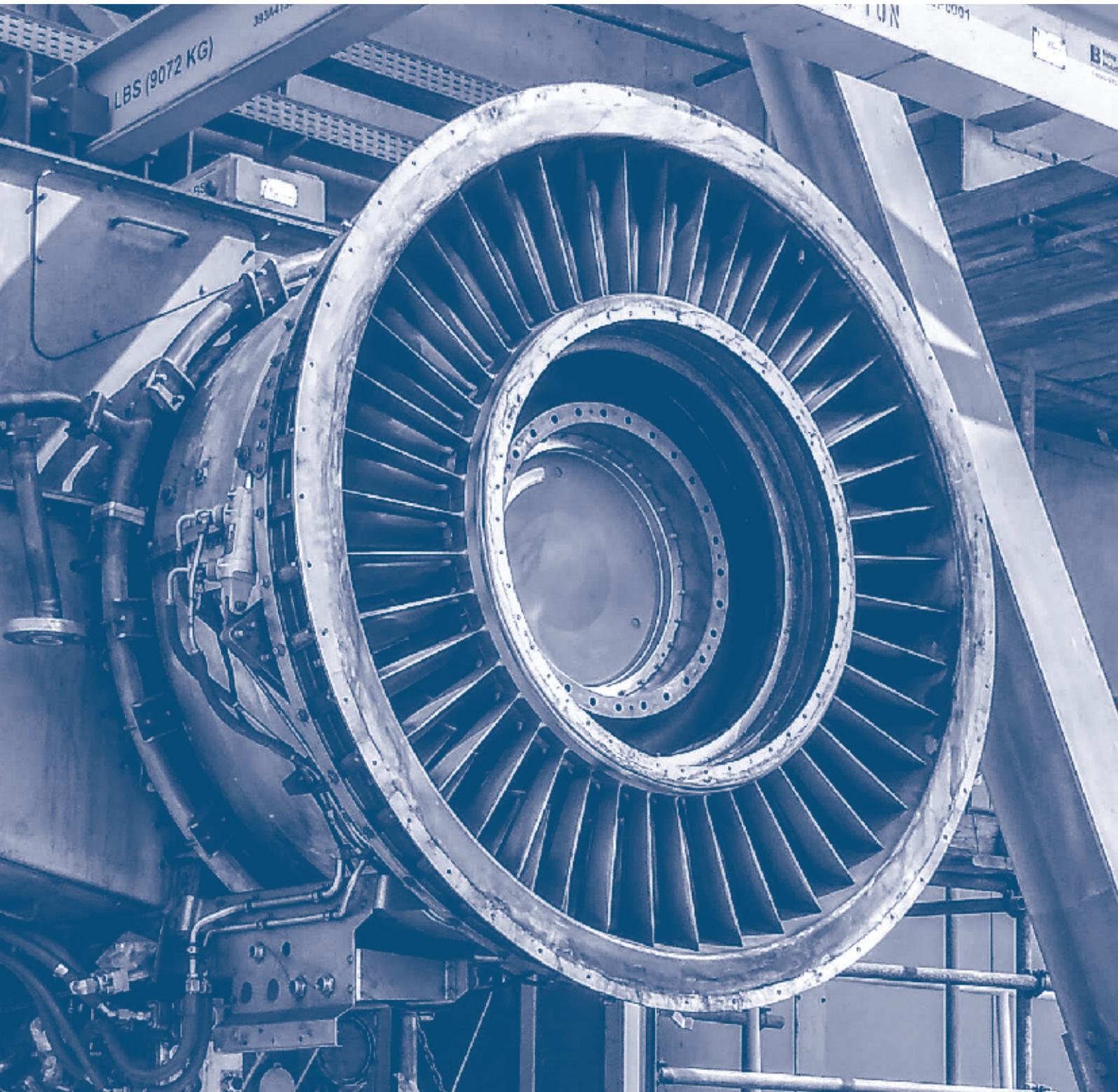


connect



Employer of the year Award

The Employers' Federation of Pakistan honored Lotte Chemical Pakistan Limited with a prestigious award for Best Employer of the year. LCPL ranked first in the category of multinational companies contesting in the Employer of the Year Award. The award is an acknowledgement of our implementation of the best practices in the areas of Manage-

ment, HR Management, OSH&E, Skill Enhancement and Sustainable development.

Mr Humair Ijaz (Chief Executive) received the prestigious award from Dr Arif Alvi, President of Pakistan, in a ceremony held on 12 March 2021 at Moven Pick Hotel Karachi.



Editorial

Dear Readers,

We are still in the midst of a pandemic and have to keep observing the best hygiene practices and social distancing for a foreseeable future. Vaccination is an important step to curb the spread of the disease and return back to our pre-Covid lives.

This issue covers the engine replacement and alternator major inspection at CoGen plant, Energy audit conducted by NEECA team, Celebration of Earth day and World Environment day,

and other big and small initiatives of various teams and individuals.

We hope that you and your loved ones are staying safe. Heartfelt thanks to all the contributors for this edition. We are always open to your feedback for improvement of future editions.

Let's still not forget to wear the mask!

- Sumayyah Waheed & Rushana Khan

Tree Plantation at LCPL

LCPL celebrated Earth day and World Environment day by planting trees.



Saving the Day with Heroics

Taha Ahmed Siddiqui

During April 2021 we were faced with a critical situation when the Temperature Transmitter installed on the slurry outlet line of the Third Pre-heater got dislodged because of an insidious leakage. If the plant operation was to be sustained, the leakage had to be contained immediately, but this was no easy task. Due to the extreme temperature and pressure of the service escaping the leakage location, it was impossible to have a good look from up close to precisely determine the nature of repair needed. The Maintenance and Workshop teams frequently handle similar plant emergencies but the severity of this leakage demanded something extraordinary. The teams came up with an ingenious idea that would see live plugging of the leakage location, involving no hot-work or clamp installation in the process.

A plugging arrangement was developed in-house; strong enough to withstand extreme pressure while also having provisions for easy handling, but plugging the leakage would prove even more challenging

than anticipated. An execution team led by Kamran Khursheed (SE Mechanical); alongside Mechanical Fitters, Tahir and Khalid; and Scaffolders, Asif and Arif took charge of the situation, all equipped with their PVC suits. The team showed commendable perseverance working in critical conditions and successfully managed to plug the leakage, thereby preventing an outage which otherwise was just around the corner.

Success in this whole episode was a collective effort of many individuals, but the contribution from Muhammad Shoaib (Engineer Mechanical) and Muhammd Ikram (JE Workshop) ensured the idea conceived was executed swiftly. It is important to mention the efforts of Zulfiqar (Machinist) and Sohail (Welder) as well, who ensured that the plugging arrangement was quickly developed in-house. Lastly, the courage and determination displayed by the execution team is exemplary and deserves all the appreciation.



Thinking out of the Box

Asad Hayat

A lot many problems at plant are solved by the innovative ideas of operating team; it is their dedication that does not allow minor issues to develop into difficult situations.

An example of such technique was the problem of one of the two Rotary Valves at Oxidation plant TA Drier that transfer CTA powder to Purification section; it so happened that the Rotary Valve-B was subjected to maintenance on 27 May and it could not be taken back into service because of an isolating valve getting broken in closed position that

provides Steam to heat the Rotary Valve. Unavailability of this spare rotary valve posed a risk of plant outage in case of problem in running rotary valve.

At this point, operating team came up with the idea to provide steam through a temporary arrangement with the support of Workshop team by fabricating a temporary fixture and providing Steam through a flexible hose to the Rotary Valve-B. Plan was successful and equipment was made available because of the creativity of the dedicated men at work.

CBA Agreement 2021-22

S. Hameed Hussain Shah

Dialogue between LCPL Management and CBA started on 1 February 2021 against their Charter of Demands for the year 2021-22 and was successfully concluded with a collective agreement on 19 February 2021. The new agreement continues our long-standing practice of providing competitive wages

and benefits for our non-management employees.

After the signing ceremony of the agreement, the Chief Executive Mr Humair Ijaz congratulated both the negotiation teams and appreciated their efforts for swift and amicable conclusion of negotiations.



13th Annual CSR Award 2020

Ahmed Ali Abedi

LCPL was awarded the 13th Annual CSR Award 2021 on 25 February 2021 at an award ceremony organized by the National Forum for Environment Health (NFEH). Out of 120 participating companies, only 76 had qualified for the award. The evaluation was carried out by an independent panel of

NFEH governing body.

Mr Rizwan Ahmed (Administration Manager) received this prestigious award on behalf of LCPL in a ceremony held at Sareena Hotel, Islamabad.



Visit of CWC National Authority team

Shuaib Iqbal

The National Authority of Pakistan is responsible for implementation of Chemical Weapons Convention (CWC) in Pakistan. As a part of their mandate National Authority monitors all the chemical and pharmaceutical industries of the country which are processing, consuming or producing certain chemicals above the given thresholds. In order to verify that the industry's declaration of these chemicals is in line with the rules set out by CWC's various articles a Routine Inspection program is in place.

The National Authority team led by Lt. Col Noman

Siraj (Director National Authority) visited LCPL Plant site on 10-11 February 2021 and were warmly welcomed by LCPL management team. Apart from discussion on inspection agenda, they were briefed about the HSE&S Management System and practices implemented at LCPL. The team visited plant areas as well and appreciated the HSE&S performance and safety measures in place at plant site. The National Authority also provided guidance for the preparation for upcoming inspections conducted by Organization for the Prohibition of Chemical Weapons (OPCW) International audit team.



Standardizing Reliability Alerts

Abdullah Ansari

Reliability section carries out the condition monitoring of all plant equipment once in a week through daily monitoring regime with a goal of increasing plant availability and reducing production downtime. Whenever a deviation in vibration readings or physical condition of equipment is observed a Reliability alert is issued to concerned department, highlighting the issue and actions for rectification.

The details in Reliability Alert must be communicated in a fashion that it is easily comprehensible and it

must represent complete information while pinpointing the actual cause for further action. Keeping this in view, a Reliability Alert format is developed which provides complete information of equipment deviating from normal conditions by mentioning the equipment, priority, vibration readings in comparison with normal vibrations, observations, recommendation and analysis details in separate heads. The purpose of developing such a format is to assist area teams to readily capture the required information from Reliability alert and plan for jobs accordingly.

Caustic Wash Downtime Reduction

Asad Hayat

For the Oxidation plant to provide consistent high production, it requires a regeneration activity at the CTA Dryer Caustic Wash. This activity is normally done with the shutdown of plant but this time around, it was business need to minimize plant downtime because of high PTA demand in market. the Oxidation Team joined heads to find a solution and took the initiative of performing the Caustic Wash without going on a long shutdown.

In order to shorten the downtime, a lot of risky

changes had to be made in the process of holding the plant and then restarting it. Oxidation team stepped up to the challenge and executed the plan without errors, making sure that completion of all the steps of CTA Drier washing was done within the duration of 26 hours versus 48 hours downtime as experienced in previous occurrences.

It was a great team effort which only reduced production downtime but loss in material efficiencies was also minimized.

Optimization at its Best

Muhammad Noman Khan

Caustic is one of the most expensive and essential chemicals used at LCPL. One of the main areas of its utilization is at Demin Plant for regeneration of Anion Exchangers. Yasir Ahmad Shaikh (Shift Manager - Utilities) took the initiative of finding out ways to decrease Caustic consumption. After consulting vendor documents and carrying out multiple trials and sample analyses, it was discovered that by increasing the preheating in regeneration cycle better regeneration efficiency could be achieved. This presented an opportunity to reduce Caustic consumption while still maintaining the requisite regeneration efficiency. Another set of trials and lab tests were conducted to test this idea and favorable results were obtained, after which the caustic dosing for anion regeneration has been decreased which has resulted in significant variable cost savings.

Yasir's initiative represents exemplary out of the box thinking and dedication. The entire Laboratory staff is also praiseworthy without whom this achievement would not have been possible.



Mr Lee's Farewell



LCPL bid farewell to Mr Lee (Director-LCPL). We value his contributions and association with LCPL and wish him all the best for future.

Never Going Down Again!

Umair Aleem

Distributed control system (DCS) is the platform being used for automated control and operation of a LCPL plant. During the month of March, an internal hard disk failure caused the DCS servers to freeze and become unresponsive. The process parameters were available live, but no history was being recorded. This was a serious problem as historical trends are imperative for understanding and troubleshooting operational issues.

Utmost priority was given to resolving this problem and a new DCS application server was established in a

week through the efforts of Amir Azam (Manager Electrical), Syed Raza Anis (Manager Instrumentation), Muhammad Asif Farooqi (AE Instrumentation) and Haris Kaleem Shah (TE Instrumentation). It was also decided to make multiple backups for the systems with DCS functionality. The backup systems for three DCS stations were ordered through local suppliers which also resulted in major cost savings when compared with the cost quoted by foreign suppliers. These machines have been designed for backups for the operator stations and will keep the plant's overview in top functionality in case of system failures.



Challenging the Design Problem

Hafiz Muhammad Sohail Akram

Gas Turbine LM6000PD Sprint model is installed at CoGen Plant to provide smooth power supply to base plant and sale surplus power to K-Electric. Dust and smoke from nearby industries frequently causes choking of GTG Intake Air Filters and deterioration of High Pressure Compressor (HPC) efficiency of engine, affecting the operation and total power generation capacity of GTG. Offline water wash is required to improve performance which requires GTG shutdown of around 8 hours.

Hafiz Muhammad Sohail Akram (SM CoGen) came up with an idea to install pre-filters at GTG Intake Air

Filter weather hood and carry out water washes without taking the machine offline. Later a joint meeting was held where Muhammad Sajid Khan (Plant Manager CoGen), Sohail Akram, Umair Khalid (Process Engineering Manager - Pure, Utility and CoGen) and Noman Hafeez (AM Maintenance CoGen) discussed the detailed design aspects of the modification. The frame of filters were developed in-house which resulted in significant cost saving. After installation of pre-filters with Maintenance team and setting a regime for online water washes, we have observed an improvement in overall efficiency of the GTG.

Never Say Never

Talha Nabi Dar

Ensuring machine availability for continuous plant operation is an important KPI for the Maintenance team. The Maintenance team at Oxidation Plant considers this parameter as paramount and hence always remains vigilant. A surprise event took place during February when the belts of CTA Dryer started to fracture. To fully assess the severity of the situation without hindering production, visual inspection of belts was required by removing the belt guard with the machine in service.

Working on unfenced machinery is dictated by detailed and stringent safety controls and procedures. With the assistance of SSMs, Muhammad Irfan and Sajid Shafique, along with supervision and guid-

ance from Mechanical Technicians, Muhammad Arif and Muhammad Junaid, the belt guard was removed. The in-service belts were observed to be loosened, hence the situation required a coordinated effort to put the plant on hold and carry out the replacement of the belt set. Job duration was of utmost importance while the workmanship also had to be optimum. With coordination and support of SSM Noor Nabi, the Dryer train was stopped and the Maintenance team carried out replacement of complete belt set within just 15 minutes. The asset was subsequently taken back in service and production was resumed. This would not have been possible without the coordinated support from the Production team and definitely the swift action of the Maintenance team.



Setting New Benchmarks

Waqas Hameed

The SSD of CoGen plant was planned to be initiated on 10 March 2021 so there was a crucial task for the Production team to isolate and declassify the area beforehand so that it becomes safe for the working teams to carry out the relevant overhauling jobs in the area. Around 8 hours are required to finish isolation, declassification and waterwash of GTG.

To reduce declassification time, a new method was devised where major shutdown activities were performed in parallel with waterwash activity and the area was declassified in less than 5 hours, achieving a record breaking feat. On this account, efforts of Muhammad Sohail Akram (SM CoGen), Saad Ghafoor (Boardman CoGen), Hassan Khalil

(Area Operator), and Gohar Rehman (AE Mechanical) are praise worthy. Also, at the time of startup it was initially estimated that the Production team will de-isolate and line up the system in 2 hours so that the GTG can be handed over to the vendor for mapping. Again the same Production team showcased a splendid example of teamwork by completing the startup activities in just half an hour and handed over the turbine to the vendor. The team has set a new benchmark and their achievement will be regarded as a model to be followed in the future outages. The proactive and timely support of the Mechanical team deserves special mention as this remarkable accomplishment would not have been possible without them.



Competence at its Peak

M Irfan

Oxidation plant is equipped with state of the art instrumentation and controls, which enable its smooth operation, give appropriate warnings and enable safe shut-downs in critical situations however, instruments are just tools and they are prone to failures and malfunctions, giving erroneous readings. To handle such situations a very experienced and competent Boardman is always present who analyses the instruments' feedback, crosschecks it with other parameters and takes actions accordingly. During plant operation every second is critical, therefore, high vigilance and attention is imperative for this job.

On 25 March, level indication of First TA Crystalliser became faulty and a lower than actual value was displayed on screen. Any abnormal rise in level in response may have adversely affected downstream processing units. Due to his presence of mind, the Boardman was able to catch the abnormality and take remedial action. This indication remained erratic for around a week, before it could be handed over for rectification, but the situation was very effectively handled by all of the DCS BM team. Overall one sentence for the operating team is "They Made it!".

Challenging the Challenge

Muhammad Sajid Shafique

Since commissioning of the new CTA Dryer, its increased caustic wash frequency has been an area of concern for the Manufacturing function. A caustic wash was needed every 2 to 2.5 months, to maintain Dryer's efficient operation, which was having a direct impact on production numbers. With increased PTA demand it was the need of the hour to enhance the Dryer's run time between caustic washes.

After extensive brainstorming, the Production team at Oxidation came up with the idea to perform

de-caking activity on CTA dryer at predetermined intervals. It is a strictly time bound activity which requires extensive efforts from the area team and DCS Boardman under the supervision of Senior Shift Manager. The beauty of this activity is that it is completed in a very precise manner with minimal impact on production and quality. As a result of this coordinated effort, the interval between two caustic washes has been successfully extended to 3.5 months, and the team plans to extend it to 4 months in near future.



Excellence through Collaboration

Umair Siddiqui

A countrywide power failure was experienced on 9 January 2021 that had led to an emergency plant shutdown. Post this emergency, Purification team was facing PTA production rate limitation due to partial choking of pre-heaters, and a plant outage was required to clear this choking which was not feasible at the time.

A number of options were evaluated to overcome this problem, after which the Purification Production team decided to evaluate the proposal of increasing the density of Reactor feed slurry mix-

ture above the normal operating range. The idea was to deliver enhanced production rate with limited throughput of equipment. Technical team was also consulted to evaluate the risks associated with this change. After detailed pre-work and thorough risk assessment, required changes were made which successfully delivered the desired result. With this achievement, we were able to save two days' plant outage that had appeared to be inevitable. This is certainly an example of challenging the limits and timely responding to adverse changes in process conditions.



Introduction to Management - Module I



Introduction to Management - Module I training was conducted by Mr Raja Waheed Ullah Khan (GM HR & IT) at LCPL Plant Site on 24 June 2021.

Remarkable Foresight

Alina Ashraf

The best approach to optimize the process is by anticipating upsets and taking prompt remedial actions beforehand, a trailblazing example of which was forged by the vigilant foresight of Technical team through making a timely decision of scheduling Soda blasting of DH Column Fin Fans Cooler in April 2021.

Air Cooled Fin Fans Cooler condenses vapors from Dehydration (DH) Column. These Fin Fans get fouled due to dust and airborne particles which reduces their condensation efficiency resulting in increased back pressure at DH Column. The ultimate consequence of this pressurization is slipping of Acetic Acid from the top of DH Column. Therefore,

Soda Blasting of Fin Fans is required at least once in a year and is normally carried out in October / November.

In the winters of 2021, the performance of Fin Fans remained satisfactory however, a comparison was made on similar winter basis and the need for soda blasting was foreseen by the Technical Department. Therefore, efforts were made to line up Soda Blasting before start of the summer season and as per the vendor's availability, cleaning was started at the end of March 2021. As expected, the harsh ambient conditions had just started to worsen DH column conditions but this timely decision saved a significant loss of Acetic Acid in peak summer season.

Conflict Management



Conflict Management training was conducted by external trainer, Ms Rubina Jamal, on 29 June 2021 at LCPL Plant Site.

Shutdown Timely Averted

Yasir Ahmad Shaikh

Low Pressure (LP) condensate pumps A and B are critical equipments which supply condensate to LP Steam Reboiler at Oxidation Plant, failure of which can result in Oxidation plant going on immediate hold.

During Night shift of 11 January 2021, pump B was in service when its discharge pressure suddenly decreased along with the flow while the pump's running indication on DCS remained as such. A low pressure cut-in logic of standby pump has been provided to avoid any interruption in condensate flow to E1-304, which is a reboiler at Oxidation, and supplies LP steam to the entire plant, but this too failed to start the standby pump.

Ahsan Nazeer (DCS Boardman- Utilities) took immediate action and lined up the area operator to start the standby pump. Additionally, he also isolat-

ed the condensate flow towards Deaerator (F1-2211) which also goes from discharge of G1-802A/B to ensure maximum flow towards E1-304. Normally, level of E1-304 is maintained at 45% which went down to 28% as a result of this emergency, and had it further depleted to 20%, Oxidation plant would have gone on hold.

Muhammad Younas (Area Operator) at once reached the location and started the standby pump. He also noticed heavy condensate leakage from seal of G1-802B which had resulted in its pressure and flow decrease.

The emergency handling skills of Muhammad Younas and Ahsan Nazeer are highly commendable in this regard to prevent such a critical emergency which could have resulted in immediate cessation of Oxidation Plant.

IMS Surveillance Audits & ISO Re-Certification

Shuaib Qbal

A combined Surveillance Audit of ISO 9001:2015, ISO 45001:2018 and re-certification of ISO-14001:2015 was carried out by external auditors from URS from 3-5 March 2021 to determine the level of Integrated Management System (IMS) conformance at LCPL. The auditors examined relevant documents and assessed the practical implementation of all standards in all functions. All departments coordinated

very well and presented the demonstration of effective implementation of IMS Standards at LCPL.

The audit team confirmed its satisfaction with the IMS Standards (ISO 9001:2015, ISO 14001: 2015 & ISO 45001:2018) upheld by the LCPL and recommended for the continuation of the certification of ISO 9001 & 45001 and re-certification of ISO-14001 Standard.



Use of In-house Expertise for Cost Saving

Alina Ashraf

A team with dedication and sound technical approach can achieve outstanding results by turning any situation into the benefit for the company. As always, the Technical department has made a valuable contribution through its exemplary competence in this case too.

High pressure steam from Heat Recovery Steam Generation (HRSG) is generated in excess to the plant's current requirement. The excess steam is vented to the atmosphere which is a significant loss. An idea was presented to use this steam to increase power recovery through the Process Air Compressor (PAC) Expander. PAC is a major power consumer at the plant. It is powered by two sources, namely, an electric motor and an Expander, which uses energy from Reactor off gases. By increasing the temperature of Reactor off gases using the excess high pressure steam increases power recovery. However, operating conditions were not available for the case of additional steam usage. The vendor quoted hefty charges for this study which was not a feasible option. So, Technical department took up the challenge to carry out the study in house. With the help of real time plant data combined with technical expertise, new operating



conditions and feasibility analysis of this idea was developed. After quite an arduous effort of generating and evaluating the whole model of Expander parameters, it turned out to be a win-win situation. Hence, not only the cost saving by power recovery will be achieved after the implementation of this idea but we were also able to save the vendor charges for this study.

Engro Polymer & Chemicals Ltd team's Visit of CoGen Plant



Engro Polymer & Chemicals Limited (EPCL) team visited LCPL CoGen plant on 13th April 2021, to discuss gas turbine operational practices and improvement of a GT's performance.

Turning Ideas to Workable Solution

Muhammad Farhan Sagheer

The main challenge for utility plant team is to supply uninterrupted supply of utilities to the core plant and making the utilities available as early as possible after the power failure. On 22nd May, 2021, when both the K-electric lines failed, several drives tripped, including the cooling water pumps which supply cooling water for Gas Turbine Generator (GTG) operation. Since GTG operation is of critical importance it is imperative to make cooling water pumps available at the earliest after a power failure.

Failure of cooling water pumps for a longer duration could have caused the tripping of GTG, which

was the only power source keeping the plant operational, but Jahanzaib Ali (UTY Shift Manager) and Muhammad Sanwal (Assistant Engineer Process) smartly used the remote start option from DCS to take cooling water pumps in service and avoided what could have been a calamitous GTG tripping. This was the first time since the implementation of this modification that the cooling water pumps were taken into operation using this method during an emergency state. Moreover, a team effort was observed during the emergency handling which shows great team ethics.

Synergy at its Best

Sajid Shafique

Level Control Valve (LCV) of HP Absorber is one of the pivotal control valves at Oxidation plant which ensures smooth plant operation of Reaction area. On 15 May, Raffat Ullah Qadri (AE Process) picked some mis-operation in the control valve, and immediately sent Nasir Khan (SE Process) to check up on the operation of the valve. The area operator immediately lined up the bypass valve to ensure the normal plant operation till the LCV could be attended.

The handing over of the valve for maintenance was very safety critical and detailed safety analysis was carried out by a joint team consisting of Mechanical and Instrumentation team members under the supervision of Sajid Shafique (SSM). The job was carried out in the presence of ERT with all the necessary PPEs, without compromising the plant load. The team's efforts are commendable in ensuring safe execution of a critical work.

Gas Turbine Engine Replacement

Muhammad Zain Siddiqui, Noman Hafeez, Taha Suleman & M Abdullah Hashmi

The 48MW GE LM6000 PD Aero-derivative Gas Turbine is perhaps the most critical asset at our plant as it not only powers whole the base plant thereby saving valuable variable cost on account of power import but is now also a source of additional revenue for the business through the export of surplus power to K-Electric. The major overhaul of gas turbine was due in March '21 and for the purpose, our original turbine was supposed to be exchanged with a refurbished one supplied by GE as per the Multiyear Maintenance Program (MMP) agreement between LCPL and GE.

While the turbine exchange activity presented a lot of technical challenges, there were also several supply chain related challenges which were equally critical to the success of this activity. Among these challenges, the major ones included the timely placement of order to GE as per the constraints

defined in MMP agreement, shipment of the refurbished engine in shortest possible transit time and timely and safe customs clearance and inland transportation to our plant site. All these challenges were handled by the Commercial team very adroitly through sharp focus, effective planning and proactive engagement with all relevant stakeholders, all of which eventually resulted in the safe delivery of the refurbished engine at plant site one month ahead of the planned outage start date on 29th January '21. While time was of the essence throughout this process, extensive efforts were also made to optimize costs at each stage so as to minimize financial burden on the business. Although it was a team work which involved participation of different individuals within Commercial, Mr Husain Hashmani and Mr Ahmer Khan deserve special recognition for their contribution during customs clearance and inland transportation.



The ten day shutdown started on 10 March 2021. The first step was to carry out physical isolations for plant's declassification. It was done successfully within 4.65 hours, which itself is a benchmark. Around 300 jobs were planned in this shutdown and all these jobs were safely handover, supervised and executed successfully. Apart from Gas Turbine (GT) Replacement, GT Alternator Major overhauling (MOH), NGBC-A overhauling and HRSG inspection were major jobs.

For GT Alternator MOH, the rotor was withdrawn from stator frame and detailed electrical inspection and testing of stator windings and core was carried out along with their extensive cleaning. Significant

improvements in test results were observed before and after maintenance. The activity was a multi-team effort, in which teams from GE and Brush were in coordination with LCPL Electrical team right from the planning and preparation phase to execution and re-commissioning after maintenance. The team for this job from LCPL was comprised of Amir Azam (Manager Electrical and E&I Reliability), Muhammad Ahmedullah (AM Electrical), Muhammad Safwan Khan (AM Electrical), Taha Suleman (Trainee Engineer Electrical), Rehmat Siddiqui (Trainee Engineer Electrical), Abid Qayyum (AE Electrical), Muhammad Rehan Tariq (AE Electrical) and Saad Ali Khan (SE Electrical).



The entire project was completed meeting all deliverables of safety, time, cost and workmanship through combined efforts of the LCPL Engineering team, Production team, Commercial team; and GE field services. The Production team took proactive decisions to reduce plant startup time from 2 hours to 0.5 hours. 21st March a big day when GTG was started up successfully. Undoubtedly, it was a long shutdown with lots of hard work and untiring efforts from all the stakeholders but the way everyone worked and managed to trim off the outage hours is admirable. This project indeed marks a noteworthy achievement and milestone in LCPL's operational history.

Overhaul Actions Database

Raja Abdullah Khan

The most challenging and critical projects for the Planning team are major plant overhauls. These projects require intricate planning, which leads to a number of actions that the planning team has to ensure for smooth execution. One of the challenges we had been facing in ensuring completion of these actions is their tracking and follow-up. In order to address this we decided to take advantage of the technology at our disposal and with the help of the IT team we developed a database for following up on Overhaul related actions. Through this database,

actions along with target dates are assigned to individuals who then get notified through Lotus Notes regarding their respective actions, and get email automatic reminders if the actions are not completed within the target dates.

This allows not only the Planning team to track and follow up on these actions but also helps the area teams in planning their Overhaul related preparatory tasks. The database is now live and running as the preparations for the next Overhaul continue.



Smooth Plant Operation

Asad Hayat

First Crystallizer level indication started getting erratic from 18 March 2021. From that day indication of this Level transmitter (LT-1206) remained erratic. DCS Boardman is operating Plant with erratic level indication till now. Crystallizer level is being controlled by Agitator amps, vent temperature, pressure indication, pressure control valve output and Crystallizer level control valve. All these parameters are being monitored continuously to control level.

With passage of time Level switches were provided on First Crystallizer. Initially one was installed on it at

90%(LAH-1206). Then 3 level switches were installed one by one to have a better picture of level in the Crystallizer. They are installed at 60% (LAH-1279), 70% (LAH-1206b) and 80% (LAH-1206). Plant has been operated smoothly from March 18, 2021 till now without any outage and mis-operation to meet production target.

DCS Boardman efforts are worth to be mentioned here as there keen process monitoring and multiple process parameter controlling made this difficult task achievable and we are able to operate plant with erratic Level indication.

Vigilant Monitoring to Avoid False Tripping

Muhammad Irfan

Process Air Compressor (PAC) is the back bone of the oxidation plant, it provides basic component air to react in the Oxidation reactor with PX and form CTA. PAC has 06 stages which are high speed devices and a minor misalignment or vibration in these may lead to catastrophic damage to the lifeline equipment. To protect this highly critical machine, an advanced vibration monitoring system is installed at every rotating part, equipped with trips and

alarms, this monitoring system is very sensitive and even the slightest malfunction of vibration probe can lead to tripping of PAC resulting in production loss. On 12 February, PAC 5th and 6th stage high vibration spikes were observed on the monitoring screen. This anomaly was immediately observed by PAC Area Operator and the remedial servicing was carried out, and a possible outage was averted.

Making Every Second Count

Talha Nabi Dar

ensuring the highest levels of asset integrity to ensure hassle free plant operation. Due to this reason, the planned Caustic Wash Outage in March 2021 had a large number of maintenance jobs involving critical equipment like the Process Air Compressor and Dryer. The Maintenance team

at Oxidation plant successfully completed all targeted jobs well within the timeline which allowed the Operations team to save a significant number of hours from the planned timeline, thereby setting up a new benchmark for Caustic Wash duration.



Visit of Ladies Horticulture Club



Members of Ladies Horticulture Club visited the Port Qasim site of LCPL to see the landscaping there.

Survival in Challenging Conditions

Waqas Hameed

The performance of Gas Turbine (GT) is very sensitive to its environmental conditions; therefore keeping dirt free air intake of gas turbine in a contaminated atmosphere is a massive challenge. During first quarter of this year, Gas Turbine had to face extremely harsh smoky and dusty atmosphere from our neighboring industries that caused its multiple shutdowns for water washes and replacement of air intake filters.

CoGen team always strives for the maximum availability of gas turbine despite having inescapable challenging surroundings; therefore brainstorming was carried out to minimize the downtime of gas

turbine for water washes and its air intake filters replacement. An initiative was taken to replace combustion filters in parallel with the water wash activity without taking additional 6 hours which were planned for this job. The job was highly supervised and filters replacement activity was successfully completed within the outage of water wash. Another successful attempt was taken on ventilation filters by replacing them online instead of waiting for gas turbine shutdown. Both initiatives devise a new strategy of multi-tasking jobs that not only help in reducing downtime of GTG but also minimize the variable cost of plant in terms of power, natural gas and diesel consumptions.



Swift Response

Abdul Moiz

Re-slurry water valves serve the purpose of washing out slurry from Pressure Centrifuges to Re-slurry drum, hence maintaining the desired ratio of water and slurry in the process. On the eve of 19 February 2021, one of the flow transmitters malfunctioned and started showing a higher value than normal. In response, the control valve began to close. This was observed and remedied timely by the Shift Team, which otherwise could have tripped Centrifuge on high torque. It could also have disturbed the re-slurry ratio thus thickening the

powder in downstream vessels and causing process upsets and production losses. Moreover, Agitators' overload could also have occurred.

The situation demanded a swift reaction with no time for brainstorming. The Shift Team rose to the occasion, made quick decisions and took appropriate actions to save the plant from downtime. The efforts of the Purification Team, which played a lead role in the scenario, deserve special mention.



Idea Given to Reduce Time

Waqas Hameed

GTG sprint pump is usually taken into service to cater to the increased power demand of KE. During winter months, this demand fluctuates often and there is a constant need to start up and shut down the pump. However, before starting, the pump requires manual priming and support of Mechanical team has to be lined up each time there is a requirement to increase power load.

To overcome this, Muhammad Sohail Akram (SM CoGen) proposed a MOD to install a priming valve at GTG sprint pump for priming activity. This modification has now enabled the operator to prime the pump himself, eliminating the need to call Mechanical team. The duration of the activity has been reduced to just 1 minute from the previous duration of 30 minutes, making the whole process efficient and hassle free.



TPM Autonomous Maintenance Audit

Taimour Hasnain

Block 1 of TPM Autonomous Maintenance phase 2 was started in the last quarter of 2020. Performance evaluation field audit of 8 teams was carried out with Plant Managers from 6 to 12 April 2021. Followed by the audit TPM team carried out perfor-

mance evaluation of teams and teams will get morale boosting reward based on their grades. Visible improvements were observed in the area during the audit highlighting the efforts teams are putting in to ensure the upkeep of the plant.



Energy Assessment of Cogeneration Plant by NEECA

Hafiz Muhammad Sohail Akram

Government of Pakistan had recently decided to conduct audit of power generation plants in Pakistan and has given task of evaluating efficiencies and performance of simple and combine cycle power plants to National Energy Efficiency Conservation Authority (NEECA). LCPL was selected randomly by NEECA for an audit which was conducted on 9 and 10 June 2021. The audit team was comprised of Technical Director of NEECA, Mr Asad Mehmood, and Site Independent Auditors, Mr Muhammad Rizwan and Mr Muhammad Ali.

An opening meeting where the NEECA team discussed the purpose and method of audit was held after which, the team visited CoGen plant. Pre-assessment data was verified by auditors with LCPL team

and assessment sheets were shared by them which were to be filled by CoGen Boardman on hourly basis. On day 2, the auditors installed their equipment at different locations to log running plant parameters, such as, power generation, steam generation, flue gases analysis, and HRSG stack temperatures, etc. These results along with the efficiency evaluated by our Technical team were compared with NEECA's benchmarks. The team found our plant's parameters to be above the benchmark and gave the following comments during the closing meeting:

"LCPL has well organized cogeneration plant, good safety practices are implemented and its energy efficiency is more than our expectations and threshold."



Donation to Fareeda Yaqoob Hospital, Alkhidmat Foundation

Ahmed Ali Abedi

LCPL has always supported for development of health facilities for local community in port Qasim region as part of the CSR Programme. PKR 5 Million were donated to Alkhidmat Foundation on

28 May 2021 to contribute towards the expansion project, operation theatre renovation and purchase of equipment for their Farida Yaqoob Hospital located in Gulshan e Hadeed.



JQP Reward Distribution Ceremony

Shuaib Iqbal

Job Qualification Program (JQP) is very important part of Technical skills development programme implemented by the Technical Training Center (TTC) where non management staff participates in different skills level based programs and are being rewarded on successful qualification.

TTC organized the JQP Reward Distribution Ceremony on 4 June 2021 at LCPL plant site to honour

the efforts of those who qualified. Mr. Humair Ijaz (Chief Executive) was the chief guest of the ceremony where as Mr Tariq N. Virk (GM Manufacturing), Mr. Syed Qamar Alam (Engineering Manager), Mr. Syed Masood Ul Hassan (Production Manager) & Mr. Adnan Ul Haque (Technical Manager) were the guests of honour.

Heartfelt congratulations to all the qualifying participants.



TTC Round Up

Syed Tayyab Ali

SUSA Auditing



Two training sessions of SUSA Auditing were conducted by Shuaib Iqbal (Assistant Manager QHSE) on 14 January and 25 March 2021.

TPM Planned Maintenance



Two TPM sessions on Planned Maintenance training were conducted by Sumayyah Waheed (Senior Assistant Manager TPM) on 17 and 26 February 2021.

TPM Autonomous Maintenance



Two TPM sessions on Autonomous Maintenance training were conducted by Sumayyah Waheed (Senior Assistant Manager TPM) on 22 and 25 February 2021.

Use of Fire Hose Reel



Use of Fire Hose Reel training session was conducted by Naseem Khan (Senior Safety Officer) on 26 March 2021.

Use of PPE's



Use of PPE's training session was conducted by Arif vAnwer Saeed (Senior Safety Officer) on 26 January 2021.

Defensive Driving Training



Defensive Driving Training was conducted by external trainer on 16 January 2021.

Critical Food Handlers



Critical Food Handlers training session was conducted by Naseem Khan (Senior Safety Officer) on 31 March 2021.

Distribution Emergency Handling



Distribution Emergency Handling training session was conducted by Naseem Khan (Senior Safety Officer) on 24 March 2021.

Maximo Upgrade Training

Amir Anwar

Maximo is one of the leading asset management software. Our organization is using it since plant inception. Over the years, the software has undergone major changes and consequently, we upgraded to latest version whenever it was rolled out for customers. In April this year, we started a project to upgrade Maximo software to latest the version 7.6.1.2. As you are already aware that every software upgrade brings new functionalities and provides an opportunity to improve our processes. The project is scheduled to go live in July this year. In order to provide the users an opportunity to understand and effectively use the upgraded software, several training sessions were arranged. These sessions were carried out at AAM Block conference room, recreational hall, Technical Training centre. These sessions were interactive and users showed keen interest and actively participated in these sessions. Following key topics were included in these sessions:

The software offer some new functionalities that will be implemented in due course of time with the coordination of users.



Reducing Acetic Acid Losses

Syed Ahsan Imam

During study of Acetic Acid loss areas, it was observed that the Atmospheric absorber water stream is a major contributor. After detailed working, the entire circuit was modeled on Aspen Plus and showed reasonable saving potential. Based on the simulation results, Technical team came up with the propositions to reduce water make-up and to incorporate control logic for level management. Detailed trial

including multiple lab analyses were performed followed by successful implementation of actions with promising outcomes of Acid loss reduction without any expenditure.

Support roles of Instrumentation team in logic development, Laboratory team in various analyses and liaison of Production team are worth mentioning here.

Fire Safety Training for (city office)



A hands-on training session on Fire Safety was conducted by Shuaib Iqbal (Assistant Manager QHSE), for city office personnel, on 9 June 2021.

Orientation program for Trainee Engineers



Technical Training Centre completed orientation program of 26th batch of trainee engineers of Manufacturing

Long Service Award Recipients



Syed Hameed Hussain Shah completed 30 years of service on 1st June 2021. He joined the company on 2nd June 1991 and is presently working as Manager General Affairs.



Muhammad Irfan completed 20 years of service on 11th March 2021. He joined the company on 12th March 2000 and is presently working as Sub Engineer Mechanical - I.



Ahmad Fawad completed 20 years of service on 20th June 2021. He joined the company on 7th November 2005 and is presently working as Purchase Manager (Non-Engineering).



Muhammad Noman Khan, BE (Chemical Engineering), Dawood University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 1st January 2021.



Hafiza Bibi Rehmat Siddiqui, BE (Electrical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 25th January 2021.



Taha Suleman, BE (Electrical Engineering), NED University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 25th January 2021.



Fakiha Khalid, B.Sc (Chemical Engineering), Middle East Technical University, Cyprus, has joined the Company as Trainee Engineer, with effect from 15th April 2021.



Barun Bin Yousuf, BE (Electronic Engineering), Dawood University of Engineering & Technology, Karachi, has joined the Company as Trainee Engineer, with effect from 3rd May 2021.

کمپنی کے انڈسٹریل مینجمنٹ مینجیر جناب رضوان احمد نے سرینا ہوٹل اسلام آباد میں منعقد ہونے والی پروکار تقریب میں LCPL کی طرف سے ایوارڈ وصول کیا۔ تقریب میں گورنر پنجاب جناب چودھری محمد سرور نے مہمان خصوصی اور آزاد جموں اور کشمیر کے صدر جناب مسعود خان نے اعزازی مہمان کے طور پر شرکت کی۔

LCPL کو نیشنل فورم فار انوائرنمنٹ ہیلتھ (NFEH) کی جانب سے منعقدہ انعامات کی تقریب میں 13 ویں سالانہ سی ایس آر ایوارڈ 2021 سے نوازا گیا۔ شرکت کرنے والی 120 کمپنیوں میں سے صرف 76 کمپنیوں نے اس ایوارڈ کے لیے کو ایلفائی کیا۔ مگرانی کا عمل NFEH کی گورننگ باڈی کے آزاد پینل کی جانب سے انجام دیا گیا۔



CWC نیشنل اتھارٹی ٹیم کا دورہ

شعیب اقبال

10-11 فروری کو LCPL پلانٹ سائٹ کا دورہ کیا، کمپنی کی انتظامیہ نے ٹیم کا پرتپاک استقبال کیا۔ انسپیکشن لیڈ جنڈا پر تبادلہ خیال کے علاوہ انہیں LCPL میں HSE&S مینجمنٹ سسٹم سے متعلق بھی بریفنگ دی گئی۔ ٹیم نے پلانٹ کے مختلف مقامات کا دورہ کیا اور پلانٹ سائٹ پر HSE&S کی کارکردگی اور حفاظتی اقدامات کی تعریف کی۔ نیشنل اتھارٹی نے آرگنائزیشن فار دی پروموشن آف کیمیکل ویپیز (OPCW) انٹرنیشنل آؤٹ ٹیم کی جانب سے آنے والے دنوں میں انسپیکشن کی تیاری سے متعلق رہنمائی فراہم کی۔

نیشنل اتھارٹی آف پاکستان ملک میں کیمیکل ویپیز کنونشن کی عمل درآمد سے متعلق ذمہ دار ہے۔ اپنے اختیار کے پیش نظر نیشنل اتھارٹی ملک میں ان تمام کیمیکل اور فارماسیوٹیکل انڈسٹریز کی مگرانی کرتی ہے جو فراہم کردہ حدود کے اندر پروسیسنگ، استعمال یا مخصوص کیمیکلز تیار کرتے ہیں۔ ان کیمیکلز سے متعلق انڈسٹری کی جانب سے CWC قوانین پر عمل درآمد کی مگرانی کے لیے عمومی انسپیکشن پروگرام ہوتے رہتے ہیں۔

نیشنل اتھارٹی کی ٹیم نے لیٹھینٹ کرنل نعمان سراج (ڈائریکٹر نیشنل اتھارٹی) کی قیادت میں



کامنہ بولتا ثبوت ہے۔

جناب حمیر اعجاز (چیف ایگزیکٹو) نے پاکستان کے صدر جناب ڈاکٹر عارف علوی سے یہ مایہ ناز ایوارڈ وصول کیا، ایوارڈ کی یہ تقریب 12 مارچ 2021 کو کراچی کے مومن پک ہوٹل میں منعقد کی گئی تھی۔

ایپلارز فیڈریشن آف پاکستان نے Lotte کیمیکل پاکستان لیڈنگ سال کے بہترین آجر کے پروکار ایوارڈ سے نوازا۔ LCPL نے سال کے لیے بہترین آجر کے ایوارڈ کا مقابلہ کرنے والی ملٹی نیشنل کمپنیوں کی کیٹیگری میں پہلی پوزیشن حاصل کی۔ یہ ایوارڈ کمپنی کی انتظامیہ، ایچ آر مینجمنٹ، OSH&E، مہارتوں کی بہتری اور پائیدار ترقی کے شعبہ جات میں بہترین تجربات پر عمل درآمد



NEECA کے ذریعے کوجزیشن پلان کی توانائی کا تخمینہ

کی جانب سے تشخیصی شیٹس شیڈر کی گئیں، جنہیں CoGen بورڈ مین کوئی گھنٹہ کی بنیاد پر پڑ کیا جانا تھا۔ دوسرے دن آڈیٹرز نے چلنے والے پلانٹس کی پیرامیٹرز جیسے بجلی کی پیداوار، بھاپ کی پیداوار، فلیو گیسیز کے تجزیہ اور HRSR اسٹاک ٹمپریچر وغیرہ کو ریکارڈ کرنے کے لیے مختلف مقامات اپنے ایکوپمنٹ نصب کئے۔ ہماری ٹیکنیکی ٹیم کی جانب سے کی جانے والی کارکردگی کی جانچ کے ساتھ ان نتائج کا موازنہ NEECA کے طے شدہ معیارات سے کیا گیا۔ ٹیم نے ہمارے پلانٹ کے پیرامیٹرز کو ان طے شدہ معیارات سے اوپر پایا اور اختتامی اجلاس کے دوران درج ذیل تبصرہ دیا:

"دلیل سی پی ایل ایک انتہائی منظم کوجزیشن پلانٹ کا حامل ہے، یہاں پر کام کے دوران بہترین حفاظتی اقدامات کا اطلاق کیا جاتا ہے اور اس کی توانائی کی کارکردگی ہماری توقعات اور حدود سے کئی زیادہ ہے۔"

حکومت پاکستان نے حال ہی میں پاکستان میں بجلی پیدا کرنے والے پلانٹس کا آڈٹ کرنے کا فیصلہ کیا ہے اور اس حوالے سے حکومت نے نیشنل انرجی کنزرویشن اتھارٹی (NEECA) کو سادہ اور مشترکہ سائیکل پاور پلانٹس کی صلاحیت اور کارکردگی کا جائزہ لینے کا ناسک دیا ہے۔ دلیل سی پی ایل کو NEECA نے اتفاقیت طور پر آڈٹ کے لیے منتخب کیا تھا، جو مورخہ 09 اور 10 جون، 2021 کو کیا گیا تھا۔ آڈٹ ٹیم NEECA کے ٹیکنیکل ڈائریکٹر، جناب اسد محمود اور سائٹ انڈیپنڈینٹ آڈیٹرز، جناب محمد رضوان اور جناب محمد علی پر مشتمل تھی۔

اس عمل کی شروعات میں ایک تعارفی اجلاس میں NEECA کی ٹیم نے آڈٹ کے مقاصد اور آڈٹ کے طریقہ کار کے بارے میں تبادلہ خیال کیا، جس کے بعد ٹیم نے CoGen پلانٹ کا دورہ کیا۔ آڈیٹرز نے دلیل سی پی ایل ٹیم سے پیشگی تشخیص شدہ کوائف / اعداد و شمار کی تصدیق کی اور ان



معاہدے پر دستخط کی تقریب کے بعد، ادارے کے چیف ایگزیکٹو جناب حمیر اعجاز نے دونوں فریقین کے مابین ہونے والے مذاکرات اور مثبت پیش رفت پر مبارکباد دی اور ان مذاکرات کے فوری اور خوشگوار اختتام کے لیے دونوں فریقین کی جانب سے کی جانے کو ششوں کو سراہا۔

01 فروری، 2021 کو ٹیل سی بی ایل انتظامیہ اور سی بی اے کے درمیان سال 2021-22 کے لیے ان کے مطالبات کے معاہدے کے حوالے سے مذاکرات کا عمل شروع ہوا، جو 19 فروری، 2021 کو ایک متفقہ اجتماعی معاہدے پر کامیابی کے ساتھ اختتام پذیر ہوا۔ اس نئے معاہدے کے تحت ہمارے غیر انتظامی ملازمین کو مسابقتی اجرتوں اور فوائد کی فراہمی کے دیرینہ عمل کو جاری رکھا گیا ہے۔



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