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Overhaul 2020 United We Stand



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Chief Executive Communication Session

Audra Long

The First Chief Executive Session of 2020 was organized by the HR team on the 21 February at Plant site. Mr Humair Ijaz started the session by highlighting the key achievements and performance of the year 2019, and congratulated the LCPL team on the achievement of the best financial results ever. He acknowledged the hard work and efforts of the entire LCPL staff. He also

presented an analysis of the forecasted market trends and the PTA margin for 2020.

He also appreciated the innovative initiatives taken by various employees through the year, and encouraged the staff to come up with more ideas which could improve their future and benefits the company.



Editors' Note

Dear Readers,

We are pleased to present to you the H1 Newsletter of 2020. Due to COVID-19 lockdown situation, we have merged two issues into one. As always, the issue covers a range of activities including CE session, the efforts of teams during Overhaul 2020, completion of 60 million man-hours without LTC, and management of plant with limited human resource during the pandemic.

Safe execution of Overhaul is always a challenging task for LCPL team; OH 2020 was even tougher due to the onset of a pandemic. However, we were able to execute an injury free overhaul within the planned time. Major activities during overhaul were modification of Oxidation Reactor Agitator, up-gradation of starting and protection systems for Process Air Compressor motor, up-gradation of Emergency Shutdown System and Boiler PLC, and replacement

of UPS Outstation and maintenance of PTA Dryer without vendor support.

After the lockdown, we had to reduce the manpower available at the plant, however the team at plant was able to efficiently deal with unprecedented tasks. 2020 is a difficult year globally and LOTTE Pakistan Foundation stepped up during these tough times and has pledged PKR 36 million to various COVID-19 relief efforts.

We hope that you and your families are staying safe and healthy in these trying times. Heartfelt thanks to all the contributors for this edition. We are always open to your feedback for improvement of future editions.

Sincerely,
Newsletter Committee

LOTTE Pakistan Foundation Helps Pakistan Fight COVID-19 Crisis

Rushana Khan

LOTTE Pakistan Foundation was founded on 3 October 2019 with the purpose of streamlining LOTTE group's CSR efforts in Pakistan. Its primary goals include efforts toward poverty eradication, providing quality health and education facilities to the underprivileged sections of the society and taking environmental sustainability initiatives. Efforts also include training and awareness programs, community development programs and crisis relief programs.

During the COVID-19 crisis in the country, the foundation pledged PKR 36 Million for relief efforts. These funds are being deployed in different capacities through LOTTE group companies in Pakistan. Anti-COVID supplies including PPE and test kits

imported from Korea were donated to Prime Minister House, Sindh Government and Dow University of Health Sciences by LOTTE Chemical Pakistan Limited while a contribution was also made by the company towards the ration distribution drives for deserving families being carried out by Al-Khidmat Foundation. LOTTE Akhtar Beverages meanwhile donated medical and other essential supplies to Corona Treatment Centre at Expo Centre, Lahore. More relief efforts are planned by LOTTE Kolson in collaboration with different non-government organizations to provide ration bags, and LOTTE Engineering & Construction donating face masks to Provincial government. The group aims to continue its relief efforts to play a positive role during this time of global hardship.



Overhaul 2020 – United We Stand

Overhaul 2020 was the 14th Overhaul in LCPL's history. It was particularly challenging due to the large number of major projects and the highest ever number of jobs planned. Some of the major jobs that were attended were Oxidation Reactor Agitator Shaft Replacement; Oxidation DH Column Condensate Cooler replacement; and a number of key up-gradations, including PAC SFC and MCP, Boiler PLC, ESD System and Ronan Controllers. Despite numerous challenges surrounding the exchange rate, unprecedented inflation and above all, the COVID-19 outbreak, the teams were able to not only complete the 2255 jobs, but also saved 2 days on the allotted time of 20.5 days.

An Overhaul Steering Committee, comprising of the senior management, was formed to monitor the progress of the preparations. Their guidance and support was pivotal in making this Overhaul a success.

Preparations for this Overhaul had begun well over a year ago, as the Planning team formed a detailed preparation plan. Numerous meetings were conducted with Overhaul coordinators to finalize job lists, and later on Major Job Review meetings were held. Work packs for jobs were developed based on the job plans and all procurement was done accordingly through the tremendous efforts of the Commercial team. A detailed plan for the travelling and stay of the overseas service providers was also prepared in coordination with all stakeholders.

The Planning team also developed a comprehensive execution plan on Primavera P-6 for all the jobs. The timeline was made based on the feedback of the coordinators and effective communication was the key in developing it. For the first time in LCPL history such a detailed execution plan was developed. An Overhaul Brief-

ing Session was organized in February 2020, where all employees and contractors were briefed on the work that needed to be carried out during the overhaul.



Safety is our management's top most priority, and the HSE department provided valuable support in making the overhaul injury free. The HSE team developed the Safe System of Work document to be

followed throughout the Overhaul to ensure that the work methodology remained within local safety guidelines. Round the clock monitoring of plant was carried out during execution phase and a daily

safety newsletter was issued. The Engineering team cascaded the highlights from the newsletter in the daily toolbox talk to reinforce behavioral safety. Process safety was ensured by Production and Technical department through the safe shutdown and startup of Plant, with extensive focus on the plant decontamination phase.

A key challenge was to limit the cost of the Overhaul to within the constraints of the budget. To achieve that, the Commercial team made great efforts to reduce the cost of material and services. The Maintenance teams played their part by identifying alternate maintenance plans where minimal cost of resources would be incurred. One major cost saving initiative taken through the efforts of Planning and Commercial team was the allocation of one of the major manpower services contract to a new service provider. Daily cost monitoring sheets were developed by the Planning team in order to track the expenditure so timely decisions could be made in order to maintain control over the budget.

Security is another one of the key components of a successful Overhaul. The dedicated and vigilant support provided by Admin department ensured safe stay and commute of LCPL team and expats during overhaul. In addition, the Admin team ensured quality of services such as meals and refreshment, which is necessary to maintain the morale of the LCPL team during the exhausting activities of the Overhaul.

The perseverance and dedicated efforts of the LCPL team translated into a successful Overhaul, which reinforces the fact that this team is ready to take any challenge head on.



One Team One Goal - 60 Million Man-hours without LTC

Shuaib Iqbal

LOTTE Chemical Pakistan Ltd. achieved yet another milestone in HSE&S performance by completing 60 Million Man-hours without Lost Time Case (LTC) for its employees and all contractors on 1 March 2020.

Mr Humair Ijaz (Chief Executive) congratulated the LCPL team and appreciated the efforts of all employees and contractors staff in achieving this world-class benchmark through their continued commitment, positive attitude, adherence to safety rules and responsible approach towards

HSE&S. Mr Tariq N. Virk (GM Manufacturing) appreciated the exceptional safety record set by LCPL team with continuous efforts. He also emphasized on the need to continue efforts in making LCPL a safe working place for employees, contractors and visitors and raising HSE&S performance to the next level of excellence.

LCPL's highest safety standards are excellent demonstration of company's unwavering commitment towards Health, Safety, Environment and Security as defined in the HSE&S policy.

Congratulations to all LCPL employees & Contractor teams!

Boiler Control System Upgrade

Naiha Pervez

There are two boilers installed at plant, both of which were controlled via Siemens S5 PLC since the time of plant commissioning. The system has become obsolete now and no support in terms of spares and troubleshooting is available. The Instrumentation team led by Amir Azam (Manager Instrumentation and E&I Reliability) as Project Manager; with Abdullah Bin Azhar (AM Instrumentation) as Execution Engineer; who was supported by Naiha Pervez (TE Instrumentation), Muhammad Nadeem Bhatti (Engineer Instrumentation) and Muhammad Ayaz (SE Instrumentation), took the initiative of upgrading one of the two Boilers with the new control system based on advanced Siemens S7 PLC. The team studied each and every logic and wiring in

detail and replicated it on the new control. Hence a new control system for boiler was installed in Overhaul 2020 with superior control as well as advanced monitoring procedures.

This challenging project would not have been possible without the support of Technical and Production teams. Shoaib Mumtaz Adhami (Senior PSM Utilities & CoGen) and Iqbal Awais (SM Utilities) from Production put in extra hours with the Instrumentation team for smooth implementation and verification of logics. Due to this dedicated teamwork and commitment the new and upgraded boiler panel was commissioned successfully.



Supply Chain Responsiveness

Muhammad Zain Siddiqui

One critical measure of the success of any Procurement team is its responsiveness to urgent business requirements and supply disruptions, and this skill was remarkably demonstrated by Engineering Purchase team while handling the urgent requirement of Titanium material for the Oxidation Reactor Phasejet Modification. The requirement was identified by Projects in the first week of November 2019 and delivery was required to be made before Overhaul 2020.

Owing to the exotic nature of the material and impending Christmas and New Year holidays in Europe and North America, it was a near impossible task to arrange the material before Overhaul. However, the Purchase team rose to the occasion and leveraged its global supply network by placing orders to three geographically dispersed suppliers

situated in the Middle East and Italy on the basis of shortest lead time. As a result of extensive follow up and coordination with suppliers, the last shipment of material was finally delivered at plant site in the last week of January 2020.

Another challenge was posed by the disruption in the supply of Overhaul related valves from China first due to Chinese New Year and later due to Novel Coronavirus. Once again, the Purchase team exhibited commendable resilience and with brilliant support from Projects and Engineering teams, all the valves were successfully ordered to multiple alternate suppliers in the Middle East and deliveries were made before the start of Overhaul. Kudos to Engineering Purchase team for its extraordinary efforts to avert a potential delay in the start of Overhaul!



Cutting Costs

Sabih Ahmad

The efficient use of vital resources is one of the most important challenges faced by the Utilities team, especially during plant shutdowns. Caustic soda is one such resource which is used for de-blocking of process lines and equipment. During Overhaul 2020, caustic consumption was reduced by 5% as compared to the last overhaul. This was only made possi-

ble due to vigilant monitoring by the Utilities team. Credit must also be given to the core plant's production team for their excellent coordination with Utilities and constant focus on caustic soda's consumption. This is a commendable achievement as resource cost was significantly reduced, thus lowering the overhaul expenditure.

Overhaul 2020 Refresher Training Sessions

Shuaib Iqbal

Permit to Work (PTW) is a mandatory requirement to carry out work on LCPL site. It is a key tool which not only controls the work but also ensures adequate job preparation, risk reduction and safe execution of activities. The refresher training on PTW system is organized from time to time to raise the level of awareness of staff and to highlight the areas of improvement.

Multiple refresher sessions for PTW Issuers and Acceptors on Safe System of Work (SSOW) were organized by Technical Training Centre (TTC) before commencement of Overhaul 2020, which

were specifically designed keeping in view the interaction between PTW issuers, Acceptors, Area Operators, job executors and supervisory staff. Asad Hayat (Senior Shift Manager Oxidation) and Shuaib Iqbal (Assistant Manager QHSE) conducted these sessions.

Apart from LCPL staff, the participants also included key personnel from contractor manpower who later on cascaded this training to their staff as well. The attendees added value to the training by sharing their personal experiences and practical knowledge.



Achievement of Zero Injury Target in Overhaul 2020

Shuaib Iqbal

LOTTE Chemical Pakistan Ltd. achieved the Zero Injury Target set for Overhaul 2020. This achievement was a direct result of continued focus and commitment on all safety aspects by LCPL staff, SUSA auditors, HSE & Technical Training team, respective area managers and contractors' safety teams.

The HSE & Technical Training team led by Umair Khalid (HSE & Technical Training Manager) contributed their best to achieve the milestone. With execution of major projects this time, the estimated total number of jobs over 2200 and the contractor manpower of more than 2100, the safety performance achieved during overhaul was remarkable. The awareness, teamwork, guidance, support and commitment were the key factors for maintaining our injury free record.

The site safety induction was arranged by HSE & Technical Training department on continuous basis. 15 safety induction sessions were conducted at Descon Camp and 10 at Technical Training Centre, apart from routine safety inductions that were conducted during each shift.

Safety Officers including Naseem Khan, Arif Anwar Saeed, Fahad Ahmed, Furqan Ahmed Khan; Syed Wajahat Ali (SHE Secretary); Zeeshan

Azmi (HSE Coordinator); and Syed Tayyab Ali (Technical Training Coordinator) conducted these sessions to facilitate the overhaul team.

Supervisions for emergency response, process support services and high pressure water jetting were provided through the Emergency Response Team (ERT).

Learning events and areas of improvements were highlighted through daily safety publications. A compliance of 138% was observed in management SUSA audit program. There were 32 SUSA auditors in 16 teams carrying out daily audits. A unique audit theme was assigned to each team on rotating basis to audit different plant areas. These audit themes were around unsafe acts/conditions, PPE, house-keeping, scaffolding, confined space, site procedure, Permit to Work system, etc.

1. Mohammad Sajid Khan (Plant Manager - Oxidation) and Talal Ayaz (Process Support Manager - Purification)
2. Sikandar Khan (Plant Manager - Purification) and Sumayyah Waheed (Senior Assistant Manager - TPM)
3. Sohail Abbas (Process Engineering Manager) and Irfan Ahmed (E&I Manager)

Never Give Up

Talha Nabi Dar

Almost every process plant has some equipment which, due to design limitation is always critical and has to be vigilantly kept under observation. One such component at our plant is the Purification Reactor inlet piping. Due to process conditions of high velocity slurry piping erosion is a recurring issue; therefore its thickness is closely monitored. In Overhaul 2020, it was observed that a portion of this line had developed significant thickness loss and had to be addressed on priority. The affected portion of the line was an integral part of the channel head of an upstream heat exchanger, the Fourth Pre-heater. The exchanger along with the affected piping was removed and

shifted to Workshop for inspection.

Judging by the design complexity of the channel head, it initially seemed that this repair activity could not be executed in-house. However, after studying the design drawings in detail, it was determined that the damaged piping portion was in fact replaceable and would not require complete channel head replacement. A detailed repair procedure was developed and successfully implemented with joint efforts of Maintenance, Inspection and Workshop teams. The channel head cover was subsequently installed back and the exchanger has been working fine since then.



SFC Control Upgrade and MCP Replacement

Muhammad Safwan Khan



Static Frequency Converter (SFC) is the soft starter for Process Air Compressor's motor whereas Motor Control Panel (MCP) is responsible for its control, protection, excitation supply and reactive power controlling. SFC upgrade and MCP replacement were two major and challenging business critical projects executed during OH 2020. Both the systems had become obsolete due to which we had been facing problems with procurement of spare parts and technical support.

Thorough technical and design reviews were carried out by the Electrical team to ensure that the new systems are exactly as per our requirement, and exten-

sive efforts were put in with the OEMs and designer for verification in FAT and rectification of the identified gaps. ABB engineers from Switzerland and Sweden were engaged for project execution. Extensive collaboration of the ABB and Electrical teams coupled with inter-departmental support at different phases of the project ensured smoothly and timely completion.

Through these projects, reliability of both the systems has been improved significantly. Credit goes to Irfan Ahmed (E&I Manager), Syed Raza Anis (Manager Electrical), Muhammad Safwan Khan (AM Electrical) and Abid Qayyum (Engineer Electrical).



ESD System Upgrade

Hamza Ahmed Khan & Noor Nabi

Emergency shutdown (ESD) system is a very critical part of plant operation which ensures safe operation of the plant by closely monitoring process variables and shuts down the plant safely in case of upsets. The old ESD system was installed over 20 years ago during plant commissioning and had become obsolete with no spares available in the market and no vendor support.

Upgrading it with the latest state-of-the-art system was a major initiative that the Instrumentation team undertook. Being one of the major jobs of OH 2020, a dedicated team comprising of members from Instrumentation, Production and Technical departments was assigned to oversee it. The project was led by Amir Azam (Manager Instrumentation and E&I Reliability) as Project Manager, Umair Aleem (AM Instrumentation) as Execution Engineer, who was

supported by Muhammad Asif Farooqui (AE Instrumentation), Hamza Ahmed (TE Instrumentation) and Muhammad Owais (Instrument Technician). Muhammad Sajid Khan (Plant Manager Oxidation) was the Commissioning Manager, who was assisted by Noor Nabi (SSM) and Syed Ahsan Imam (PSM Oxidation).

Jumping from an old technology to a completely new and advanced technology was not easy as everything had to be done from scratch. All the old hardwired logics were studied and understood from the base and were implemented successfully on a software based ESD. Furthermore, considering the criticality of the Emergency Shutdown system, its accurate commissioning during OH 2020 was vital for safe plant operations. Through the team's dedication, expertise and exemplary coordination the new system was successfully installed and commissioned.



Eliminating Barriers

Arsalan Ahmed

The unit operation of Feed Hopper Vent Gas De-duster at Pure Plant had become a complex issue after Overhaul-2020. The pressure of this circuit was reaching its alarm value despite repairs and maintenance activities during the overhaul.

Initially the frequency of caustic wash routine of this circuit was increased but it bore no fruitful results. It was then assessed that a relocated

spray arrangement was needed to scrub solids and ensure the cleanliness of de-duster's internal parts. Faisal Rasheed (AEP Purification) took the initiative of managing a distribution nozzle hooked with a Demin water hose and appropriately placing it so that adequate scrubbing of this section was done. Consequently, the pressure normalized. This is one of those rare occasions where a dedicated team member single-handedly rectified a recurring problem.

Safety Slogan Competition for Overhaul 2020

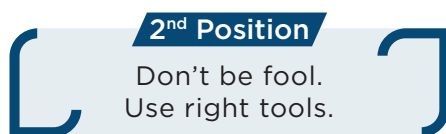
Shuaib Iqbal

The HSE & Technical Training department organized the Safety Slogan Competition for Overhaul 2020. An outstanding participation was observed in the competition; a total of 82 slogans were received

from 37 participants including LCPL Management, Non-Management and Contractor staff. The slogans were reviewed by the designated committee and the following were declared the winners:



Muhammad Safwan Khan
(AM Electrical)



Mansoor Ahsan Khan
(Laboratory Officer)



Shujaat Ali Khan
(AE Instrumentation)

Prizes were awarded to the winners and their slogans were printed on safety banners displayed

at prominent locations at plant site during overhaul.

Production Department's Contribution to Overhaul 2020

Asad Hayat

Plant major overhaul is the time when all the employees of LCPL are set to put their best efforts to make sure that all the maintenance work of plant is done safely delivering the best quality of work within the target duration. As for the Production department, this is the opportunity for the team to exhibit our adherence to safety practices, our commitment to following strict target deadlines, our will to exceeding par average goals and most importantly our ownership of the plant even when it's not operational.

This overhaul was a very special one as we had our hands full with a number of major projects along with some traditional activities that define our skill excellence. There were four major projects at Oxidation plant that included EKATO Dual Phase-Jet modification, DH Column Condenser Cooler modification, ESD System upgrade and Tie-ins for Anaerobic Unit. These projects were completed successfully through the highest level of dedication. At Purification, Palla-

dium Catalyst used in the Reactor was replaced expertly by the team. At Utilities, the most hazardous storage tank of Paraxylene was emptied out during shutdown activities and after its decontamination, safely handed over to Maintenance and Inspection. Raw Water tank and Demin Water Tank were also cleaned and inspected. Boiler-A PLC upgrade was another significant improvement made during Overhaul. At CoGen, Gas Turbine Generator's semi-annual inspection was successfully completed. All the planned jobs and projects were completed within the allocated time and consumption of utilities and resources was optimized to save costs.

Plant startup was done with extreme care making sure that no setbacks were faced and loss of resources and time was avoided. The contribution made by each and every team member of the Production Department is worth mentioning as their synergy was one of the reasons for a successful Overhaul.



Time is Money

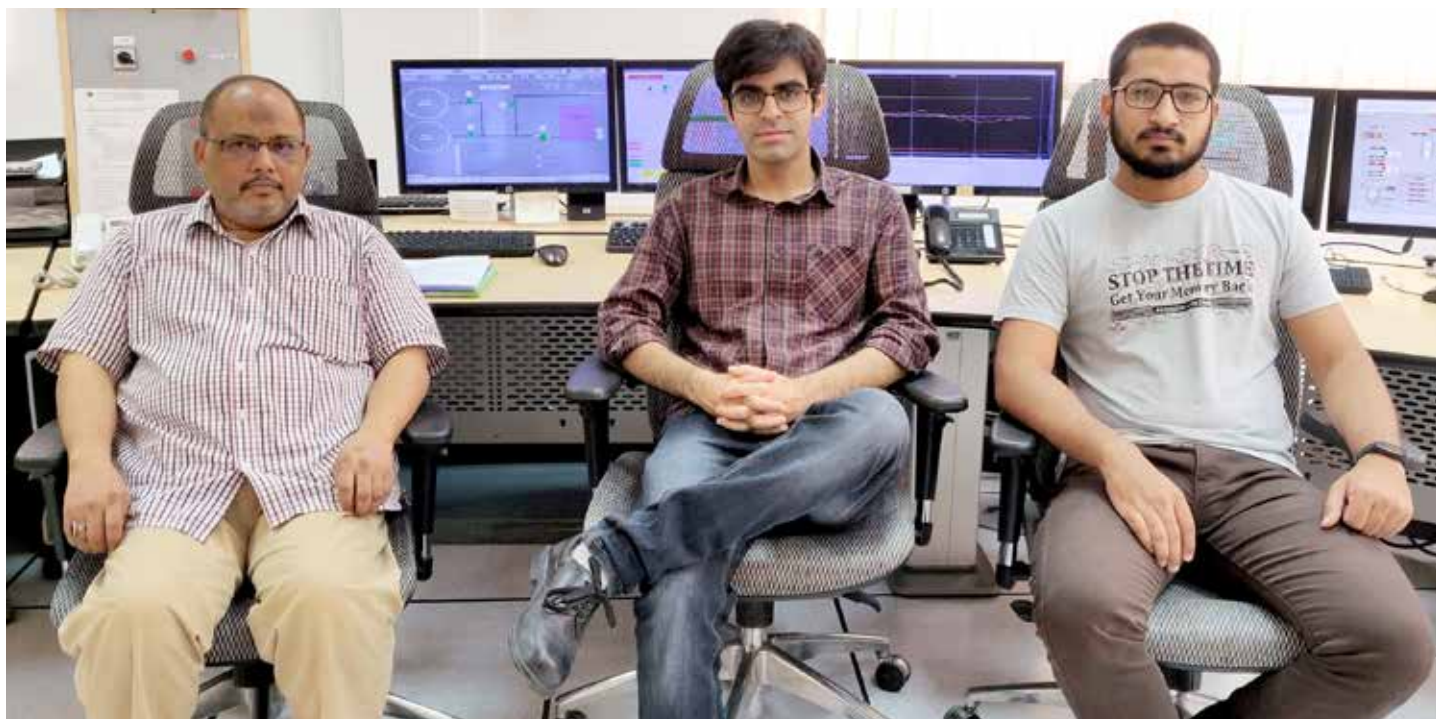
M. Abdullah Hashmi

The Offline Water Wash activity on GTG is carried out almost every month to remove dirt and other contaminants to increase the turbine's operational efficiency. This activity requires a planned shutdown of CoGen Plant for 8 to 9 hours, during which electricity is imported from K-Electric. Recently, the CoGen team reduced this downtime by introducing a modification in the Water Wash system.

Previously, GTG was rinsed in several batches for 4 to 5 hours until a benchmark value of water's conductivity was reached, indicating turbine's cleanliness. However, Syed Aly Hasan Kazmi (AE Process) suggested that a continuous operation would significantly reduce this time. Aiser Javed (SM CoGen) took up this suggestion, worked out its technical feasibility and devised a practical methodology to carry out a

continuous operation of GTG's Water Wash without compromising its effectiveness. Umair Aleem (AM Instrumentation) also played a key role in co-ordinating with GE to finalize these changes.

On 25 February 2020, a successful trial was carried out in which 3 hours reduction in plant's downtime was recorded. This amounts to a significant contribution in CoGen's variable cost saving. CoGen and Instrumentation team members including Waqas Hameed (SM CoGen), Sohail Akram (SM CoGen), Sammar Mazhar (SM CoGen), Abdullah Bin Azhar (AM Instrumentation), M. Khaliq (AE Instrumentation), Asghar Ali Soomro (AE Process), Saad Ghafoor (SE Process), M. Rafiullah (SE Process), Hasan Khalil (Apprentice CoGen) and Shaikh Usama (Apprentice CoGen) all provided valuable support in this regard.



Ingenious Solutions

Mahmood Ul Hasan Siddiqui & Talal Ayaz

The issue of powder escaping from the top of Feed Hopper Vent Gas Scrubber was a chronic one which was investigated in detail by the Technical team and the root cause was found to be design flaws in the scrubbing system. To ensure optimum scrubbing, additional sprays were installed upstream of the de-duster brush. A new reducer with sprays was especially fabricated by the Projects team for installation during Overhaul 2020. The installation was a tricky job as there were a lot of new supports to be provided. At a height of approximately 45 meters, the execution involved a great deal of rigging and hot work which was successfully completed in safe manner.

After Overhaul, it was observed that the demister inside the scrubber was getting choked with moist powder resulting in pressurization of the circuit and lifting of its Pressure Vacuum Valve. The assembly installed above the demister during Overhaul for its washing was then relocated below the demister to improve the scrubbing, and a new assembly had to be provided above the demister for its periodic washing. The Technical team came up with a solution which involved using a redundant KCV for washing of demister as per desired timing. The Projects team successfully fabricated an assembly in very short time with limited manpower. The combined hard work of both the teams resulted in resolving the issues in a safe and cost effective way.

Revamping PTA Dryer

Muhammad Ahmed

PTA dryer is one of the complex machines at Purification plant whose maintenance is always a challenge. Until the previous overhaul, the maintenance of PTA dryer had always been executed under OEM supervision. However, this time as part of a cost saving initiative the complete maintenance was performed by the Mechanical Maintenance team without any external supervision.

Comprehensive maintenance procedures and check sheets were developed to ensure high quality, safe and streamlined execution. The chronic steam chest leakage was attended by an innovative procedure created through the combined efforts of

Maintenance and Inspection teams which was further vetted by a third party. All the maintenance activities were successfully executed and completed well before the planned time. Executing complete Dryer maintenance without any OEM involvement is proof of the sound skill set developed by the Maintenance team over the years working with OEM. The efforts of Ali Ahmed Khan (AM Maintenance Purification), Talha Nabi Dar (AM Inspection), Muhammad Saleem (Engineer Mechanical Purification) and Sohail Javed (SE Mechanical Utilities) are highly praiseworthy for overcoming all challenges to successfully complete the extensive maintenance job.



Unfazed by yet another Challenge

Taha Ahmed Siddiqui

Execution of jobs during an Overhaul requires plenty of planning and preparations to manage all the resources efficiently within the available timeframe. Key to a successful execution is the flawless planning that comes before it, but not every activity has predictable scope. Core-pit repairs is one such activity where the Workshop team stays blind until the pit is completely drained out.

The pit was handed over after the fourth day of overhaul, and the extent of liner damages this time was far beyond what we had seen in previous over-

hauls. Quickly assessing the situation at hand, and keeping in consideration the short time window available for repairs before the Core-pit had to be handed back, the Workshop team had to improvise their preparations. Increasing the resources deputed on this particular activity while planning for execution of next steps in parallel ensured all needed repairs were completed within the available three days. Carrying out extensive high quality patchwork and repairs in such a limited timeframe is a remarkable feat, the credit for which goes to the combined effort of all Workshop team members.



Never Say Never

Shoaib Adhami

LCPL has two high pressure boilers which are used for the production of high pressure steam for plant operations. The plant was originally designed such that the steam demand was fulfilled by one boiler in operation while the other acted as the backup. After installation of CoGen plant, majority of plant steam needs were being met by HRSG, and Boiler A would be kept in operation with minimum load as per original design.

The minimum Boiler load was 11 tons/hr and around 5 tons/hr of excess steam would be vented to the atmosphere continuously. Minimum boiler load was then reduced in step-wise to 6 tons/hr through modification. The load reduction modification was done after consultation with Vendor. Even after this modification, 2 tons/hr of excess steam was still being vented. Although the vendor had revised the minimum Boiler load to 4 tons/hr, further reduction of load was more complicated than it had been in the previous phase. Reduction of gas in the Boiler also decreases the pressure differential across furnace, and during this next step of reduction, the effects would have been more severe, creating the possibility of backfiring in furnace which has serious

safety implications. The Technical, Production and Instrumentation teams jointly worked on a project to safely reduce the boiler load to 5 tons/hr. This daunting task was completed by collective team work with an attitude of Never Say Never.



Impossible to Possible

Muhammad Irfan & Wali Ahsan

During Overhaul 2020, one of the major projects was the replacement of DH Column Distillate Condensate Cooler. This heat exchanger cools DH column overhead product and had a welded plate and frame design, which is very sensitive to any process abnormalities. Over time the exchanger had developed internal leakages, resulting in ingress of chlorides in the system, which is the main cause of Stainless Steel corrosion, Purification Reactor catalyst poisoning and various process and quality issues.

To provide a robust solution to the problem it was proposed to change the exchanger type to shell and

tube design, which is far more robust. However that imposed a great number of design challenges, such as, high weight, space limitation, high cost, long installation timeline, etc. The challenges were overcome through design innovation and optimization; the cost and weight of the heat exchanger was brought down lower than the existing plate and frame design.

Through extensive collaboration with the vendor, hazard studies and smooth execution, successful completion of the project was ensured. Credit goes to the Technical, Production and Project teams for their efforts during different phases.



Replacement of UPS-Outstation

Fayha Naz

UPS-Outstation, one of the most critical UPS systems installed on plant site, provides power to Non-core Field Instrumentation and DCS. Its replacement job was planned for OH 2020 by the Electrical team against unavailability of spare parts and lack of technical support by OEM due to obsolescence. Additionally, this UPS had become faulty a few months before OH 2020, which also made this major job even more critical as the load was being temporarily supplied from another UPS.

The installation job and commissioning checks were successfully carried out by the Electrical team without the support of the vendor engineer and a significant cost was saved. All the functional and load tests were performed within the stipulated time as per the overhaul timeline because of efficient planning and coordinated execution by Syed Raza Anis (Manager Electrical), Muhammad

Ahmed Ullah (AM Electrical) and Imran Ullah Khan (Engineer Electrical Reliability).



Moving towards Upgraded Instrumentation

Naiha Pervez

The level of critical vessels at plant is measured using radioactive level monitoring system. The level transmitters of the level monitoring system had become obsolete and its spares were unavailable in the market. To address this, Instrumentation team consisting of Umair Aleem (AM Instrumentation), Naiha Pervez (TE Instrumentation), Syed Mehmood Ali (Engineer Instrumentation) and Mashood Adil (SE Instrumentation) took the initiative of upgrading them. A total of nine level transmitters, five at Oxidation and four at Purifi-

cation plant were upgraded.

This project was completed in two phases where some of the level transmitters were upgraded in Short Shutdown October 2019 whereas the rest were upgraded during Overhaul 2020. The team executed the project by itself without any involvement of the vendor. This project will not only make future troubleshooting easy but has also enhanced the reliability of the most critical level monitoring system at plant site.



Going Green - Electronic Logbook System

Ryan Parmar

The need to preserve the environment and limit the use of natural resources is more relevant today than ever before. Aiser Javed (Shift Manager CoGen) presented the idea of logging details of plant's shift operations digitally instead of writing them on paper, thus reducing CoGen Control Room's carbon footprint. In this regard, the Production and IT teams, led by Arshad Ali Shaikh (Plant Manager CoGen) and Tariq Mahmood (HR & IT Manager), collaborated to work out the feasibility of an electronic logging system.

A special gratitude is owed to Mr Humair Ijaz (CEO), who with his invaluable insight and prior IT experience, suggested utilizing Customized Applications by Oracle for this purpose.

Waqas Hameed (Shift Manager CoGen) finalized the operational requirements while Ali Hassan Ayyoubi (IT Programmer) co-ordinated with CoGen's shift managers to work out the design and accessibility details of the system.

The Electronic Logbook System at CoGen ran on trial basis in March 2020 and produced excellent results in terms of paper usage reduction, ease of access and convenient record-keeping. The Production team now plans to expand it to the remaining three plants as well, along with implementing it at DCS Operator level. This initiative truly upholds LCPL's commitment to maintain the highest standards of HSE practices without compromising productivity.

Oxidation Reactor Agitator Modification – Exemplary Team Work

By Projects Team

That Oxidation Reactor Modification project was challenging is an understatement; the frequency at which the team was faced with surprises can very well be compared with riding a roller coaster blind folded – fear of not knowing the upcoming sudden turns and the thrill faced in the following ephemeral smooth run. It was quite understandable that there would be considerable demand of effort in the project life cycle, what was less known was the requirement of quite different and very specific experience and skill set during each of the turns the project took – the right skill set at the right time could be summed up as the key to the success of this project, had anyone been missing then the project could have been derailed; only the presence of experienced team and their team work ensured that such a misfortune does not come to pass.

It's said that with big risks comes big reward – proposing modification in the reactor of Oxidation plant is not something to be taken lightly. Wali Ahsan and the Technical team had to consistently engage with the Technologist Ekato for around a year before pitching the case to business for approval back in Q1 2019. There were enormous risks and uncertainties at every step, but the Technical team's efforts in spearheading the endeavour, especially pitching in the idea of using an existing agitator shaft made the timely realisation of this project possible.

Since this was a project with significant capital expense, extensive procurement support was required for sourcing of material and services. Hussain, Inayat, Arif, Shiraz and Arshad under the supervision of Zain left no stones unturned in resolving any issue that cropped up. Their coordinated efforts ensured timely availability of material for every phase of project execution.

Executing the modification brought its own set of challenges which might not have been resolved as





efficiently without the experience and efforts of the Engineering team. Mansoor Alam's field supervision during the machining of agitator shaft and Abdul Majeed's initiative in performing the extensive in-house welding of titanium shaft and piping were crucial in achieving prefabrication work quality within the constraints of cost and time. Mahmood's impeccable coordination with in-house team and foreign engineers, Shahid's effort in bringing about a quick disinvestment and installation of vessel, Mohammad Shoaib's supervision and insight throughout the Overhaul, stringent quality checks by Inspection and Aleem's efforts during the night shift, are some of the notable contribution which had been invaluable in accomplishing the project execution in a way that arguably leaves very little room for improvement. An equally important role was performed by the teams who work behind scene - HSE, Admin and Planning team provided excellent support in ensuring safety, security, comfort and an amenable environment throughout the turnaround which in turn enabled the execution team to better focus on the tasks at hand.

Start up of a process plant is always a very demanding experience; especially more so when extensive modifications have been made during the plant turnaround. Sajid Khan and the entire Operating team rose up to the challenge, acting fast to resolve commissioning

issues and bringing the plant into stable production. Asad Hayat's very insightful support throughout the design process also holds a core contribution in the success of the reactor modification project.

A project is deemed successful when it meets the business goal within the triple constraint of scope, cost and time. With the criteria of time and cost already achieved - it is expected that the Oxidation Reactor Modification project will soon achieve the scope threshold and prove to be a success story of exemplary team work.



Control Valves Overhauling

Hamza Ahmed Khan

Control Valves are considered an important asset to control the plant process. To ensure smooth operation of the plant while maintaining product quality, these valves need to give accurate control. The Instrumentation team comprising of Syed Mehmood Ali (Engineer Instrumentation) and Shujaat Ali khan (AE Instrumentation) were assigned to overhaul control valves. Attending 67 valves in a short window

of time available during Overhaul is a challenging undertaking. Receiving each valve in workshop, dismantling it, finding the spares, polishing and machining the trim parts, boxing it up and calibrating the valve precisely before sending it to field; all were handled perfectly by the team. With perseverance and dedication, all of the valves were overhauled and reinstalled at their locations the field before time.

Acetic Acid Storage Challenge

Asad Hayat

Acetic acid is one of the Raw materials for PTA manufacturing and it is imported via ship tankers at EVTL. From the storage facility at EVTL, it is transported to LCPL plant site by road tankers for usage.

Due to limited storage space at EVTL, the Commercial team manages the inventory management with special care. However, since the PTA sales had decreased due to the pandemic, the plant went on shut-down and Acetic Acid consumption had decreased significantly. The Commercial team was facing a huge complication in their supply plan as a new ship was expected to arrive shortly with limited storage capacity remaining at EVTL. After the Production team was informed of the scenario, they stepped up to support the Commercial team in handling the challenge. Even in plant shut

down conditions, the excess quantity of chemical had to be transported to plant site by creating ullage in LCPL acid storage tank. For this purpose, Oxidation Operations team decided to prepare the Solvent Recovery Unit (SRU) for safe storage of Acetic Acid. This was an unconventional move by the Oxidation Operations team in plant shutdown condition, yet by employing fine operational skills and vigilant monitoring of tank levels they managed to meet the request of the Commercial team. All of this was made possible with lowest wastage of chemical and limited workforce.

The Production team's efficient and prompt response during a cold shut-down situation saved the demurrage charges which would have been an added economic burden on the company.



Keeping Nerves in a Critical Situation

Muhammad Irfan, Noor Nabi, Yasir Ahmad Shaikh

Plant Operations team has always showcased the ability of prompt decision making and out of the box thinking especially when facing plant emergencies. One such event was witnessed amid MCC-32 tripping incident on 16 June 2020.

The situation around MCC-32 tripping was unprecedented as it caused failure of cooling water, demin water, and steam supply all at once; these utilities are vital for plant operation and safe plant shutdown. To cater to the unavailability of power for running cooling water pumps, the Production team came up with an unconventional solution and pressurised the emergency cooling water header from fire water circuit with support from Maintenance team. Subsequently,

Purification plant was immediately put on flush while Utilities team dedicated their efforts to restore the availability of steam. Hence, essential utility supplies were soon revived through well-coordinated efforts of the teams.

The efforts of Muhammad Irfan, Noor Nabi, and Muhammad Ismail (Senior Shift Managers) at Oxidation and in an overall leadership role; Arsalan Ahmed and Muhammad Azeem (SM Purification); and Jahanzaib Ali Malik and Iqbal Awais (SM Utilities) for the handling of this emergency are praiseworthy. Lessons learnt during this situation have been made part of the emergency response SoPs, and will be helpful in the future.



Overhaul 2020 at Utilities Plant

Sabih Ahmad & Usman Iftikhar

For smooth and efficient plant operation, health and reliability of equipment is of utmost importance. In order to ensure this, overhauls are planned to carry out inspections and maintenance of plant's assets.

The Plant was shut down in the early hours of 25 February 2020. The efforts of Utilities team are commendable in ensuring the availability and continuous supply of utilities for plant decontamination. Plant decontamination and boundary slip plating was carried out within the timeline after which equipment were handed over for Maintenance.

Several major jobs were carried out at Utilities plant including Paraxylene tank inspection and extensive internal and repairs; Raw water tank cleaning; Demin

tank inspection and repairs; Demin train vessels inspection and repairs; and Cooling Tower structural reinforcement and basin cleaning.

The jobs were executed in full compliance with the safety, time, cost and quality objectives. Efforts of Muhammad Shahid (Shift Manager Utilities), the Overhaul coordinator from Utilities Production; Mechanical Maintenance day team consisting of Rushana Khan (AM Human Resource), Anwar Ul Hasan (Engineer Mechanical Utilities) and Rana Khalid (JE Mechanical Oxidation); and the night team consisting of Usman Iftikhar (AM Maintenance Utilities), Syed Nadeem Mehdi (Engineer Mechanical Reliability) and Nasir Subhani (SE Mechanical) are commendable in making the Overhaul at Utilities a success.

Maintenance Team Focused and Engaged

Muhammad Ahmed

The Mechanical maintenance team has always been on the forefront of handling challenges. Although the team is expected to handle high number of jobs during plant downtime, the challenge was even greater in Overhaul 2020 as multiple major maintenance and modification activities had to be executed on Process Air Compressor, CTA dryer, PTA dryer, Oxidation Reactor, Cooling Tower, Paraxylene tank and Agitators while

simultaneously attending other maintenance jobs in the area and providing support to other departments. The maintenance team ensured execution of all major and minor jobs and timely handover of equipment to production team while keeping the core principles of safety and quality workmanship as the utmost priority. After a stable startup post overhaul, the team motivation has reached a new high.



Optimization of Nitrogen Consumption

Asad Hayat

Nitrogen gas is used for the startup of Oxidation plant and is supplied by the neighbor organization, POL. POL normally maintains a separate stock of Nitrogen because LCPL needs it in bulk whenever it is required.

The pandemic COVID-19 brought on a lot of difficulties with it that were beyond our routine planning. A lot of those challenges were related to plant operability even in shutdown state. An excessively long shutdown demanded continuous usage of Nitrogen from POL, hence during startup, we were already

low on stock of Nitrogen. In this time of distress, LCPL production team took it upon itself to manage with what we had and improvised the startup activities to consume lesser Nitrogen. These adjustments enabled us to start the plant using around 30% less Nitrogen than usual. This milestone is a clear example of how optimization can be done to save the cost and will help us in challenging ourselves to break the further barriers. Kudos to the Oxidation Production team lead by Mohammad Sajid Khan (Plant Manager Oxidation).



Something for the Birds

Taha Ahmed Siddiqui

The Workshop team is always on the lookout for contributing positively to aesthetics of LCPL plant site. An initiative was recently taken to improve the peacocks' enclosure. It was decided to replace the ragged temporary roof of the enclosure, which, letting in sun and rain, must have created a displeasing habitat for the birds. Incurring no additional costs and salvaging items which were of no immediate use, a permanent roof was erected on the enclosure. The enclosure not only appears more appealing now but also provides for adequate protection to the resident birds. The team takes the pleasure in doing something for the non-vocal beings, ensuring they are also looked after with good care.



Workshop Team Going Above and Beyond

Taha Ahmed Siddiqui

The Workshop team was geared up for the OH-2020 activities with all arrangements in place when just a day before the commencement of Overhaul, they were hit by a surprise job as a leakage of Hydrogen line was reported near POL boundary wall.

The Inspection team identified the leakage to be from an underground hydrogen line, over which there was around 6 feet of earth and a carpeted road. In addition to addressing this leakage, it was decided to also replace the buried portion of the Nitrogen line which runs parallel to the damaged line since we don't get the opportunity to excavate that area too often. This maximized the challenge at hand for the Workshop team, as they had to prepare

for two spool replacements of 1.5" and 10" from scratch and manage the added workload in parallel with the planned jobs of Overhaul.

Additionally, for the replacement of Nitrogen line, Nitrogen header needed to be taken offline and the team only had a 12 hour window for execution before the header had to be taken back in service. With an unforeseen challenge of such criticality and with very little time available, the Workshop team made use of their resources effectively and completed both the jobs in the allotted time. Through this, not only a leakage was attended, but through capitalizing on the opportunity the integrity of another critical piping was restored.

Success Story of Overhaul at Oxidation Plant

Asad Hayat

Plant Overhaul is considered as an opportune event anticipated by the Operations team as it is the time when all the faulty equipments get attended. Oxidation team had invested its time well in preparation of Overhaul 2020 to ensure that all big and small issues get attended. During execution phase, a significant contribution made by the Operating team was the safe and efficient shutdown and decontamination of the plant which was done in the target duration of 48 hours. Moreover, for the first time Reactor was dumped with a new route, while good assessment and planning ensured that the PX tank was emptied out at the exact promised time.

This time Oxidation team; especially the SSMs, Noor Nabi, Asad Hayat, Muhammad Irfan, Umair Bhatti and Muhammad Ismail; was encumbered due to a number of planned projects that were highly critical and exhaustive in addition to the typical overhaul work activities. The SSMs were involved in their respective assigned projects from their very inception. They did

HAZOPs, actively participated in major job reviews, contributed in planning, handover and execution and performed successful commissioning.

For the duration of the Overhaul, Sajid Shafique (TPM Manager) was moved from TPM to Oxidation Plant. His integration into the team was effortless, improved team cohesion, and his past experience proved to be highly useful.

Shutting down the plant is one big task and then even more difficult is to safely bring the plant back online in time without any hiccups. With four major projects executed this time, smooth startup of Oxidation depended heavily on the perfection of work in these projects. The whole team from the SSMs to the Apprentices took it as a challenge and concatenated all their efforts to meet the target. The team's efforts did pay off and plant was started successfully in compliance with all the targets and timelines.



A Step towards A Sustainable Future

Muhammad Ismail

The ongoing mega project that is steadily heading through its initial grounding phase is the commissioning of Anaerobic Reactor which is intended to enhance the capacity of the existing Effluent Treatment Plant, while at the same time improve the catalyst recovery of CRU plant. This key venture mainly has two sections to work on: one is the designing and commissioning of Anaerobic Reactor and the other is modifications at CRU plant.

All process related tie-ins for this project were

planned to be executed in OH-2020. Talking about CRU alone, there was a challenging figure of 22 tie-ins that were to be executed in a strictly narrow timeline by our highly motivated Projects team, and the Oxidation Operations team led by Muhammad Ismail (SSM Oxidation). This milestone was successfully achieved by the commendable hard work and efficient coordination of the teams. Area Operators responded equally sound to the task and performed all isolations as per plan, helping us accomplish our target within the deadline.



Beyond the Working Boundary

Mansoor Ahsan Khan

Employee health and safety is the foundation of HSE policy. During the ongoing pandemic, SOPs were developed to prevent the spread of COVID-19 as per directives of LOTTE management. The SOPs included use of hand sanitizers as they contribute to reducing the spread of the virus. LCPL lab extended support to the Admin department for the selection

of best hand sanitizer from the numerous brands available in the market. The lab analyzed different brands and recommended the best one in line with WHO recommendations. With limited manpower the Lab team took on this responsibility beyond the scope of their day-to-day activities to ensure the safety of personnel at site.



Defeating the Crisis - COVID-19 Front Line Shift Force

Muhammad Irfan

Despite the COVID-19 crisis and the country wide lockdown, the shift staff of LCPL continued to perform their duties at plant site. Shift roster was modified from 8 hour to 12 hour shifts by the order of the Corona virus Management committee. The unavailability of transport for all shift staff was unable to affect their strong resolve and commitment towards their duties. The shift personnel frequently stayed at LCPL camp, being unable to visit their families for long periods in this time of global crisis. The availability of a backup team in LCPL Camp at all times during the lockdown speaks of their commitment and dedication.

During the lockdown period, the shift staff proved their expertise and presence of mind by handling the emergencies that occurred at plant with an extremely limited number of personnel to perform certain tasks. In March, when the whole plant tripped due to the SPAC breaker failure, they were able to restore complete plant operations in minimal time.

During this chaotic situation, while they continue to perform their duties at plant site, they also continue to take all precautions and protective measures, from wearing proper PPE and keeping themselves sanitized to observing social distancing.

Inspection Team Delivering the Promised Target

Talha Nabi Dar

To ensure smooth and efficient plant operation, maintaining the integrity of stationary equipment is paramount. Inspection team has always fulfilled this responsibility with absolute perseverance. Even though adequate preparations were in place to tackle the inspection jobs in Overhaul 2020, room for surprises was always there since a few high criticality jobs were also planned to be attended. These included detailed inspection of three major storage tanks, Paraxylene, Demin and Caustic; CTA Dryer's first thorough inspection after commissioning; PTA Dryer steam chest modification; and Oxidation Reactor inspection after dual phasejet blades modification. With plant's life exceeding 20 years of oper-

ations, all these inspection jobs had to be meticulously dealt with.

A vigilant Inspection team took these challenges head-on and, together with sound management and dedicated efforts, achieved the targets well within time in a safe and cost effective manner while simultaneously upholding the quality standards. Services of M/s SGS and Inspectest were pursued for deployment of certified API inspectors as well as to carry out Remote Videoscopic Inspection, Eddy Current Testing, Ultrasonic Flaw Detection, Dye Penetrant Testing, Ultrasonic Thickness Gauging, and Radiographic Testing.



Performance with Precision

Abdullah Ansari

On 16 January, 2020, a low pressure lube oil alarm appeared at the Non-Drive End bearing of Pressure Centrifuge B. Upon examination it was observed that the lube oil was contaminated with water and centrifuge service. The Reliability team, under the supervision of Syed Nadeem Mehdi (Engineer Mechanical Reliability), took swift action and made the necessary arrangements for oil replacement with the machine in operation.

It was a critical activity involving switching off the lube oil pump which supplies oil to the bearing, draining the contaminated oil, cleaning the oil sump and recharging it with fresh oil, all the while manually lubricating the bearing via a manual lube oil pump and monitoring bearing temperature. The job was completed without any adverse impact on the bearing and a potential production loss was averted.



COVID-19 PREVENTION TIPS



WASH YOUR HANDS OFTEN WITH SOAP



USE MASK



AVOID TOUCHING YOUR FACE



AVOID CROWDS, MAINTAIN SOCIAL DISTANCE



IMPROVE HEALTH TRAINING



CLEAN THE PLACES AROUND YOU

TPM Training Sessions

Sumayyah Waheed

The year 2020 marks the start of a new phase of Total Productive Management (TPM) at LCPL. Since the launch of TPM in October 2013, we have been able to achieve significant improvement in plant housekeeping, equipment upkeep, and employee engagement and morale through 5S, Autonomous Maintenance and Quality Maintenance in Lab. In the new phase along with AM and QM, third pillar of TPM i.e. Planned Maintenance shall be started to bring about a holistic approach of equipment management.

In order to acquaint and re-acquaint personnel to the new and revised concepts of TPM's new phase, training sessions were conducted by TPM team at various levels. In a session held on 22 January, area managers from Engineering were briefed about their roles as front runners of PM. The basic concept of Planned Maintenance was discussed and the participants were briefed about different facets of this pillar.

For Autonomous Maintenance two sessions were held on 16 and 22 January, where revised area boundaries and changes in protocols for the con-

tinuation of AM were shared with SSMS, Shift Managers and Process Support Managers. Training of Lab manager and QM leaders was conducted on 3 February; enhancement of Quality Maintenance scope with an even greater focus on skill enhancement of the teams was the highlight of the training. Moreover good practices observed in LOTTE Ulsan Lab during Technical Exchange, were also shared in order to further improve outlook of LCPL Laboratory.



Challenging Status Quo

Muhammad Zain Siddiqui

Scaffolding services are one of the most critical services outsourced during Overhaul as timely completion of Overhaul is highly contingent on the timely erection of scaffoldings for maintenance activities. Like for every previous one, these services were required to be sourced for Overhaul '20 as well and for the purpose, the incumbent contractor, which has been rendering these services since plant commissioning, was engaged and efforts were made to negotiate the rates to bring them in line with the constraint on Overhaul budget as set by the business. However, after extensive negotiations with incumbent and their eventual failure, it was decided to focus on an alternate contractor which happens to be the main competitor in this category and was introduced by the Engineering Purchase team in 2017.

Since erection and dismantling of scaffolding entails

serious HSE risks and owing to its influence on Overhaul timeline, extensive diligence was carried out by the Engineering team to ascertain the new contractor's capability to execute these services within stipulated timeframe and without compromise on HSE and quality.

Commercial discussions were carried out next by Engineering Purchase team and after several rounds of aggressive negotiations with the new contractor, the like-to-like contract value was brought down to -4% compared to Overhaul '17 cost. Further optimization of manpower numbers from Engineering brought this cost down to -18% thereby saving valuable maintenance fixed cost. The most remarkable aspect of this initiative is that it challenged two decade long status quo and brought about meaningful change through effective team work and risk taking.



Conservation of Plant Resources

Yasir Ahmad Shaikh

As our plant went on shut down during the ongoing COVID-19 pandemic, one of the major resources of which we were deprived of was our own generated electricity. The plant was operating with electricity from KE Grid which is quite costly and electricity consumption had to be optimized by shutting down unnecessary drives. The Utilities Production department, especially Muhammad Shahid (SM- Utilities) and his team carried out a detailed working to study the implications of stopping any running drive. During this assessment, a number of machines were identified which were difficult to stop without arranging suitable alternatives. Consequently, alternatives were sought and implemented with promis-

ing results, and a significant portion of operating cost was reduced.

Other than electricity, many other resources such as Hydrochloric acid, Caustic, etc. had become scarce in the market due to lockdown, and therefore, their consumption had to be cut back. The usage of water and other such raw materials was also optimized without affecting any equipment's efficiency and operation.

The credit here goes to the entire Utilities team in coming up with viable alternatives which significantly helped in reducing plant's operating cost.

CTA Dryer Scrubber Cooler Restoration

Muhammad Ahmed

Due to multiple leakages reported by Inspection team, extensive temporary repairs were carried out in CTA Dryer Scrubber Cooler in October 2019. It was planned to permanently address the issue in the upcoming Overhaul. The Inspection and Maintenance teams assessed the available options and it was decided to fabricate and install a new tube sheet across the exchanger. For this purpose, external services from SEFEC engineering were hired. Considering the criticality of equipment and the short available execution time, the tube sheet replacement job was a daunting task. Exceptional teamwork and planning of Mechanical Maintenance team which included

Muhammad Shoaib (Engineer Mechanical Oxidation), Syed Mujahid Hussain (AE Inspection), Tariq Patel (JE Mechanical Oxidation), Mian Rasheed (JE Mechanical Oxidation) and Kamran Khursheed (SE Mechanical Oxidation) made sure the tube sheet and tube bundle were removed timely, handed over to SEFEC for tube sheet replacement, thoroughly inspected and installed back subsequently. This activity restored the exchanger back to its normal condition without any impact on its performance. Furthermore, the complete process of installing a spare tube sheet instead of procuring a complete exchanger resulted in saving of significant cost.



Cutting the Gordian knot

Muhammad Ahmed

GTG and NGBC have played an instrumental role in ensuring reliable and smooth power supply to the plant which has resulted in massive increase in plant availability. Therefore timely inspection and maintenance on these critical machines are a priority for the Engineering team. Keeping in line with this thinking, Semi Annual Inspection of Gas Turbine Generator and Natural Gas Booster Compressor was carried out in Overhaul 2020. This inspection was seen critical in many ways as it was necessary to maintain the health of turbine keeping in mind the initiative of sale of excess power to

K-electric expected to materialize in coming months. A high level of commitment was displayed by Mechanical Maintenance which was led by Abdullah Hussain (AM Maintenance CoGen) and Gohar Rehman (AE Mechanical CoGen). The inspection was further supported by field service representative from GE.

The collective effort of the entire team was duly rewarded after trouble free start up of GTG which can be seen as another challenge that maintenance has executed with flying colors.

Outstanding measures by Oxidation Night Shift Operations Team

Muhammad Irfan

Oxidation Plant is the core of operation for yield of CTA which is further purified into PTA at Purification plant. Tripping of Oxidation plant causes production losses and product quality issues, which leads to high consumption of utilities.

On 19 March 2020, in the night shift one of the two main Reactor Feed pumps running at the time tripped causing conditions with a high potential to trip Oxidation Plant. The on-board DCS personnel

Liaquat Khan (DCS Boardman) and Faizan ul Haque (Area Operator) took meticulous and prompt actions to control the emergency while Muhammad Ausafuddin (Area Operator) accordingly adjusted Process Air Compressor parameters. On ground, Nasir Ali (Area Operator) took the stand-by pump in service within minutes of the pump tripping. This combined scheme of actions not only prevented Plant tripping but the DCS parameters were so well managed that there were no product quality upsets.



Every Drop Counts

Yasir Ahmad Shaikh

Intermediate Pressure (IP) Caustic is one of the raw materials used by Oxidation Plant for washing and clearing of choked lines. This caustic is supplied from Utilities Plant at a high pressure and therefore, any sort of leakage within this line can be significantly exacerbated within a short span of time.

On 15 April, 2020, ETP Offloading Area Operator, Adil Jaffery, observed a heavy leakage from IP caustic line. This was instantly responded to by prompt isolation of the line following by subsequent draining. Workshop and Maintenance teams were immediately engaged for resolution of the problem.

Jahanzaib Ali Malik (Shift Manager - Utilities), took up the issue and quickly made the necessary arrangements for job handover.

Once the line's inspection and thickness monitoring was completed by the Inspection team, the Workshop team then set about replacing the line. The job was completed by the Workshop team in minimal time. The efforts of the Utilities Production team and the Workshop team are highly commendable in addressing the problem as quickly as possible.

LCPL Bids Farewell to Colonel Asadullah Chughtai



LOTTE Chemical Pakistan Ltd. bid farewell to Colonel Asadullah Chughtai on 31 January after nearly 17 years of his service with the company. We are grateful for his contributions throughout his years of association with LOTTE and wish him all the best.

Dar Ul Sukun Scholarship Program

Ahmed A Abedi

As a responsible entity in the Pakistani business community, LCPL supports different charitable organizations. Dar Ul sukun, a care facility for underprivileged physically and mentally challenged

individuals, is one such organization. Under our ongoing scholarship program with them, scholarships were awarded to four children residing in the facility to help further Dar Ul Sukun's mission.

TCF Donation

Ahmed A Abedi

The Citizen Foundation (TCF) is an organization renowned for its immense contribution towards education of underprivileged children. LCPL recently made donations to TCF to help cover educational

expenses of 48 children for the year 2020-2021. This contribution furthers our CSR goal of helping the underprivileged get opportunities to become useful members of the society.

Long Service Award Recipients



Syed Rizwan Ahmed completed 20 years of service on 31 January 2020. He joined the company on 1 February 2000 and is presently working as Administration Manager.



Mansoor Alam completed 20 years of service on 6 February 2020. He joined the company on 7 February 2000 and is presently working as Assistant Engineer Electrical & Hazardous Area.



Muhammad Saeed Arain completed 20 years of service on 29 February 2020. He joined the company on 21 February 2000 and is presently working as Junior Engineer Electrical.



Mian Abdul Rasheed completed 20 years of service on 29 February 2020. He joined the company on 1 March 2000 and is presently working as Junior Engineer Mechanical.



Arshad Ali Sheikh completed 20 years of service on 27 April 2020. He joined the company on 28 April 2000 and is presently working as Plant Manager Cogen.



Muhammad Faisal Rasheed completed 20 years of service on 14 June 2020. He joined the company on 15 June 2000 and is presently working as Assistant Engineer Process - Purification.



Kashif Majeed completed 15 years of service on 26 May 2020. He rejoined the company on 6 January 2012 and is presently working as Accounts Manager.



Sikandar Khan completed 15 years of service on 30 June 2020. He joined the company on 1 July 2005 and is presently working as Plant Manager - Purification.



Muhammad Faizan Munir completed 10 years of service on 31 May 2020. He joined the company on 1 June 2010 and is presently working as Assistant Purchase Manager.



Abdullah Ansari has joined the Company as Assistant Manager Reliability, with effect from 13 January 2020. He has completed Masters in Engineering Management from NED University of Engineering & Technology, Karachi. His last employment was with National Refinery Limited.



Muhammad Ali Azhar, BE (Mechanical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 18 March 2020.



Muhammad Rafay Arfin, BE (Chemical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 18 March 2020.



Syed Bilal Rizwan, B.Sc (Chemical Engineering), Middle East Technical University, Ankara, Turkey, has joined the Company as Trainee Engineer, with effect from 18 March 2020.

PPE اور میسٹ کنس کے ساتھ کرونا سے بچاؤ کا سامان اور ایکوئپمنٹ وزیراعظم ہاؤس، حکومت سندھ اور ڈاکو یونیورسٹی آف ہیلتھ سائنسز کو عطیہ کئے گئے جبکہ کمپنی کی جانب سے مستحق خاندانوں کے لیے راشن کی تقسیم کے لیے الخدمت فاؤنڈیشن کے ساتھ تعاون کیا گیا۔ LOTTE انٹرپرائزیز نے بھی ایکسپو سینٹر لاہور میں قائم کرونا ٹیسٹ سینٹر کو طبی آلات اور ضروری سامان فراہم کیا۔ LOTTE کولسن کی جانب سے مختلف غیر سرکاری اداروں کے ساتھ مل کر مزید فلاحی کوششوں کی منصوبہ بندی کی جا رہی ہے جس میں راشن بیگ کی تقسیم بھی شامل ہے جبکہ LOTTE انجینئرنگ اینڈ کنسٹرکشن کی جانب سے صوبائی حکومت کو فیس ماسک پر مشتمل عطیات کئے۔ علاوہ ازیں گروپ کی جانب سے عالمی مشکلات کی صورتحال میں مثبت کردار کے ساتھ فلاحی کوششیں جاری رکھنے کے عزم کا اعادہ کیا جا رہا ہے۔

۳۰ اکتوبر ۲۰۱۹ کو گروپ کے سی ایس آر کے اقدامات کو ایک سمت دینے کے پیش نظر LOTTE پاکستان فاؤنڈیشن کا قیام عمل میں آیا۔ فاؤنڈیشن کے بنیادی مقاصد میں غربت کا خاتمہ، معاشرے کے پسماندہ علاقوں اور افراد کو معیاری صحت اور تعلیم کی سہولت فراہم کرنا اور ماحول دوستی کے استحکام کی کوششیں کرنا شامل ہے۔ ان کوششوں میں تربیت اور آگہی کے پروگرام، کمیونٹی کی ترقی کے پروگرام اور مشکلات میں بحالی کے کام کی انجام دہی بھی شامل ہے۔

ملک میں کرونا کی وبا کے دوران، فاؤنڈیشن نے بحالی کی کوششوں میں ۳۶ ملین روپے سے زائد کی امداد کی۔ اس فنڈ کو پاکستان میں LOTTE گروپ کی کمپنیوں کے ذریعے مختلف امدادی کاموں میں خرچ کیا گیا۔ LOTTE کیمیکل پاکستان لمیٹڈ کی جانب سے کوریاسے درآمد شدہ



سیفٹی آفیسرز نسیم خان، عارف انور سعید، فہد احمد، فرقان احمد خان، سید وجاہت علی (HSE سیکریٹری)، ڈیشن اعظمی (HSE کو آرڈینیٹر)، سید طیب علی (ٹیکنیکل ٹریننگ کو آرڈینیٹر) نے ان سیشنز کا اہتمام کرتے ہوئے اور ہال ٹیم کی معاونت کی۔

ایمر جنسی ریسپانس ٹیم کی جانب سے ایمر جنسی ریسپانس سروسز، پروسیس سپورٹ سروسز اور ہائی پریشر واٹر جیٹی کے لیے سپروائزرز کی فراہمی کو یقینی بنایا گیا۔

روزانہ کی بنیاد پر تحفظ سے متعلق آگہی اور پوسٹرز کے ذریعے تربیت کے مواقع اور بہتری کے پہلوؤں کو اجاگر کیا گیا۔ مینجمنٹ SUSA آڈٹ پروگرام میں ۱۳۸ فیصد عمل درآمد کا ریکارڈ حاصل کیا۔ ڈیلی آڈٹ پر ۳۲ SUSA آڈیٹرز پر مشتمل ۱۶ ٹیمیں مامور تھیں۔ پلانٹ کے مختلف ایریاز کے آڈٹ کو یقینی بنانے کے لیے آڈٹ تھیمز کے حساب سے ہر ٹیم کی گردش بنیاد پر تعیناتی کی گئی۔ یہ آڈٹ تھیمز غیر محفوظ اقدامات / حالات، PPE، ہاؤس کیپنگ، اسکیفولڈنگ، کنفائنمنٹ اسپیس، سائٹ پروسیجر، پرمٹ ٹو ورک سسٹم وغیرہ سے متعلق تھیں۔

آڈٹس کے معیار اور تعداد کے اعتبار سے، اور ہال ۲۰۲۰ میں بہترین SUSA آڈیٹرز قرار دی جانے والی ٹیمیں درج ذیل ہیں:

۱۔ محمد ساجد خان (پلانٹ مینیجر، آکسیڈیشن) اور طلال ایاز (پروسیس سپورٹ مینیجر، پیپور فیکیشن)

۲۔ سکندر خان (پلانٹ مینیجر، پیپور فیکیشن) اور سمیعہ وحید (سینئر اسسٹنٹ مینیجر، ٹی پی ایم)

۳۔ سہیل عباس (پروسیس انجینئرنگ مینیجر) اور عرفان احمد (E&I مینیجر)



چیف ایگزیکٹو کمیونیکیشن سیشن

آڈرہ لونگ

بھی پیش کیا۔

چیف ایگزیکٹو نے اس موقع پر دوران سال مختلف ملازمین کی جانب سے جدید اقدامات اٹھانے کی تعریف کرتے ہوئے آئندہ ان کوششوں کو جاری رکھنے کی حوصلہ افزائی کی تاکہ ملازمین کے مستقبل کی بہتری کے ساتھ ساتھ کمپنی کے منافع میں اضافہ ہو۔

سال ۲۰۲۰ کے پہلے چیف ایگزیکٹو سیشن کا اہتمام بیو من ریسورسز کی ٹیم نے پلانٹ سائٹ پر کیا۔ جناب حمیر اعجاز نے سیشن کے آغاز میں ۲۰۱۹ کی کارکردگی اور اہم کامیابیوں پر روشنی ڈالی اور اب تک کے بہترین مالی نتائج کے حصول پر LCPL کی ٹیم کو مبارکباد پیش کی۔ انہوں نے LCPL کے پورے اسٹاف کی انتھک محنت اور لگن کو خراج عقیدت پیش کیا۔ انہوں نے ۲۰۲۰ کے لیے پی ٹی اے کے مارجن اور مستقبل کے مارکیٹ ٹرینڈز کا جائزہ



connect



اوور ہال 2020 میں زیر و انجری ٹارگٹ کا حصول

شعیب اقبال

کے اسٹاف کے باوجود، اوور ہال کے دوران تحفظ اور حفاظت سے متعلق کارکردگی بے مثال رہی۔ آگہی، ٹیم ورک، رہنمائی، تعاون اور لگن کی بدولت انجری فری ریکارڈ برقرار رکھنے میں مدد ملی۔

سائٹ کی حفاظت کو یقینی بنانے کے لیے HSE اور ٹیکنیکل ٹریننگ ٹیم مستقل طور پر مصروف عمل رہی۔ اس سلسلے میں ہر شفٹ کے دوران عمومی سیفٹی سیشن کے علاوہ ۵۱ سیفٹی انڈکشن سیشن ڈیسکون یکمپ میں اور ۱۰ اکا اہتمام ٹیکنیکل ٹریننگ سیشن میں کیا گیا۔

LOTTE کیمیکل پاکستان لمیٹڈ اوور ہال ۲۰۲۰ کے لیے زیر و انجری ٹارگٹ حاصل کرنے میں کامیاب رہی۔ یہ کارنامہ لیل پی لیل کے اسٹاف، SUSA آڈیٹرز، HSE اور ٹیکنیکل ٹریننگ ٹیم، متعلقہ ایریا مینیجرز اور کنٹریکٹرز کی حفاظتی ٹیموں کی انتھک محنت کا نتیجہ ہے۔

اس سنگ میل کے حصول میں جناب عمیر خالد (HSE) اور ٹیکنیکل ٹریننگ مینیجر کی سربراہی میں HSE اور ٹیکنیکل ٹیم کی انتھک محنت کا اہم کردار رہا۔ اس بار بڑے پروجیکٹس پر کام ہونے سے، تقریباً ۲۲۰۰ سے زائد ملازمین اور ۲۱۰۰ سے زائد کنٹریکٹرز