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October - December 2019, Vol. 65

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House Journal of Numaligarh Refinery Limited

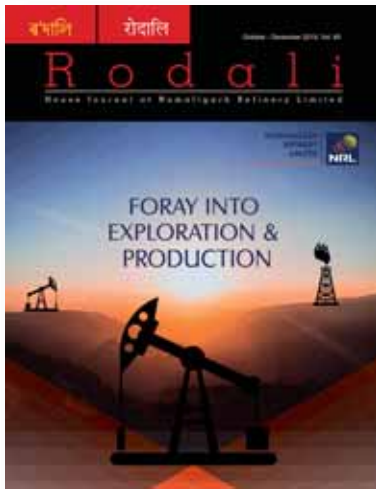
NUMALIGARH
REFINERY
LIMITED

A GOVERNMENT OF ASSAM ENTERPRISE



FORAY INTO EXPLORATION & PRODUCTION





Editorial



'First comes thought; then organization of that thought, into ideas and plans; then transformation of those plans into reality. The beginning, as you will observe, is in your imagination' – Napoleon Hill

This more or less sums up our Company's robust track record of translating thoughts into actions and eventually into reality, a pattern that has become its forte. Setting foot on the upstream business of Exploration and Production marks the beginning of another new era in the history of the Company; an outcome of the above tenet. The bigger picture is that NRL now has a holistic presence across all sectors of the Oil industry viz. upstream, midstream and downstream; consolidating its position as a frontrunner in the Oil landscape of the country and much beyond. Read about it in this issue of Rodali.

Our Director (Technical)'s next in series of articles on process improvement will give you a fair idea of how the Refinery has pursued continual improvement as a *mantra*, making it an integral part of its gain.

The Refinery Turnaround which commenced on 16th of November 2020 was a mammoth exercise with unprecedented deployment of resources - both manpower and machinery. Leveraging on meticulous planning and innovation, it set new benchmarks and breakthroughs that have been documented in the two articles published in this issue.

A few more feathers of recognition and accolades were added to the Company's hat, buttressing its credentials in respective fields of work.

Making a meaningful difference in the lives of the people specially the needy and underprivileged is the dictum that drives NRL's CSR initiatives. Another positive step in this direction was inking an agreement with B Barooah Cancer Institute (BBCI), Guwahati to support its Pediatric Oncology Ward; lending the much needed succor to its child inmates. Observances such as Vigilance Awareness Week and Constitution Day during the quarter was an expression of our solidarity towards Nation building.

'Winter is the time for comfort, for good food and warmth, for the touch of a friendly hand and for a talk beside the fire: it is the time for home' - Edith Sitwell. Our Club entities put their best foot forward to make the most of the chilly winters as the extended NRL family bathed in the hues and shades of togetherness and good vibes.

Do take a peak and relish the bounty of news and events gift wrapped specially for you !

With warm wishes,

Madhuchanda A Choudhury

CONTENTS

Performance Highlights	1
Technology Corner	2
NRL News	11
People	20
Family and Career	22
From the Archives	23
Club News	24
DPS News	29
VK NRL Hospital	32
BPCL News	34
BCPL News	37
Hindi Section	38
Assamese Section	40

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Highlights of NRL's performance during 3rd quarter of FY 2019-20

Capacity Utilisation

NRL's crude throughput during the third quarter of the year was 365 TMT. Cumulative crude throughput during the year upto Dec'19 was 1759 TMT.

Production Efficiency

Distillate yield during Oct-Dec'19 and Apr-Dec'19 were 82.63% and 84.49% respectively. Distillate yield during corresponding period of previous year was 86.15%.

Specific Energy Consumption (SEC) during Oct-Dec'19 and Apr-Dec'19 were 64 MBN and 63.87 MBN respectively. MoU target of SEC for the period 2019-20 is 65.3 MBN. SEC during corresponding period of previous year was 68.24.

Similarly, Energy Intensity Index (EII) recorded during Oct-Dec'19 and Apr-Dec'19 were 85.70 and 85.95 respectively vis-à-vis internal target of 87.0. EII during corresponding period of previous year was 90.12.

Capital expenditure

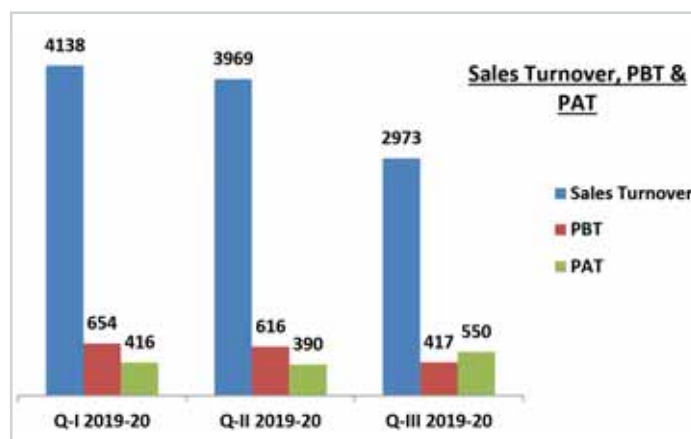
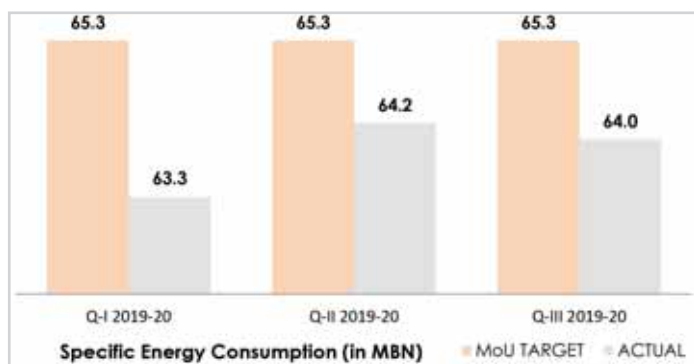
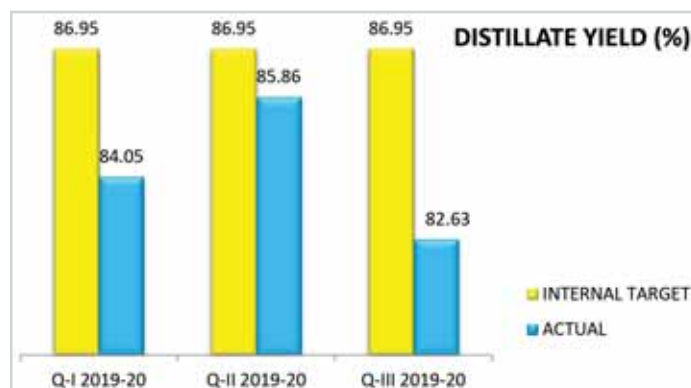
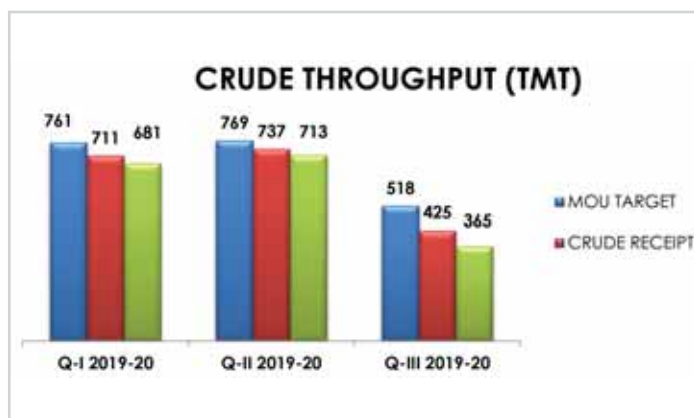
Capital expenditure during Apr-Dec'19 was ₹320 crore against annual MoU target of ₹460 crore.

Project completed

Modernization of Terminal Automation System (TAS) at NRMT was completed on 31.12.2019.

Financial Performance

- Sales turnover during the third quarter of the year was ₹2,973 crore while for the period April-Dec'19 was ₹11,082 crore.
- Gross Refining Margin during Oct-Dec'19 and Apr-Dec'19 were \$10.94 per bbl and \$9.89 per bbl respectively compared to \$10.69 per bbl in the corresponding period of previous year.
- PBT during Oct-Dec'19 and Apr-Dec'19 were ₹417 crore and ₹1,687 crore.
- PAT during Oct-Dec'19 and Apr-Dec'19 were recorded at ₹550 crore and ₹1,365 crore respectively.



EII Improvement – Success Story for NRL

(continued from previous issue)

Article 4

How have we improved the process heat integration, catalyst, and fractionation systems in our Company to become more energy efficient?

Fractionating Crude Oil in the Atmospheric Crude Distillation Unit (CDU) Vacuum Distillation Unit (VDU) consumes more than twenty percent (20%) of the total energy consumption in our Refinery.

The Hydrogen Generation Unit (HGU) requires more than 26% of the total refinery energy consumption to make the hydrogen needed for hydrocracking and hydrotreating.

The Hydrocracker (HCU), Delayed Coker (DCU), and Catalytic Reformer Unit (CRU) require more than 19%, 6%, and 4% of total refinery energy consumption, respectively.

The energy efficiency of these primary process units has a large impact on the Cash Operating Expense (OpEx) of our Company, since energy represents 50% of OpEx costs.

These primary process units must operate efficiently while upgrading raw materials into more valuable refined products.

This article is the second of six that will illustrate our Energy Intensity Index™ (EII®) related improvements in these subcategories to reduce OpEx costs:

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

Approximately 50% of the EII Gap closure seen in moving from 116 EII in the 2010 Solomon Study to 85 EII in the 2018 Solomon Study has been in the Process Unit Fired-Heater Process Duty category.

The Process Unit Fired-Heater Process Duty category represents the energy associated with chemical reactions and fractionation.

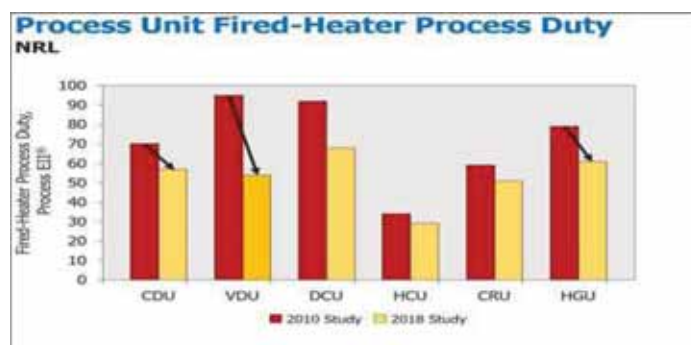
For example, large amounts of fired fuel energy are needed in the Delayed Coker Unit (DCU) furnace 03-FF-001 to achieve the required delayed coking reaction conditions (Coke Drum Outlet Temperature of 435 °C).

The significant improvement in the Process Unit Fired-Heater Process Duty for the primary process units in our Refinery between the 2010 Solomon Study and the 2018 Solomon Study are seen in the following figure.



B J Phukan, Director (Technical)

Important improvements are noted in the figure for the CDU, VDU and HGU.



Reductions in CDU and VDU Process Duty have had a large impact on overall refinery EII. This is because the CDU and VDU use more than 20% of the total energy consumption in our Refinery, as mentioned above.

For example, the NRL team has moved the CDU and VDU Process Duty to more energy efficient levels by:

- Analyzing the network of heat exchangers to optimize heat recovery and identify several schemes for implementation; like adding four heat exchangers to further preheat Crude Oil and increase the CDU furnace inlet temperature by 15°C,
- Upgrading CDU and VDU fractionation efficiency by installing structured packing,
- Improving the VDU vacuum system,
- Increasing Capacity Utilization,
- Installing Advanced Process Control (APC), and
- Root Cause Failure Analysis (RCFA) and actions taken to eliminate the reoccurrence of internal damage above and below the VDU Flash Zone section.

The HGU is another important focus area for the NRL team.

Some of the actions that moved the HGU Process Duty to more energy efficient levels include:

- Replacing the Cast Air Preheater (CAPH) with a Plate-type Heat Exchanger (PHE) in the HGU Primary Reformer flue gas duct,
- Increasing Capacity Utilization,

- Replacing catalyst in the Shift Reactors,
- Shifting to Natural Gas as the primary HGU feedstock,
- Deploying Advanced Process Control (APC), and
- Operating with the Heat Transfer Exchanger Reformer-parallel (HTER-p).

The above mentioned examples are just a few of the many successful actions taken by the NRL team to reduce Process Duty and improve the energy efficiency of our Refinery.

Our Company expects to see even more gains in the Process Unit Fired-Heater Process Duty category from catalyst replacement in the HCU reactors, plate bundle replacement in the CRU combined feed/effluent exchanger, and other activities planned in the coming Refinery Turnaround (RTA).

These examples show the culture of continuous improvement that exists in our Company in action.

The NRL team shares a vision for operational excellence and acts with entrepreneurial spirit to make our Company more competitive.

Article 5

What actions have the NRL team taken to help our Company become less “addicted” to steam?

The word addiction is most often associated with destructive behaviors like smoking, drugs, gambling, etc.

Addiction is a strong psychological and physical reluctance to stop doing something that is known to cause harm and damage over time.

Our company and all the other PSU refineries have become overly-dependent upon steam to compensate for shortcomings in many areas.

For example, steam is often used in turbine drivers for pumps and compressors to compensate for poor electrical system reliability.

Reducing dependence on steam and reducing the steam system size is a large opportunity area for Energy Intensity Index (EII) improvement in our Company as we strive to become one of the most energy efficient refineries in the world.

As a rule-of-thumb, every one percent reduction in Steam System Size will reduce EII by approximately one EII number. What do the most energy efficient refineries in the world have in common?

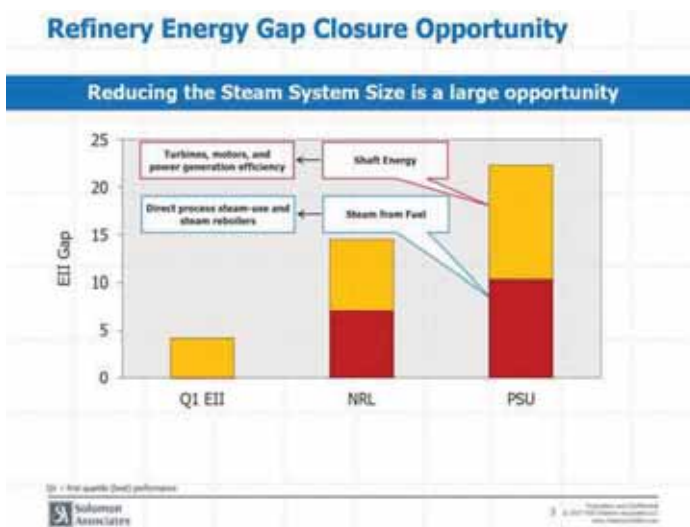
Compared to other refineries, the world’s most energy efficient refineries have small steam systems.

Minimizing fired energy consumed to generate steam is the key to first-quartile EII performance.

This article is the third of six that will illustrate our EII related improvements in these subcategories to reduce OpEx costs:

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

The figure below shows the large opportunities to reduce steam system size in NRL, the PSU refineries, and even the average First Quartile refineries.



The Steam from Fuel Combustion category and most of the Shaft Energy category are directly related to the steam demand in a refinery.

Refiners typically only produce as much steam as demanded by the various steam users in the refinery.

This means that reducing steam demand is critical to reducing the size of the refinery steam system.

What has our Company done to reduce the steam system size?

The NRL team first measured the amount of steam used in areas like:

- Process Uses
- Turbines for Power Generation, Pump Drives, Compressor Drives
- Reboilers and Evaporators
- De-aeration of Boiler Feedwater
- Preheating Air
- Steam Tracing and Tank Heating
- Other Uses

The NRL team then acted as entrepreneurs to set targets and reduce steam demand.

Some examples include:

- Reducing the amount of stripping steam to the distillation columns

- Eliminating tracing steam on some process pipes
- Implementing a steam trap and steam leakage management plan
- Reducing distillation column pressures so that less re-boiling is required
- Cleaning of process heat exchangers resulting in lesser steam generation
- Deploying Advanced Process Control (APC) in MSP for optimization in fuel and steam

- Improving steam superheating systems
- Reducing Low-pressure (LP) steam venting to atmosphere
- Recovering condensate and flash steam, instead of throwing it away

There will be many more actions taken to reduce steam system size and make our Company become less “addicted” to steam.

The rest of the articles in this series will follow as a sequel in subsequent issues of Rodali.

Refinery Turnaround which commenced from 16th November 2019 was a mammoth exercise with unprecedented mobilization in terms of manpower and resources. Other than regular maintenance of equipment, plant and machinery, the opportunity was utilized to bring in innovation and leverage on cutting edge technology to work SMART (Specific, Measurable, Action Oriented, Realistic, Time Bound)

2 articles which would give detailed and incisive insights on the exercise are published in this issue of Rodali for the benefit of our readers.

Motor Spirit Block Revamp Project

- A.P. Chakravorty, SrCGM (Projects)

Aim of MS Block Revamp Project

NRL produces 50-70 TMT/month of MS by blending Reformate (from CRU) and Isomate (from ISOM) along with Naphtha and external components like MTBE, Py-Gas and Octane Booster. Till date the highest throughput achieved for NHTU, CRU & ISOM are 122%, 125% and 180% of installed capacity respectively. However it has been difficult to sustain the high throughput on a continuous basis due to equipment limitations and natural degradation of the catalyst activity from SOR to EOR.

As per design of MS block, the feed is straight run Naphtha (SRN) from CDU. However currently, heavy naphtha (HN) ex-CDU is also being processed in MS which has enabled increase of CRU capacity to 150%. To increase its capacity further, it is proposed to utilize Hydrocracker (HCU) HN as feed to MS plant. Based on its feed availability it has been found that increase in CRU capacity to 150% and ISOM to 200% of installed capacity is possible for which NHTU would have to run at 148% load to meet the requirement of CRU & ISOM. To saturate CRU at 150% throughput while operating NHTU at present capacity of 121%, balance HN from HCU is proposed to be diverted to CRU bypassing NHTU through a sulphur guard bed.

With this above mentioned feed, naphtha availability as well as options for debottlenecking process equipment, licensor M/s Axens (existing process licensor for MS block) has recommended that it is possible to increase CRU capacity to 150% as well as maintain the desired Reformate RON of 98 while meeting the minimum catalyst cycle length of 02 years through revamping the existing facilities.

As a part of MS Block revamp project (to primarily increase CRU capacity to 150% and to maintain Reformate RON of 98 & minimum catalyst cycle length of 2 years), job of Detail Design and Consultancy (DDC) service has been entrusted on **M/s Engineers India Limited** on basis of the Basic Engineering Design Package (BEDP) from M/s Axens.

Capacity enhancement of MS Block before & after MS Revamp Project is tabulated below:

Unit	CAPACITY	
	Existing	Revamp
NHTU	271.00 KTA	330.6 KTA
CRU	166.7 KTA	252.9 KTA
ISOM	55.2 KTA	110.4 KTA

MAJOR JOBS OF MS REVAMP PROJECT

Heater Works (Replacement with New Heater & Modification of Existing Heater)
Replacement of Packinox Welded Plate Heat Exchanger Bundle
Revamp of Recycle Gas Compressor
Capacity enhancement of Air Fin Cooler
Installation of New Sulphur Absorbers
Replacement of engineered trays in the CRU Stabilizer Column
Replacement of ISOM Reactor Internals
Installation of 2 new pumps and modification of 2 others
Approx. 250 pipelines modified/ replaced necessitating 14000ID welding and 12000IM erection.
8 heat exchangers replaced/modified
Critical structural modification job along with fire proofing works of AFC platform upto a height of 35 meters.

Heater Works (CRU New Second Interheater)

The MS Revamp intended to achieve a capacity increase of 50% for CRU. To meet the capacity enhancement, replacement of 2nd stage reformer interheater (15-FF-003) by a higher heat duty process heater was required as per process study carried out by licensors M/s Axens.

Following table highlights the process parameters of the heater pertaining to pre and post revamped condition:

Parameter	UoM	Pre-Revamp	Post-Revamp	Remarks
Absorbed Heat Duty	MMKCal/hr	1.014	2.59	Heat Duty increased by 155%
Process Fluid flow rate	Kg/hr	37907	46140	Flow rate increased by 21.7%
Allowable pressure drop	Kg/cm2	0.4	0.6	Allowable pressure drop increased by 50%
Tube metallurgy		P22	P9	Metallurgy upgraded

Existing interheater (15-FF-003) was an all radiant natural draft, vertical cylindrical type heater having four passes hair pin coil arrangement. Considering increase of the above parameters in existing interheater, replacement of existing interheater with new heater consisting of radiant & convection section in same foundation had been decided along with modification in existing heater 15-FF-002.

Packinox Heat Exchanger M/s Alpha Laval Packinox, the OEM of the critical welded plate heat exchanger was contacted to check adequacy of the exchanger in line with revamp requirement. They intimated that although the Packinox is adequate hydraulically at 150% load, thermal efficiency would correspondingly decrease at revamped condition which will have negative effect on the furnace preheat temperature. Hence they suggested to replace the plate bundle in existing shell which will increase the heat duty from 13 MMKCal/hr (design) to 19.5 MMKCal/hr.

Recycle Gas Compressor (RGC) After a detailed study, it was decided to revamp the existing RGC by replacing rotor & diaphragms to increase flow from existing 39010 Nm3/hr to 41378 Nm3/hr. and discharge pressure by 4- 5 kg/cm2g to meet revamp requirement. In addition to meet higher power requirement, turbine internals were also replaced. The job was executed through M/s BHEL, the OEM of the compressor.

Electrical and Instrumentation works

- Total 186 instruments and 29 Valves (Control/On-Off) were replaced / newly added as a part of MS revamp Project.
- Total 23.242 KM length of Instrument cable has been laid.
- Existing DCS has been expanded to accommodate the new requirement
- In electrical front, approx. 4.0 KM electrical cables laid, 7 critical motors replaced, LED lighting in place of conventional lighting arrangement installed in revamped locations.

Key Contractors and Suppliers

Around 750 contract workers with a dedicated Project team worked round the clock to ensure safe and speedy completion of this critical project.

- M/s TATA Projects – Mechanical works (part A)
- M/s P K Construction - Mechanical works (part B)
- M/s Miraj Instrumentation Services – Electrical and Instrumentation works
- M/s JNK India Pvt Ltd – Heater works
- M/s ISGEC Heavy Engineering Ltd – Packinox related jobs

“Licensors and Consultants”

- Licensor – M/s Axens, France
- Detail Design Consultancy - M/s Engineers India Limited.

Heavy Equipment Deployed

- 400MT crane for Heater works.
- 400MT crane for Air Fin Cooler and Packinox job

- 40MT crane for miscellaneous revamp activities like exchanger erection, pipe erection at height, etc.

Major Challenges And Action Taken

- Heater (15 FF 04) – Normal delivery time of a Heater is 14-16 months. However, as it was decided to execute the Revamp along with RTA 2019, there was a window of hardly 12-13 months for tendering and 10 months for fabrication and supply (considering a tendering period of 3 months). Leading heater contractors were brought on board and innovative solutions like tendering with delivery incentive, on the spot clearance and approval of drawings, monitoring progress of job even at Contractor level, etc were proposed and adopted. It was a herculean task and after a lot of effort in close monitoring and expediting and follow up, the heater was delivered at site before the commencement of RTA and scheduled delivery date.
- Completing almost 14000ID welding and 12000IM pipe erection within a stiff RTA period of 30 days was a challenging task for the department. Specialised welders were brought from different locations of the country for critical welding activities. Round the clock job were executed in shifts employing Local welders, fitters etc. to meet the target completion. A concerted effort was made to ensure skill upgradation of local workers for future project requirements.
- A major setback occurred after successful insertion of the new plate bundle into the shell of the Packinox Exchanger. During vacuum testing leakage was observed in the plate bundle and it had to be removed again for repair. The whole activities of removal, repair, reinstallation and testing take minimum 21 days time to complete. However, the job could be completed before the stipulated time through quick mobilisation of resources, meticulous work planning, round the clock job execution and monitoring.
- The delivery period of major components of RGC supplied

by BHEL is around 12-14 months which was not in sync with the Project timeline. Thus to adhere to the planned schedule, timely actions were taken to improve the delivery period through quick resolution of issues, conducting apex level meeting of NRL and BHEL, rigorous follow-up and co-ordination of logistics. Such efforts resulted in timely arrival of all consignment well before the RTA. Subsequently, revamp of the equipment could be completed within schedule period and successfully commissioned.

- The modular structure for Air Fin Cooler qualified as an OD Consignment and its transportation from Pune to Numaligarh was posing a problem due to its commanding height of almost 7 meters. Additional precautions had to be taken to ensure the electric overhead lines did not pose a safety threat during transit, thereby amping up the transportation time. Due to the OD structure, the consignment moved at a speed of around 80 KM per day and at that speed it would take almost 40 days to reach site. The delivery date calculated accordingly went out of the RTA schedule.

Accordingly, a Senior Project official was sent to expedite the transportation process. The consignment was located in Aurangabad on the National Highway and suitable modification of the consignment was done maintaining structural integrity on the truck trailer itself. Such arrangement ensured movement of the consignment upto a speed of 300 KM per day and consequently the consignment reached project site at Numaligarh Refinery on time.

- The VFD ordered for Air Fin Cooler could not be supplied by the Vendor in time and thereby posed a problem in commissioning of the AFC. The VFD is a vital component for full load operation of the process unit. The challenge was mitigated by in-house modification after a detailed deliberation on the issue utilizing available DOL feeder at EPMCC.

Glimpses of MS Revamp Project



Modification of modular structure for Air Fin Cooler in Aurangabad



Modification of Over Dimension Consignment(ODC) at Aurangabad for ease of transportation





Removal of Old Heater (15-FF-03)



Erection of Heater Radiant Section (15-FF-04)



Removal of Old Heater (15-FF-03)



Site Visit of Managing Director, NRL Mr. S K Barua at MS Revamp Project



Recycle Gas Compressor Revamp Job



Packinox Exchanger Dish-end Welding Job



Dismantling of AFC structure



Erection of Air Fin Cooler



Installation of Pumps & Exchanger



Installation of Pumps & Exchanger

Digital Monitoring & Surveillance on Real Time Basis during RTA in Numaligarh Refinery – Experience sharing

-Monjit Kumar Borah, General Manager (Mtce Planning)

A. Digital Monitoring

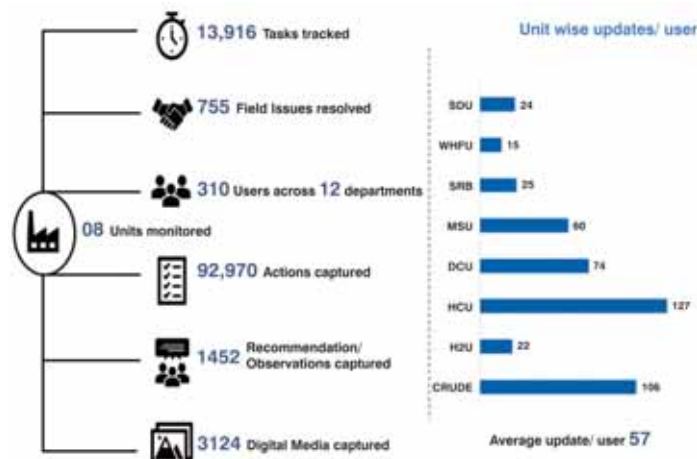
1. Abstract

In Nov-Dec 2019, Numaligarh Refinery undertook a mega-turnaround with each unit going under shutdown and deployed SyncOps for real-time progress monitoring and enabling seamless collaboration across all levels of the pyramid.

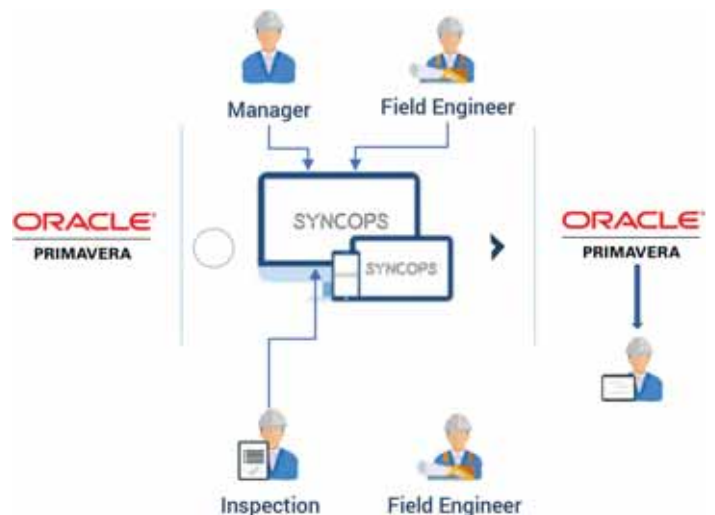
Traditionally, the planning engineer used to capture the progress manually from the field, update the schedule and then conduct the review meetings. The process was manual, time taking and lacked transparency. SyncOps served as a bridge between planning, communication, coordination and execution of turnaround activities. It enables real-time monitoring of industrial projects by connecting every stakeholder of the ecosystem - senior management, planners and field executives.

With SyncOps, we created a network smart handheld devices on the ground through which field engineers provided task updates and strategic actionable inputs and alerts. The senior management team reviewed the progress from 'war room' and ensured corrective actions on the filed inputs.

Listed below are some of the key highlights of SyncOps deployment are:



How did we do it?



2. Notable benefits we achieved from SyncOps

- SyncOps enabled collaboration across all levels of organization pyramid. Real-time notification ensured that every concerned stakeholder is well informed and all key decisions are undertaken
- SyncOps provided improved visualization of project control metrics. It has inbuilt critical chain algorithm which provided insights like tasks delaying turnaround, dynamic critical path, etc.
- SyncOps catered to the requirement of all departments and served as a single source of truth
- SyncOps automated various reports associated with the turnaround and saved times thereby improving productivity. Daily review meeting got more streamlined and focused.

- SyncOps rapidly digitalized any workflow associated with the turnaround like valve blinding and debinding checklist, box-up, etc.
- SyncOps provided various collaboration platforms like discussion thread, images, issue and safety issue management which eliminates the need for frequent one-to-one meeting for any decision



3. Key features:



- Automated Digital reports sent through the system
- Digital Checklist for real time compliance
- Review mode for data driven meetings

- Review mode for data driven meetings
- Unit wise dashboard for real time progress
- Eliminates the need of one to one meeting
- Real time alerts and notification for quicker response time

4. Snippets on digital monitoring and Surveillance in NRL Turnaround



War Room

Equipment Summary

Legend: Not Started (Red), In Progress (Yellow), Completed (Green)

Equipment type	HANDOVER		BLINDING		OPENING		BOX UP		DE BLINDING	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
AFC (52)	15	15	15	15	15	15	15	15	15	15
BOOSTER PUMP (1)	1	1	1	1	-	-	-	-	1	1
BREACHLOCK (1)	10	10	10	10	10	10	10	10	10	10
CDU (2)	37	37	37	37	37	37	37	37	37	37
COMPRESSOR (6)	4	4	4	4	4	4	4	4	4	4
Total	903	903	825	826	548	548	567	567	825	818

Dashboard - Equipment progress monitoring

EXCHANGER

Plan 430

All Projects

Not Started In Progress Completed

S.No	Project Name	HANDOVER			BLINDING			OPENING			TUBE PULLOUT		
		Scope	Planned	Actual	Scope	Planned	Actual	Scope	Planned	Actual	Scope	Planned	Actual
1	CDU VDU RTA	42	42	42	42	42	59	59	59	52	52	52	
2	HOU RTA	18	18	18	18	18	17	17	17	8	8	8	
3	MU RTA	42	42	42	42	42	38	38	38	29	28	28	
4	SCU RTA	37	37	37	37	37	36	36	36	31	31	31	
5	WB RTA	21	21	21	21	21	21	21	21	13	13	13	
Total		238	238	238	238	238	221	221	221	176	176	176	

Dashboard - Unit wise individual equipment progress monitoring

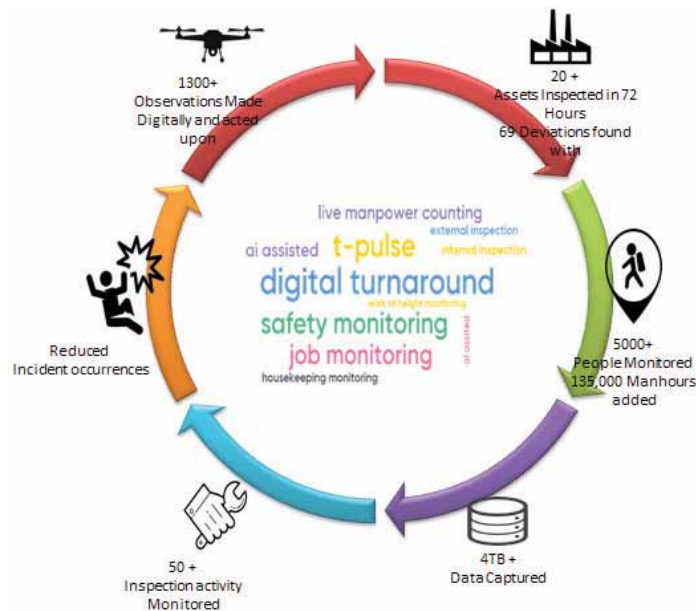
B. Surveillance by drone

1. Abstract

It would not be an exaggeration to state that a major turnaround is wholistic test of capabilities for any refinery. All the resources of the refinery come together to ensure impeccable work planning, efficient sourcing, required resource mobilization and an error-free execution. This

November-December, Numaligarh Refinery was set to witness a mega-turnaround with each unit going under shutdown. Having realized that relegating to a check-the-box exercise would at best create incremental safety improvements, we started exploring digital interventions which had the ability to consider cultural value and could promote meaningful change, that everyone across the organization can be a part of.

Therefore, for RTA 2019, M/s Detect Technologies' "T-Pulse" was deployed as a digital turnaround monitoring and intervention tool for safety and surveillance. Traditionally, refinery resources are allocated to identify deviations and take undertake consequence management actions. However, due to largely manual effort, firstly a large part of deviations went unnoticed and secondly there were limited resources available for working on influential human factors-the underlying reasons why someone makes a mistake; which is of paramount importance.



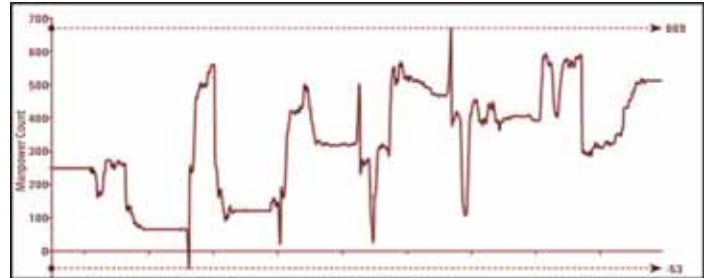
2. Performance summary

	SAFETY	Work Productivity	Inspection
Insights Unveiled	1350+ violations captured on the dashboard in 8 pre-defined categories over 30 days. - Major violations constitutes of PPE violation, unwanted materials and Position/ Action of person. - Work at height constituted almost 70% of all observations. - Most violations were observed during opening and closing of work fronts.	- The effective work hours have with full work force was 9:00 AM to 11:40 AM in first half. - The effective lunch time has been 11:40 AM to 14:30 PM. - The effective second half work time has been 14:30 PM to 17:30 PM.	8 digital reports created for various assets on T-Pulse dashboard. 87 observations made for decrease in maintenance activity. - Observations majorly found to be of the category of piping defect, insulation damages, brick wall damage etc. - Surprise activities in these assets were pre-determined through drone inspection.
Actions Taken	95% of the violations were closed in real time by plant safety team. - Videos were shown to violators for improving behavioural safety. - Focused T-Pulse enabled toolbox meetings conducted daily to enforce safety values.	- Lunch time brought down to 1.5 Hrs. - Second half work time increased to 18:30 Hrs. - Time gained per day per worker 2 Hr 50 mins.	- Early start of maintenance activity post inspection findings. - Necessary procurement expedited without any unforeseen delay. 360-degree coverage of the entire asset for informed decision making.
Outcome	- Violations reduced substantially through contract workers safety behavioral change. - Drastic reduction in incident occurrence.	- Increased visibility of effective man hours at site. - Real time monitoring of activities at site.	- Time for start of maintenance reduced substantially. - Elimination of scaffolding erection for inspections. - Time of inspection reduced substantially. - Surprise activities in internal inspections captured accurately.

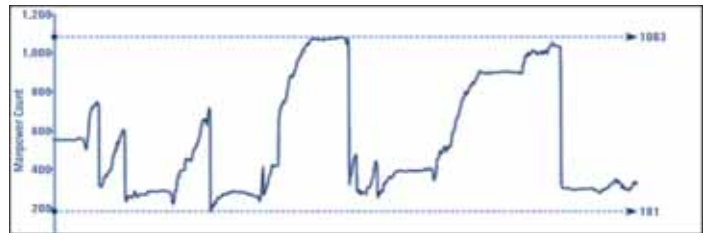
3. Impact on Turnaround

3.1. Workplace Safety: Manpower were optimized in three phases:

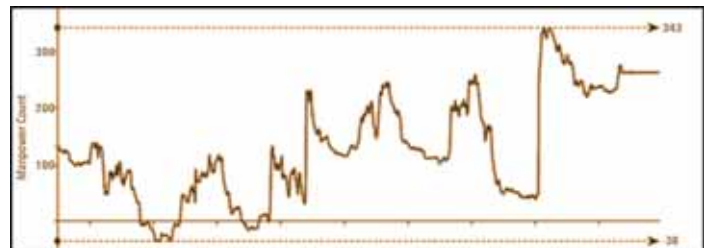
The mobilization and demobilization trend were established by optimizing lunch time, evening mobilization, tea breaks, etc.



The attention was then focused on increasing the steady state mobilization.



Finally the peak mobilization was targeted to increase manhours at site



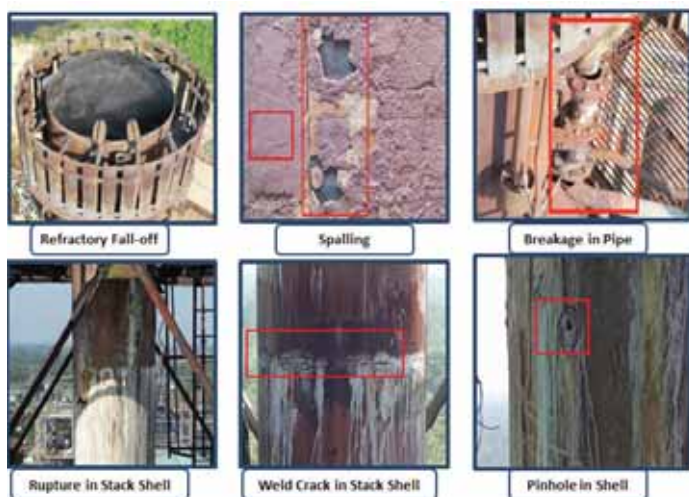
3.2. Minimization of non-value added Time Through Digital Inspection

Inspection of elevated flare by drone



VALUE ADDED	
COST & TIME	- Scaffolding erection reduced by 60%. - Contractor man hours saved, 192 hours.
EFFICIENCY	- Inspection man hours saved, 48 hours. - Data acquired for inaccessible areas.
SAFETY	Safety of Inspection process enhanced.

Inspection by Drone in hard to reach areas during turn around



3.4. Job monitoring by drone: Real time monitoring of work site through drone enabled faster decision making and complete visibility of critical activities on site



3.3. Safety monitoring by drone: Safety at ground level and for work at height was effectively monitored hourly and suitable actions were taken to close the violations, this has driven a strong improvement in safety culture at site

It facilitated real time monitoring of task which enhances control mechanism and reduced occurrence of safety violations thereby reduced risk factor. All the document regarding activity progress, communications, inspection recommendations, photographs etc. are digitalized for future references.

Image Name	Category	Observations	Recommendations	Status	Remarks	Submit
 Image_000282_2019-12-06_14_38_16	PPE	A person found not wearing required PPE (Safety helmet)	Toolbox meeting to be conducted and incident to be addressed to ensure safe practices	Close	Counseling done By Manas 12/7/2019, 9:01:45 AM	
 Image_000283_2019-12-06_14_38_01	PPE	Workers found to be not wearing helmet	Toolbox meeting to be conducted and incident to be addressed to ensure safe practices	Close	Counseling done By Manas 12/7/2019, 9:02:03 AM	

NRL News

NRL forays into Exploration and Production

A major milestone in the roadmap of the company was achieved in November 2019. After consolidating its downstream business of Refining after commissioning of the refinery in October 2000, NRL has now entered into upstream business of Exploration and Production (E&P). Ministry of Petroleum and Natural Gas, Govt. of India has accorded its formal approval to NRL for acquiring Participatory Interest (PI) in two Exploration blocks in Assam viz. Namrup block in Dibrugarh District and West Mechaki block in

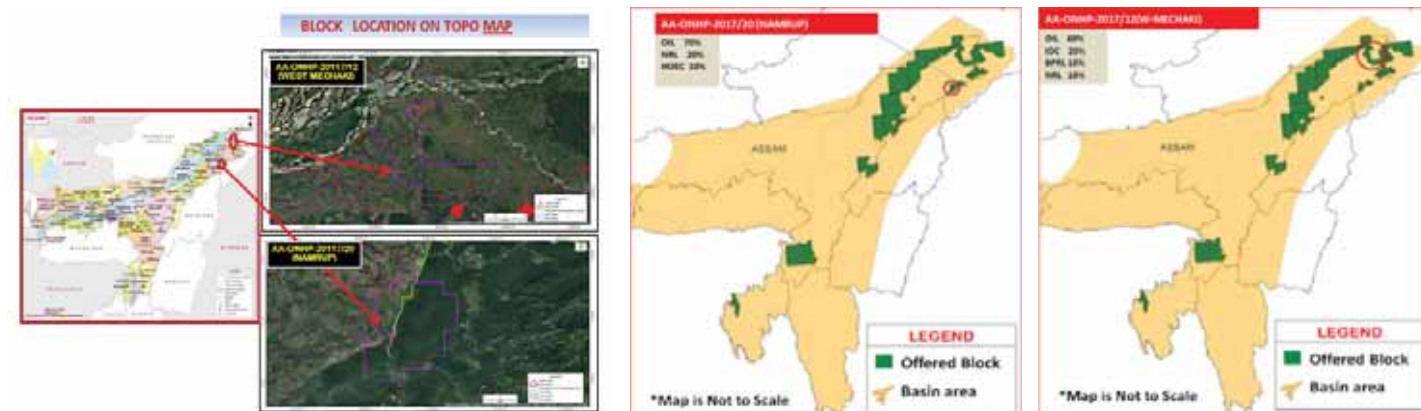


Tinsukia District. The Exploration blocks were earlier awarded to Oil India Ltd. (OIL) by Govt. of India on 1st October 2018 after nationwide bidding under Open Acreage Licensing Policy (OALP) Round-I.

Namrup Block covers an area of 125 SQKM. & West Mechaki Block covers an area of 489 SQKM. OIL would be the Operator in both the blocks. Farm out Agreements for both the blocks were earlier signed with OIL. This would be NRL's first investment in Exploration and Production. With this development,

NRL would have a holistic presence across all sectors of the Oil industry viz. upstream, midstream and downstream. NRL's midstream presence is in the form of equity shareholding in Duliajan Numaligarh Pipeline (DNP) Ltd and also its

2 marketing terminals in Numaligarh & Siliguri which is involved in wholesale marketing of Petroleum products to Oil OMCs & other direct customers.



Awards

PRSI National Award 2019 for best House Journal

Adding on to its list of accolades, our company received the first prize in the category 'House Journal - English' in the PRSI National Awards 2019 held as part of the 41st All India PR Conference of Public Relations Society of India (PRSI) at Hyderabad from 13th to 15th December 2019.

DGM (Corporate Communications) NRL Ms. Madhuchanda Adhikari received the award on behalf of NRL from PRSI National President Dr. Ajit Pathak at a glittering award function in presence of distinguished personalities from Corporates, academics, media and more than 300 PR and CC professionals from across the country.

PRSI is the apex body of PR and CC professionals in the country. The annual PRSI National Awards are the highest recognition for excellence in Public Relations and Corporate Communications. The award assumes significance since top national companies from the public and private sector and media houses were contenders for the coveted award.



Chal Vaijayanti Shield for Effective Implementation of Official Language

Our company was awarded the Chal Vaijayanti Shield (Third Prize) for effective implementation of Official Language Policy of Govt. of India for the year 2019. In addition, our Hindi Magazine 'PRAYAS' was awarded the first prize amongst Hindi magazines published by TOLIC (Town Official Language Implementation Committee) PSU member organisations during the year.

The aforementioned awards were presented to NRL team led by Sr. CGM (HR & Legal) Mr. Debashish Choudhury by Chairman TOLIC and ED, IOCL-Guwahati Refinery Mr. S. Manchanda in presence of representatives from the Ministry of Home Affairs, Government of India Mr. Badri Yadav, Research Officer and Head of Regional Official Language Implementation Office (NER); Smt. Kamlesh

Awards



Bajaj, Deputy Director (NER), Hindi Teaching Scheme and Mr. Radheshyam Bairwa, Asst. Director (Hindi Teaching Scheme) at the 54th TOLIC meeting held in IOCL Guwahati Refinery on 27th Dec 2019.

The awards were decided by a committee of the TOLIC (PSUs) constituted for this purpose after evaluation of reports and other significant activities on official language carried out during the year as received from 45 PSUs in Guwahati.

Photo Speak



Public hearing function for Refinery Expansion Project held in Doigrung on 25th October, 2019. The Public hearing was a overwhelming success with people from the neighbourhood of the Refinery teeming in thousands and expressing their full support for the project which promises a new dawn for the socio-economic development of the region and the state



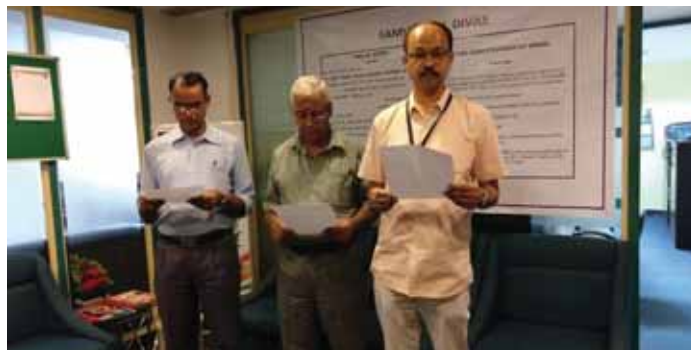
Observances

Constitution Day 2019

Constitution Day was observed on 26th Nov '2019 in different locations of the Company to commemorate the adoption of Constitution of India. The Preamble of the Constitution of India was read out by employees to mark the occasion.



Corporate Office, Guwahati



Kolkata Office



Siliguri Marketing Terminal

Vigilance Awareness Week 2019



Vigilance Awareness Week Pledge taking ceremony at Numaligarh

Vigilance Awareness Week (VAW) 2019 was observed in the company in a befitting and enthusiastic manner from 28th Oct - 2nd Nov 2019 in line with directives from Central Vigilance Commission (CVC) on the theme '**Integrity-A way of Life**'.

VAW was formally inaugurated on 28th Oct'19 with the administration of the Integrity pledge in English, Hindi and Assamese by employees at the Refinery in Numaligarh and all other locations of the Company. Tanker drivers at the Company's Marketing Terminal in Numaligarh also took part in the pledge-taking ceremony. Messages from the Hon'ble Vice-President of India and Chief Vigilance Commissioner were read out during the function.

Various activities were taken up in line with the CVC's directives to create awareness on the theme amongst NRL employees, CISF staff, students of nearby schools and colleges and other stakeholders. Essay, slogans writing, poster, painting and debate competitions organized during the week received

overwhelming participation. Around 25 schools and colleges of Golaghat district including Bokakhat subdivision participated in these competitions while in Dergaon town, nearly 12 schools participated. A district level debate competition on the theme of VAW was also organized in association with Numaligarh High School.

A day-long workshop on '*Ethics and Integrity*' was conducted for Management staff of the Company by Mr. S R Medhi, Former Director (Technical), NRL. Moreover, a *Gram Sabha* was organized at *Na-Pathar Natun Gaon*- a Model village developed under NRL CSR.

The closing function of VAW 2019 was held in presence of Director (Technical), NRL Mr. B J Phukan; Director (Finance), NRL Mr. Indranil Mittra; SP, Bureau of Investigation of Economic Offences (BIEO) Mr Navin Singh; Sr.CGM (HR & Legal),NRL Mr. Debashish Choudhury, other senior officials, employees as well as members from NRL associate organizations. CVO Mr. Sunil Jain conveyed his message to the gathering through a recorded AV. In his address, Director (Technical), NRL Mr. B J Phukan stressed upon the use of technology through system-driven procedures and practices for transparency and effectiveness. SP, BIEO Mr. Navin Singh spoke about economic offences and emphasized the need for public awareness about fraudulence and other offensive activities. DGM (Vigilance), NRL Ms. Pronita Deka briefed the audience about the various activities conducted during the week.



Closing function in Numaligarh

Training & Awareness Programs carried out during the quarter

- Awareness regarding Tool Box Talk was conducted at MSP, CDU-VDU and other locations during RTA 2019. (photo - 1 & 2)
- Online Safety training and gate pass management system (Integrated Worker Clearance System) successfully introduced during RTA 2019 for streamlining the training schedule for large no. workers engaged in the refinery. A total of 7500 workers were imparted training by Shri Dilip Sarma, Mgr(F&S) & Shri Bhupen N Sarma, AM(F&S) during the RTA period. (photo - 3 & 4)
- 24 hrs. Safety surveillance conducted in all the units including inspection of flare tip by using Drone. All unsafe acts/unsafe conditions detected are being immediately reported in T-pulse software and corrective actions taken accordingly.
- Maximi Labs integrated solution for shutdown management was used to monitor progress of Refinery Turn Around. Safety issues were reported & resolved through this software.



CSR News

Inauguration of Doigrung Market under Swachh Bharat Campaign

On the occasion of the 150th birth anniversary of Mahatma Gandhi, an initiative for the beautification of Doigrung market area with a budget of Rs 50 lakh under Swachh Bharat campaign was taken up which was inaugurated by MD Mr.

SK Barua on 2nd October 2019 at Doigrung near the Refinery. Baruah also inaugurated a public passenger shed at Doigrung which was decorated with waste plastic materials.



MoU Signed with Ramakrishna Mission

NRL's commitment towards improving Community Health, one of the prime focus areas identified in its CSR policy was reinforced further with signing of agreement with Ramakrishna Mission Ashram on 3rd Oct '19 for extending CSR grant of Rs. 1.97 Crore towards construction of charitable dispensary at Chatribari, Guwahati.

Sr.CGM (HR & Legal) NRL Mr. D Choudhury and Trustee Ramakrishna Mission Ashram Swami Atmashuddhananda signed the agreement in presence of members of NRL CSR steering committee Syed Tazuddin Ahmed.



Agreement with Dr. B Barooah Cancer Institute



An Agreement was signed on 8th Nov 2019 between Numaligarh Refinery Limited (NRL) and Dr. B Barooah Cancer Institute (BBCI), Guwahati under which NRL will provide support to the tune of Rs. 2 Crore to set up a Pediatric Oncology Ward at BBCI. Director BBCI Dr. A C Kataki and Sr. CGM (HR & Legal) NRL Mr. D Choudhury signed the agreement in presence of Sr. CGM (Marketing & BD) NRL Mr. B. Ekka and senior representatives from both the sides at NRL Corporate Office.

The Pediatric Oncology Ward will consist of a 15 bedded ICU, 10 bedded day care chemotherapy unit and a recreational cum creativity area.

Dustbins donated to Guwahati Smart City Ltd.

As a part of Swachhta Hi Seva Campaign 2019 from 11th Sep - 27th Oct 2019 and contributing to *One City One Impact* program of Smart Cities Mission of Govt. of India, NRL handed over 30 dustbins to Guwahati Smart City Limited (GSCL) to be strategically placed in various public places across Guwahati city. The dustbins were officially handed over by Mr. H.K.Sarmah, Company Secretary, NRL to Mr. Pranab Baruah, OSD, GSCL in presence of a host of officials from NRL and GSCL on 25th Oct 19 at *Shradhanjali Kanan*, Guwahati.



CSR News in pictures



Books and furniture handed over to Lachit Puthibharal, Satgaon, Guwahati on 20th October 2019



Ambulance being handed over to Mangaldai Civil Hospital on 25th Nov '19



Waste Handling equipment handed over to Mangaldai Municipality Board during Nov '19



Financial aid presented for improvement of 'Kasturi Shishu Griha', a Child Care Institution for protection of destitute children at Mangaldoi, Darrang district on 25th Nov '19



Distribution of dustbins at nearby schools by on 21st Oct '19



Distribution of Dustbins at Misamara Higher Secondary School, Misamara on 26th Oct '19



Inauguration of O2 (Oxygen) Generating Plant in Jorhat Christian Mission Hospital by MD Mr. S K Barua on 20th Dec '19 . Dr. Sanjib Baruah of the hospital thanked NRL for this noble initiative which he said will not benefit the patients of the hospital but also people at large specially in time of crisis. 'For last 10 days there was no O2 carrying trucks coming from Gauhati, as our daily requirement was more than 16 big jumbo cylinders per day, the plant from NRL just solved all the problems. We even served patients from other private hospitals transferred to us as they didn't have O2' he shared.



Ms. Brigitte Uttar Kornetzky, Swiss ambassador for Captive Elephants, founder and President of NGO 'Elephants in Need'; Advisory Board Member of the Tourism & Wildlife Society, Jaipur visiting Napathar Model Village on 6th Dec '19



World Disability Day celebration on 3rd Dec'19

40th PSPB Inter Unit Volleyball Tournament 2019-20 hosted by NRL



The 40th PSPB Inter-Unit Volleyball Tournament hosted by our Company was held at Kunjakanon (NRL Township) from 15th to 18th October 2019. The Tournament was inaugurated by Sr. CGM (Project), NRL Mr. Aruni Prasad Chakraborty at Kunjakanon main play ground in presence of CGM (Maintenance) NRL Mr. H K Nath, the Organising Committee and the participating teams. A total of six teams viz. BPCL, HPCL, MRPL, OIL, ONGC and hosts NRL represented by around 70 players and coaches participated in this tournament. In organizing the 40th PSPB Inter Unit Volleyball Tournament 2019-20, necessary technical assistance was provided to our company by the Assam Volleyball Association. 6 league matches were played on the opening and second day of the tournament. BPCL, OIL, ONGC and NRL moved on

to the semi-final which was played on 17th Oct 2019. In an exciting final match between BPCL and ONGC, BPCL essayed a 3-0 win over ONGC. In another match, hosts NRL beat OIL (3-0) claiming the 2nd Runners-up position. Asian Games 2018 player Mr. Ajit Lal from BPCL was adjudged the 'Best Player of the Tournament' while Mr. Basab Borah from NRL was declared the 'Most Promising Player'.

The closing function of the Tournament held at Kunjabon was attended by Director (Finance)-NRL Mr. Indranil Mittra, Joint Secy. - PSPB Mr. K L Tejawani, Sr.CGM (HR & Legal)-NRL Mr. D Choudhury, Hony. Secy. - Assam Volleyball Association Mr. Amal Baruah along with other officials from Assam Volleyball Association.



Ministry of Petroleum and Natural Gas News

CCEA approves Review of Guidelines for Granting Authorization to market Transportation Fuels

On 23rd October 2019, the Cabinet Committee on Economic Affairs (CCEA) chaired by Hon'ble Prime Minister Shri Narendra Modi has approved the Review of Guidelines for Granting Authorization to market Transportation Fuels. This marks a major reform of the guidelines for marketing of petrol and diesel.

The existing policy for granting authorization to market transportation fuels had not undergone any changes for the last 17 years since 2002. It has now been revised to bring it in line with the changing market dynamics and with a view to encourage investment from private players, including foreign

players, in this sector. The new Policy will give a fillip to 'Ease of Doing Business', with transparent policy guidelines. It will boost direct and indirect employment in the sector. Setting up of more retail outlets (ROs) will result in better competition and better services for consumers.

Salient features & Major Impact

- Much lower entry barrier for private players - the entities seeking authorisation would need to have a minimum net worth of Rs.250 crore vis-à-vis the current requirement of Rs. 2000 crore prior investment.



- Non – Oil Companies can also invest in the retail sector. Requirement of prior investment in Oil and Gas Sector, mainly in exploration and production, refining, pipelines/terminals etc., has been done away with.
- The entities seeking market authorisation for petrol and diesel are allowed to apply for retail and bulk authorization separately or both.
- The companies have been given flexibility in setting up a Joint Venture or Subsidiary for market authorization.
- In addition to conventional fuels, the authorized entities are required to install facilities for marketing at least one new generation alternate fuel, like CNG, LNG, biofuels, electric charging, etc. at their proposed retail outlets within 3 years of operationalization of the said outlet.
- More private players, including Foreign players, are expected to invest in retail fuel marketing leading to better competition and better services for consumers.
- The new entities will bring in latest technology for marketing of fuels and also encourage digital payments at the ROs.
- Entities will also encourage employment of women and ex-servicemen at the retail outlets.
- CCTV facilities will be set up at all retail outlets.
- The authorised entities are required to set up minimum 5% of the total retail outlets in the notified remote areas within 5 years of grant of authorisation. A robust monitoring mechanism has been set up to monitor this obligation.
- An individual may be allowed to obtain dealership of more than one marketing company in case of open dealerships of PSU OMCs but at different sites.

People

News in Pictures



MD Mr S K Barua attended a meeting of select CEOs with H. E. Sheikh Hasina, Hon'ble Prime Minister of Bangladesh on 4th October 2019 in New Delhi

Achievement

The Golden girl

Ms. Mansi Motwani, GET (F&S) participated in the 2nd Indian Fire Service Games 2019 & won gold medals in 100m, 200m, 400m, shotput, badminton singles and doubles.

Fire Services Games Association (India) under the aegis of Directorate of Civil Defence, Home Guards and Fire Services, Ministry of Home Affairs, Government of India, New Delhi organized 2nd Indian Fire Service Games 2019 from 20th to 22nd December 2019 at Lucknow (UP). Athletics events, wrestling,

badminton, volleyball, basketball, table tennis, lawn tennis, archery, chess, swimming, tug of war, fire drills (BA Set drill, Water tender drill etc), Toughest Fire Fighter Alive etc. competitions were held as part of the games.



Congratulations Mansi!

Appointment

Mr. Sushil Chandra Mishra inducted in NRL Board



Mr. Sushil Chandra Mishra, CMD, Oil India Limited has been appointed as Director in the NRL Board of Directors on 4th November 2019. An accomplished professional with cross-functional domestic and international experience, Mr. Mishra has track record of delivering stretched results. He has over 35 years of experience in Oil India Limited (OIL). Having started his professional journey as an Executive Trainee with OIL in 1984, Shri Mishra developed deep expertise in commercial matters and played a key role in framing and implementing procurement policies & procedures for inventory management, vendor development, framework agreement and its related strategies. The core experience in operational activities at OIL's Main Producing Area (MPA) in Assam was further complimented while he discharged various responsibilities in diverse functions like ERP, Strategic Planning, E&P Projects, Corporate affairs, managing renewable energy portfolio & business development etc. Shri Mishra acquired significant Board level exposure at corporate office at the time of launch of OIL's IPO in 2009 and developing the Strategic Plan 2020. Shri Mishra also holds a unique distinction of achieving OIL's first ever overseas discovery as operator in Gabon setting a foundation for OIL to carry out extensive exploration & production activities at global landscape for its growth.

New recruits

The following Management/ Non Management/ Officers joined NRL during the quarter

Name	Designation
NILOTPAL GOSWAMI	MT(Estate)
ROHIT KUMAR	Officer(Fin)
MANISH AGARWAL	Officer(Fin)
DEEPAK DASH	Officer(Fin)
BHAGYASHREE GOGOI	Eng. Asst.(Ops)
MUZAMMIL HUSSIAN	Eng. Asst.(Elect.)
ANUJ SAIKIA	Eng. Asst.(Elect.)
PRANOB BORAIAK	Eng. Asst.(Mech.)
MOFIZUDDIN AHMED	Tech. Asst.(Elect.)
SUSANTA SAIKIA	Tech. Asst.(Elect.)

MONJIT KONWAR	Tech. Asst.(Elect.)
RIDIP CHUTIA	Tech. Asst.(Elect.)
SACHIN KALINDI	Tech. Asst.(Elect.)
RIDIP NEOG	Tech. Asst.(Elect.)
RATAL SAIKIA	Tech. Asst.(Mech.)
PRANJYOTI DOLEY	Tech. Asst.(Mech.)
JAHID ALI	Tech. Asst.(Mech.)
BIKASH SAIKIA	Tech. Asst.(Mech.)
DIPANKOR BARHOI	Tech. Asst.(Mech.)
KHAMIRAN BORAH	Tech. Asst.(Mech.)
ARINDOM PANGING	Tech. Asst.(Mech.)

WELCOME TO THE NRL FAMILY!!

Superannuation

Mr. Debeswar Baruah, Technical Assistant, NRL has superannuated from the services of the Company on 31st Oct '2019. We wish him a good health and a fulfilling life ahead!





What is Mindfulness?

Are you supposed to clear your mind, or focus on one thing? Here's the Mindful definition of Mindfulness.

Mindfulness. It's a pretty straightforward word. It suggests that the mind is fully attending to what's happening, to what you're doing, to the space you're moving through. That might seem trivial, except for the annoying fact that we so often veer from the matter at hand. Our mind takes flight, we lose touch with our body, and pretty soon we're engrossed in obsessive thoughts about something that just happened or fretting about the future. And that makes us anxious.

Mindfulness is the basic human ability to be fully present, aware of where we are and what we're doing, and not overly reactive or overwhelmed by what's going on around us.

Yet no matter how far we drift away, mindfulness is right there to snap us back to where we are and what we're doing and feeling. If you want to know what mindfulness is, it's best to try it for a while. Since it's hard to nail down in words, you will find slight variations in the meaning in books, websites, audio, and video.

The Definition of Mindfulness

Mindfulness is the basic human ability to be fully present, aware of where we are and what we're doing, and not overly reactive or overwhelmed by what's going on around us.

Mindfulness is a quality that every human being already possesses, it's not something you have to conjure up, you just have to learn how to access it.

While mindfulness is innate, it can be cultivated through proven techniques, particularly seated, walking, standing, and moving meditation (it's also possible lying down but often leads to sleep); short pauses we insert into everyday life; and merging meditation practice with other activities, such as yoga or sports.

When we meditate it doesn't help to fixate on the benefits, but rather to just do the practice, and yet there are benefits or no one would do it. When we're mindful, we reduce stress, enhance performance, gain insight and awareness through observing our own mind, and increase our attention to others' well-being.

Mindfulness meditation gives us a time in our lives when we can suspend judgment and unleash our natural curiosity about the workings of the mind, approaching our experience with warmth and kindness—to ourselves and others.

8 Things to Know About Mindfulness:

1. **Mindfulness is not obscure or exotic.** It's familiar to us because it's what we already do, how we already are. It takes many shapes and goes by many names.
2. **Mindfulness is not a special added thing we do.** We already have the capacity to be present, and it doesn't require us to change who we are. But we can cultivate these innate qualities with simple practices that are scientifically demonstrated to benefit ourselves, our loved ones, our friends and neighbors, the people we work with, and the institutions and organizations we take part in.
3. **You don't need to change.** Solutions that ask us to change who we are or become something we're not have failed us over and over again. Mindfulness recognizes and cultivates the best of who we are as human beings.
4. **Mindfulness has the potential to become a transformative social phenomenon.** Here's why:
5. **Anyone can do it.** Mindfulness practice cultivates universal human qualities and does not require anyone to change their beliefs. Everyone can benefit and it's easy to learn.
6. **It's a way of living.** Mindfulness is more than just a practice. It brings awareness and caring into everything we do—and it cuts down needless stress. Even a little makes our lives better.
7. **It's evidence-based.** We don't have to take mindfulness on faith. Both science and experience demonstrate its positive benefits for our health, happiness, work, and relationships.
8. **It sparks innovation.** As we deal with our world's increasing complexity and uncertainty, mindfulness can lead us to effective, resilient, low-cost responses to seemingly intransigent problems.

Meditation Is Not All in Your Head

When we think about meditating (with a capital M), we can get hung up on thinking about our thoughts: we're going to do something about what's happening in our heads. It's as if these bodies we have are just inconvenient sacks for our brains to lug around.

Having it all remain in your head, though, lacks a feeling of good old gravity.

Meditation begins and ends in the body. It involves taking the time to pay attention to where we are and what's going on, and that starts with being aware of our body

That approach can make it seem like floating—as though we don't have to walk. We can just waft.

But meditation begins and ends in the body. It involves taking the time to pay attention to where we are and what's going on, and that starts with being aware of our body. That very act can be calming, since our body has internal rhythms that help it relax if we give it a chance.

How to Sit for Meditation

Here's a posture practice that can be used as the beginning stage of a period of meditation practice or simply as something to do for a minute, maybe to stabilize yourself and find a moment of relaxation before going back into the fray. If you have injuries or other physical difficulties, you can modify this to suit your situation.

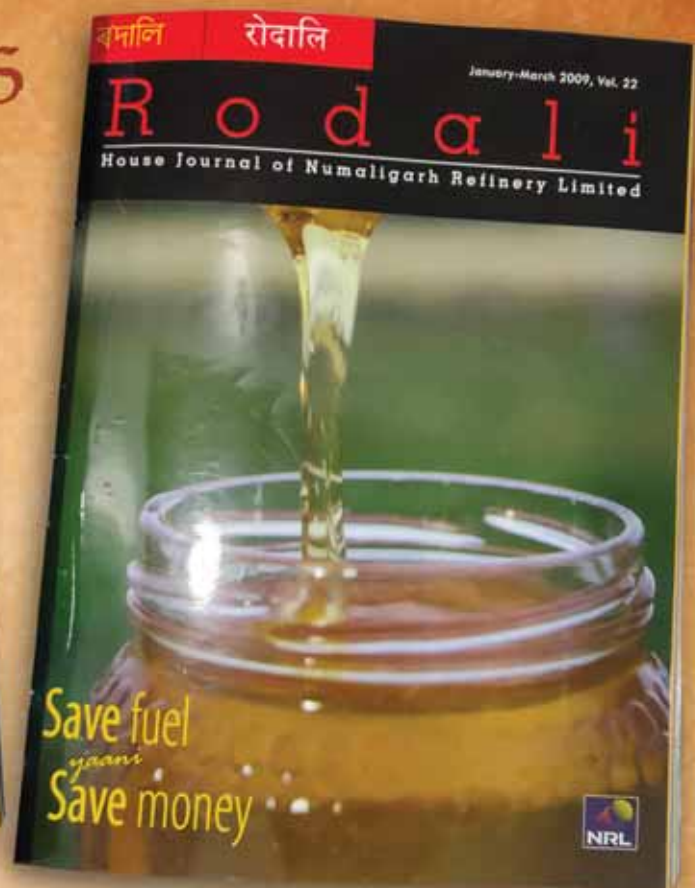
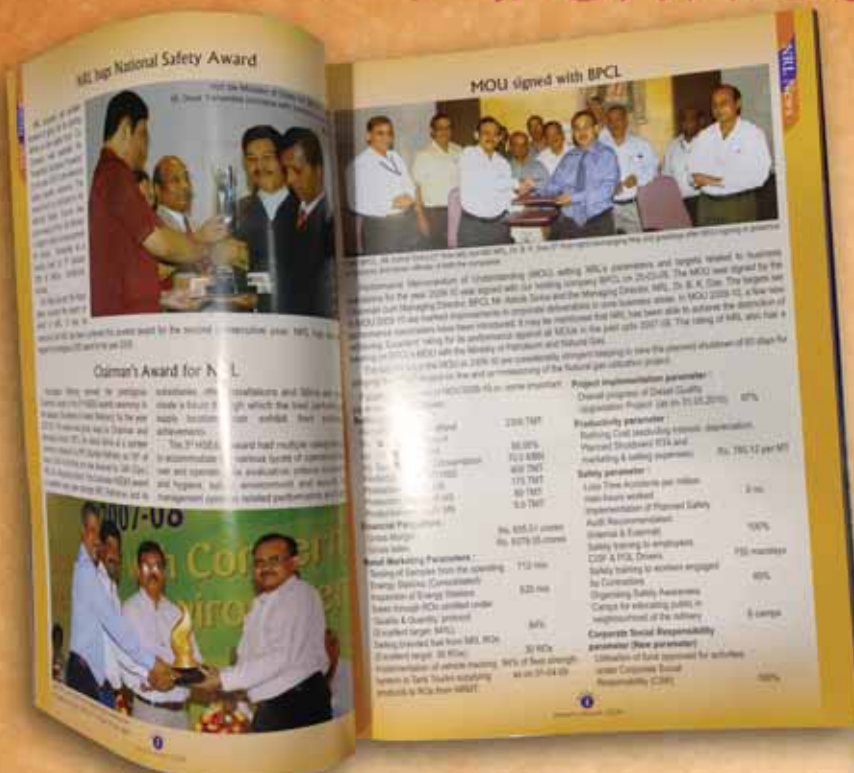
1. **Take your seat.** Whatever you're sitting on—a chair, a meditation cushion, a park bench—find a spot that gives you a stable, solid seat, not perching or hanging back.
2. **Notice what your legs are doing.** If on a cushion on the floor, cross your legs comfortably in front of you. (If you already do some kind of seated yoga posture, go ahead.) If on a chair, it's good if the bottoms of your feet are touching the floor.
3. **Straighten—but don't stiffen—your upper body.** The spine has natural curvature. Let it be there. Your head and shoulders can comfortably rest on top of your vertebrae.
4. **Situate your upper arms parallel to your upper body.** Then let your hands drop onto the tops of your legs. With your upper

arms at your sides, your hands will land in the right spot. Too far forward will make you hunch. Too far back will make you stiff. You're tuning the strings of your body—not too tight and not too loose.

5. **Drop your chin a little and let your gaze fall gently downward.** You may let your eyelids lower. If you feel the need, you may lower them completely, but it's not necessary to close your eyes when meditating. You can simply let what appears before your eyes be there without focusing on it.
6. **Be there for a few moments.** Relax. Now get up and go about your day. And if the next thing on the agenda is doing some mindfulness practice by paying attention to your breath or the sensations in your body, you've started off on the right foot—and hands and arms and everything else.
7. **Begin again.** When your posture is established, feel your breath—or some say "follow" it—as it goes out and as it goes in. (Some versions of the practice put more emphasis on the outbreath, and for the inbreath you simply leave a spacious pause.) Inevitably, your attention will leave the breath and wander to other places. When you get around to noticing this—in a few seconds, a minute, five minutes—return your attention to the breath. Don't bother judging yourself or obsessing over the content of the thoughts. Come back. You go away, you come back.
8. **That's it.** That's the practice. It's often been said that it's very simple, but it's not necessarily easy. The work is to just keep doing it. Results will accrue.

Source: <https://www.mindful.org/>

From the Archives



Vibrant Navratri Celebrations

Marking the advent of Autumn, Numali Club under the aegis of Kaliyani Club celebrated Navratri on 1st October 2019. Various competitions like Rangoli making were organized amongst the ladies and children. Amid much fun and fervor, the victory of good over evil was celebrated with music and dance performances by the members of Numali Club. Dandiya was also played by the ladies marking the beginning of Durga Puja and Navratri. The festivities ended with a sumptuous spread of delicacies.



Festival of Lights spreads joy

Diwali- the festival of lights was celebrated on 26th October 2019 by Kaliyani Club members with much fun and galore. Members along with their families gathered together at Club premises for a spectacular show of fire crackers by artisans of

Barpeta. Many activities were in store for the Diwali revelers like fun games, stalls, ethnic clothing stalls, lucky draw and Tambola which kept the festivities alive.



Children's Festival 2019

"Every child is a different kind of flower; together they make this world a beautiful garden....There is no garden as beautiful as Childhood..."

With great funfair and eagerness, the much awaited Children's Day Festival was organized from 3rd to 14th November'2019. The event kick-started with the Flag hoisting ceremony by President of KCEC-2019-20; followed by an inspiring speech given by him to the children present.

The 12-day long programme was lined up with diverse engagements in art, culture, sports and fun bringing about a welcome break for the children from their demanding school schedule. Various competitions like Art, Extempore



Speech, Recitation, Quiz, Debate, Go As You Like, Baby Show, Instrument Playing, Dance, Singing and a range of indoor and outdoor sports were organized.

On 14th November, 2019, scintillating performances by the tiny tots in Activity & Learning workshop conducted by Kidzee, followed by Western/Rock Music played by the in-house bands "Majestic Four" and "Hurricane", dazzling dance performance by the winners of dance competition and finally mesmerizing songs by upcoming child singer Ms. Lonismita Devi enthralled the audience marking the closure of Children's Festival 2019.



Christmas Eve celebrations

Soaking in the spirit of Christmas, the kids along with Kaliyani Club members celebrated the festival with great fervor and enthusiasm on December 24, 2019. Kaliyani Club wore a festive look with bells, streamers and beautifully decorated Christmas

trees. The entire Club vibrated with the echoes of Christmas carols while Santa Claus made a grand entry on Stage. The boundless joy of celebrating Christmas reflected on the faces of the children with the distribution of beautiful gifts.



Welcoming the New Year

New Year's Eve was celebrated on 31st December 2019, with Kaliyanites welcoming the New Year 2020 together with merriment and good vibes. Kaliyani Club members reveled in the rocking numbers performed by renowned artist.



Children's Day celebrated with much zeal

Along with the rest of the country, Rangchali Club observed Children's day on 14th November, 2019 with various attractive programmes like spot quiz, drawing handwriting competitions, musical chair, go as you like among the children and family members.

Glimpses of Children's Day programs



Cake cutting ceremony



Musical performance



Drawing competition



Spot Quiz competition

Farewell to Mr Debeswar Boruah

A warm and befitting farewell function was hosted by Rangchali club on 1st November, 2019 in the honour of senior member Mr Debeswar Boruah upon his superannuation from the company on 31st October 2019.



New Year celebration, Welcome 2020!

Like in previous years, Rangchali Club bade farewell to 2019 & welcomed 2020 at its premises on 31st Dec, 2019. A contributory dinner was arranged for the club members and their families. Every one greeted each other as the clock struck 12.00 in the midnight.

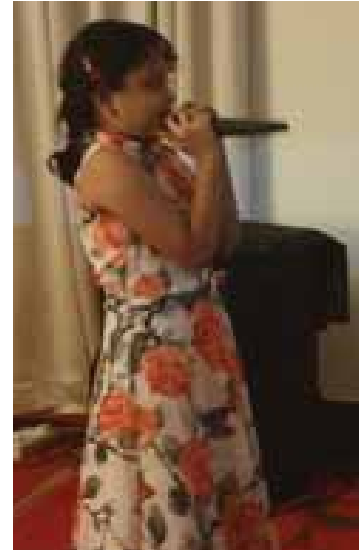


Diwali celebrations

Like in previous years, this year too Deepawali- the festival of lights was celebrated with much fun fare, fervor and joy. Members along with their better halves and kids had a great evening on the 26th of October, 2019 at the club premises. A

host of activities like 'Early Bird Prizes,' fun games for kids in the specially setup 'Kids Zone,' prizes for Elegant Diwali Couple, Best Dressed Male and Female, Cultural Show, Tambola and finally the grand Lucky Draw was organized.

Glimpses of Deepawali Celebrations



1st AGM of DNEst Club

The first AGM of the club after its constitution was organized on the 2nd of November, 2019 at the DNEst Club House. Annual Reports and Accounts of the club for the years 2016-17, 17-18 and 18-19 were passed and adopted in the AGM. New portfolios were introduced and a new Club Executive Committee was formed with the following members.

1. Shri Bruno Ekka – President
2. Shri H K Sarma – Vice President
3. Shri Pranta P Singha – Secretary

4. Shri Eebon Datta – Jt. Secretary
5. Shri Ananta Dev Goswami – Treasurer
6. Shri Kangkan Das – Convener (Food & Beverage)
7. Shri Akshay J Barua – Convener (Cultural Activity)
8. Ms Madhuchanda Adhikari – Executive Member
9. Shri Diganta Kr Bora – Executive Member
10. Ms Malabka Kar – Executive Member

Glimpses of AGM



Newly appointed executive body members along with other members attending the AGM.



AGM in progress at DNest Club



Felicitation of Ms Madhuchanda Adhikari for being awarded 'Woman of the Year 2019'

Inauguration of Pool Table

On 13th November, 2019, a new Pool Table was setup in the Club house for enabling its members to sharpen their 'Pool Skills.' Mr. Mr S K Barua inaugurateds the Pool Table.

Shri Nikunja Borthakur, SrCGM (CA) was also present on the occasion. Couple of rounds of games was enjoyed by the members.



Participation

Bangkok Music Festival

A group of students under the guidance of DPS music teacher Ms Dipanjali Changmai got the opportunity to perform at the International Cultural Harmony, Nritya and Sangeet Rasab Pravaah, a Global Competition of Indian Art and Culture organised by Nrityadham and Vedic Wellness University at the prestigious Rangsit University, Thailand from 19th to 24th October 2019. Around 400 participants from India and South East Asian Countries of Indian origin took part in various categories of this prestigious event. Galaxy of

Icons and Gurus of Indian Art, Music and Dance were present to encourage, judge and bless the participants. Ms Dipanjali Changmai Madam was awarded with prestigious “*Shakti Saropa*” award, Ms Akanksha Bhattacharya of Class X B and Ms Pratyasha Phukan of Class VIII A both bagged “*Hirak*” and Abhishruti Saikia of Class VII A bagged “*Swarna*” in their individual performance of Sitar and Arohan Kashyap of Class VI B bagged “*Hirak*” in the individual performance of Violin.



Inter School Western Rock Band Competition

The Hurricane Band of DPSN comprising of Aviraj Neog, Mrityunjay Das, Arjjab Sarmah and Sugam Boruah participated in the Inter School Western Rock Band Competition on 1st November 2019 at South Point School, Guwahati wherein they bagged the second runners –up trophy.



CBSE Regional Science Exhibition

Four students of Classes 8 & 10 namely Master Jashraaj Saikia, Master Abhinava Kalita, Master Arunav Kalita and Master Priyangshu Rajkumar participated in the CBSE Regional Science Exhibition on October 26th & 27th held at South Point School Guwahati under the guidance of Mr. V. K. Rajeev. The team of Master Jashraaj Saikia and Master Abhinav Kalita who presented a working model of Smart Maneuvering Stick was selected for CBSE National Science Fair to be held at Sun city School Gurugram.



Field Trip To Guwahati

Art and Psychology department organized an educational trip to Shankardev Kalashetra and Guwahati Medical College, State Museum, Assam Fine Art and Craft Society, Judge Field, Guwahati on 30th October 2019. Total 36 Students from both the department went for the trip. The team was escorted by Mr. Pranab Kr. Singh and Dr. Bandana Das.



DPS Fest

November 2, 2019, witnessed a union of culture, amalgamation of talent, alacrity and excellence in DPS campus. It was DPS Fest, a fest built on the hard work of team DPSN. Based on the theme of 'Gender Equality' the fund raising event was organized to sponsor higher education of needy and meritorious girl child. A platform for women to promulgate their talent, enthralled the spectators. Team of participants from Kaliyani Club emerged the winner as adjudged by eminent judges. Band performance by 'XOBDO,

ELECTRONIC TRIV' and students band teams from DPSN set the stage on fire.

Apart from the competitions, a variety of food stalls were also put up to satiate everyone's hunger. Game stalls ensured fun and excitement for everyone. There was exhilaration and mass participation during the Housie Game. The bumper lucky draws made the winners ecstatic. The fest really brought oneness, harmony, inculcated values and filled happiness in the community.



Workshop

Evaluation for Improved Pupil's Performance

The teachers of DPS, Numaligarh namely Mrs. Anindita Barua, Mrs. Priyanka Kaushik Goswami, Mrs. Shilpi D. Hazarika and Mr. Asutosh Debnath attended a three-day workshop on 'Evaluation for Improved Pupil's Performance' for classes VI-VIII.

The workshop organized by DPS Society, HRD Centre from 5th Nov'19-7th Nov'19 was designed to understand the complex realm of teaching-learning and its connection with assessments and examinations. This workshop enabled and empowered the teachers to form a unique outlook through value addition towards the process of assessments and evaluation.



The English Language Capacity Building Workshop for Primary School Teachers (Batch III)

Mrs Natasha Gogoi and Mr Tommy PJ attended a three day workshop on 'English Capacity Building for Primary Teachers' was organized by The Delhi Public School Society

from 20th-22nd November 2019 at the DPSS-HRD Centre, Lodhi Road. Thirty nine participants from various DPS participated in the workshop.



Wow @ Work

'The greatest threat to success is not failure but boredom.'

An engrossing, eye-opening and refreshing two day workshop for teachers was conducted by the eminent resource persons Mr Surya (Executive Director, Trainer of Confluence Training and Development) and his associate Mr Pankaj at DPSN campus on 23rd and 24th December, 2019 respectively.



The workshop involved recreational and thought provoking videos, fun filled activities engrossing the entire team and informed about two vital psychometric tests. The teachers were given booklets to have an in depth knowledge and clarity about the subject. Overall, it enhanced the development of the team creating new stepping stones for effective teaching.

Annual Day Function 2019

The grandeur of Delhi Public School, Numaligarh was witnessed by a huge crowd on 7th December 2019 on the theme '**Dare to Dream**'. The occasion was graced by Dr. G.Narahari Sastry, Director, CSIR-North East Institute of Science and Technology, Jorhat Assam as the Chief Guest, Shri S.K. Barua, Managing Director, Numaligarh Refinery Ltd. who presided over the function along with Shri A.K. Hazarika, Vice-Chairman, DPS, Numaligarh, Shri Bruno Ekka, Pro-Vice Chairman, DPS, Numaligarh and other officials and dignitaries from Numaligarh Refinery Ltd. The theme for this years programme was 'DARE TO DREAM' which had a kaleidoscope of programmes from junior and senior wing.



Children's Day

DPSN celebrated Children's Day with enthusiasm and zeal keeping in minds the words of Pandit Jawahar Lal Nehru "The children of today will make the India of tomorrow." The celebration began with the teachers reciting the school prayer. The hilarious news headlines made the students laugh boisterously. The Senior Mistress addressed the assembly by suggesting the students to dream big and work hard. The teachers presented a medley of songs which made the students groove in. The culmination of the assembly was like the icing on the cake for the students danced on their favourite songs and shook a leg with the teachers.

In the senior wing of DPS the teachers did the assembly on that day while children in colourful attire looked like the seven colours of the rainbow. Prayer was done by Mrs Dipanjali Phukan by singing a borgeet. This



was followed by a medley of songs by some of the teachers. A dance which was a nepali number followed by kala chasma was performed by Geeta Devi Sarki and Mon Bahadur Lama. After the short assembly, the students went to the classrooms and enjoyed with their class teachers.

VK NRL Hospital Section

News in Pictures



4th Continuing Nursing Education Program held on 9th November 2019 at VKNRL School of Nursing School



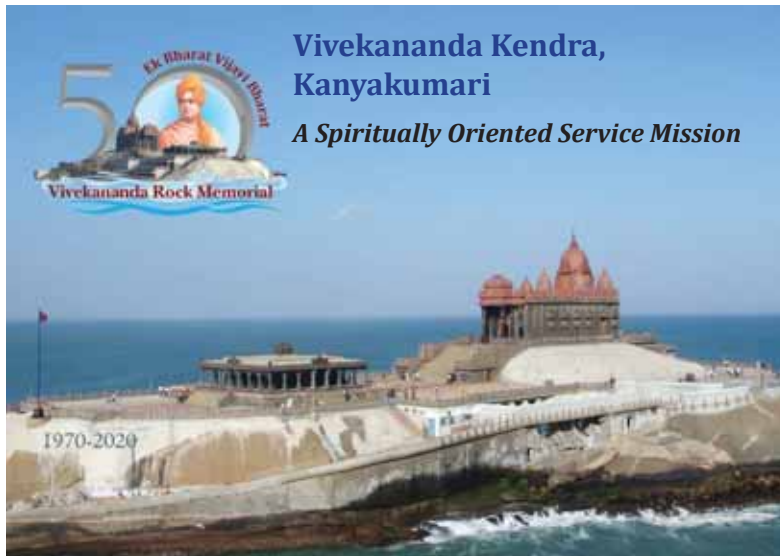
Rally on World AIDS Day on 1st December 2019



Voluntary Blood Donation camp in association with Indian Army on the occasion of World AIDS day on 2nd December 2019

Vivekananda Shila Smarak : Ek Bharat Vijayi Bharat

Vivekananda Rock Memorial is perhaps the only example in the world when a Memorial in granite has given way to a living Memorial and a mighty service organization. This article is published on the occasion of the 50th year celebration of this revered place on earth



With the twin objectives of 'Man Making and Nation building', 245 branch centers of Vivekananda Kendra regularly conduct *Yoga Varga*, *Sanskar Varga*, *Swadhyay Varga* and *Kendra Varga*.

Periodically *Yoga Satra*, Personality Development camps, Youth Motivation camps, *Vimarsh* - Interactive sessions on different topics for a cross section of society, *Swadhyay* Competitions for School & College students followed by residential camps, various celebrations are also organized.

Vivekananda Kendra renders service in following fields. Thus, Kendra through its branch centres and service activity centres works at present in 1005 places.

EDUCATION

- Total 85 Vivekananda Kendra Vidyalayas – 42 in Arunachal Pradesh, 28 in Assam, 11 in Andamans, 2 in Tamil Nadu and one each in Nagaland and Karnataka
- 200 *Anandalayas* – school supportive activity for improvement of confidence and academics. Conducted in Arunachal Pradesh, Assam Tea Gardens, Odisha, Andhra Pradesh and Gujarat.
- 195 *Balwadis* for pre-primary children in Tamil Nadu, Arunachal Pradesh and Odisha.

- One B.Ed. College at Nirjuli in Arunachal Pradesh.
- One School of Nursing in Numaligarh, Assam

HEALTH SERVICES

Runs hospitals with help of Oil refineries in - Numaligarh, Assam; Bina, Madhya Pradesh; Paradip, Odisha.

15 Medical Dispensaries in Tamil Nadu under V.K. Rural Development Program, Mobile Medical vans in Arunachal Pradesh, Medical services at Pimplad in Nashik & Amlipani in Odisha.

Regular eye camps, surgery camps

RURAL & JANJATI WELFARE & SKILL DEVELOPMENT

- Vivekananda Kendra has projects for Rural and Janajati welfare at Khatkhathi in Assam, Southern five districts of Tamilnadu, at Nasik in Maharashtra, Deoband (Kendujhar) & Amlipani (Sambalpur) in Odisha.
- It also has weaving and tailoring centres, skill development courses in plumbing, motor mechanics, computer literacy etc.; self-help groups and various camps for the leadership development among women and youth, protection of natural resources etc. It is also engaged in reviving the traditional water bodies in Rameshwaram.

PUBLICATIONS

Vivekananda Kendra publishes monthly magazines in Hindi, Marathi, English and Tamil languages, periodicals in Gujarati, Malayalam, Assamese and books on Swami Vivekananda and His message, Indian cultural traditions and Sadhana of Service, etc., in total 17 languages.

INSTITUTES FOR CULTURAL STUDIES & RESEARCH, TRAINING AND HUMAN EXCELLENCE

At places like Delhi; Nagdandi in Jammu and Kashmir; Kodungallur in Kerala; Guwahati in Assam; Solapur in Maharashtra; Bhubaneswar in Odisha; Hyderabad in Telangana and at Kanyakumari.

Bharat Petroleum Receives Prestigious 'FIPI Award'

On 8th December 2019, Bharat Petroleum received the 'FIPI Oil & Gas Award 2019', under the category 'Oil Marketing - Company of the Year' for leading performance for Direct and Retail Sales through customer-centric initiatives. The Federation of Indian Petroleum Industry (FIPI) Oil and Gas Awards celebrate industry's most outstanding achievements by recognising leaders, innovators and pioneers in the oil and gas sector.



CRDC Wins FICCI Award

On 11th November 2019, Corporate Research & Development (CRDC) bagged the Federation of Indian Chambers of Commerce and Industry (FICCI) Chemicals and Petrochemical Award 2019 under the category 'Sustainability Award for the Best Green Product in the Petrochemical Sector' for the research and development work on 'Development & Commercialisation of Indigenously developed Gasoline Sulphur Reduction Catalyst (BHARAT GSR CAT) for Refineries'.



Inauguration of BPCL's LPG Bottling Plant at Balangir

On 27th December 2019, BPCL's LPG Bottling Plant at Balangir was dedicated to the nation by Prof Ganeshi Lal, Governor, Odisha in the presence of Shri Dharmendra Pradhan, Union Minister for Petroleum & Natural Gas & Steel, and other dignitaries. Completed in a record 19 months, the state-of-the-art Plant spread over 23 acres has the capacity to produce 42 lakh cylinders per year and will supply LPG cylinders to consumers in 14 districts of Odisha.



BPCL Bags 'Best-In-Class Supply Chain and Procurement Diversity Initiative' Award

On 3rd October 2019, the Supply Chain Optimization (SCO) team received the Express, Logistics & Supply Chain (ELSC) 'Best-In-Class Supply Chain and Procurement Diversity Initiative' Award for widening of acceptable crude oil baskets and their ranking based on economics, which

helped in sourcing of a record 8 new crude oil grades in the year 2018-19. Ranging from all 6 continents, these crude oils also helped the Refineries to significantly improve their GRMs. With this supply diversity, BPCL became part of a select group of Asian Refiners with such a feat, thus winning this Award.

Bharatgas Pay & Book on Amazon Launched

Keeping pace with customers' changing needs, BPCL has transformed its business model through digitalization. Bharatgas and Amazon joined hands to create ease and convenience for customers through the 'Bharatgas Pay & Book facility on Amazon', which was launched by Mr. Arun

Kumar Singh, Director (Marketing) on 2nd November, 2019 at Pune. Amongst all OMCs, Bharatgas is the first to provide this facility on the Amazon platform and this initiative will go a long way in entrenching BPCL's digital footprints across the country.

PDPP of BPCL Kochi Refinery Lifts "APEX India Platinum Award 2019"

Bharat Petroleum bagged the APEX India Platinum Award 2019 for Occupational Health and Safety for the prestigious Propylene Derivative Petrochemical Project (PDPP) at Kochi Refinery. Receiving it for the second consecutive time, the award is an acknowledgement of the

lofty construction safety standards that have been seen set for the multi-crore PDPP in terms of innovative management practices like compulsory PPE at entry gate, safety incentive schemes for contractors, financial deterrents for severe safety lapses and regular internal and external safety audits.

Best Corporate Citizen Award for BPCL Kochi Refinery

BPCL Kochi Refinery has won the National Institute of Personnel Management (NIPM) Kerala Chapter Best Corporate Citizen Award among large companies having a minimum CSR budget above Rs.100 lakhs for the third consecutive year. NIPM instituted the award to recognize the efforts of companies in integrating and internalizing CSR into their core business operations.



Corporate HSSE Wins Responsible Business of the Year Award

Corporate HSSE received the Responsible Business of the Year Award from Social and Business Enterprise Responsible Awards (SABERA) for their excellent contributions towards Community, Sustainability and Environment. 4th December 2019.



Corporate HSSE Bags Golden Peacock Sustainability Award

Corporate HSSE bagged the Golden Peacock Sustainability Award for outstanding contribution, commitment, professionalism and actions that made a visible impact on Sustainability and the Environment. It recognizes those industries who are engaged in taking noticeable initiatives toward keeping the planet green and sustainable, demonstrating new ways to tackle climate change or raising awareness of emerging environmental challenges.



CRDC Bags Frost & Sullivan PERP Awards

On 18th December 2019, Corporate Research & Development Centre (CRDC) bagged three Awards during the Frost & Sullivan Project Evaluation & Recognition Program (PERP) 2019 under the category "Process Innovation Leadership" in the Manufacturing Sector. These were the Winner Award for Bharat-Divided Wall Column (B-DWC) Technology: Improving Separation Efficiency and its Application for Maximizing Gasoline Production in Refinery; First Runner up Award for K Model: Desktop Solution for Crude Oil Blend Compatibility & Blend Optimization and Certificate of Merit for FernoChem: Chemical for Furnace cleaning in Refineries.



BPCL Mumbai Refinery Wins Frost & Sullivan Awards

Mumbai Refinery bagged the Manufacturing Excellence and SMART Factory awards by M/s. Frost & Sullivan in recognition of excellence in the areas of superior leadership, technological innovation, customer service and strategic product development.



Bharatgas Last Mile App Enabled EDC Device

In its endeavor to adopt digitalization as a way of life, LPG SBU took another giant step and came up with the integration of a Paytm EDC device and Bharatgas Last Mile Delivery App, bringing the delivery of LPG cylinder and digital payment under one platform. It is a one stop solution for the delivery person to perform hassle-free transactions at the customer's doorstep, incorporating all steps of delivery, cash memo printing and digital payment. Launched on 9th November, 2019 BPCL was the first company in the country to have adopted payment through QR code in a formal way.



BCPL comes under MoPNG fold, feedstock subsidy for 15 years

The Cabinet Committee on Economic Affairs on 24th December, 2019 approved the transfer of administrative control of BCPL from Department of Chemicals & Petrochemicals to Ministry of Petroleum & Natural Gas and

also approved the feedstock subsidy to BCPL for 15 years of plant operation at an estimated cost of Rs. 4600 Crores, a major push for the project.

BCPL wins Greentech Safety Award 2019

BCPL won the prestigious “18th Annual Greentech Safety Award 2019’ in Petrochemical Sector. The award was received by Mr. Reep Hazarika, OSD & CGM (O&M) on behalf of BCPL at a function of ‘18th Annual Greentech OHS Conference and Safety Awards 2019’ held on 8th December 2019 at New Delhi. The award was presented by Mr. Dipak Misra, Hon’ble Chief Justice of India (Retd.).



Workshop for Women

A workshop on 3E for Women: Empower, Enable and Enrich through the medium of music was organised for the lady employees of BCPL on 22nd November, 2019 at Dibrugarh, curated by Ms. Sunita Khaund Bhuyan, a renowned violinist from Assam and HR professional on Wellness, Leadership and change intervention.



Plastic Waste Shramdaan

BCPL carried out a massive campaign to make BCPL and its surrounding areas single use plastic free zone. Coinciding with the 150th birth anniversary of Mahatma Gandhi, senior officials and employees of BCPL participated in Plastic Waste Shramdaan on 2nd October 2019 and campaigned against Single Use Plastic (SUP).



नुमालीगढ़ रिफाइनरी की वार्षिक हिंदी गृह पत्रिका 'प्रयास' को प्रथम पुरस्कार

नुमालीगढ़ रिफाइनरी के वार्षिक हिंदी गृह पत्रिका 'प्रयास' को नगर राजभाषा कार्यान्वयन समिति(उपक्रम), द्वारा श्रेष्ठ वार्षिक हिंदी गृह पत्रिका के रूप में दिनांक 27 दिसम्बर '19 को प्रथम पुरस्कार से नवाजा गया। 54वीं नराकास(उपक्रम) बैठक के दौरान अध्यक्ष नराकास (उपक्रम) एवं कार्यकारी निदेशक, गुवाहाटी रिफाइनरी के श्री एस मनचंदा के करकमलों से नुमालीगढ़ रिफाइनरी के वरिष्ठ मुख्य महाप्रबंधक (मानव संसाधन व विधि) श्री देबाशीष चौधुरी जी ने पुरस्कार ट्रॉफी एवं प्रशस्ति पत्र ग्रहण किया। यह प्रतियोगिता विभिन्न उपक्रम सदस्य कार्यालयों द्वारा वर्ष 2019 के दौरान अपने-अपने कार्यालयों में प्रकाशित गृह पत्रिकाओं के बीच आयोजित की गई थी। ज्ञातव्य है कि नुमालीगढ़ रिफाइनरी इस विधा में गत चार वर्षों से लगातार प्रथम पुरस्कार प्राप्त होते आए हैं।



पुरस्कार ग्रहण करते हुए श्री देबाशीष चौधुरी, वरिष्ठ मुख्य महाप्रबंधक, श्रीमती शिखा रानी दास, वरिष्ठ प्रबंधक(अनुरक्षण व योजना)

नुमालीगढ़ रिफाइनरी को राजभाषा चल वैजयंती शील्ड पुरस्कार प्राप्त

वर्ष 2019 के दौरान राजभाषा कार्यान्वयन में उत्कृष्ट कार्य निष्पादन हेतु नुमालीगढ़ रिफाइनरी को नगर राजभाषा कार्यान्वयन समिति(उपक्रम), गुवाहाटी द्वारा तृतीय राजभाषा पुरस्कार से नवाजा गया। उक्त पुरस्कार गत 27 दिसम्बर '19 को आयोजित 54वीं नराकास(उपक्रम) बैठक के दौरान प्रदान किया गया जिसे नुमालीगढ़ रिफाइनरी की ओर से वरिष्ठ मुख्य महाप्रबंधक (मानव संसाधन व विधि) श्री देबाशीष चौधुरी जी ने ग्रहण किया। पुरस्कार के तहत एक राजभाषा चल वैजयंती शील्ड, एक रेप्लिका और एक प्रमाणपत्र प्रदान किया गया।

नुमालीगढ़ रिफाइनरी द्वारा नराकास स्तर पर हिंदी निबंध का सफल आयोजन श्रीमती शिखा रानी दास को तृतीय पुरस्कार

नगर राजभाषा कार्यान्वयन समिति (उपक्रम), गुवाहाटी की 53वीं बैठक में लिए गए निर्णय के अनुसार नराकास(उपक्रम), गुवाहाटी के तत्वावधान में नुमालीगढ़ रिफाइनरी द्वारा 'नराकास स्तर' पर नराकास सदस्य कार्यालयों के लिए 'भारत में जलसंकट, कारण, प्रभाव और समाधान' शीर्षक पर एक निबंध प्रतियोगिता का आयोजन किया गया था। इस प्रतियोगिता में गुवाहाटी स्थित विभिन्न नराकास(उपक्रम) सदस्य कार्यालयों से कुल 24 प्रविष्टियां प्राप्त हुईं। विजेता प्रतिभागियों में से इंजीनियरिंग प्रोजेक्ट इंडिया लिमिटेड के श्री दुर्गेश पांडेय] प्रबंधक(वित्त) को प्रथम पुरस्कार, कर्मचारी राज्य बीमा निगम के श्री मनोज कुमार, वरिष्ठ हिंदी अनुवादक को द्वितीय पुरस्कार, नुमालीगढ़ रिफाइनरी की श्रीमती शिखारानी दास, वरिष्ठ प्रबंधक(अनुरक्षण व योजना) को तृतीय पुरस्कार और एअर इंडिया लिमिटेड के श्री हीरेन दास, सहायक अधिकारी और भारतीय खाद्य निगम के श्री सौरभ श्रीवास्तव, हिंदी अनुवादक दोनों को स्वातंत्र्य पुरस्कार प्राप्त हुए। उक्त पुरस्कार गत 27 दिसम्बर, 2019 को आयोजित 54वीं नराकास(उपक्रम) बैठक के दौरान नराकास(उपक्रम), गुवाहाटी की ओर से भारत सरकार

के प्रतिनिधि, श्री बदरी यादव, अनुसंधान अधिकारी व कार्यालय प्रमुख, श्रीमती कमलेश बजाज, सहायक निदेशक और बैठक में उपस्थित विभिन्न कार्यालयों से पधारे कार्यालय प्रमुखों और हिंदी अधिकारियों, प्रभारियों की उपस्थिति में अध्यक्ष नराकास(उपक्रम) एवं कार्यकारी निदेशक श्री संजय मनचंदा के करकमलों से प्रदान किया गया।



पुरस्कार ग्रहण करते हुए श्रीमती शिखा रानी दास, वरिष्ठ प्रबंधक(अनुरक्षण व योजना)

नुमालीगढ़ रिफाइनरी में हिंदी कार्यशाला का सफल आयोजन

राजभाषा हिंदी की सांविधानिक प्रावधान के बारे में जानकारी देने और कार्यालयी कामकाज में हिंदी की बढ़ावा हेतु नुमालीगढ़ रिफाइनरी के कर्मचारियों और केंद्रीय औद्योगिक सुरक्षा बल के कर्मिकों के लिए दिनांक 20 नवम्बर '19 को रिफाइनरी प्रशिक्षण एवं विकास केंद्र में एक दिवसीय हिंदी कार्यशाला का आयोजन किया गया। उदघाटन समारोह में महाप्रबंधक (एचआरएस) श्री प्रवीर तालुकदार और केंद्रीय सुरक्षा बल के वरिष्ठ निरीक्षक श्री थांबोई हाउकिप जी उपस्थित रहकर प्रतिभागियों को अपनी वाणियों से प्रेरित की। कार्यशाला के प्रथम सत्र के दौरान हिंदी के सांविधानिक स्थिति, कार्यालय में राजभाषा प्रयोग की अनिवार्यता, वार्षिक लक्ष्य प्राप्त करने की दिशा में सभी विभागों, यूनितों की भूमिका और भारत सरकार के राजभाषा विभाग के अंतर्गत विभिन्न प्रोत्साहन योजनाओं के बारे में विस्तार से



प्रतिभागियों की एकांश और पुरस्कार वितरण

जानकारी दी गई। द्वितीय सत्र में राजभाषा लिखने और पढ़ने में ही विभिन्न कठिनाईयों का सरल उपाय, पारिभाषिक शब्दावली की सहायता से छोटी-छोटी टिप्पणियां नियमित रूप से कार्यालयी कामकाज में प्रयोग करना आदि बारे में जानकारी दी गई और अभ्यास कराया गया। सत्र के अंत में एक प्रश्नोत्तरी प्रतियोगिता का भी आयोजन किया गया जिसमें सभी प्रतिभागियों ने बढ़चढ़ कर हिस्सा ली। कार्यशाला के अंत में महाप्रबंधक (एचआरएस) श्री प्रवीर तालुकदार और केंद्रीय सुरक्षा बल के वरिष्ठ निरीक्षक श्री थांबोई हाउकिप जी के करकमलों से सभी विजेता प्रतिभागियों को पुरस्कार प्रदान किए गए।

नुमालीगढ़ रिफाइनरी, सिलीगुड़ी को राजभाषा पुरस्कार

हिंदी के व्यापक प्रचार एवं कार्यालयीन कामकाज में हिंदी को बढ़ावा देने हेतु नुमालीगढ़ रिफाइनरी, सिलीगुड़ी मार्केटिंग टर्मिनल कार्यालयलगातार प्रयास कर रहे हैं। इसी के परिणाम स्वरूप नगर राजभाषा कार्यान्वयन समिति, सिलीगुड़ी ने दिनांक 28.11.2019 को आयोजित 41वीं नराकास छमाही बैठक के दौरान हिंदी के प्रगामी प्रयोग में बेहतर कार्य निष्पादन हेतु नुमालीगढ़ रिफाइनरी, सिलीगुड़ी मार्केटिंग टर्मिनल कार्यालय को राजभाषा शील्ड और प्रशस्ति पत्र पुरस्कार से सम्मानित किया। दिन-प्रतिदिन की गतिविधियों में राजभाषा कार्यान्वयन के क्षेत्र में सिलीगुड़ी मार्केटिंग टर्मिनल के विशेष प्रयास के लिए बैठक में उच्च-प्रशंसा हुई।



नुमालीगढ़ रिफाइनरी सिलीगुड़ी के कर्मचारियों को हिंदी माह के दौरान विशिष्ट उपलब्धियां

नुमालीगढ़ रिफाइनरी सिलीगुड़ी में हिंदी सप्ताह हर्षोल्लास के साथ मनाया गया और इसके अलावा भी नराकास सिलीगुड़ी के तत्वावधान में हिंदी माह के अवसर पर आयोजित प्रतियोगिताओं में भी बढ़चढ़ कर हिस्सा ली। दिनांक 24.09.2019 को आयोजित हिन्दी गीत-गायन प्रतियोगिता में सिलीगुड़ी मार्केटिंग टर्मिनल, रंगापानी के श्री बिप्लव कुमार बर्मन, वरिष्ठ प्रबंधक को में प्रथम पुरस्कार प्राप्त हुआ जिसे हिन्दी दिवस समारोह के दौरान उन्हें नराकास, सिलीगुड़ी की ओर से पुरस्कार प्रदान किया गया।



पुरस्कार ग्रहण करते हुए श्री बिप्लव कुमार बर्मन, वरिष्ठ प्रबंधक

এন আৰ এলৰ অনুসন্ধান আৰু উৎপাদনৰ অভিযান আৰম্ভ

নুমলীগড় শোধানাগাৰৰ (এন আৰ এল) ২০০০ বৰ্ষৰ অক্টোবৰ মাহত উৎপাদন কাৰ্য আৰম্ভ হোৱাৰে পৰা এন আৰ এলে আনুসাংগিক নিম্নমুখী ব্যৱসায়বোৰ শক্তিশালী কৰাত মনোনিৱেশ কৰি আহিছে আৰু বৰ্তমান উৰ্দ্ধমুখী ব্যৱসায়ত মনোনিৱেশ কৰি অনুসন্ধান আৰু উৎপাদনৰ অভিযান আৰম্ভ কৰিবলৈ লৈছে। ভাৰত চৰকাৰৰ পেট্ৰ'লিয়াম আৰু প্ৰাকৃতিক গেছ মন্ত্ৰালয়ে অসমৰ দুটা অনুসন্ধান খণ্ড ক্ৰমশঃ ডিব্ৰুগড় জিলাৰ নামৰূপ খণ্ড আৰু তিনিচুকীয়া জিলাৰ পশ্চিম মেচাকী খণ্ডত এন আৰ এলক অংশীদাৰী ৰূপত অনুসন্ধানৰ বাবে আনুষ্ঠানিকভাৱে অনুমতি প্ৰদান কৰিছে। এই অনুসন্ধান খণ্ড দুটা ইয়াৰ আগতে কেন্দ্ৰীয় চৰকাৰে ৰাষ্ট্ৰ ডাকৰ অধীনত অ'পেন এক্ৰেজ লাইসেন্সিং প'লিছি (অ'এএলপি) ৰাউণ্ড ১ৰ জৰিয়তে

অইল ইণ্ডিয়া লিমিটেডক (অইল) ২০১৮ চনৰ ১ অক্টোবৰত প্ৰদান কৰিছিল।

নামৰূপ খণ্ডটো ১২৫ বৰ্গ কিলোমিটাৰ আৰু পশ্চিম মেচাকী খণ্ডটো ৪৮৯ বৰ্গ কিলোমিটাৰ অঞ্চল জুৰি আছে। অইলে দুয়োটা খণ্ডতে অইলৰ অভিযান অব্যাহত ৰাখিব। অইলৰ সৈতে আগতেই দুয়োটা খণ্ডৰ বাবে ফাৰ্ম আউট চুক্তি সম্পন্ন হৈছে। উল্লেখ্য, এন আৰ এলৰ এইটোৱেই অনুসন্ধান আৰু উৎপাদনৰ প্ৰথম পদক্ষেপ।

ইয়াৰ লগে লগে এন আৰ এল তৈল উদ্যোগৰ সকলো আপষ্ট্ৰিম, মিডষ্ট্ৰিম আৰু ডাউনষ্ট্ৰিম খণ্ডত জড়িত এক অগ্ৰণী কোম্পানীৰূপে নিজকে প্ৰতিষ্ঠা কৰিবলৈ সক্ষম হৈছে।

এন আৰ এল আৰু ড° বি বৰুৱা কেম্বাৰ ইনষ্টিটিউটৰ মাজত চুক্তি স্বাক্ষৰ

নুমলীগড় শোধানাগাৰ লিমিটেড (এন আৰ এল) আৰু ড° বি বৰুৱা কেম্বাৰ ইনষ্টিটিউট (বি বি চি আই), গুৱাহাটীৰ মাজত দুই কোটি টকাৰ ব্যয় সাপেক্ষে বি বি চি আইত যোৱা ৮ নৱেম্বৰত এটা শিশু অ'নকোল'জী ৱাৰ্ড স্থাপনাৰ বাবে চুক্তি কৰা হয়। বি বি চি আইৰ সঞ্চালক ড° এ চি কাকতি আৰু এন আৰ এলৰ জ্যেষ্ঠ চি জি এম (এইছ আৰ এণ্ড লীগেল) শ্ৰী ডি চৌধুৰীয়ে, এন আৰ এলৰ জ্যেষ্ঠ চি জি এম (মাৰ্কেটিং আৰু বি ডি) শ্ৰী বি এক্সা আৰু দুয়োপক্ষৰ জ্যেষ্ঠ প্ৰতিনিধিসকলৰ উপস্থিতিত গুৱাহাটীৰ কৰ্প'ৰেট কাৰ্যালয়ত এই চুক্তি স্বাক্ষৰ কৰে।

এই শিশু অ'নকোল'জী ৱাৰ্ডত ১৫ খন বিচনাযুক্ত আই চি ইউ, ১০ খন বিচনাযুক্ত ডে কেয়াৰ কেমেথোৰাপী ইউনিট আৰু



এক ৰিক্ৰিয়েশ্বন তথা ক্ৰিয়েটিভিটি অঞ্চল থাকিব। চি এইছ আৰ কাৰ্যসূচীৰ অধীনত কেম্বাৰ ৰোগত ভোগা শিশুসকলৰ সমৰ্থনৰ বাবে গ্ৰহণ কৰা এই চুক্তি হৈছে আমাৰ কোম্পানীৰ অন্য এক মহৎ পদক্ষেপ।



MD's New Year Message 2020

My Dear Colleague,

As we usher in the New Year 2020, I take this opportunity to extend my heartfelt greetings of the season and convey my sincere appreciation to each one of you for your contributions and accomplishments in respective areas of work during the year gone by. Each little drop has contributed to the vast ocean of our Company's reputation, credibility and worth, built assiduously over the years.

Last year was indeed a momentous year with many new developments that have changed the flavour of our Company and carved out a future that promises to take our Company in a whole new direction.

The year 2019 took off on a positive note as 10 days before Republic Day, the Cabinet Committee on Economic Affairs (CCEA) granted its approval for the much awaited Refinery Expansion project from 3 to 9 MMTPA. In the following month, Hon'ble PM of India laid the foundation stone of NRL's Bio-Refinery Project - the country's maiden bamboo biomass 2G Bio-Refinery. Both the above developments lent a flying start to the year 2019.

About a month later, our newly commissioned LPG Mounded Bullet Project was dedicated to the Nation by digital unveiling of plaque by Hon'ble Petroleum Minister on 1st March 2019.

In another first for the Company, Food Grade Wax, 'Pristene' was launched amidst much fanfare during the 4th Annual Customers' Meet 2018-19 in Guwahati on 27th April 2019. This was a definitive step forward in consolidating NRL's presence as a market leader in the National and Global Wax market.

Sustaining the momentum, we could successfully import the first Crude Oil consignment at Haldia from Malaysia in June 2019, auguring well for developing NRL's capabilities for sourcing of Crude Oil in the future while notching up our margins favourably.

Another game changer was NRL's foray into the upstream oil business of Exploration and Production. Our Company acquired Participatory Interest from Oil India Limited in two Exploration blocks in Upper Assam viz. Namrup and West Mechaki block coming full circle with its presence in all 3 sectors of the Oil industry viz. upstream, midstream and downstream.

Amidst all these path-breaking developments, the news of 'in principle' approval by CCEA for strategic disinvestment of Govt. of India's shareholding in BPCL including disinvestment of BPCL's shareholding in NRL created ripples of uncertainty within the Company and beyond. The process of disinvestment is being actively pursued and very soon the Management Control of NRL would be transferred to another CPSE operating in the Oil and Gas Sector. Coming out of the fold of one of the most professionally managed companies like BPCL will pose challenges for NRL given the support, handholding and guidance received from BPCL in the last more than 20 years of our Company's journey of growth and accomplishments to reach its present state of glory.

Our Refinery Turn Around (RTA) commenced on 15th November 2019 and today, while I write to you, last minute commissioning activities are still going on in some of the plant units. The sense of duty that prevailed amongst all of you along with contract workers in the present RTA is yet another glowing manifestation of our Company pride that each one of you uphold.

Our efforts to strive for excellence in every field bore fruit as the Company was decorated with many prestigious awards during the year viz. the Refinery Performance Improvement Awards for the year 2017-18, Best Miniratna PSU in Strategic Performance at Governance Now PSU Awards, Fastest Growing Miniratna of the Year 2018 (manufacturing) by Dalal Street Investment Journal, FAME Environment Excellence-Platinum Award, ENCIS Refinery of the Year Award at Downstream India Excellence Award 2019, CII National Award for Excellence in Water Management and PRSI National Award 2019 for Best House Journal.

It has truly been a memorable year and I thank you all for your support and dedication and for the extra efforts and hours that you have put in to achieve your business targets.

Overriding challenges has become part of our grain and I am sure the New Year will throw open a lot more new ideas, which we will collectively endeavour to accomplish with new energy.

I sign off by wishing you all and your families a happy, safe and progressive New Year 2020 filled with joy, success and fulfillment.

With best regards,

S K Barua
Managing Director

01-01-2020
Guwahati



A few posts from NRL's Facebook and Twitter accounts promoting safety in everyday life