

Visit of Independent Director, NRL

Independent Director Dr Sylvanus Lamare, Numaligarh Refinery Limited visited DPS Numaligarh on 9th March 2020 accompanied by Pro-Vice Chairman Shri Gopal

Sarma, CGM(Operation). He was highly impressed with the quality of holistic education being provided by the School with the kind support of NRL Education Trust.A



Fight against Covid-19

Boosting your Immune System against Coronavirus: How to minimize the risk of infection?

Improve Your Diet:

- · Low carbohydrate and high protein diet.
- Consume regularly vegetables and fruits rich in Beta carotene, Ascorbic acid & other essential vitamins.
- Certain foods like mushrooms, tomato, bell pepper and green vegetables like broccoli, spinach are also good options to build resilience in the body against infections.
- Certain seeds and nuts like sunflower seeds, Flax seed, pumpkin seeds and melon seeds are excellent sources of protein and vitamin E.
- Probiotics like Yoghurt, Yakult and fermented food are also excellent sources to rejuvenate the composition of gut bacteria, which is important for nutrient absorption by the body. These are good options for the older
- Don't Compromise on Sleep: Good snooze time for 7-8 hours is the best way to help your body build immunity; lesser sleep will leave you tired and impair your brain activity.
- Stay Hydrated: Drink up to 8-10 glasses of water every

day, to stay hydrated. Hydration will help flush out the toxins from the body and lower the chances of flu. Other alternatives include juices made of citrus fruits and coconut water, to beat the heat.

Don't Skip on Exercise:

- Exercise regularly; even light exercise will go a long way in releasing the toxins from your body.
- It is recommended to exercise for 30 to 45 minutes, depending on your stamina.
- Regular exercise improves metabolism, which has a direct correlation with body immunity.

Destress Yourself:

- While the uncertainty might be overwhelming, there are few steps we can follow regularly to help relieve our stress, stress is known to have an adverse effect on immunity.
- Practice meditation, involve in household works, listening music, avoid smoking, alcohol and other addictive substances.

Ayurveda's immunity boosting measures for self care during COVID-19 crisis

General Measures:

- Drink warm water throughout the day.
- Daily practice of Yogasana, Pranayama and meditation for at least 30 minutes.
- Spices like Haldi (Turmeric), Jeera (Cumin), Dhaniya (Coriander) and Lahsun (Garlic) are recommended in cooking.
- Drink herbal tea / decoction (Kadha) made from Tulsi (Basil), Dalchini (Cinnamon), Kalimirch (Black pepper), Shunthi (Dry Ginger) and Munakka (Raisin) -once or twice a day. Add jaggery (natural sugar) and / or fresh lemon juice to your taste, if needed.
- Golden Milk-Half tea spoon Haldi (turmeric) powder in 150 ml hot milk -once or twice a day

PROTECT YOUR RESPIRATORY TRACT

- Nasal application -Apply sesame oil / coconut oil or Ghee in both the nostrils (Pratimarsh Nasya) in morning and evening.
- Oil pulling therapy-Take 1 table spoon sesame or coconut oil in mouth. Do not drink, Swish in the mouth for 2 to 3 minutes and spit it off followed by warm water rinse. This can be done once or twice a day.

During cough/cold:

- Steam inhalation with fresh Pudina (Mint) leaves or Aiwain (Caraway seeds) can be practiced once in a day.
- Lavang (Clove) powder mixed with natural sugar / honey can be taken 2-3 times a day in case of cough or throat irritation.
- Consult doctor if not responded.

Conclusion:

- As per The World Health Organization "the worst is yet ahead of us" in the corona virus outbreak, reviving the alarm just as many countries ease restrictive measures aimed at reducing its spread.
- Restriction of movement only for extreme necessity, physical distancing, wearing quality mask in social places, frequent hand washing with soap, frequent use of hand sanitizers early hospital visit for any warning symptoms are to be followed religiously for coming days.

Source: Ministry of Ayush; Dr. Devi Shetty, Founder of Narayana Health



Inauguration of Hospital Information Management System by Mananeeya A. Balakrishnan Ji, Vice President, Vivekananda Kendra, Kanyakumari on $10^{\rm th}$ March, 2020



Celebration of National Youth Day on 12th January 2020



CME Programme on 27th January 2020 at Golaghat Doctors Club



Celebration of Republic Day



Bharat Petroleum Dazzles at RPTM 2020

BPCL radiated the brightest at the 24th Refining and Petrochemical Technology Meet (RPTM 2020) in Bengaluru from 19th-21st January 2020, bagging a whopping 5 out of 8 awards for Refining, Innovation and R&D. Kochi Refinery was declared 'Winner' in 'Innovation Awards 2018-19' under the 'Best Innovation in Refinery' category for BPMARKK (Usage for Predicting Crude Yields). Kochi Refinery also received the Refinery Performance Improvement Award (Second Prize) for commendable performance among Indian Refineries. Corporate Research & Development Center (CRDC) was adjudged the 'Winner' in 'Innovation Awards 2018-19' under the 'Best Innovation in R&D Institute' category for 'K Model: Quick & Accurate Prediction of Crude Oil Blend Compatibility and Blend Optimisation of N Number of



Crude Oils'. In the same category, CRDC was also awarded for the development of 'Bharat-DWC Technology'. Mumbai Refinery received the Award for 'Innovation in Refinery' for 'In-line Crude Blending'.



Mumbai Refinery's Intelligent Plant Concept Shines at RPTM

MR has added another feather in its cap by getting the Best Conceptualisation and Representation prize at the RPTM at Bangalore. MR's concept on Digital start-up – Gasoline Treatment Unit, using state-of-the-art Business Wi-Fi network and mobility solutions from Team GTU and Team Digital was adjudged the winner amongst 78 other concepts from across refineries.



Internal Audit Conferred with "Best Application of Technology" Excellence award



Internal Audit team has emerged as the winner in the "Best Application of Technology" category and was conferred with an "Excellence Award" for extensive use of technology at the Annual Conference 2019 organized on 19th & 20th December 2019. The award was conferred on BPCL for the implementation of "One Click" Audit and leveraging technology as a tool in improving internal controls and governance.

BPCL First in the Country to Export VLSFO

With the export of its first parcel of IMO 2020 grade Very Low Sulphur Fuel Oil (VLSFO) from Kochi to Singapore on 7th February 2020, BPCL created history as the first Oil Marketing Company in India to export this product. Stringent IMO standards aimed at preventing

pollution from marine and shipping operations are reshaping the marine fuels landscape and the global cap on sulphur content for general shipping stands reduced from 3.50~% wt to 0.50~% wt effective 1st January 2020.

I&C Inks MOU with Rossari Biotech

On 7th January 2020, I&C inked its maiden MOU with M/s. Rossari Biotech Ltd. for Petrochemicals supply of 6 TMT Acrylic Acid and 2.5 TMT Butyl Acrylate Acrylic Acid from Kochi Refinery. Rossari Biotech are specialty chemical manufacturers, using acrylic acid for manufacturing a range of polymer additives that enable to get the best performance at optimum prices.



I&C Signs MOU With TNSTC

In order to retain volumes, I&C's Chennai and Coimbatore territories signed an MOU with TNSTC (Tamil Nadu State Transport Corporation) for supplies of HSD to its units on 22nd February 2020. The State Transport Undertaking uplifts around 55 TKL monthly that is proportionately shared by all OMCs.





BPCL Receives SKOCH Leadership Award 2020



Corporate HSSE received the "Order of Merit" Award under the category "Sustainability' and Kochi Refinery won the Silver Award under the category "Green Initiatives" at the SKOCH Leadership Awards on 11th January, 2020. Bharat Petroleum was nominated by the SKOCH Jury under 5 categories - Reduction in Emissions under Sustainability, Corporate Governance, Green Initiatives at KR, Safety Management System and Skill Development.

Bharat Petroleum Receives Corporate Governance Award

Corporate HSSE won the Corporate Governance Award from the Indian Chamber of Commerce (ICC) for taking positive steps to manage and measure its economic, environmental and social performance and integrating sustainability into its core business models. In an attempt to recognize and honour endeavours taken towards creating a Sustainable Development model for the society at large, ICC organized the Corporate Governance & Sustainability Vision Awards on 18th February 2020 at New Delhi.



BPCL Bags Digital PSU Award

BPCL bagged the Digital PSU Award at the 7th PSU awards organised by Governance Now. Two digital initiatives of BPCL, "Retail Auto Invoicing System (RAIS)" and "Leveraging Machine Learning for solving IT issues in BITSS" (BPCL IT Services System - for IS related Complaints Management) were jointly the winning entries by BPCL. The Awards honour the efforts of PSUs that have been key to the country's economic growth and social development.



BPCL Bags Manufacturing Supply Chain Award



BPCL has been adjudged the Winner in the Manufacturing Supply Chain Awards presented by Future Supply Chain Solutions Limited, under the category of 'Quality Excellence in Planning, Processes & Systems' for the implementation of Secondary Optimization pilot project in the Company. Retail Logistics, Finance & SCO along with V-Plus Transportation task force worked on Optimization of Secondary Distribution Network for Retail and suggested optimized linkages for distribution of MS/HSD from primary sources to retail outlets. AspenTech PSCP (Petroleum Supply Chain Planner) was the Linear Programming (LP) tool used. The implementation started in October 2019 in Maharashtra and was extended to Tamil Nadu from December 2019 onwards. Till Feb-2020, the total savings on Secondary Optimization for Retail is Rs. 2.53 Crores. This initiative will be rolled out pan India from 1.4.2020.



Mr. Reep Hazarika takes charge as MD BCPL

r. Reep Hazarika took over as Managing Director of BCPL wef 1st February, 2020. Prior to that, he was Chief General Manager at BCPL heading the overall operation and maintenance of the plant since 2016. He is the fourth incumbent to the top post of BCPL.



COVID-19 measures at BCPL

Joining hands with the entire world, BCPL has also initiated various activities to combat spread of COVID-19. The operational areas of BCPL and nearby areas are being frequently sanitized. Awareness campaigns for



Sanitization carried out at Barbaruah Police Station

employees and local people were arranged. The company also distributed essential items to stranded truck and tanker drivers, local villagers and contract workers. PPE's and masks were also distributed to people from



Distribution of essential commodities to stranded Truck Drivers

nearby areas. The company contributed Rs. 20 Lacs to PM CARES Fund and employees contributed one day's salary to Assam Arogya Nidhi.



Disinfection activities carried out at Market
Area

SAKSHAM Observance

As part of Sanrakshan Kshamata Mahotsav, Saksham-2020, an initiative by PCRA under MoPNG from 16th January to 15th February, 2020 on the theme "Indhan Adhik Na Khapayein Aao Paryavaran Bachayein" BCPL organized various activities like awareness programmes, drivers training, essay & drawing competitions,



walking rally etc. to generate awareness among BCPL employees and stakeholders about adopting Fuel



conservation and efficiency measures for Environment Protection.

BPCL Foundation Day

BCPL celebrated 13th Foundation Day on 8th January 2020. On this occasion, 1st Batch of Graduate Engineering Trainees (GETs)/ Executive Trainees (ETs) who had completed 10 years of service were felicitated with a citation by the Managing Director.



International Women's Day celebrated

A panel Discussion was organized during International Women's Day, 2020 at BCPL Dibrugarh wherein Ms. Sanchita Banerjee, CGM, OIL and Apex President of Women In Public Sector (WIPS), Ms. Tarali Sarmah, renowned musician from Assam, Ms. Sanjukta Dutta, an Assamese Fashion designer and Ms. Aradhana Borthakur, Faculty from Centre for Management Studies, Dibrugarh University participated.



नुमालीगढ़ रिफाइनरी में हिंदी कार्यशाला का आयोजन



कार्यशाला के प्रतिभागियों सहित श्री देबाशीष चौधुरी, वरिष्ठ मुख्य महाप्रबंधक (एचआर एवं विधि) (बीच में)

के माध्यम से हो या प्रविष्टियों के माध्यम से या नोटिंग के माध्यम से। इस अवसर पर अक्तूबर-दिसंबर '19 तिमाही के दौरान आयोजित हिंदी ईमेल-पत्राचार प्रतियोगिता की सर्वाधिक ईमेल भेजनेवाली विजेताओं को श्री देबाशीष चौधुरी जी के करकमलों से पुरस्कार प्रदान किए गए।

र्मार्थालयी कामकाज में हिंदी प्रयोग को बढ़ावा देने और हिंदी भाषा ज्ञान पर आलोकपात करने हेतु नुमालीगढ़ रिफाइनरी के कर्मचारियों के लिए दिनांक 12 फरवरी, 2020 को दोयांग अतिथि गृह के लंज में एक दिवसीय हिंदी कार्यशाला का आयोजन किया गया। कार्यशाला के प्रथम सत्र में हिंदी वर्तनी, एकवचन-बहुवचन, जेंडर, विभिक्त, मुहावरे आदि विषयों को शामिल करते हुए व्याकरण पर विस्तृत जानकारी दी गई और बाद में प्रतिभागियों से अभ्यास कराया गया। द्वितीय सत्र में कार्यालयों में प्रयोग होनेवाले पत्रों का विभिन्न प्रकार और इन सभी पत्रों का मानक प्रारुपों के बारे में जानकारी दी गई और अभ्यास कराया गया। दोनों सत्र अनुभवी गृह संकाय सदस्य द्वारा संचालन किया गया। कार्यशाला के समापन समारोह में वरिष्ठ मुख्य महाप्रबंधक (एचआर एवं विधि) श्री देबाशीष चौधुरी जी ने प्रतिभागियों को संबोधन करते हुए कार्यालयीन कामकाज में सभी को अधिक से अधिक हिंदी प्रयोग के लिए आह्वान किया चाहे वो ईमेल

नुमालीगढ़ रिफाइनरी में तिमाही ई-मेल प्रतियोगिता की विजेताओं को पुरस्कार प्रदान

र्यालय में हिंदी पत्राचार को बढ़ावा देने और राजभाषा विभाग द्वारा जारी वार्षिक लक्ष्य को प्राप्त करने के उद्देश्य से नुमालीगढ़ रिफाइनरी के कर्मचारियों के बीच गत वर्ष से त्रैमासिक ई-मेल प्रतियोगिता जो नियमित रूप से आयोजन किया जा रहा है, इसका अक्तूबर-दिसम्बर '19 तिमाही में आयोजित ई-मेल प्रतियोगिता के विजेताओं को दिनांक 12.02.2020 में आयोजित हिंदी कार्यशाला के दौरान पुरस्कार प्रदान किया गया हैं। उक्त पुरस्कार वरिष्ठ मुख्य महाप्रबंधक (मानव संसाधन व विधि) श्री देबाशीष चौधुरी करकमलों से प्रदान किया गया। विजेता प्रतिभागियों की सूची निम्नवत है -

प्रथम पुरस्कार	श्री सुव्रत प्रतीम खाऊंड, कार्यालय सहायक,
	(वित्त एवं लेखा)
द्वितीय पुरस्कार	श्रीमती रत्ना दास, कार्यालय सहायक-VII,
	(कार्मिक व प्रशासन)
तृतीय पुरस्कार	श्रीमती शमिष्ठा दत्त, वरिष्ठ प्रबंधक(सीएसआर)
सांत्वना पुरस्कार	1. श्री नव उदय बोरा, कार्यालय सहायक-VIII,
	(वित्त एवं लेखा)
	2. श्रीमती कावेरी हजारिका, प्रबंधक(प्रोजेक्ट)

सभी पुरस्कार विजेताओं को बधाई !





विजेताओं को पुरस्कार प्रदान करते हुए कार्यशाला के प्रतिभागियों सहित श्री देवाशीष चौधुरी, वरिष्ठ मुख्य महाप्रबंधक (एचआर एवं विधि)

"মাজুলীৰ গধূলি" নুমলীগড় শোধনাগাৰ শাখা সাহিত্য সভা

মলীগড় শোধনাগাৰ শাখা সাহিত্য সভাই জন্মলগ্নৰে পৰা অসমীয়া ভাষা, সাহিত্য, সংস্কৃতিৰ বিকাশৰ হ'কে কাম কৰি আহিছে। অসমীয়াৰ আবেগৰ লগত জড়িত 'নুমলীগড় শোধনাগাৰ' শব্দটো সাঙোৰ খাই থকা হেতু অসম সাহিত্য সভাৰ এই শাখাটিৰ দায়িত্ব নিশ্চিতভাৱে বহুখিনি বাঢ়ি গৈছে।

নুমলীগড় শোধনাগাৰ শাখা সাহিত্য সভাৰ এটি বহুদিনীয়া পৰিকল্পনা আছিল অসম তথা বিশ্বৰ ঐতিহ্যক্ষেত্ৰ; পৃথিৱীৰ বৃহত্তম নদীদ্বীপ; অসমীয়া ভাষা, সাহিত্য,



সংস্কৃতিৰ পুৰোধা মহাপুৰুষ শ্রীমন্ত শংকৰদেৱৰ পদৰেণু ৰঞ্জিত, মহাপুৰুষ শ্রীমন্ত শংকৰদেৱ আৰু মহাপুৰুষ শ্রীশ্রী মাধৱদেৱৰ মণিকাঞ্চন সংযোগৰ স্থলী, শংকৰী কলা-সংস্কৃতিৰ প্রাণকেন্দ্র তথা বিভিন্ন জনগোষ্ঠীৰ মিলনক্ষেত্র মাজুলীত এটি অন্তৰংগ গধূলি অনুষ্ঠান অনুষ্ঠিত কৰা। সাংস্কৃতিক ভাৱ-বিনিময়, আদানপ্রদানৰ জৰিয়তে সমন্বয়ৰ বান্ধোন সুদৃঢ় কৰাৰ উদ্দেশ্যে এই শাখাটিয়ে ইতিমধ্যে বিভিন্ন জনগোষ্ঠী অধ্যুষিত অসমৰ বিভিন্ন অঞ্চলত অন্তৰংগ গধূলি অনুষ্ঠান কৰি আহিছে। শাখা সাহিত্য সভাৰ এই পৰিকল্পনা বাস্তবায়িত কৰাৰ উদ্দেশ্যে যোৱা ১৫ ফেব্ৰুবাৰী তাৰিখে শাখাৰ সভাপতি শ্রীযুত হেমন্ত নাথ আৰু সম্পাদক দিলীপ শইকীয়াৰ নেতৃত্বত এটি ২০ জনীয়া সঁজাতী দলে মাজুলীত পদার্পণ কৰে। এই দলটিৰ অনান্য প্রতিনিধিসকল আছিল সর্বস্থী গদাধৰ ডেকা, দীপুকুমাৰ ভট্ট, সংগম পঞ্চানন, অজিত কুমাৰ দাস, গজেন দাস, মনোজ কুমাৰ দাস, ৰিপুণ শইকীয়া, প্রদীপ কুমাৰ দাস, অৰুণ গগৈ, ৰফিউদ্দিন আহমেদ, অমূল্য কুমাৰ বৰা, হেমেন হাজৰিকা, বীৰেণ দাস, ববিতা পঞ্চানন, জ্যোৎস্না ডেকা, মঞ্জুলা বৰা নাথ, নমী শইকীয়া আৰু জিতুল হাজৰিকা।

কাৰ্য্যসূচীৰ মূল সমন্বয়ক, সহঃ সম্পাদক অজিত কুমাৰ দাস আৰু মাজুলীৰ গ্ৰামোন্নয়ন বিভাগৰ অভিযন্তা, ডিব্ৰুগড়ৰ শ্ৰীযুত অনন্ত মহন্তদেৱ পৰিকল্পনাৰে "মেঃ পু অকুম"(ME: PO OKUM - সুখি ঘৰ)ৰ চোতালত সহযোগী অনুষ্ঠান 'মাজুলী কালচাৰেল ফাউণ্ডেশ্বনৰ উদ্যোগত বিয়লি ৫-৩০ বজাত অনুষ্ঠান আৰম্ভ



হয়। 'মাজুলীৰ গধূলি' অনুষ্ঠানৰ আয়োজকৰ হৈ শ্ৰীযুত সংগম পঞ্চাননে উদাত্ত কণ্ঠেৰে সকলোকে অনুষ্ঠানৰ মজিয়ালৈ স্বাগতম জনায়। অনুষ্ঠানত প্ৰথমতে মাজুলী জিলা সাহিত্য সভাৰ সভাপতি তথা আগন্তুক অসম সাহিত্য সভাৰ মাজুলী অন্তৰ্বৰ্তীকালীন বাৰ্ষিক অধিৱেশনৰ আদৰণী সমিতিৰ সভাপতি শ্ৰীযুত প্ৰভাত বৰা বুঢ়াভকত, মাজুলী জিলা সাহিত্য সভাৰ সম্পাদক শ্ৰীযুত ৰমেশ চন্দ্ৰ শইকীয়া, অসম সাহিত্য সভাৰ কুঁহি অনুষ্ঠানৰ মাজুলী জিলাৰ আহুায়িকা শ্ৰীযুতা ৰুণমণি শইকীয়া, মাজুলী কালচাৰেল ফাউণ্ডেশ্বনৰ সভাপতি শ্ৰীযুত থানু কৃষ্ণ দত্ত, স্থানীয় উদীয়মান সাংবাদিক শ্রী উৎপল বৰা, চিতাদাৰ যুৱ সংঘৰ সম্পাদক শ্ৰীযুত যদু কুমাৰ পায়েং আদি বিশিষ্ট ব্যক্তিসকলক অসমীয়াৰ আদৰৰ ফুলাম গামোছা একোখনিৰে সম্বৰ্জনা জ্ঞাপন কৰা হয়। মাজুলী কালচাৰেল ফাউণ্ডেশ্বনৰ সভাপতি শ্ৰী থানু কৃষ্ণ দত্ত আৰু শ্ৰীযুত সংগম পঞ্চাননে আঁত ধৰা অন্তৰংগ গধূলি অনুষ্ঠানত শ্ৰীযুত প্ৰভাত বৰা বুঢ়াভকত, শ্ৰীযুত হেমেন হাজৰিকা আৰু শ্ৰীযুত গদাধৰ ডেকাদেৱে সমন্বয়ৰ বাৰ্তাবাহক ৰসাল ভাষণ প্ৰদান কৰাৰ লগতে স্থানীয় শিল্পী ৰূপা দত্তৰ উপৰিও শ্ৰীয়ত হেমন্ত নাথদেৱৰ স্ব-ৰচিত আৰু সুৰাৰোপিত সুন্দৰ গীত পৰিৱেশন আছিল অনুষ্ঠানটোৰ অন্যতম আকৰ্ষণ। ইয়াৰ উপৰিও শ্ৰীযুত প্ৰদীপ কুমাৰ দাস আৰু অৰুণ গগৈয়ে সুমধুৰ গীত পৰিৱেশন কৰি সকলোকে আপ্লত কৰে। শ্ৰীযুত অমূল্য কুমাৰ বৰাই শ্ৰীশ্ৰীকৃষ্ণ ৰাসলীলাৰ



কংসালয়ৰ দৃশ্যটি নিখুঁতভাৱে বজ্ৰকণ্ঠেৰে বচন মাতি, সুন্দৰভাৱে অভিনয় কৰি উপস্থিত সকলোৰে হাদয় জিনিবলৈ সক্ষম হয়। আয়তী শ্ৰীযুতা নমী শইকীয়াই লগাই দিয়া বিয়ানামত শ্ৰীযুতা জ্যোৎস্না ডেকা, শ্ৰীযুতা মঞ্জুলা বৰা নাথ, শ্ৰীযুতা ববিতা পঞ্চাননৰ উপৰিও স্থানীয় আয়তীসকলে সুন্দৰভাৱে সহযোগ কৰি অনুষ্ঠানটি উপভোগ্য কৰি তোলে। অনুষ্ঠানৰ শেষত, নিজৰ বহুমূলীয়া সময় ব্যয় কৰি অনুষ্ঠানত উপস্থিত থাকি অনষ্ঠানটি সাফল্যমণ্ডিত কৰি তোলাৰ বাবে সকলোকে নুমলীগড় শোধনাগাৰ শাখা সাহিত্য সভাৰ হৈ শ্ৰীযুত দীপু কুমাৰ ভট্টই শলাগ যাঁচি অনুষ্ঠানৰ সামৰণী ঘোষণা কৰে।







MD's Message on COVID-19

My Dear Colleagues,

These are truly testing times for all of us. It is a time of uncertainty for much remains unknown as the whole World comes together to fight the pandemic of COVID-19.

Government of India has implemented several stringent measures to combat the outbreak of COVID-19. I urge you all not to panic and religiously follow guidelines particularly those relating to social distancing and personal hygiene. NRL has also come up with a number of enabling measures particularly to sanitize our work places and enforce strict sanitary hygiene. Perhaps, a lot more would be required in the coming days and your support and cooperation would be paramount to intensify these measures as we move forward.

Let us also remember that we are in a business which is categorised as essential commodity and people are dependent on us, particularly the home kitchens. Much of the work that we do in petroleum refining and marketing cannot be done from our homes. I therefore would like to thank each one of you for rising to this occasion in these difficult times and ensuring the operation of the Refinery without any hindrance.

Let me assure you that we are wholly focussed on containing COVID-19 and are ensuring best measures to prevent the spread of this disease. At this hour, I can fully understand the stress that each one of us is experiencing; more so since there is no SOP or Manual to follow. My concern remains for our families, our children and for the safety of all of you.

Please take care of yourselves and stay safe.

Sincere regards,

S K Barua Managing Director

