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Over nau 201 A Team Success Story

LOTTE CHEMICAL PAKISTAN LTD

Connect is a corporate newsletter intended for employees and partners of Lotte Chemical Pakistan

Q4|2017|

Employer of the Year Award

Celestia Henry

LCPL won Employer of the Year award 2016. It was ranked 2nd amongst the multinational companies contesting in the 5th Employer of the Year Award, organized by Employers Federation of Pakistan. The results were announced in a ceremony on 19th of October 2017 at Marriott Hotel, Karachi.

This award is an acknowledgement of the implementation of best practices in the following areas:

- Management, HR Management & Employment
 practices
- Industrial Relations Practices
- Working Conditions, Health & Safety at work

Editor's Note

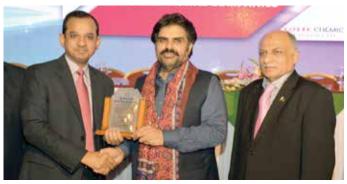
Dear Readers,

We are proudly publishing our Q4 newsletter; the last and most eventful quarter of 2017. The main highlights of the quarter are the successful Overhaul 2017; Its activities, its preparation, planning, commissioning, and all major and minor risks including employee's and worker's profound involvement in it.

You will also read about the span of a good twenty years of our employee at LCPL, the visit of our CSR team along with Senior Management to Dar ul Sukun Day care centre and so many more interesting stories inside.

The year 2017 has been a very demanding year for

- Corporate Social Responsibility
- Skills and Vocational Training Initiatives



Mr. Humair Ijaz CE, received the award on behalf of LCPL.

the Company and we hope and pray that 2018 will bring success and prosperity for all of us.

We also welcome Ms. Areeba Irfan, our new member in the Newsletter Committee, and hope she will enjoy being a part of the team.

We are grateful to everyone for the contributions for their write-ups for this edition and also thank the readers for taking the time out to read our newsletter. We look forward to recieving your views, suggestions and new stories for the next editions.

Happy reading!

Sincerely, Newsletter Committee



The Power of Teams

Noor Nabi

Production department recently arranged a training on "The Power of Teams" concept to pace up and integrate senior and junior employees. Two sessions on 8th & 22nd November 2017 were conducted at Marriott to facilitate participation of all shift groups. The trainer Mr. Syed Asim Rashid emphasized the importance of team work to improve effectiveness. The teams actively participated and provided amazing feedback. Every person appreciated the trainer's efforts and asked to arrange similar sessions on regular basis.



CSR Activity - Free Eye Camps

Rizwan Ahmed



LCPL organized two free eye screening camps during the last quarter of 2017 at Mehmood Goth and Soomar Goth, Ghaggar area of Bin Qasim.

The camps were set up at the request of the under privileged communities and due to lack of access to basic medical facilities in these areas.

Over 300 locals of all age groups visited the camp and were provided consultation and medication under the support of LRBT. Around 88 children visited the eye camp and 23 children were referred for eye surgeries. LCPL arranged transportation and scheduled surgeries for the locals who were referred for immediate eye surgeries.

We appreciate the support of LCPL volunteers and their valuable time in these activities.



Gearing up for Overhaul

Muhammad Usama Bin Aijaz

The LCPL management team was faced with a daunting challenge this quarter in shape of Overhaul 2017. The safe execution of all jobs in the Overhaul was our top priority. This challenge was exacerbated due to the outsourcing of work-force which comprised of approximately two thousand workers of various trades and skills. Considering the enormity of the task, further compounded by time constraints and CTA Dryer replacement project, an initiative of organizing pre-overhaul training sessions for both LCPL technicians and contract workforce was undertaken by the Maintenance team.

The sessions covered a multitude of topics to ensure that high standard of safety and professionalism is displayed by the manpower during the execution of Overhaul jobs. Asim-ur-Rehman (Manager Maintenance - Oxidation & CoGen), Syed Abdullah Faiz (Trainee Engineer Maintenance) and Talha Nabi Dar (Trainee Engineer Inspection) conducted several interactive refresher sessions on Good Maintenance Practices, First Break-ins, Bursting Disc installation, Falling Objects and Working at Height hazards and precautions. Several examples based on past experiences were also cited enabling the workforce to attain a good understanding of the issues under discussion.

These sessions were one of the contributions of the Maintenance team in achieving the common goal of the Zero Injury target.

Overhaul 2017 - Production Milestones

Muhammad Ismail

Ensuring the reliability of equipment, maintenance shutdowns and overhauls are planned for inspection and Preventive Maintenance of plant assets.

The system of pipes and reactors, boilers and tanks is very complicated, and a series of activities need to be carried out to ensure safe shutdown of the complete plant. During Overhaul 2017, Muhammad Ismail (SSM) was the designated overhaul coordinator from production side and led the planning and execution activities for the turnaround.

Plant shutdown activities were initiated on midnight of 28th September, 2017. Plant decontamination and boundary slip plating activities were completed efficiently in 42 hours against the target of 48 hours, and it was handed over to Engineering team for maintenance activities. A major achievement in this overhaul was the efficient utilisation of resources during the plant decontamination activity. Acetic acid consumption was 17 tes lower than Overhaul 2015, Caustic saving was 43 tes, and Raw Water utilised was 71 tes less than previous Overhauls.

Excellent support was provided to the job executors by the Production team during the shutdown days and the same diligence was shown during start up activities as well. Safe completion of Overhaul is truly a great achievement and was only possible through dedicated and well-coordinated efforts of each and every individual.



PTW and SSOW Training Sessions

Shuaib Iqbal

PTW System and Safe System of Work (SSOW) training sessions were organized by Technical Training Center before commencement of Overhaul 2017 to create awareness among people about the PTW and SSOW protocol applicable to overhaul.

A total of four sessions were conducted by Muhammad Ismail (Senior Shift Manager) and Mr. Shuaib Iqbal (Assistant Manager-QHSE) from 11th to 14th September 2017. Besides LCPL employees, key persons from contractor staff also attended, who later on cascaded the knowledge down the line to other contract workers.

The sessions was specifically designed keeping in mind the interaction between PTW Issuers, Acceptors, Area Operators, job executors and supervisory

Crisis Management Drill

Shuaib Iqbal

Drills and exercises are designed to evaluate an organization's risk profile through a practiced review of response plans, procedures, and level of training with a goal of developing a highly impactful Crisis Management Team (CMT).



The Wise Always Saves

M. Abdullah Hashmi

Water seems to be a readily available utility, but in reality the expenses for its transportation and treatment tell a different story. To meet the demand of portable water at plant, two pumps were kept in service; one pump supplied service water to base plant and other to CoGen plant.

A suggestion to switch off the pump at CoGen was made by Ahsan ul Haq (Area Operator), to conserve power. Muhammad Sohail Akram (SM CoGen) carried out a detailed working to gather all the possible effects of stopping this pump. Initially a trial was carried out by taking the pump out of service for a couple of hours. After success of this trial, the demand of portable water at the entire plant is met through one pump in operation. staff. Bilateral discussion on the important issues concerning effective enforcement of PTW and SSOW was the highlight of the sessions.



Keeping in view the importance, LCPL organized a Crisis Management Drill at plant site on 14th December 2017 with the following objectives:

- Validating specific plan content and response actions
- Evaluating command and control
- Practicing individuals working as a team
- Assessing use of company procedures and policies
- Verifying data and information available to the team
- Demonstrating, understanding and implementation of Crisis Management Procedures
- To test the response time of external services

The drill was conducted in a very professional way and everybody played their role properly. A list of recommendations for improvement based on the issues that were identified and an action plan on who and how those improvements are going to be implemented have been shared with Crisis Management Team.

For the company, the transformation of this idea into reality served as another step towards cost saving and process optimization. Such ideas reflect out of the box thinking of employees and their determination to challenge the boundaries of innovation. Well Done!



New CTA Dryer Reaches Plant

Muhammad Zain Siddiqui

For every project, timely delivery of all the resources is crucial to the overall success of the project. In this regard, the importance of timely arrival of CTA Dryer package to the success of CTA Dryer Replacement Project can simply not be overstated. For the purpose of transporting the new Dryer package from South Korea to Karachi, a special vessel was chartered by the supplier to exclusively deliver the package at Port Qasim, Karachi.

However, at the time of arrival of the vessel within the premises of Port Qasim, there was congestion at port which could have delayed the berthing of vessel leading to delay in delivery of the package at plant. The problem could have been exacerbated further due to impending Eid holidays and adverse weather conditions. LCPL would have also incurred huge expense on account of demurrage since vessel was chartered exclusively for LCPL to deliver the package at Port Qasim.

Owing to all these reasons, the matter was taken up with Port Qasim Authority (PQA) higher ups which ultimately bore fruit as the vessel was allowed priority berthing. Special thanks to Lt. Col. (R) Asadullah Chughtai (General Affairs & Security Manager) and Mr. Asif Zaheer (Material Planning Manager) for extending their best support to Purchase team for taking up the matter with PQA. Once the vessel was berthed, offloading of the entire package was supervised by LCPL team to ensure that all the packages were offloaded safely and without delay. Credit goes to Mr. Husain Hashmani (Asstant Purchase Manager), Mr. Faisal Tariq (Project Engineering Manager), Mr. Rohail Khan (Payment Officer), Mr. Abdul Majeed and Mr. Sharif (Rigging Supervisor) for spending whole night at port to supervise the offloading activity.

Next challenge was posed by a few issues raised during Customs clearance which were all resolved promptly thanks to the personal involvement of Mr. Talha Khan (Commercial Manager) and Mr. Ahmed Fawad (Purchase Manager - Non Engineering. The package was finally released from the Port and was moved to plant in special vehicles successfully through the shortest possible route and in minimum possible time once again under the supervision of Mr. Faisal Tariq and under the vigilant eye of LCPL's security escort thanks to Mr. Rizwan Ahmed (Manager Administration).

As a result of extremely well-coordinated cross-functional efforts and ownership by every stakeholder, the inbound logistics of the package was managed both efficiently and very effectively. Kudos to the entire team for playing its part to successfully deliver one of the most difficult and challenging parts of the entire project.



Safety Slogans Competition for Overhaul 2017

Shuaib Iqbal

The HSE & Technical Training department organized a safety slogan competition in coordination with the Overhaul 2017 team. An outstanding participation was observed in the competition by Lotte's staff, Trainee Engineers, Apprentices and Contractors. A total of 47 safety slogans were received showing the commitment to Safe System of Work practices and provided guidelines on behavior based safety at LCPL.

All safety slogans were reviewed by the designated committee and following winners were finalized:

- 1. Muhammad Ahsan Ul Haq (Plant Operator 3)
- 2. Javed Shaikh (Administration Officer)
- 3. Imran Ali and Adil Jaffery (Junior Engineers Process)

The awarded slogans were also published on safety banners and displayed at prominent locations at plant site during Overhaul.

Lotte Journey of Mr. Sabir Ali

M. Abdullah Hashmi



Appreciation and acknowledgement of employees who have dedicated their time and efforts is a norm at LCPL; we know how to value our assets.

Mr. Sabir Ali (Senior Assistant Engineer Process) is working as the most skilled Boardman at CoGen Plant. He started his career at Lotte in 1997 as Area Operator Utilities. His ability to understand processes and hands on experience facilitated him in becoming a reliable Boardman at Utilities. He is one of the persons who played a vital role in the commissioning phase of the CoGen plant, and today all the newcomers are trained under his supervision. The key element which distinguishes him from the rest is his response to emergencies. The environment he maintains throughout his job is admirable. He is a true asset of CoGen and his services are priceless.

"No words can express the level of commitment and dedication in your work. May you continue to work with more dedication, commitment and courage. We are all so proud of you. Thank you for being with us through all the years."

Achieving Zero Injury Target in Overhaul 2017

Shuaib Iqbal

Lotte achieved the Zero Injury Target during Overhaul 2017. This achievement is a direct result of continued focus and commitment on all aspects of safety by the LCPL staff, SUSA auditors, HSE & Technical Training Team, Area Managers and Contractors' Safety teams.

The HSE & Technical Training team led by Mr. Umair Khalid (HSE & Technical Training Manager) contributed their best to achieve the milestone. With the total number of planned jobs over 1900 along with TA Dryer Replacement Project and the contractor manpower of over 2100, the safety performance achieved was remarkable. Awareness, teamwork, guidance and commitment were the key factors for sustaining our injury free record.

The site safety induction was arranged by HSE & Technical Training department on continuous basis.

Naseem Khan, Arif Anwar Saeed (Safety Officers) and Ahmed A. Abedi (Technical Training & IMS Coordinator) conducted these sessions to facilitate the Overhaul team.

Emergency Response, Process Support Services and High Pressure water jetting supervision was provided through Emergency Response Team (ERT).

Learning Events and Areas of Improvements were highlighted through daily safety publications. A compliance of 141% was observed in Management SUSA Audit Program. There were 30 SUSA Auditors in 15 teams involved in daily audits. Based upon the quality and quantity of audits, following teams were declared winners of best SUSA auditors title in Overhaul 2017.

1.	Sikandar Khan (Plant Manager - Purification)	&	Raja Abdullah Khan (AM Maintenance – Purification)
2.	Mohammad Sajid Khan (Plant Manager - Oxidation)	&	Sajid Shafiq (TPM Manager)
3.	Shahzad Ibrahim Ansari (Plant Manager- Utilities)	&	Amir Azam Manager Instrumentation (Plant & Co-Gen)

Overhaul 2017 - A Team Success Story



Overhaul 2017 was the 13th maintenance turnaround in the LCPL history.

This overhaul was uniquely challenging as it had the highest number of jobs to be attended in plant's overhaul history. A total of 1,951 jobs were carried out, major among them being: Oxidation Dryer replacement project; Process Air Compressor, its motor and expander inspection; Gas Turbine hot section exchange; Core pit lining inspection; Cooling Tower structure reinforcement; and inspection of PTA dryer.

The team was relatively new, with a number of area engineers experiencing their first overhaul in a lead role, but the entire LCPL team rose to the occasion and completed the jobs within the stipulated downtime of 14 days while complying with all safety standards.

A Steering Committee of the senior management was formed to monitor the preparations of the Overhaul. The committee provided the Planning team with guidance and support all along.



An overhaul briefing session was organized on 20 September 2017 in which presentations were delivered by all departments to brief the employees and contractors on the jobs to be carried out.

A great deal of planning was done to ensure smooth execution of overhaul. Three separate work lists were issued between 2016 and 2017 to capture all jobs. Later on, remaining jobs were covered through Late Work Requests and Extra Work Requests. Special focus was kept on the planning of jobs, which not only included job reviews but also follow-up reviews for monitoring progress on marked actions.

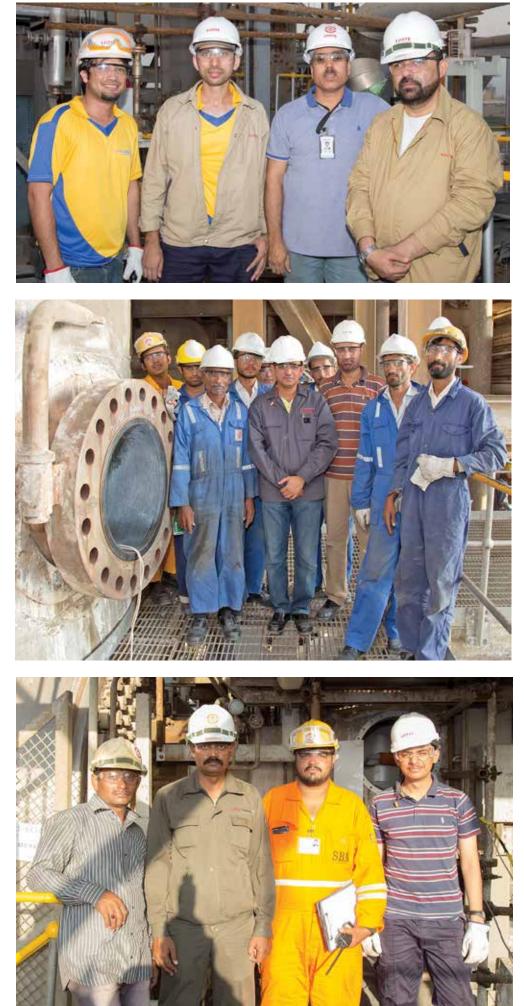
The entire Manufacturing and Commercial teams worked tirelessly to ensure availability of necessary resources for overhaul. Extra effort was put in to guarantee timely ordering of long delivery items and placement of services request with foreign vendors.

Safety has always been our top priority, and the HSE department provided valuable support in making the overhaul injury free. Through round the clock monitoring of plant and issuance of a daily newsletter to cascade the safety observations, HSE department ensured that despite the presence of a large contract manpower, no activity bypassed the LCPL's stringent HSE requirements. The Manufacturing team highlighted the observations from the newsletter in the daily toolbox talk conducted prior to the start of work in each shift. Process safety was ensured by Production and Technical department through the safe shutdown and start-up of Plant, with an extensive focus on the plant decontamination phase. Initiatives were also taken by the Maintenance team for realising cost saving through self-execution of valves, control valve and motor removal and installation jobs. Another major cost saving decision was the introduction of a new service provider for the internal scaffolding activity of vessels.

Planning section played a crucial role in maintaining a strong control over progress of the jobs; a tight check was kept on the costs and resource utilisation. A significant contribution was made by Aleem Khan (Engineer Planning), Nadeem Bhatti (Assistant Manager - Instrumentation) and Imranullah Khan (Engineer Electrical -Utilities in the development of progress monitoring, resource mobilisation and manpower deployment charts. The progress of critical and major jobs were monitored through dedicated Gantt charts; and initiative was taken by Planning team for sharing cost summary on daily basis to assist in taking necessary actions for cost and resource control. Overhaul handover and hand back meetings were conducted by Engineering team in order to ensure smooth transition between day and night shift while Overhaul progress was shared on daily basis by Planning team.

Dedicated and vigilant support was provided by Administration department to ensure safe travelling of LCPL team and expats during overhaul. In addition, the Administration team ensured best quality of services such as meals, refreshment and transport that provided a necessary boost to the LCPL team during overhaul.

Overhaul 2017 is a success story of the entire LCPL team who is willing to face any challenge and overcome obstacles in days to come.



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Overhaul 2017 PAC Motor Jobs

Muhammad Osama Bin Shakeel

Process Air Compressor Motor is one of the most critical motors installed at the plant. To ensure its healthy and reliable operation, a proper PM and inspection regime is prescribed by the vendor. These PMs require special tools and test equipments and are performed by trained personnel sent by the OEM.

The Level 3 inspection of its motor, which becomes due after every 40,000 hours of service, was carried out in Overhaul 2017 by ABB Field Service Engineer, Peter Hans. The FSE was contacted by Electrical team well before his arrival and his special requirements were discussed to ensure smooth execution. The job scope included inspection of stator winding and rotor coils; bearing liner and control pulse unit replacement; and inspection of exciter, rectifier and cooling system.

Another important job was the preventive maintenance of PAC's Motor Control Panel (MCP), which was performed by ABB Field Service Engineer Luo Jinqiong and included activities such as: testing of protection relays, complete loop testing, functional checks of installed and spare excitation units, and testing of installed and spare Q-Regulators.

The Electrical team at PAC, consisting of Sumayyah Waheed (AM TPM) and Abid Qayyum (Engineer – CoGen & Modifications), provided diligent support to both the vendors at every step along the way. The jobs



were extremely critical and challenging, and would not have been possible without the sheer dedication shown by the team.



A Winning Combination Achieves Milestones

Syed Abdullah Faiz

From the process criticality standpoint, Oxidation Plant hosts assets which are pivotal for plant production. In order to keep the operations smooth, it is imperative that the Maintenance team deliver optimum performance, upholding the benchmark of quality workmanship that has defined the Mechanical Maintenance section over the years. In Overhaul 2017, the Oxidation Maintenance team completed the record highest number of jobs, raising the bar even higher this time.

While the complete team was led by Noman Hafeez (AM Maintenance Oxidation), each member of the team was deputed on a specific area of Oxidation plant. The major jobs on Process Air Compressor included several inspections on compressor side and replacement of expander rotating assembly. These were executed diligently by a team consisting of Usama Bin Aijaz (TE Mechanical), Muhammad Saleem (Engineer Reliability) and Tariq Patel (SE Mechanical Oxidation).

The teams working at Reaction, Solvent Recovery and Filtration area were supported by M. Shoaib (Engineer Mechanical Oxidation) and Syed Abdullah Faiz (TE Mechanical Oxidation). Some of the major jobs in these areas included Agitators' inspection, D1-310 bubble caps replacement, Rovac and conveyor inspections and E1-602 flange replacement. The efforts of Shahid Ur Rehman, Tariq Nazir and Kamran Khursheed (Sub Engineers Mechanical Oxidation) were instrumental in completing these jobs as per the plan.

The successful startup and smooth on-going operation of Oxidation plant is a testament to the credentials of the Maintenance team and marks another great accomplishment in their list of feats.

GTG Hot Section Exchange

Rushana Khan & Sumayyah Waheed

The Gas Turbine Generator (GTG) at CoGen is one of the most critical and sophisticated machines at Plant, and ensuring its reliable operation is our foremost priority. Keeping this in view, its Hot Section Exchange was performed during Overhaul 2017. This maintenance activity is recommended by the OEM after fixed hours of operation due to degradation of turbine blades performance and combustor internals.

The job scope included removal of the existing hot section, which consists of high pressure turbine (HPT) Stage 1 & 2 nozzle assemblies and HPT rotor assembly, and installation of a refurbished replacement provided by the equipment manufacturer, GE. The combustor is a separate item from the hot section and was also replaced based on its condition.

After shutdown and cool down of the machine, the rotor assembly was removed from the turbine enclosure, placed onto a special dolly and shifted to Workshop. Extensive rigging support was provided by Workshop during this. A large area of Workshop had been cordoned off where the GE personnel performed the inspection and assembly of the spare hot section. Apart from other support provided by Workshop, a dedicated 5 ton crane was available uninterrupted along with the supply of Instrument air for the operation of pneumatic tools.

The smooth and timely execution of the job was ensured through extensive planning and synchronised efforts of all the relevant departments. Mechanical Maintenance team comprising of Asim Ur Rehman (Manager CoGen & Oxidation), Abdullah Hussain (AM Maintenance CoGen), Gohar Rehman (JE Maintenance Cogen), Ashiq Ali (Mechanical Technician Oxidatoin), and Jarrar Imtiaz (Apprentice CoGen) deserve special credit in ensuring quality work in minimum possible downtime. Furthermore, the support of Production team for timely handover of the asset, Electrical team in provision of the necessary isolations and temporary supplies, Instrumentation team in isolation and removal of instrumentations for rotor disassembly, and Workshop team in providing a dedicated area and ensuring availability of all the required resources, is praiseworthy.

After this activity we witnessed visible improvement in the efficiency of the turbine and the reliability of CoGen plant has significantly improved.



Final Control Elements

Muhammad Farhan

Control valves are usually the final control elements in a control loop installed to maintain the process parameters within a narrow operating range. Their reliable



function is critical in maintaining the quality of our product. Every overhaul, the job list consists of a large number of Control Valve inspection and servicing jobs.

Compared to the previous Overhauls, there were a far greater number of valves to be attended this time. A total of 61 Control Valves were overhauled in Workshop while 140 Control Valves were inspected and rectified in the field.

Shujat Ali Khan (AE Instrumentation - Oxidation) oversaw the Workshop team working on Control valves while Muhammad Awais (Instrumentation Technician - Oxidation), supported by Muhammad Ayyaz (SE Instrumentation - Oxidation), Abdul Wahab (SE Instrumentation - Purification) and Muhammad Faiz (HFC Technician) led servicing jobs in the area. Kudos to the teams for achieving the huge task while maintaining high quality standards.

Challenging Your Limits

Shoaib Adhami

Cooling Tower is an integral unit of any process industry and limitation in its performance may cause a decrease in plant productivity. In 2015 LCPL Technical team after extensive working came up with the proposal of installing new fills in the Cooling Towers. Initially the activity was done on Cooling Tower Cells B, C and D in Overhaul 2015. As this modification proved to be a success, it was decided to replace the fills of Cells A and E in Overhaul this year.

Like previous cells, activity in Cells A and E was similarly challenging with removal old fills and installation of the new ones. Dedicated support was available from Technical, Production, Workshop, and Maintenance teams for this job, along with the presence of personnel from Fills Vendor Canwin. The team was able to complete this task in 7 days, well



before the target of 11 days, without any compromise on safety or quality.

Dealing with Dimensions

Muhammad Farhan



The Instrumentation team at Lotte has to look after extremely critical measuring equipment, one of which is the radioactivity based level measurement devices. Level calibration of several critical vessels, including the Reactors and Crystallizers at Oxidation and Purification plants, was performed during Overhaul 2017.

Stringent safety procedures were followed keeping in mind the nature of hazards involved. At the same time, high levels of quality were maintained which is evident by the fact that there were no level indication issues after Plant start up. Credit of successful calibration jobs goes to Umer Zareen Khan (AE Instrumentation - Oxidation), Nadeem Bhatti (AE Instrumentation - Utilities & Cogen), Muhammad Farhan (TE Instrumentation), Faisal and Muhammad Umer (HFC Technicians).

Cutting Costs

Muhammad Farhan

The vision of the Instrumentation team at LCPL is efficient utilization of available resources. With this intent and critical thinking, The team resolved a critical issue faced by the plant with regards to the malfunctioning of the actuator of Control Valve HCV-2949.

Rather than buying a new actuator, the team came up with the idea of using a decommissioned actuator placed in the inlet guide vanes of PAC as replacement. The new setup is now in place and functioning satisfactorily.

Kudos to M. Asif Farooqui (AE Instrumentation -Purification), Khaliq Ashraf (SE Instrumentation)



and Muhammad Sheraz (Shift Instrument Technician) for their endeavors in increasing reusability of equipment on plant and continuing the trend of saving capital costs of the company.

Well Done Areeba

Celestia Henry

We heartily congratulate Ms. Areeba Irfan (Business Analyst, Finance Dept) for being presented with a Gold Medal for Overall Best Student in BS Accounting and Finance, IBA Class of 2017 and a Shield for securing 1st Position in BS Accounting and Finance, on 02 December 2017, by Governer Sindh, Mohammad Zubair.

Ms. Areeba was also on the Dean's Honor List of the Institute of Business Administration and a recipient of 50% merit scholarship. Well Done!

TCF School Scholarships

Celestia Henry



Demin PLC Upgrade

Demin Plant area at LCPL is essential in all aspects, from manufacturing requirements to plant safety. Any kind of malfunctioning in this area is detrimental to plant operations. Keeping this in view, upgrading of Demin Plant PLC (Programmable Logic Controller) was one of the major projects carried out in Overhaul 2017.

PLCs are critical instruments providing stand-alone process control and monitoring of various process running at plant. The existing Demin Plant had become obsolete. Its spare parts along with technical backup from OEM were no



Lotte Chemical Pakistan Limited has always strived to promote education at both primary and secondary levels. In the year 2017, it supported the cause of availability of education to all children. To promote this cause LCPL joined hands with The Citizens Foundation of Pakistan to give benefit to the deserving and needy children pursuing education.

The children of the poor and low income families from Moosa Goth and Cattle Colony, Jumma Himayati were given scholarships by LCPL. A cheque for the tuition fee covering 20 students was presented to the principal of the Moosa Goth school by Mr Kyoungmo Cho (General Manager Plant Operations).

longer available, therefore it was needed to be replaced by a new and more advanced PLC which comes with an added advantage of better and faster response.

Timeline for the project was five days; however, due to demin water requirements in Overhaul, the timeline was shortened and the project was completed successfully within three days. Due to dedicated efforts of Instrument team members Umair Aleem (AM Instrumentation - Utilities & Cogen), Nadeem Bhatti (AE Instrumentation - Utilities & Cogen) and Muhammad Usman (TE Instrumentation - Utilities & Cogen); and support provided by Shoaib Mumtaz Adhami (Process support Manager Utilities) and Usman Shaukat (Shift Manager Utilities); up-gradation of Demin PLC is a success story.



Turning Vision into Reality

Muhammad Zain Siddiqui

Proprietary spend has been an area of focus for Purchase teams all over the world for a very long time because of the exorbitant sums they have to pay to source these items from the equipment OEMs. By definition, these are items which may not have necessarily been manufactured by the equipment OEMs themselves but instead sourced from their sub-suppliers and packaged, branded and sold as their own against hefty premiums. In the absence of detailed information on the actual source of these items, OEMs enjoy a monopolistic market while giving away very little bargaining power to the purchasers.

Steady bearing bushes installed inside the Oxidation Reactor and Crystallizers are a few of many such items at our plant which despite having low turnover, still adversely impact the maintenance budget every time they are sourced. This year, Engineering Purchase team took the initiative to identify and engage the actual source of these bushes to avoid Proprietary spend on these items.

Market intelligence was gathered by Purchase team through credible sources in the market and sub-sup-

plier was finally identified. Next up, the supplier was engaged and incentivized to supply these bushes directly to LCPL which, owing to relatively smaller business volume compared to supplier's overall capacity, proved to be an uphill task. Due to intellectual property considerations, this initiative was treated as reverse engineering and assistance was sought immediately from the Maintenance team for the development of detailed construction drawings and confirmation of material specifications.

After several months of meticulous efforts on part of both Commercial and Engineering teams, the order was finally placed and bushes were eventually delivered and installed successfully during Overhaul 2017. The initiative resulted in 67% reduction over the last purchase price of the bushes translating into significant savings for the business. The credit goes to Arif Awan (Assistant Purchase Manager), Noman Hafeez (AM Maintenance Oxidation), Mohammad Shoaib (AE Mechanical Oxidation) and Tariq Patel (SE Mechanical Oxidation) for their remarkable and historic efforts for turning this extremely challenging vision into a reality.



SKF Vibration Analysis Training

Syed Abdullah Faiz

In keeping with Lotte's focus on developing employee skill and expertise, a three-day training session on Vibration Analysis Level 1 was arranged at SKF training centre. I was privileged to be one of the five participants from Lotte's Maintenance section.

The trainer, Mr. Zaheer Malik, discussed vibration fundamentals, acquisition of data and spectrum analysis of machine faults. Using his vast experience in maintenance, the trainer supported his points with actual test case examples and encouraged two-way

JQP Examinations

Shuaib Iqbal

The Job Qualifying Program (JQP) aims to develop fully skilled and competent Operators, Technicians, and Analysts with an objective to enhance the HSE&S and technical skills required for their defined scope. communication due to which the environment remained extremely conducive to learning. In the end, a comprehensive examination was conducted which tested the knowledge shared during the training.

Such training programs help Lotte improve reliability of plant equipment and further cement LCPL's continued resolution for the dissemination of knowledge. I would like to take this opportunity to convey my gratitude to the company for providing us with such development windows.

TTC conducted the JQP exams from 20th to 24th November 2017 for selected candidates. Rewards and certificates were distributed to successful candidates at a ceremony held on 8th December 2017.

Reward Distribution Ceremony

Taimour Hasnain



To appreciate the efforts and hard work of employees, TPM and TTC teams organized a Reward Distribution Ceremony on 8 December 2017. Mr Humair Ijaz graced the event as chief guest accompanied by Mr Tariq Nazir Virk, Mr Sang Hyeon Lee and Mr Kyoungmo Cho.

The purpose behind the event was to recognize the efforts of all those employees who displayed motivation at various levels by taking initiatives. Employees were rewarded for their commendable initiatives and contribution under the following schemes:

- Job Qualifying Program (JQP) 11 employees
- Internal Faculty Recognition Program (IFRP) 28 employees
- Suggestion and Reward System (SRS) 39 employees

Workshop Initiatives

Mansoor Alam

Due to the corrosive environment and high humidity in the area, the roof sheets of Offloading Bay had become badly corroded over the years and needed to be replaced. The job had an extensive scope and was decided to be contracted out, however, the Workshop team took the initiative of replacing the roof using their own manpower to complete the job.

To ensure long-term integrity of the structure, the existing GI roof sheets were replaced with UPVC corrugated sheets, which are currently being used at most of the international chemical plants. The job scope included extensive scaffolding to provide • AM Block 2 Performance

AM Block 2 final results were announced at the end of the ceremony, and the winning teams are as follows:

- 1st position SGT A-1 (Leaders: Umair Bhatti / Waqas Hameed)
- 2nd position SGT C-2 (Leaders: Ghulam Mustafa / Usman Shaukat)
- 3rd Position SGT D-1 (Leaders: Asad Hayat / Sammar Mazhar)

Certificates were distributed among the AM Block 2 winning teams. As per the agreed protocol, international and domestic trips will be arranged to encourage their efforts.

access to the roof and upper parts of the structure, complete replacement of roof sheets and repainting of the structure. The team worked tirelessly and completed the job within a month. This is remarkable keeping in mind that Paraxylene tankers were also using the Offloading Bay during the time the job was under execution, and work had to be stopped to accommodate their movement.

The Workshop team was able to realize significant savings for Business by utilizing their in-house resources. Special credit goes to Mansoor Alam (Engineer Workshop), Muhammad Ikram (SE Workshop) for fabrication activities; and Noshad (Scaffolding Foreman) and Athar Ali Zaidi (Insulation Supervisor) who were leading the Scaffolding and Insulation teams respectively.



TTC Round up

Shuaib Iqbal

HSE&S Awareness Session

In view of the significance of HSE&S for both the people and the Business, TTC organized a full-day training session on HSE& S Awareness at LCPL plant site on 7 November 2017. Arshad Ali Shaikh (Plant Manager CoGen) conducted the training session. The course remained very successful and all participants took an active part in contributing to the quality of the training.

Introduction to ASPEN IP21

Monitoring of plant processes is a basic requirement to sustain plant operations. Lotte is using ASPEN for this purpose. Wali Ahsan (Process Support Manager - Oxidation) conducted a training session titled Introduction to ASPEN on 24 November 2017. The training was attended by a number of engineers from Production and Technical Departments. The session remained quite interactive and proved to be useful for the participants.

Introduction to NGBC

A training session was organized by TTC titled Introduction to NGBC on 29 to 30 November 2017. NGBC or Natural Gas Booster Compressor is one of the critical equipment at plant. Abdullah Hussain (AM Maintenance CoGen) conducted the training and shared his practical experience and knowledge on the safe and smooth operation and maintenance of NGBC.



Training Session on FLTs

Forklift Trucks (FLTs) are commonly used in warehouses and workshops. Employees working with or around them often become complacent because FLTs are a constant part of their work environment. Keeping this in mind, the Technical Training Center (TTC) team organized two awareness sessions on Safe Operation of FLTs on 8 and 17 November 2017. Hamid Hussain (Senior Warehouse Officer & Certified FLT Trainer) conducted these sessions.



Bearing Failure Analysis Training

Talha Nabi Dar

A two-day training session on Bearing Failure Analysis was organized by SKF Pakistan on 12 and 13 December 2017 at their facility in Karachi. The training was conducted by Mr. Rashid Bhatti, Manager Reliability Systems at SKF Pakistan. A total of 6 members from LCPL Maintenance team attended the training.

The training started with everyone's introduction which was followed by a pre-training test with the purpose of assessing the knowledge of the attendees regarding bearings. The first day of training primarily covered prerequisite information related to bearing nomenclature, lubrication and mounting techniques with specialized equipment for specific requirements. The crux of the training, i.e. bearing load patterns, failure modes, their causes and failure analysis, was covered in second day of training.

The interactive nature of the training maintained the interest and focus of attendees throughout. Towards the end of the session, as a practice exercise, each individual was provided a failed bearing for which the failure mode had to be identified. The training concluded with a post-training test with the objective to evaluate the understanding of the participants with reference to the knowledge conveyed.

Seal Room Refurbishment Initiative

Rushana Khan



The Seal Room is an important area of Workshop where the Maintenance team assembles mechanical seals of plant equipment. Its condition had deteriorated over the years, with various housekeeping issues that needed rectification.

Keeping in mind that an organized and clutter-free work environment contributes towards productivity; Mohammad Saleem (Engineer Mechanical Reliability), assisted by Tariq Patel (SE Mechanical Oxidation), Shakeel (SE Workshop) and Junaid Khan (Mechanical Technician - Purification); took the initiative of Seal Room's refurbishment. Complete housekeeping was performed to address the existing problems. In addition to the cleaning and repainting jobs, metallic shelves and drawers were repaired, unnecessary material was removed and the required spares and assembled seals were arranged in order. The entire activity was completed within a short duration of two weeks.

To ensure long term maintenance of the Seal Room in the present condition and to share the responsibility of maintaining it, a quarterly plan has been prepared to rotate its ownership among Oxidation, Purification, Utilities and Reliability teams.

Overhaul 2017 at Utilities

Rushana Khan

A total of 108 Mechanical Maintenance jobs were planned on Utilities this Overhaul, which included several major jobs, one of which was Cooling Towers structure reinforcement. A total of 63 wooden members were replaced in the five cells, which is a remarkable feat keeping in view the difficulty in removing old members and their corroded fasteners. In parallel to this, the scope around Cooling Towers also included basin cleaning and Cooling Water Pumps suction pit cleaning jobs.

The Boiler area had the bulk of Inspection jobs, with 12 Pressure Vessel Inspections (PVIs) and 15 Relief Stream Inspection (RSIs), which were very well managed by the Maintenance team.

Other important jobs included Secondary Clarifier cleaning and line de-blocking, Tertiary Clarifier cleaning, Neutralization Pit cleaning and 5% Caustic Tank inspection and repairs. The Mechanical team provided diligent support in carrying out these jobs. The Utilities team proved their competence by completing all jobs within the stipulated time and allocated budget while ensuring complete compliance to safety procedures and engineering standards. The efforts of the day team consisting of Rushana Khan (AM Mechanical Reliability), Anwar UI Hasan (AE Mechanical Utilities) and Mian Rasheed (JE Mechanical Oxidation); and the night team consisting of Ali Ahmed Khan (AM Maintenance Utilities) and Nasir Subhani (SE Mechanical) are commendable in making the Overhaul a success.





CTA Dryer Replacement Project – Truly A Team Effort

CTA Dryer replacement project lifecycle had been full of challenges from the very beginning. Each phase raised a unique set of trials, such as: the delays faced during detailed design; ensuring timely availability of material and services; the problems faced during equipment fabrication; making certain that the new equipment would fit in an extremely limited margin for adjustment, to name a few. Despite the fair share of difficulties, the entire LCPL team with their unwavering resolve overcame every single issue and jointly steered the project towards successful commissioning.

As with every project, clarity of scope is the foremost step. Clarification meetings spanning a period of almost 8 months were held, with prospective vendors to resolve techno-commercial queries.

Finite Element Analysis (FEA), was a major time intensive activity in design phase. The support from Invista (IPT), ultimately enabled the team in giving a go-ahead to vendor for fabrication.

Extensive efforts were required to ensure the avail-

ability of material and services within the Overhaul 2017 execution dates. Exceptional efforts were made by Project section in timely ordering of piping and structural steel material. Hats off to Commercial team, who despite being engaged in extensive Overhaul ordering, went out of the way in accommodating last minute material and services requirements.

Since the project involved heavy rigging, it was critical to ascertain that all necessary requirements were fulfilled prior to engaging a 450 Tons crane at site. Project and Workshop teammade a joint visit to Saadiqabad for inspection of crane. Although there were pressing demands on Workshop for preparation of OH'17, they rendered invaluable support to Project team for development of temporary lay-down area for storage of new dryer and supervision of concrete strength test of Filtration area where crane was to be deployed for heavy lifting operations.

The most notable challenge during execution phase was coordinating the activity of Conveying Gas (CG) Header piping during cellular network unavailability. Nitorgen from Linde was lined up to provide inert blanket to Paraxylene and Acetic Acid storage tanks during the disruption of CG. The efforts of Technical and Commercial team in providing crucial support in this last minute procurement are noteworthy.

also quite demanding; checks were to be made for DCS Logic; trips and alarms were verified; and pressure testing of process piping required much effort of the team.

Despite the varied tasks, entire Project and Functional team pitched in their very best towards ensuring the completion of project execution phase.

On the afternoon of 15 October 2017, the new dryer was put into a coupled test run, first on the barring motor and then on the main motor; and both operation remained satisfactory. The dryer was commissioned on 18 October 2017 and production was received on 19 October 2017. Hats off to LCPL team for the efforts and dedication that went into successful commissioning of the project, every section's contribution had been equally valuable, pulling off this feat against all the odds would have been impossible without the entire team's support.



Heavy lift of old dryer and installation of new one was amongst the many odds that were part of execution phase; crane entry at location required filling of entire filtration area pavement with compacted soil. The movement of soil in vicinity of port is regulated by Port Qasim Authority, and Admin team provided prompt support in obtaining requisite approval.

Furthermore, detailed rigging studies were developed for removal of old dryer and installation of new dryer. The proceeding activities were closely monitored by Project team and both removal and installation of dryer were performed safely. Following the installation of new dryer, focus was on alignment of dryer under supervision of Neotech's representatives. Installation of new conveyors, associated piping, and structural modification of Filtration structure platform was carried out in parallel by Descon team.

Pre-commissioning and Commissioning phase of project led by Production team was





CTA Dryer Commissioning Team Efforts

Muhammad Sajid Khan

CTA Dryer venture is now a success story and commissioning team which played its part for this success deserves appreciation along with the rest of Project team. Through proper planning, and dedication of the team, de-commissioning was achieved 19 hours ahead of the plan. Pre-commissioning tasks were managed to complete them as parallel activities saving another 36 hours. The stopper during the Off-Gas Dryer commissioning was also handled very smoothly and efficiently by the teams.

The efforts of commissioning team comprising of: Muhammad Sajid Khan (Plant Manager Oxidation); Noor Nabi (Senior Shift Manager); Syed Muhammad Farooq (Oxidation Boardman); and Ausafuddin, Faizan Ul Haq, Tahir Mehmood, Furqan Ahmed, Waqas Ali, Faizan Ahmed, Imran Ali, Tariq Zia and M Ali (Area Operators) are praiseworthy.



Affection for Vocation

Asad Hayat

On 22 October 2017, Faisal Tariq (Project Engineering Manager) observed and reported the dislodging of seal drum bolts at feed end of the new CTA Dryer. Prompt actions were taken by Production team and the equipment was immediately handed over for bolts replacement after taking the plant on hold. Delay in handling the situation could have resulted in a potential Toxic Release emergency, due to heavy leakage. Control and communication measures on DCS by Syed Muhammad Farooq (Boardman Oxidation) are commendable. Also, the efforts of maintenance team comprising of Mian Abdul Rasheed (JE Oxidation), Ashiq Ali (Mechanical Technician), and Sohail Javed (Mechanical Technician) in effectively carrying out the job over the weekend are highly appreciable.

Through synergized efforts of all the teams, the new Dryer was prevented from damage and brought online in minimum possible time.



Highest 30 Day Production

Aiser Javed



After the successful completion of Overhaul 2017, the LCPL team resumed plant operations with a new sense of zeal and enthusiasm, the epitome of which was the performance during November.

With a plant availability of 100%, the month ended with a production of 45,730 tons of PTA at a staggering rate of 1,524 tons/day. This record breaking feat is the highest for any 30 days month in LCPL's history. Not only did this effort reinforce the faith of our customers in us, it also showed why LCPL is the best at what it does.

It goes without saying that it was a complete team effort and every department played a significant role in achieving this target. The Engineering department effectively carried out all the maintenance jobs. The process support from the Technical department was crucial and the proactive HSE department ensured a safe work environment. The Production department was at the heart of all of this as they ensured smooth operations throughout the month.

As a token of appreciation, cake cutting ceremonies were held in the Old Control Room, Workshop, and AAM Block which were attended by GM Manufacturing and all the LCPL team. Everyone was congratulated for this remarkable achievement and encouraged to continue working with this spirit of high dedication and perseverance.

Overcoming The Bottleneck

Shoaib Mumtaz Adhami

Instrument Air Compressor and ETP Air Compressor Cooler bundles performance limitations were one of the chronic issues since plant commissioning. In the past, several attempts had been made using various chemicals to clean the bundles, but to no avail. Due to this issue, the ultimate solution was the replacement of the cooler bundles which would have incurred of significant cost.

In order to address the bottleneck, LCPL Technical team decided to carry out soda blasting (blasting of



specialized grains size sodium bicarbonate particles at high pressure) on these cooler bundles. This technique has never been performed before at LCPL site but Technical team had very credible support in shape of Reet's International team who have performed this activity in other industries as well.

The outcome of the activity was exceptional and we were able to resolve this long persisting problem. This activity was well led by Technical department with due support from Production and Safety departments.



Work Ownership & Taking Initiative

Muhammad Osama Bin Shakeel



The performance curve of an organization having the culture of taking initiatives and ownership of their work, accountability and having a trustworthy workplace is always remarkable. Lotte Chemical Pakistan has a culture embedded with all of the above mentioned values and is striving very hard to further inculcate them in its employees with informative and thought provoking sessions.

To further enhance the productivity, sessions on Work Ownership and Taking Iniatives were organized by HR team on 30th October and 23rd November 2017, and were attended by the entire Engineering Department. Facilitated by Mr. Mehdi Hasnain, who focused on the point that "taking ownership is about taking initiative" and explained it by sharing his experiences. Moreover, he also highlighted the fact that taking action is not someone else's responsibility rather, every single person is responsible for the quality and timeliness of the outcome. One should care about the outcome in the same way as he is the owner of an organization. Talking about innovation, he gave examples of individuals like Bill Gates, Mark Zuckerberg and Steve Jobs and motivated us to think out of the box.

In a nutshell, it was a very fruitful and captivating session which reinvigorated the entire Engineering team. We humbly thank the HR team for organizing such enthralling and engaging sessions which will continue to raise the professionalism of LCPL employees.

Training on Introduction to Management

Areeba Irfan

If you take initiative and are a leader, you might make a good manager. Nevertheless, there is more that goes into making excellent managers. LCPL has always worked towards improving managerial skills of its workforce and regularly organizes workshops to achieve this target. One such workshop Introduction to Management-Module II was held on the 24th and 25th of October 2017, at Marriott Hotel, Karachi. It was facilitated by the leading trainer and motivational speaker, Saadi Insha.

The workshop stretched over two days and was an interactive learning experience. Communication skills, characteristics of high performance teams, problem-solving and decision making, and motivating staff for higher performance were the four main themes that were discussed in detail. The workshop was characterized by an engaging presentation and a number of group activities that complemented each of these four themes. The training session was effective in helping its participants hone core managerial competencies while keeping them high-spirited throughout the two days.



Soda blasting of Air Coolers

Wali Ahsan



LCPL has a total of 28 air cooled heat exchangers: 20 at Oxidation 4 at Utilities and 4 at Purification. Over the course of time these coolers have become severely fouled with some of the sections in a very vulnerable condition. Acetic Acid recovery from Oxidation and De-mineralized Water recovery from Purification and Utilities remain a concern due to poor performance of these coolers.

Historically, multiple attempts have been made to revive the performance of these coolers but no significant improvement was observed. With the history of providing innovative solutions LCPL Technical department explored an effective method for cleaning of these cooler at very reasonable cost i.e. Soda blast cleaning. In this technique with the help of pressurised air, Soda particles are blasted on fouled surface with high velocity. After collision with the fouled material soda particles along with fouled material initiate a chain reaction because of which all the tubes even at the upper sections are cleared.

After Soda blast cleaning Air cooled heat exchangers results were impressive and no damage to coolers was observed. This cleaning has not only resulted in significant saving of Acetic Acid but also provided the methodology for cleaning of these coolers in future.

IMS Internal Auditing Training

Shuaib Iqbal



Implementation of Integrated Management System (IMS), which is a combination of ISO-9001, ISO-14001 and OHSAS 18001, is vital for ensuring an organization's QHSE performance. It also provides a sound basis for sustainable development initiatives.

Frequent internal audits play a key role in strengthening the implemented IMS system. To ensure the effectiveness of these audits, regular

training sessions are organized for Lotte's designated auditors. In this regard, a refresher training session on IMS Internal Auditing was conducted in Technical Training Center on 31st October 2017 by Khalid Aslam Malik (Certified Lead Auditor and Trainer) from United Registrar of Systems (URS). The session remained interactive throughout, and the participants appreciated the quality of the training.

Winning a Losing Battle

Muhammad Irfan

The Production team was faced with a challenge post Overhaul on 17th October 2017 when the startup of Oxidation plant Reactor had to be deferred due to unforeseen maintenance requirements at the Process Air Compressor (PAC).

Prior to start up, hot acid solvent and the reactants are gradually charged in the Oxidation Reactor. It is critical to initiate the reaction as soon as possible, as any delay in process initiation can render the charge unproductive due to drop in temperature.

The rectification of issues at PAC demanded time, during which the temperature of the Reactor would have gone below the threshold limit. Oxidation team

We Don't Say "It's not my Job"

Muhammad Irfan



A fine example of vigilance was set by Tahir Mahmood (Plant Operator Oxidation) when he picked up an anomaly in the metallurgy of an Acetic Acid line. He observed that the newly installed line was of Carbon Steel (CS) instead of Stainless Steel (SS). This was then immediately rectified. The Carbon Steel line could have become corroded if installed in acetic acid service, resulting in leakage at plant. Through his keen eyes for detail we were able to avoid considerable loss at plant.

Reward of Prudence

Umair Ahmed Bhatti

On 22 November 2017, Acetic acid leakage was observed from Third Crystalliser bottom pump at Oxidation plant. Acetic acid has a pungent smell and its fumes can cause stifling sensation in those in the vicinity, resulting in difficulty in the normal plant operation. On the said event Muhammad Waqas (SRU Area Operator), showing presence of mind, promptly isolated the line where leakage had occurred. Through his prudence, we were able to evade the toxic release and plant shutdown.



kept a tight control on the temperature and other parameters and kept the reactor ready for startup. Through their presence of mind, the Oxidation team was able to avoid the wastage of both the solvent and the raw material.

Proactive approach towards operational concerns

Iqbal Awais

Ensuring 100% availability of utilities is the foremost priority of Operations team. In the past two years, we had been facing some serious concerns at Demineralisation plant from the month of November through January. The ion exchange trains need to be frequently regenerated and it becomes difficult to maintain the Demin water tank level.

However, this year, by exhibiting proactive approach and taking efficient preventive measures Utilities team is able to evade the issues and have been successful in maintaining smooth and reliable operation of Demin plant. This is an example of commitment and dedication of the Production team at Utilities plant, and a testament to their abilities.



Overhaul 2017 Celebrations

Aiser Javed

To celebrate the successful completion of Overhaul 2017, a fun filled outing was organized at the Arabian Sea Golf and Country Club.

The event began with refreshments as everyone greeted each other over snacks and tea. It was followed with a game of "pass the ball" which involved funny dares. A lot of hidden talents were exposed in that game as some of our fellow colleagues sang, danced and performed the dares. The activity ended with laughter and applause. After this, members were divided into teams on the basis of their departments and individual team leaders were assigned for a series of different games.

These games included scavenger hunt, pithugaram and tug of war. After an enthralling run of play, the Engineering department won all three games. Towards the end, a six-aside cricket tournament was also played which was won by the Production department after a great display of batting and bowling skills.

Everyone then moved towards the poolside for dinner and Qawwali night. The awards were distributed among the winners of the games, followed by a scrumptious dinner, the highlight of which was Dam Pukht (stuffed goat) and fried Pomfret fish.

Now the stage was set for a musical escape into the world of trance and mysticism. Ustad Danish Ali Sabri along with his band, Sabri Brothers, captivated everyone's attention with his soulful renditions of famous Qawwalis. One could not help but dance to



his beats. It was the perfect way to end such a spectacular day.

Not only will this event be etched in everyone's memories for a really long time, it will also serve as a catalyst in rejuvenating the energy that is put into each day's work. Here's to another two years of safe and smooth operations. Cheers!









Overhaul 2017 Inspection Activities

Talha Nabi Dar

For smooth and efficient plant operation, ensuring the health and reliability of static equipment is of utmost importance. To monitor their health, the Inspection section inspects these vessels during routine plant operations as well as planned shutdowns.

Overhaul 2017 observed the highest number of inspections since the commissioning of plant, making it one of the most challenging overhauls ever. Services of M/s Inspectest were pursued for deployment of certified API 510, API 570 and API 653 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.

Following major activities were carried out during the Overhaul:

- Inspection and repairs of Core Plant Reactors, Crystallizers and other vessels
- Inspection and repairs of Titanium lining of Residue Evaporator
- Radiographic Testing of steam chest weld joints
 of PTA Dryer



• Inspection of 5% Caustic Storage Tank

A vigilant team, consisting of Fawad Ur Rehman (AM Inspection & Registry), Talha Nabi Dar (TE Inspection), Syed Mujahid Hussain (JE Inspection), Ayaz Ahmed Minhas (NDT Inspector), Patras Younus (Registry Incharge) and Sajid Ali (Auto Cad Draftsman) took all the challenges head-on, and achieved the targets well within time in a safe and cost effective manner. The efforts of Bilal Hassan (AM Business Development) deserve special mention, who joined the Inspection team only for the duration of the overhaul.

Overhaul 2017 Electrical Activities

Muhammad Osama Bin Shakeel



The Electrical team, worked with remarkable dedication during Overhaul 2017 to ensure successful completion of all major activities. The team had to complete a total of 231 jobs in the stipulated time frame. A comprehensive job execution plan was formulated after thorough working by Syed Raza Anis (DM Electrical) and Imranullah Khan (Engineer Electrical – Utilities).

Major jobs during the overhaul included PAC Motor Level 3 inspection and MCP Inspection & Testing led by Sumayyah Waheed(AM TPM) and Abid Qayyum (Engineer Electrical - Cogen); OLTC inspection and maintenance led by Muhammad Ahmed Ullah (AM Electrical - Utilities); IGPS protection relays testing led by Osama Bin Shakeel (TE Electrical); CTA Dryer Project and Motors Overhauling led by Muhammad Safwan Khan (AM Electrical - Core), who was supported by Mansoor Alam Sundal (AE Electrical -Purification) and Mati ur Rehman (JE Electrical); and MCC Maintenance and Transformers Testing led by Khalil Ahmad Ansari (AE Electrical - Purification). Moreover, the night shift was very well handled by Hassan Kazmi (AE Electrical - Oxidation) and supported by Mushtaq Ahmed (AE Electrical). Muhammad Saeed (JE Electrical - Utilities) also did a remarkable job in arranging Temporary Supplies.

Power Isolations during the maintenance of MCCs were worked out in detail and MCCs maintenance was scheduled effectively without affecting the overhaul activities. Major Job Review was also carried out in which outage of some MCCs were rescheduled according to maintenance activities. The team worked together to make this overhaul yet another success for Lotte.

Core Plant Agitators' Inspection

Syed Abdullah Faiz

Reducing dependence on foreign vendor services through development of in-house expertise has remained one of the glittering hallmarks of the Maintenance team. Upholding this tradition, the agitators' inspection jobs planned for Overhaul 2017 were performed by core plant Maintenance teams for which foreign field representatives from Mixing Solutions Limited used to be called in previous overhauls.

The job plan included inspection of steady bearing, agitator blades and checks on agitator shaft and fasteners. After the inspection data was collected, a holistic analysis was performed in order to evaluate the health of components and determine the need for replacement. Historical trends were also taken into consideration against which current values were compared.

The activity was possible due to industrious efforts of Shabbir Hussain (SE Mechanical Purification), Shahid Ur Rehman (SE Mechanical Oxidation), Tariq Nazir (SE Mechanical Oxidation), Kamran Khursheed (SE Mechanical Oxidation) and Altaf Khan (Mechanical Technician Pure), who were supported by Syed Abdullah Faiz (TE Mechanical Oxidation). Moreover, timely support from Inspection and Workshop teams resulted in synergized efforts decreasing the job time. Such joint efforts serve to galvanize the team and instill a culture of knowledge sharing and taking initiatives.



Making a Difference

Hassan Tariq

The equipment required for quality measurement can be very expensive at times, therefore, the team keeps thinking of ways in which costs can be cut without jeopardizing the safety and smoothness of plant processes.

There was a known problem of choking of pH analyzers installed at CRU (Oxidation Plant) due to which there was frequent loss of functionality and high maintenance costs used to be incurred.

An innovative idea to eliminate the choking issue was to install Auto-flushing units for these analyzers. Various aspects of incorporating these units including financial feasibility, health safety and process integrity were studied in detail by the instrumentation team. This was an in-house solution which would not only lower maintenance costs but also ensure high quality product due to accurate reading of PH probe.

This initiative by the Hassan Tariq (AM Instrumentation - Core & DCS), Syed Mehmood Ali (Engineer Instrumentation) and Inaamullah (HFC Technician) resulted in a lot of savings for the company and is to be repeated on several other quality analyzers on the plant as well. Hence, it would be making a lot of difference in the future with regards to our maintenance practices and savings.



Dar ul Sukun Care Centre Visit

Rizwan Ahmed / Zia ur Rehman



"Moving towards the Best" is the aim of the LCPL CSR team. The CSR volunteers along with Mr Humair Ijaz (CEO) and Senior Management visited Dar ul Sukun, a philanthropic organization for mentally and physically challenged children on 21 December 2017.

Dar ul Sukun originated as a home for the abandoned children with disabilities. It was founded on 17th February 1969 by a Dutch nun, Sister Gertrude Lemmens, who came to Pakistan as a visitor in her



Evading Production Loss

Ghulam Mustafa

After the reaction is carried out in Purification Reactor, the slurry is passed through a series of crystallisers and in turn filtered through pressure and atmospheric centrifuges respectively.

On 25th Oct 2017, both pressure centrifuges tripped due to overload tripping of Fifth crystallizer. The tripping of centrifuges, if not taken in service immediately, requires flushing of Purification plant, which is connected to high cost in terms of product loss.

Purification plant shift team at that moment took the responsibility to prevent this loss and started the drives rather than flushing the plant. There were only a few minutes to cope up with the emergency, but youth. She stayed in Pakistan and devoted her life to the care of the disabled and children, who were brought in pitiable condition by social workers, police and relatives. Through her selfless love and affection Dar ul Sukun came into being.

The LCPL team spent some time at the center, interacting and playing games with the children there. The children enjoyed the day and were very happy to receive the gift hampers distributed by the team.



whole shift team rose to the occasion. The efforts of Ghulam Mustafa (SM Purification), Allah Dino Mahar (Boardman Purification), Abdul Jabbar (Area Operator) and Sohaib Ali Khan (Area Operator) are truly commendable.



Efforts for Better Reliability

Muhammad Usman



The Gas Turbine Generator (GTG) is the heart of the CoGen plant, and timely inspection and maintenance activities on such a critical machine are a priority of Engineering team.

In parallel with the activities on the Gas Turbine in Overhaul 2017, inspection and maintenance of other areas at CoGen was also carried out which include Fire and Gas system, Diverter Damper, HRSG, NGBC, Gas Chromatograph and Filter house. Nadeem Bhatti (AE Instrument - Utilities & Cogen), Ghulam Raza (Instrument Apprentice) and Muhammad Haseeb (HFC Technician) showed remarkable dedication in carrying out all Instrumentation jobs at CoGen.

OLTC Inspection and Maintenance

Muhammad Osama Bin Shakeel

On Load Tap Changer (OLTC) is an important part of power transformers largely responsible for regulating the voltage, and therefore, protecting the connected loads from being damaged due to voltage fluctuations. To ensure the health of OLTC, its inspection and maintenance was carried out in Overhaul 2017. The job was successfully executed by MR service engineer, who was supported by the Electrical team comprised of Syed Raza Anis (DM Electrical), Muhammad Ahmedullah (AM Electrical Utilities), Muhammad Osama Bin Shakeel (TE Electrical) and Imranullah Khan (Engineer Electrical Utilities & RWPS).

The Electrical team worked round the clock to ensure smooth execution of jobs and managed to complete the job within the planned duration.



Presentation on ETP Chillers

Syed Abdullah Faiz

Delivering operation and maintenance presentations on critical machines are an important part of Trainee Engineers' training plan, which not only serve to equip them with mandatory technical knowledge but also refreshes and enhances knowledge of other employees.

Having worked as Trainee Engineer Maintenance at Utilities, I delivered a presentation on ETP Centrifugal Chillers to the Maintenance team. The presentation content covered an overview of the types of compressors, their operating principles, and maintenance and operation of ETP Chillers.

A special portion of the presentation was focused on the case studies based on the machine's history. The ensuing discussion remained the highlight of the training and added to everyone's understanding of equipment behavior. The participants contributed to the quality of the training by sharing their personal experience and asking questions based on actual field behavior of the machines.



Learning Week 2017

Shazia Siddiqui

When learning is combined with dramatics, knowledge, fun, and experiences it proves to be far more effective and engaging than anything else. Keeping the objective in mind of engaging Lotte fellows, HR Team arranged a Week long "Learning Week" for both plant and city office employees.

Learning Week was actually a journey through thematically varied experiences that engaged employees of all levels. From "Emotional Intelligence at work" to "Ready to Win", each session was knowledge packed. Through facilitated debriefs with personal action planning, everyone aimed to apply back learning to lives and workplaces that stimulated and inspired them in many ways.

Learning Week was held from 13th to 17th of November 2017, which comprised of following events and was facilitated by speakers from all walks of life.

- Emotional Intelligence at Work: This session was conducted by Miss Kanwal Akhtar on 13th November at City Office. In the session, she conveyed with activities that every workplace is comprised of people with different strengths, personalities and emotions, which can greatly affect the way they work. Emotional intelligence is the ability to identify and manage your emotions as well as the emotions of others.
- 2. Take Good care of your heart: The session took place on 14th November at Recreation Hall - Plant Site. Cardiologist Dr. Waqar Khan of Tabba Heart Institute taught employees that heart health can only be achieved by a healthy lifestyle. He encouraged employees to walk, exercise and avoid foods with bad cholesterol.

- 3. Victims at Work (Forum Theatre): Based on Forum Theatre, Mr. Omair Rana of Schuitema Pakistan played role of lead actor / facilitator. He beautifully performed his character of a strict boss with unrealistic expectation. The other co actors who played the role of victims were Lotte participants and changed the responses of victims of same scene. In the end, Mr. Omair debriefed participants about responses vs reactions and importance of intent in personal and professional lives.
- 4. Best of the Best: As the name suggests, best performers won exciting prizes in the closing program of the Learning Week. Playful music and exotic breakfast made the event a memorable one.







ETP Compressor Initiative

Muhammad Usama Bin Aijaz

The process of Effluent Treatment Plant (ETP) requires compressed air which is supplied to the bio-reactor by Ingersoll-Rand air compressors. These compressors had been underperforming for some time, and the reason identified for the limitation in performance were their choked intercoolers. Therefore, replacement of intercoolers was planned to resolve this issue.

Thanks to the synergized efforts of Maintenance and Commercial teams, especially the commendable efforts of Anwar-ul-Hassan (AE Maintenance - Utilities) and Hussain Hashmani (AM Purchase – Engineering), the required coolers were procured through an alternate manufacturer at substantially economical rates compared to the original manufacturer.

The coolers were installed at the machine and instantly proved to be a success. At a fraction of the expected cost, the new coolers restored the compressor to its original performance. The success of such actions boosts confidence of the team members, encouraging them to face all challenges courageously.



Modification for the Good

M. Abdullah Hashmi

Since the commissioning of CoGen plant, one of the most recurring issues was the problem of Motor Operated Valve (MOV) of seal air fan on Diverter Damper. Though the problem seemed to be small, it had serious consequences, requiring the replacement of MOV annually or sometimes even semi-annually. Due to the lack of proper sealing around diverter damper by seal air fan, a portion of flue gases which had energy and could be used in steam generation, escaped through the bypass stack of Gas Turbine and eventually caused a decrease in the overall efficiency of the process.

In order to comply with the requirements of a system, it is necessary to carry out need-based changes in it. And to cater to the MOV issue, Muhammad Shahid (SM CoGen) came up with an indigenous solution, and a mechanism for the manual changeover instead of an existing automatic system was installed. A number of benefits are obtained through this initiative. The burden of maintaining inventory is reduced, the system has become smoother in operation, and finally a full stop has been put on a long persisting problem.



Breaking out of the Comfort Zone

Muhammad Usman

Reliability of the steam venting system installed on Boilers is critical in ensuring safety in case of high pressure built-up or boiler tripping. At Boiler B, the venting MOV (Motor Operated Valve) actuator started malfunctioning, and a temporary arrangement was immediately put in place to make it available.

MOVs are a special type of control valves and robust expertise is required to perform corrective actions on them. During Overhaul 2017, the Instrumentation team took the initiative to replace the faulty actuator in-house. Its coupling was fabricated in the Workshop, and after three consecutive attempts, we successfully commissioned the new actuator and performed its calibration. Mashood Adil (SE Instru-

Critical Plant Emergency

Arsalan Ahmed

On 7 December 2017, in the night shift, increased venting of high pressure steam was observed. On investigation, root cause was found to be the actuation of ZC-216. ZCs are safe mode tripping logic for the system to prevent the risk of fatal injury or risk to environment at plant.

Arsalan Ahmed (Purification SM) and Akbar Kabir

mentation) Muhammad Umer (HFC Technician) and Muhammad Ovais (Instrumentation Technician)

This challenging task was completed well within its time duration due to the focused effort of the team.



(DCS Board Man) right away observed plant parameters and requested field observations from Sohaib Ali Khan and Farrukh Shahzad (Area Operators). With Noor Nabi (SSM) on lead, team managed to infer that system was physically fine and faulty signal had bred the situation. Purification plant was immediately taken on a short flush, while the trigger for the ZC was bypassed from Core Outstation.

Belated handling could have resulted in Plant outage for days but there was neither production loss nor PTA quality upset due to the prompt actions of the team.

Classroom Training of Apprentices

Shuaib Iqbal

Apprenticeship training is a key investment for our company's future. It is a combination of formal classroom training and long-term on-the-job training by which people become skilled workers through. LCPL has comprehensive two-year training plan for new apprentices. The newly hired apprentices spend the first two months at TTC for their orientation program, which covers basic class room training on the different areas of plants.

In December 2017, one batch of apprentices completed their TTC training. Trainers form all departments conducted sessions to deliver experience based knowledge to apprentices. After their time in TTC, the apprentices reported to their respective departments for practical training at plant.



Eliminating Transitory Obstacle

Arsalan Ahmed

After the plant was started post Overhaul 2017, PTA dryer was inhibiting the production of PTA. Several attempts were made to troubleshoot the issue, but to no avail.

On 30 October 2017, Production team, on suggestion from Masood ul Hassan (Production Manager), conducted a trial on varying the Dryer Fluidiser Conveying Gas flow. The trial was carried out under the leadership of Umair Ahmed Bhatti (SSM), supported by Arsalan Ahmed (SM Purification) and Rashid Minhas (DCS Boardman). The CG flow was gradually decreased, keeping a close tab on all the critical parameters. The plant rate gradually started increasing and we were able to once again achieve the full load operation of the plant.

Since that day, we have been able to meet our SOP target.





Musab Tanveer has joined the Company as Sales Administration Officer, with effect from 1st November 2017. His last employment was with Fulcrum Private Limited



October 2017. He joined the company on 20th October 1997 and is presently working as Senior 🌰 Assistant Engineer Process.



Sabir Ali completed 20 years of service on 19th October 2017. He joined the company on 20th October 1997 and is presently working as Senior Assistant Engineer Process.



Nadeem Furgan completed 20 years of service on 19th October 2017. He joined the company on 20th October 1997 and is presently working as Sub Engineer Process - I.



Muhammad Arif completed 20 years of service on 2nd November 2017. He joined <mark>th</mark>e company on 3rd November 1997 and is presently working as Assistant Purchase Manager,



Syed Khurram Ali completed 20 years of service on 31st December 2017. He joined the company on 1st January 1998 and is presently working as Systems Analyst.



Amir Azam completed 10 years of service on 1st November 2017. He joined the company on 2nd November 2007 and is presently working as Manager Instrumentation (Plant & Cogen).



Muhammad Kalam completed 20 years of service on 19th October 2017. He joined the company on 20th October 1997 and is presently working as Senior Assistant Engineer Process.

Sana Ullah Hayat completed 20 years of service on 💧 19th October 2017. He joined the company on 20th October 1997 and is presently working as Junior Engineer Process.

Badar Nizam completed 20 years of service on 2nd November 2017. He joined the company on 3rd November 1997 and is presently working as Junior Engineer Process.

Syed Jamal Haider Naqvi completed 20 years of service on 14th December 2017. He joined the company on 15th December 1997 and is presently working as Senior Administration Officer.

Muhammad Khalid Rana completed 15 years of service on 22nd December 2017. He joined the company on 23rd December 2002 and is presently working as Junior Engineer Mechanical.

Syed Rafatullah Qadri completed 10 years of service on 1st November 2017. He joined the company on 1st November 2007 and is presently working as Sub Engineer Process - II.

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Asghar Ali Soomro completed 20 years of service on 19th October 2017. He joined the company on 20th October 1997 and is presently working as Assistant Engineer Process.



Muhammad Waheed Uz Zaman completed 20 years of service on 19th October 2017. He joined the company on 20th October 1997 and is presently working as Sub Engineer Process - I.



Shabbir Asghar Ali completed 20 years of service on 8th December 2017. He joined the company on 9th December 1997 and is presently working as Salaries







Kamran Khursheed completed 10 years of service on 18th December 2017. He joined the company on 19th December 2007 and is presently working as Sub Engineer Mechanical - II.

ed 20 years of service on 14th December 2017. He joined the company on 15th December 1997 and is presently working as Assistant Purchase Manager.

Manager - Utilities.



LCPL کی سی ایس آرٹیم نے '' آگے بڑھتے رہنے'' کواپنا مقصد بنا رکھا ہے۔ سی ایس آر کے رضا کاروں نے چیف ایگزیکٹو جناب حمیر اعجاز سمیت سینٹر مینجمنٹ کے ساتھ 21 ڈسبر 2017 کو دارالسکون کا دورہ کیا،دارالسکون ایک فلاحی ادارہ ہے جود ماغی اورجسمانی معذورافر ادکاسہارا بناہوا ہے۔

دارالسکون اصل میں لاوارث اور معذور بچوں کے گھر کے طور پر قائم کیا گیا۔ بیادارہ 17 فروری 1969 میں ایک ڈچ راہبہ Sr. Gertude lemmens نے قائم کیا جواُس وقت این جوانی میں پاکستان کا دورہ کرنے آئی تھی۔ پاکستان میں انہوں نے اپنی پوری زندگی ان معذ دروں اور بچوں کے لئے وقف کردی جنہیں ساجی کارکن ، پولیس اور رشتہ دار لاوارث کرکے حچوڑ دیتے تھے۔ لا وارثوں اور معذوروں کے لئے اُن کی ہمدردی اور پیار نے ایسی مثال قائم کی کہ جس کے نتیج میں ایک فلاحی ادارہ دارلسکون وجود میں آیا۔

LCPL کی ٹیم نے سینٹر کے دورے کے دوران بچوں کے ساتھ وقت گز اراادران کے ساتھ مختلف سر گرمیوں میں بھی حصہ لیا۔ جس سے بچوں میں خوشی کے احساسات پیدا ہوئے اور ہماری ٹیم کی جانب سے تحالف ملنے بروہ بہت خوش ہوئے۔



۔ تجارتی ساجی ذمہ داری کا احساس

- مهارت اور پیشه ورانه تربیت کے اقدامات



LCPL کی جانب سے مسٹرحمیر اعجاز ، چیف ایگزیکٹوایوارڈ حاصل کرتے ہوئے۔

ایمپلائیرآف دی ایئر ایوارڈ

LCPL نے ایم پلائر آف دی ایئر ایوارڈ 2016 اینے نام کیا۔ ایم پلائرز فیڈریشن آف پاکستان کے زیرا ہتمام ہونے والے یانچویں ایم پلائر آف دی ایئر کے ایوارڈ میں کئی ملٹی نیشنل کمپنیوں کے ا مقابلے کے باوجو داس اعزاز کا حصول ہمارے لئے ایک سنگ میں کی حیثیت رکھتا ہے۔ بیا یوارڈ درج ذیل شعبوں میں ہماری جانب سے بہترین تجربات پر ممل درآ مد کا اعتراف میں :

۔ انتظامیہ، ہیومن ریسورسز کااہتمام اور ملازمت کے مواقع پیدا کرنے کے طریقہ کار

په صنعتی تعلقات کاطرزمل

کام کا بہترین ماحول اور صحت اور حفاظت کا نظام

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اوور بال2017 كاجشن

اودر ہال برائر 2017 کی کامیاب بحیل کا جشن منانے کے لئے عربین میں گولف اینڈ کنٹر کی کلب میں ایک دلفریب تقریب کا انعقاد کیا گیا۔ تقریب کا آغاز چائے پارٹی سے ہوا جس میں ہرا یک نے دوسر کے کومبار کباد پیش کی۔ بعد از ان' پاس دی بال'' کیم کھیلی گئی جس میں مزے سے بھر پور جرأت کے مظاہر ے کئے گئے۔ اس دور ان کئی ساتھیوں کی چھپی ہوئی مہارتیں بھی سامنے آئیں جس میں انہوں نے گانے گائے، ڈانس کیا اور کئی مزید ار پرفار منسز کا مظاہرہ کیا۔ جس پر انہیں تالیوں اور قہقہوں سے پذیرانی دی گئی۔ مزید براں ممبرز کواپنے ڈپارٹرمنٹ کے اعتبار سے ٹیوں میں تقسیم کیا گیا اور مختلف کیمز کے لئے ان کے لیڈر منتخب کئے گئے۔

کھیلی جانے والی کیمز میں اسکیو نجر منٹ ، پھو گرام اور ٹک آف وار شامل تھیں۔ان تمام کھیلوں میں بہترین کار کردگی کی بنیاد پر انجینئر نگ ڈپار ٹمنٹ نے تمام کیمز میں کامیابی اپنے نام کی۔ آخر میں 6افراد پر شتمل کر کٹ ٹورنا منٹ کا آغاز ہوا اور بہت ہی مزید ار کر کٹ دیکھنے کو ملے۔ اس میں ٹیوں کی باؤلنگ اور بیٹنگ کی کار کردگی پر شائفین نے انہیں خوب داددیتے ہوئی پذیرائی کی ، پروڈ کشن کی ٹیم نے شاندار کھیل کی بدولت جیت کا سہر اینے سر پر سجایا۔

بعدازاں تمام افراد پول سائیڈ کی طرف ڈنراور قوالی نائٹ کے لئے تشریف لے گئے۔ یہاں پر تمام کھیلوں کے جیتنے والول کو انعامات سے نوازا گیا۔ جبکہ ذائقہ دار ڈنرنے دن جمر کی تھکان کو بھلا دیا اور سب نے دم چنت (اسٹفڈ گوٹ) اور فرائیڈ پوم فریٹ فن خوب جی جمر کر کھائے۔

اب وفت تھا موسیقی سے لطف اندوز ہونے کا۔استاددانش علی صابری بشمول صابری برادرز بینڈ لوگوں کے دلول کو گرمانے کے لئے اسٹیج پر موجود تھے،اوران کے دلنشین آ واز نے حاضرین کی توجہ اپنی



جانب مرکوز کرلی، قوالی کے بولوں پر ہر کوئی جھوم رہاتھا،اورالی ہی دلفر ہی میں اس شاندار دن کا اختیام ہوا۔

ہبر حال بیدن ہرایک کی زندگی کا ایک شانداردن رہااور بیاس بات کی یادر ہے گی کہ آئندہ دوسالوں میں بھی اسی طرح کی کارکردگی سے آپریشن کے محفوظ اور بلانغطل کام جاری رکھنے کی بدولت ہی ہمارے میخوشی بھر لیلحات یادگارر ہیں گے۔









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