



ATTOCK REFINERY LIMITED

JAN – JUN 2026

NEWSLETTER PIONEERS

In Petroleum Refining



RECOMMENDED
READS AND TOOLS



COMPANY EVENTS



REWARDS &
RECOGNITION



TRAINING &
DEVELOPMENT



SOCIAL
RESPONSIVENESS



EMPLOYEES
AFFAIRS



CREATIVITY
CORNER



Attock Refinery Limited
Morgah, Rawalpindi

NEWSLETTER TEAM



PATRON-IN-CHIEF



Mr. M. Adil Khattak
Chief Executive Officer



PATRON



Mr. Nadeem Nazir
HOD (HR)



EDITOR



Ms. Zainab Shahid
(HR)



EDITORIAL TEAM MEMBER



Mr. Salman A. Sheikh
N.C.P.C.



Mr. Kamran Shahzad
HR



Mr. Muhammad Ahmed
Admin



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- | | | | | | | | |
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| 2 | | Maintenance | Mr. Waqas Yaqoob | 8 | | Business Review & Assurance | Mr. Nek Akhtar |
| 3 | | Engineering | Mr. Muhammad Qasim | 9 | | Health, Safety, Environment & Quality | Mr. Muhammad Arshad |
| 4 | | Technical Services and P&D | Mr. Saleem Hasrat | 10 | | Administration | Mr. Muhammad Ahmad |
| 5 | | Human Resources | Ms. Zainab Shahid | | | | |
| 6 | | Commercial & Materials Management | Mr. Mohsin Ali Sadiq | | | | |



EDITORIAL NOTE

Dear Readers!

The Editorial Board is once again at work and pleased to unveil this edition of Pioneers.

In this edition, life at ARL has been covered from January to June 2026 for the segments of Company Events, Rewards & Recognition, Training and Development, Social Responsiveness, Employees Affairs and Creativity Corner.

You are welcome to share your feedback at

newsletter@arl.com.pk

Events



Safety Week 2026

Attock Refinery Limited (ARL) marked its Annual Safety Week 2026, held from April 27 to 30, 2026 in line with International Labour Organization's (ILO) World Day for Safety and Health at Work theme: "Ensuring a Healthy Psychosocial Working Environment."

ARL has been observing Safety Week for over two decades, reflecting its enduring commitment towards health, safety and environmental stewardship.

Following the opening ceremony, which was graced by the CEO, a safety walk was conducted by refinery employees, demonstrating steadfast commitment and dedication towards promoting a safety-first culture throughout the refinery. The activity reinforced collective responsibility in maintaining a safe and healthy work environment.



World Environment Day 2026

Attock Refinery Limited (ARL), in collaboration with the National Cleaner Production Center (NCPC) and the Environmental Protection Agency (EPA) Rawalpindi, celebrated World Environment Day 2026 at ARL to raise awareness about this year's theme, "Inspired by Nature. For Climate. For Our Future." The event highlighted the importance of taking meaningful environmental actions at both individual and collective levels to protect nature, address climate challenges, and secure a sustainable future. Representatives from EPA delivered informative presentations on key environmental concerns and the need for responsible practices, while university students actively participated by displaying posters prepared in connection with World Environment Day.



Events

Scholarship Program

HR department hosted a heartwarming Scholarship Award Ceremony on March 26, 2026 at Elliott Club to recognize employees' children selected under the ARL Scholarship Scheme.

Fuelternship 2026

Thank You

Dear Attock Refinery Limited,

Thank you for giving me the opportunity to complete my internship at Attock Refinery Limited.

My time at ARL has been a valuable learning experience, and I am truly grateful for the guidance, support, and encouragement I received throughout my internship.

I sincerely appreciate the opportunity to learn about the professional environment, gain practical exposure, and understand how different departments contribute to the organization. The knowledge and experience I gained during my internship will surely help me in my future career.

I am thankful to Attock Refinery Limited for believing in me and providing such a positive and inspiring environment to learn and grow.



With gratitude,
Mahnoor Irfan

Attock Refinery Limited (ARL) provided internship opportunities to more than 130 graduates, comprising 86 male and 44 female interns. The program provided young graduates with valuable exposure to the refinery industry and practical workplace experience.

ARL welcomed students and graduates from leading national and international institutions, including GIKI, NUST, universities across Pakistan, and foreign universities.

The internship program also demonstrated a strong commitment to gender diversity and inclusion, with female participation increased to 16% compared with the previous year, reflecting ARL's continued efforts to provide equal opportunities and encourage greater female participation in the energy and petroleum sector.

Events

International Firefighting Day (IFFD) 4th May 2026

International Firefighters' Day (4th May) is observed to honour and recognize the courage, dedication, and sacrifices of firefighters around the world. It pays tribute to firefighters who risk their lives to protect people, property, and the environment, while also highlighting the importance of fire safety, emergency preparedness, training, and public awareness.



Emergency Response Team in Action

On 13 February 2026, ARL's Emergency Response Team (ERT) demonstrated exceptional professionalism by responding to a fuel bowser fire on Caltex Road near APL Terminal. Following immediate activation, team quickly mobilized with fire tender and water tanker, successfully controlling the fire within minutes and preventing a potentially major disaster involving 24,000 litres of fuel (16,000 litres PMG and 8,000 litres diesel).

Firefighting operation was carried out by Mr. Shahid Arif, Mr. Yasir Ayub, Mr. Naseer Ahmed and Mr. Salman Zahid.

The timely response, effective coordination, and dedicated efforts of the ERT, supported by Rescue 1122, ensured the incident was safely managed with no injuries reported. ARL appreciates the commitment and courage of all personnel involved in protecting lives, property and the surrounding community.



ARL Resources Utilized

- ERT Personnel: 05
- Fire Tender: 01
- Water Tanker: 01
- Hose Pipes: 02 (200 ft each)
- Foam: 120 liters
- Fire Water: approximately 10,000 litres

Strengthening Workplace Safety - New Fire Alarm System Commissioned at ARL General Office

Attock Refinery Limited (ARL) has successfully commissioned new Fire Alarm System at General Office Building, further strengthening workplace safety and emergency preparedness.

The system comprises 124 state-of-the-art fire detection and alarm devices, including smoke detectors, heat detectors, manual call points and audible sounders with visual beacons, providing early fire detection and timely evacuation alerts for employees and visitors.

This initiative reflects ARL's continued commitment to enhancing life safety, protecting its workforce and maintaining the highest standards of emergency preparedness.

Special appreciation is extended to all General Office occupants, Mr. Saad Kaleem (Instrument Engineer) and Mr. Mahmood Sultan and his Fire Team for their efforts in successful planning, installation and commissioning of this important safety project. Their commitment has significantly contributed to strengthening ARL's fire protection infrastructure and safety culture.

Events

ARL Won 2nd Climate Excellence Awards 2026



Attock Refinery Limited (ARL) won in the category 'Conserving Biodiversity' at the 2nd Climate Excellence Awards 2026, presented during the 4th Pakistan Climate Conference organized by the Overseas Investors Chamber of Commerce and Industry (OICCI) in February 2026. This prestigious recognition reflects ARL's commitment to biodiversity conservation and its continued

efforts to integrate environmental stewardship into its sustainability initiatives.

18th NFEH's CSR Awards 2026



National Forum for Environment and Health (NFEH) announced the 18th NFEH's CSR Awards 2026 with 30 different Categories. This year ARL participated and won

First position in the 7th Category "Ethical CSR & Stakeholder Engagement" of this award.

11th Employer of the Year Award 2025

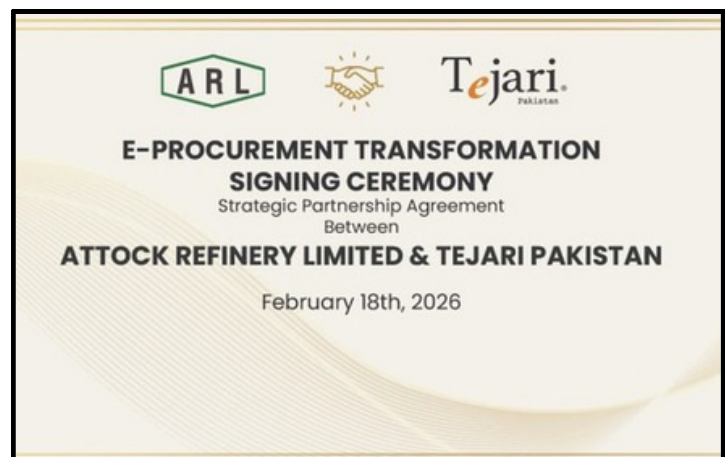
ARL participated in the 11th Employer of the Year Award 2025, announced by the Employers Federation of Pakistan (EFP), and achieved **Gold Position in the Large National Category**.

Attock Refinery Limited is honoured to receive this award, recognizing its longstanding commitment to organizational excellence, strong leadership, and continuous improvement.



E-Procurement Transformation Signing Ceremony

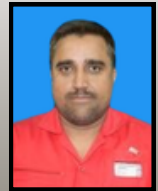
Attock Refinery Limited (ARL) and Tejari Pakistan (a leading e- procurement solution provider) have joined together for the implementation of E-Procurement system. This marked the formal execution of the Software License, Implementation, and Support Agreement for the deployment of the e-Procurement solution at ARL. This milestone reflects ARL's strategic commitment to digital transformation and enhanced transparency in its procurement processes



EMPLOYEE OF THE QUARTER (EOQ) AWARDS

4th EOQ - 2025

4th EOQ - 2025 awards ceremony was held at ARL Diner on January 29, 2026. Performance Awards and Safety Awards were presented to employees. Valued Employee of the Quarter award of 4th Quarter was received by Mr. Raheel Mehmood, Senior Officer HSEQ Department.



Mr. Raheel Mehmood
HSEQ

PERFORMANCE AWARDS



Mr. Zulfiqar Mir
Maintenance



Mr. Usman Ahmed
Operations



Mr. Amir Hanif
Operations



Asim Hussain
Engineering



Mr. Danish Akhtar
F & CA



Mr. M. Shoaib
Operations



Mr. Faizan Jan
C & MM



Mr. Ijaz Nadeem
Administration



Mr. Jahanzeb Khan
HSEQ



Mr. M. Younas
Maintenance



Mr. Shahid Mehmood
Operations



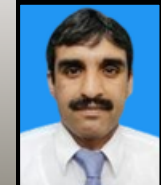
Mr. M. Mudassar
Operations



Mr. Abid Ali Khan
Maintenance



Mr. Adnan Pervaiz
Operations



Mr. M. Latif
Administration



Mr. M. Maqsood Khan
Operations



Mr. M. Shafi
Administration



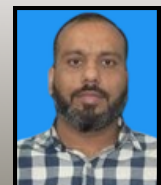
Mr. Khurram Hameed
C & MM



Mr. M. Touqeer
Administration



Mr. Jibran Iqbal
Engineering



Mr. Naseer Ahmed
HSEQ



Mr. Patras Masih
Administration



Mr. Asif Iqbal
F & CA



Mr. Rakhmat Hussain
Operations



Mr. Saeed Iqbal
Operations



Mr. M. Irshad
Administration



Mr. Shahzada Akleem
Administration



Mr. Sultan Mehmood
HSEQ



Mr. Turab Jan
Administration



Mr. Umer Khatab
Maintenance



Mr. Faiz Akbar
Maintenance



Mr. Waqar Mushtaq
Maintenance



Mr. Yasir Saleem
Operations



Mr. Zaheer Abbas
Administration



Mr. Zain Ul Abidin
Maintenance



Ms. Zareena Rehman
AHL

EMPLOYEE OF THE QUARTER (EOQ) AWARDS

1st EOQ - 2026

1st EOQ - 2026 awards ceremony was held at ARL Diner on April 23, 2026. Employees were awarded with performance awards and safety awards. Valued Employee of the Quarter award of 1st Quarter was received by Mr. Raees Khan Operations Department.



Mr. Raees Khan
Operations

PERFORMANCE AWARDS



Rana M. Ajmal
Maintenance



Mr. Abad Ali
Maintenance



Mr. Imran Iqbal
Operations



Mr. Ahtisham Manzoor
Operations



Mr. Kamran Khan
F & CA



Mr. Aqdas Sajjad
C & MM



Ms. Zainab Shahid
HR



Mr. Sheraz John
HSEQ



Mr. Shahid Mahmood
Operations



Mr. Aamir Nawaz
Maintenance



Mr. Shahid
HSEQ



Mr. M. Sohail Khan
HR



Mr. Shakil Ahmed
Operations



Mr. Ali Hasnain
Maintenance



Mr. Jameel Abbas
Administration



Mr. Bashir Ahmed
Administration



Mr. Daleep Kumar
Maintenance



Mr. Khurram Razzaq
Operations



Mr. Liaquat Ali
Operations



Mr. M. Yasir Khan
Maintenance



Mr. Mehraj Khan
Operations



Mr. Mubashir Jahangir
Administration



Mr. Muhammad Ali
Maintenance



Mr. M. Munir
Operations



Ms. Laiba
HSEQ



Mr. Haris Ali
Engineering



Mr. Saqib Ejaz
Operations



Mr. Atif Mehmood
Administration



Mr. Aqeel Ahmed
Operations



Mr. Imran Ali
C & MM



Mr. Abrar Hussain
Administration



Mr. Sunny James
AHL



Mr. Yousaf Ramzan
Administration



Mr. Asif Ayub
Administration



Mr. Khalid Mehmood
F & CA

New NMS Staff

A batch of Twenty Nine employees were enrolled as new hires in Non-Management Staff cadre. Their details are as follows



TRAINING & DEVELOPMENT



ARL organized training program on “Conflict Management” in collaboration with the Petroleum Institute of Pakistan (PIP) on March 30, 2026. The training was conducted by Dr. Sajid Iqbal.



ARL organized training program on “Feedback Essentials” in collaboration with the Petroleum Institute of Pakistan (PIP) on March 31, 2026. The training was conducted by Dr. Sajid Iqbal.



ARL organized training program on “Emotional & Mental Wellbeing” through M/S Sehatyab on Feb 17, 2026. The training was conducted by Dr. Haris Kamran & Ms. Nawal Ali Shah.

TRAINING & DEVELOPMENT



First Aid Training Session Conducted for ERT Staff and Backup Squad Members

As part of Attock Refinery Limited's ongoing commitment to emergency preparedness and employee safety, a comprehensive First Aid Training Session was conducted by Rescue 1122 on 20 May 2026, for Emergency Response Team (ERT) staff and Backup Squad members. The training was designed to enhance participants' knowledge and practical skills in responding effectively to medical emergencies. The session covered both theoretical concepts and hands-on demonstrations on various topics

SOCIAL RESPONSIVENESS

INDUSTRIAL / EDUCATIONAL VISITS AT ARL

A group of 40 students from International Islamic University Islamabad visited ARL on January 7, 2026. They were given briefings about the Refinery Plant Maintenance followed by field visit to the Refinery.



A delegation from Army Service Corps School Nowshera, comprising 28 participants visited ARL on May 12, 2026. They were given a briefing on refinery plant maintenance, followed by a field visit to the refinery.



20 - 30 Years of Service Awards

In recognition of valuable association with ARL and upon completion of 20 - 30 years of dedicated service, the Management presented shields to the staff members, as per company policy.



25 YEARS OF MERITORIOUS SERVICE



MR. NAVEED AHMED, MANAGER (P&D)
(FROM 20-JUN 2001 TO 20-JUN-2026)

30 YEARS OF MERITORIOUS SERVICE



MR. HASHIM ALI
DEPUTY MANAGER (ACCOUNTS)
F & CA DEPARTMENT



MR. S. M. A. QUDOUS
ASSISTANT MANAGER (FINANCE)
F & CA DEPARTMENT

20 YEARS OF MERITORIOUS SERVICE



MR. SHAMS UL ISLAM, CALIBRATION OFFICER (OM-II)
OPERATIONS DEPARTMENT

25 YEARS OF MERITORIOUS SERVICE



MR. MUHAMMAD AMIN, EXECUTIVE (INSTRUMENTS)
MAINTENANCE DEPARTMENT

20 YEARS OF MERITORIOUS SERVICE



MR. ATIF HAMEED, EXECUTIVE (HUMAN RESOURCES)
HUMAN RESOURCES DEPARTMENT

25 YEARS OF MERITORIOUS SERVICE



MR. IMRAN IQBAL AWAN, BOARDMAN (HCU)
OPERATIONS DEPARTMENT

25 YEARS OF MERITORIOUS SERVICE



MR. SHAHID MAHMOOD, FIELD OPERATOR (OM-I) OPERATIONS
(FROM 6-FEB-2001 TO 6-FEB-2026)

20 YEARS OF MERITORIOUS SERVICE



MR. FAWAD AHMED, SENIOR OFFICER (ELECTRICAL)
MAINTENANCE DEPARTMENT

20 YEARS OF MERITORIOUS SERVICE

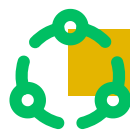


MR. MUHAMMAD SHOAIB KHAN, SENIOR OFFICER (E&I)
MAINTENANCE DEPARTMENT

25 YEARS OF MERITORIOUS SERVICE



MR. ASAD KHAN, SENIOR OFFICER (IT)
C&MM DEPARTMENT



Our Great Asset Our STAFF - NEW JOINERS DETAILS



Welcome to our new colleagues! Your enthusiasm, expertise and commitment are valuable additions to the ARL family. We wish you a successful and rewarding journey with us.

NEW JOINERS DETAIL - MANAGEMENT STAFF				
S. #	Name	Designation	Department	Date of Joining
1	Brig.(R) Tahir Ali Malik	AGM (Admin & Coordination)	Administration	25 Feb 2026
2	Mr. Siraj Rauf	Assistant Manager (P&D)	TS, P&D	22 Jan 2026
3	Mr. Furqan Ahmed	Engineer (Operations)	Operations	9 Mar 2026
4	Mr. Zahid Mehmood	Engineer (Instrument)	Maintenance	22 May 2026
5	Mr. Muhammad Zarak Khan	Engineer (Maintenance)	Maintenance	2 Mar 2026
6	Mr. Muhammad Behram Arif	Engineer (Operations)	Operations	2 Mar 2026
7	Mr. Muhammad Shahbaz	Engineer (Operations)	Operations	1 Jan 2026
8	Mr. Noman Nadeem	Engineer (Operations)	Operations	1 Jan 2026
9	Mr. Muhammad Abdullah	Senior Officer (OD)	Human Resources	11 May 2026
10	Mr. Muhammad Umair Awan	Senior Officer (Electrical)	Maintenance	9 Mar 2026
11	Mr. Rayyan Khan	Senior Officer (Inspection)	Engineering	16 Feb 2026
12	Mr. Muhammad Bilal	Senior Officer (QCL)	HSEQ	1 Jan 2026
13	Mr. Muhammad Talha	Senior Officer (Operations)	Operations	1 Jan 2026
14	Mr. Adnan Khan Jadoon	Senior Officer (Operations)	Operations	1 Jan 2026
15	Mr. Adeel Javed	Junior Officer (Operations)	Operations	23 Feb 2026
16	Mr. Mehtab Ishaq	Junior Officer (Operations)	Operations	23 Feb 2026
17	Mr. Waqas Qayyum	Personal Secretary	C&MM	1 Jan 2026



The new batch of joiners was warmly welcomed through “Welcome Connect Program,” an initiative designed to support their smooth integration into ARL. The session provided an opportunity for open interaction, enabling participants to share valuable feedback.



A Batch of 43 Statutory Apprentices joined and were warmly welcomed through theWelcome Connect Program”



Optimization of RO Plant through Locally Sourced Cartridge Filters



**Mr. Khawar
Hameed Khan
Operations**

The RO plant, installed in 2016 for the preparation of high-pressure boiler feed water at ARL, recently achieved a significant operational milestone through an innovative cost-optimization initiative. The plant had been facing persistent challenges related to the high cost and long lead time of imported cartridge filters. During a period of acute shortage, the

team proactively explored the local market to identify viable alternatives. Samples from multiple local suppliers were carefully evaluated, and a calculated decision was made to trial locally sourced cartridge filters. This initiative involved measured risk-taking, as failure could have potentially impacted downstream RO membranes high-value assets and disrupted operations of the high-pressure steam generation unit. However, the results exceeded expectations. The locally sourced cartridge filters performed successfully and are now in routine use without any compromise in product water quality.

Cost and Performance Comparison

A detailed evaluation highlighted both financial and operational benefits:

- **Annual Cost of Imported Filters:** Rs. 4,500,000
- **Annual Cost of Local Filters:** Rs. 2,051,784
- **Annual Savings Achieved:** Rs. 2,448,216

In addition to significant cost reduction, the Silt Density Index (SDI) improved from 2.3 to 1.3, indicating enhanced filtration performance and reduced fouling risk to RO membranes.

Key Benefits of the Initiative

Water Conservation: Local filters eliminate the need for chemical cleaning and flushing, resulting in considerable water savings.

Reduced Lead Time: Delivery time reduced from 2–3 months to just 2 days.

Improved Sustainability: Removal of chemical cleaning processes has enhanced environmental performance.

Conclusion

The successful adoption of locally sourced cartridge filters demonstrates ARL's strong commitment to innovation, cross-functional collaboration, and strategic cost management. Achieving annual savings of over Rs. 2.4 million while maintaining water quality standards reflects operational excellence and responsible resource management.

This initiative stands as a notable example of how proactive problem-solving and local sourcing strategies can strengthen both sustainability and profitability.

Good Housekeeping: The Foundation of a Safer Refinery



**Mr. Asher Ali Khan
HSEQ**

Good housekeeping is an essential part of safe refinery operations. Clean and well-organized work areas help prevent slips, trips & falls, reduce fire hazards, improve access to emergency equipment & escape routes and supports equipment inspection & maintenance.

To reinforce these practices, ARL conducts refinery-wide housekeeping campaigns on quarterly basis. These campaigns focus on removing scrap and unnecessary materials, organizing work areas, clearing access routes and improving overall workplace conditions.

The housekeeping competitions are carried out with the active participation of employees from various departments, reflecting a shared commitment to maintaining safe and efficient work areas. The improvements achieved not only enhanced workplace appearance but also reduced potential hazards throughout the refinery.

While periodic housekeeping campaigns provide an opportunity to restore and improve work areas, maintaining good housekeeping is everyone's responsibility. Consistent attention to workplace cleanliness and organization contributes to safer operations, protects refinery assets and strengthens ARL's safety culture.

Key Takeaways:

- Prevents slips, trips and falls
- Reduces fire and ignition hazards
- Keeps emergency equipment and escape routes accessible
- Improves workplace efficiency and organization

Resumption of Liquefied Petroleum Gas (LPG) Dispatch Operations to APL.



Mr. Nouman Ahmad
Operations

A major operational milestone was achieved on 19 March 2026 with the successful resumption of Liquefied Petroleum Gas (LPG) pumping and dispatch operations to Attock Petroleum Limited (APL)

through the dedicated LPG pipeline system. This achievement marked the restoration of LPG sales and dispatches after a prolonged suspension since the last dispatch on 20 June 2023.

Following the suspension of Liquefied Petroleum Gas (LPG) dispatch operations due to quality-related challenges associated with Refinery-produced LPG, the Company undertook extensive technical studies and evaluation of potential solutions. As part of these efforts, a catalyst sulphur trap system was successfully installed and commissioned for the sweetening of Refinery LPG. The system demonstrated satisfactory performance during trial operations and consistently produced (LPG) conforming to the required product quality specifications. After successful completion of trial runs and verification of product quality, (LPG) pumping through the dedicated pipeline network was resumed on 19 March 2026, enabling the restoration of supplies.

The successful implementation of the catalyst sulphur trap and the subsequent restart of pipeline dispatch operations represent a significant technological and operational achievement for the Attock Refinery Limited (ARL).

The resumption of (LPG) dispatches has restored an important revenue stream, improved Refinery product evacuation capability, enhanced utilization of existing infrastructure, and strengthened integration with downstream operations. The initiative is also expected to improve operational efficiency and support sustainable business growth through optimized product handling and logistics.

The successful restoration of Liquefied Petroleum Gas (LPG) dispatch operations underscores the Company's ability to overcome complex operational challenges through innovative solutions and reinforces its commitment to operational excellence, reliability, and value creation for shareholders.

The restart of (LPG) supplies to Attock Petroleum Limited (APL) through pipeline transportation stands as one of the Company's most notable operational achievements during the year and is expected to contribute positively to future business performance and profitability.

Anti-Drone Fence Systems for Oil Storage Tanks



Mr. M. Arshad
HSEQ

The recent increase in drone attacks on oil and gas facilities has highlighted a security risk that received little attention until a few years ago. Incidents in the Middle East and the ongoing Russia-Ukraine conflict have demonstrated that relatively inexpensive commercial drones can damage critical infrastructure worth millions of dollars.

Oil storage tanks, because of their size and the flammable products they contain, are among the most attractive targets.

Traditionally, tank farms have relied on perimeter fencing, CCTV cameras, access control, and security personnel to protect their facilities. While these measures remain essential, they are designed primarily to counter ground-based threats. A drone approaching from above can easily bypass conventional security and reach critical equipment within seconds. This has prompted many operators to explore additional protective measures.

One solution receiving increasing attention is the installation of anti-drone fence systems or overhead steel mesh structures. Unlike radar or electronic jamming systems that attempt to detect or disable a drone, these are passive barriers intended to physically prevent the drone from striking the storage tank or its associated equipment. High-strength steel cables or wire mesh are suspended around or above the tank, creating a protective

shield capable of intercepting low-speed drones or reducing the impact of flying debris.

Although the concept appears straightforward, designing such structures requires careful engineering consideration. The barrier should provide protection without obstructing routine inspection, maintenance activities, floating roof movement, firefighting systems, or emergency venting arrangements. Corrosion resistance, wind loading, structural stability, and ease of maintenance are equally important factors during design and installation.

It is also important to recognize that physical barriers alone cannot eliminate the drone threat. A comprehensive protection strategy should combine passive measures with radar surveillance, thermal imaging, radio-frequency detection, and well-defined emergency response procedures. This layered approach provides multiple opportunities to detect, delay, and mitigate an attack before significant damage occurs.

As drone technology continues to evolve, the protection of oil storage facilities must also evolve. Anti-drone fencing may not replace conventional security systems, but it can provide an additional layer of defence for high-risk installations. For refineries and tank farms handling large inventories of flammable products, investing in such protective measures could significantly improve infrastructure resilience and reduce the consequences of future aerial attacks.

Inside 24/7 Solar Power



**Mr. Waqas
Yaqub
Maintenance**

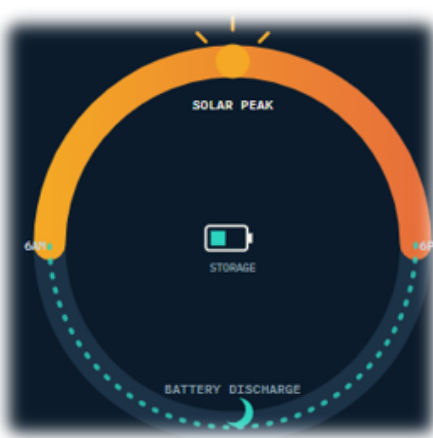
For decades, solar energy has been viewed as one of the cleanest and most sustainable sources of electricity. However, it has always been associated with one significant limitation: it generates power only when the sun is shining. Once daylight fades, solar

storage system. Throughout the night, the batteries continue supplying power until sunrise, when solar generation resumes and the charging cycle begins again.

The EMS acts as the brain of the entire system. Simply put, 24/7 solar power is not about generating electricity at night. Instead, it is characterized by the ability to capture abundant solar energy when it is available, store it efficiently, and deliver reliable power whenever it is needed.

panels stop producing electricity, leaving the utility grid or diesel generators to supply the remaining demand.

The Technology Behind 24/7 Solar Power



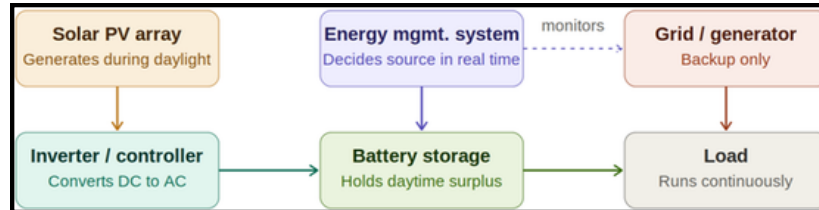
Today, this long-standing challenge is being overcome. Advances in **Battery Energy Storage Systems (BESS)** and intelligent energy management technologies have made 24/7 solar

power a practical and reliable reality. Modern solar installations are now capable of providing continuous electricity around the clock by storing excess daytime energy for use after sunset.

A conventional solar photovoltaic (PV) system typically generates its maximum output during midday, often producing more electricity than the connected load requires. While this surplus energy has tremendous value, it cannot be utilized once the sun sets unless it is stored. Without an energy storage solution, much of this clean electricity is either exported to the grid or simply wasted, while night time demand continues to rely on conventional power sources.

The key to continuous solar operation lies in combining photovoltaic generation with Battery Energy Storage Systems (BESS) and an advanced Energy Management System (EMS).

During daylight hours, solar panels generate electricity to power the connected load while simultaneously charging lithium-ion battery banks. Intelligent inverters and charge controllers efficiently convert and regulate electrical power between DC and AC systems. As solar production gradually decreases in the evening, the EMS automatically transfers the electrical load to the battery



Continuous and reliable power availability.

Reduced dependence on utility grid.
Improved energy security during grid outages and disturbances.
Significant reductions in greenhouse gas emissions and carbon footprint.
Better utilization of renewable energy by minimizing solar curtailment.

Downside

None of this comes free.

Battery banks and larger inverters carry a real upfront cost, and batteries themselves degrade over years of use, eventually requiring replacement. The solar PV array must also be adequately sized to satisfy daytime consumption while generating sufficient surplus energy to recharge the batteries for nighttime operation. Additionally, battery systems require appropriate thermal management, fire protection, monitoring, and periodic maintenance to ensure safe and reliable operation throughout their lifecycle.

The Bigger Picture

Rapid advancements in battery technology, declining energy storage costs, and increasingly sophisticated energy management software are transforming 24/7 solar power from an emerging concept into a mainstream energy solution. Large-scale industrial facilities, hospitals, airports, mining operations, commercial complexes, and utility companies around the world are increasingly deploying solar-plus-storage systems to improve energy resilience and reduce reliance on fossil fuels.

The sun may still set every evening, but with intelligent energy storage and advanced energy management, clean, reliable power can continue around the clock.

The Emotionally Intelligent Workplace



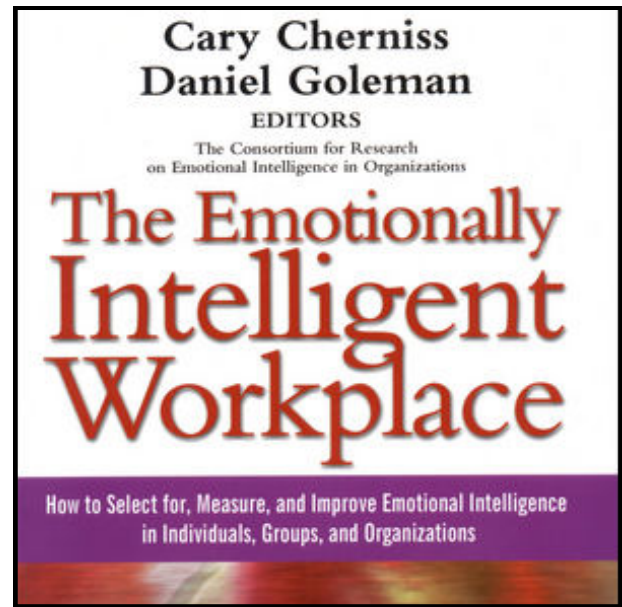
Syed Viqar ul Hassan
Operations

The Emotionally Intelligent Workplace. One of the book's most powerful examples is the story of U.S. Army Brigadier General James Dozier. After being kidnapped by the Red Brigades in Italy, he realized that fear and panic among his captors increased the

danger to his life. Instead of reacting emotionally, he deliberately remained calm. His calm behaviour gradually influenced the kidnappers, reducing their tension and making them more rational. General Dozier later believed that controlling his own emotions—and influencing the emotions of others—helped save his life. The book uses this incident to demonstrate the practical power of emotional intelligence in high-pressure situations.

Why Emotional Intelligence Matters in Organizations

Technical expertise and high IQ are important, but they are no longer enough to create outstanding organizations. According to book "The Emotionally Intelligent Workplace", the most successful organizations are those where leaders and employees understand and manage emotions effectively. Emotional Intelligence (EI) is the ability to recognize, understand, and manage our own emotions while also recognizing and influencing the emotions of others. Organizations with emotionally intelligent leaders experience stronger teamwork, better communication, higher employee engagement, improved customer relationships, and greater adaptability during change.

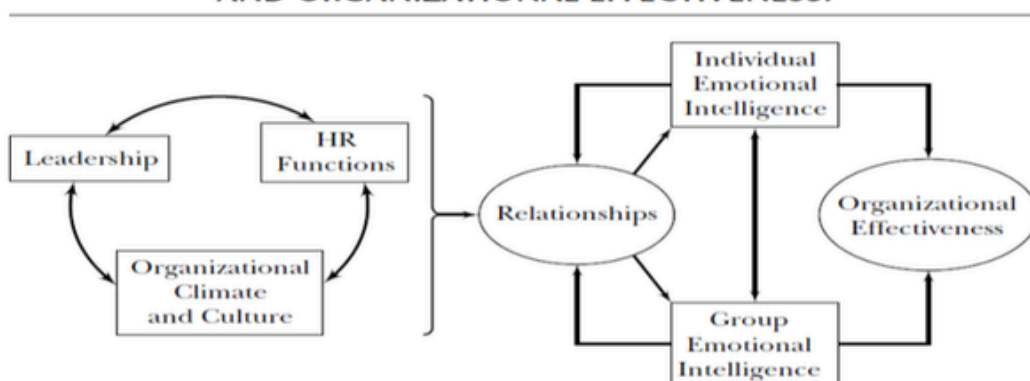


The book explains that emotional intelligence is built on four key competencies: Self-Awareness, Self-Management, Social Awareness, and Relationship Management. These competencies help leaders inspire trust, resolve conflicts, motivate teams, and create a positive workplace culture. Human Resource practices also play a vital role. Recruitment, performance management, leadership development, coaching, and training should all include emotional intelligence competencies. Organizations that invest in these areas develop stronger leaders and achieve better long-term performance.

Conclusion

Organizations succeed not only because of talented people but because of emotionally intelligent people. Leaders who build trust, encourage collaboration, manage emotions wisely, and develop others, create workplaces that are more productive, innovative, and resilient. Emotional Intelligence is not simply a personal strength it is a strategic advantage for every organization.

FIGURE 1.1. A MODEL OF EMOTIONAL INTELLIGENCE AND ORGANIZATIONAL EFFECTIVENESS.



The Global Internal Audit Standards A Yardstick for Mature Internal Audit Practices



**Mr. Nek Akhtar
BR & A**

The history of internal control and internal audit is a long evolutionary process. Which began with simple checking and verification of financial records, vouchers and transactions has gradually developed into a professional function providing assurance and insight on governance, risk management, internal controls and organizational performance. The roots of internal control can be traced back to ancient civilizations

such as Egypt, Mesopotamia and Greece, where activities performed by one individual were often subject to supervision or verification by another. Such practices can be viewed as early forms of accountability and segregation of duties. With the advent of the Industrial Revolution, organizations became larger and more complex, increasing the need for systematic financial controls. Consequently, internal audit focused increasingly on the verification of financial transactions and business expenditure.

The corporate scandals of Enron and WorldCom in the early 2000s further highlighted the consequences of weak corporate governance, inadequate internal controls and ineffective oversight. These events contributed to increased regulatory and professional emphasis on governance, risk management, internal controls and accountability. As a result, the scope of internal audit expanded from financial verification to areas such as operational effectiveness, compliance, fraud risk and corporate governance.

The Institute of Internal Auditors (IIA), established in 1941, has played a vital role in developing and standardizing the internal audit profession. Its efforts have transformed internal auditing from a transaction-oriented activity into a structured, strategic, risk-based and independent professional function.

The 2024 Global Internal Audit Standards

In January 2024, the IIA issued the Global Internal Audit Standards™ (GIAS), replacing the 2017 Standards. The Standards provide a comprehensive framework for the effective practice of internal auditing.

The new Standards further support the evolution of internal audit. Internal audit is no longer simply expected to identify weaknesses and report them. It is expected to provide the Board and management with independent, risk-based and objective assurance, advice, insight and foresight, strengthening the organization's ability to create, protect and sustain value.

Ethics and Professionalism

The foundation of internal auditing is professional integrity and ethical conduct. Internal auditors are expected to demonstrate integrity, maintain objectivity, demonstrate competency, exercise due professional care and maintain confidentiality.

Objectivity requires auditors to remain impartial in their professional judgments and free from undue influence. Competency and due professional care require auditors to maintain appropriate knowledge and skills and apply professional skepticism during audit engagements. Confidentiality is another essential professional requirement when handling data and information obtained during the course of an audit.

These principles help maintain the trust of the Board, management and other stakeholders in the internal audit function.

Governing the Internal Audit Function

Effective governance is integral to maintaining the independence and effectiveness of internal audit. The Board has an important role in establishing and overseeing the internal audit function.

The Board and Audit Committee should also oversee the internal audit strategy, performance and overall activities. Significant risks, important audit findings, emerging issues and matters requiring Board attention should be communicated at the appropriate level.

Proper governance enables internal audit to perform its assurance role independently and objectively while ensuring that its activities remain aligned with the organization's objectives and risks.

Risk-Based Planning and Auditing

The internal audit function should utilize its available resources in audit engagements where risks are assessed as significant and may affect the achievement of organizational objectives.

GIAS requires a risk-based internal audit plan that considers organizational objectives, significant risks, and governance and control processes. Risk assessment should consider factors such as significance, likelihood, effectiveness of existing controls, changes in the business environment and emerging risks. Where significant risks cannot be adequately addressed because of resource, scope or other limitations, the implications should be communicated to the appropriate levels of management and the Board or Audit Committee.

Managing and Performing Internal Audit Services

GIAS also emphasizes the effective management and execution of individual audit engagements. Internal audit should have an appropriate strategy, sufficient resources, competent personnel and effective communication with stakeholders.

Individual engagements should be properly planned and performed, with results clearly reported through findings and conclusions. Audit Reports should clearly explain significant issues, their causes and potential effects and, where appropriate, agree on action plans with management.

Internal audit should also conduct timely follow-up to assess the implementation of agreed actions by management and determine whether identified risks have been appropriately addressed.

Quality and Continuous Improvement

A mature internal audit function must also assess and continuously improve its own performance. The purpose is to evaluate the internal audit function and identify opportunities to enhance its effectiveness, efficiency and value to the organization. Quality assurance and continuous improvement help ensure that internal audit remains responsive to changing organizational risks, stakeholder expectations and the evolving business environment.

A Yardstick for Maturity

The evolution of internal audit demonstrates a significant paradigm shift from the traditional checking of transactions to a strategic function focused on governance, risk, controls and the achievement of organizational objectives.

Conformance with the GIAS is an important indicator of internal audit maturity, particularly in areas such as independence, competency, risk focus, objectivity and the capability to provide effective assurance and advisory services.

In this sense, the Global Internal Audit Standards serve as a yardstick for mature internal audit practices helping internal audit functions evaluate where they stand today, identify areas for improvement and strengthen their ability to create greater value for their organizations.

4th May international Firefighting Day (IFFD)

انٹرنیشنل فائر فائٹرز ڈے — ہمارے اصل ہیروز کو سلام



**Mr. Mahmood
Sultan
HSEQ**

انٹرنیشنل فائر فائٹرز ڈے ان بہادر اور فرض شناس ہیروز کو خراج تحسین پیش کرنے کا دن ہے جو اپنی جان بٹھیلی پر رکھ کر انسانیت، ماحول اور قیمتی املاک کی حفاظت کرتے ہیں۔ یہ عزت اتفاقیہ نہیں بلکہ ان شہداء کی قربانیوں کا نتیجہ ہے جنہوں نے دوسروں کو بچاتے ہوئے اپنی جانوں کا نذرانہ پیش کیا۔ فائر فائٹرز وہ خاموش محافظ ہیں جو ہر ایمرجنسی میں بروقت پہنچ کر خوف کو تحفظ میں بدل دیتے ہیں۔ شعلوں سے لڑنا صرف ایک عمل نہیں بلکہ ایک مکمل سائنس ہے، جس کے لیے مہارت، ہمت اور مسلسل تربیت درکار ہوتی ہے۔

پاکستان میں محدود وسائل کے باوجود ہمارے فائر فائٹرز نے گکھڑ پلازہ، بلدیہ ٹاؤن، گل پلازہ، احمد پور شرقیہ اٹل ٹینکر اور دیگر بے شمار حادثات میں اپنی جانوں کی پروا کیے بغیر حالات پر قابو پایا—یہی ہمارے اصل ہیروز ہیں۔ پنجاب میں ریسکیو 1122 کا قیام ایک سنگ میل ہے، مگر ابھی بھی فائر سیفٹی، عوامی آگاہی اور جدید سہولیات کے حوالے سے بہت کام باقی ہے۔ ضرورت اس امر کی ہے کہ فائر سیفٹی کو تعلیمی نصاب اور روزمرہ زندگی کا حصہ بنایا جائے۔

آج کے دن، میں محمود سلطان اور میری ٹیم، تمام فائر فائٹرز کو سلام پیش کرتے ہیں۔ یہ وہ لوگ ہیں جو دوسروں کی زندگی بچانے کے لیے اپنی زندگی داؤ پر لگا دیتے ہیں۔ ہمارا فرض ہے کہ ہم انہیں صرف خراج تحسین تک محدود نہ رکھیں بلکہ بہترین سہولیات، تحفظ اور احترام فراہم کریں۔ اٹک ریفائٹری لمیٹڈ نے فائر فائٹنگ انفراسٹرکچر کی بہتری کے لیے نمایاں سرمایہ کاری کی ہے، جس میں جدید ترین فائر اور گیس ڈیٹیکشن سسٹم شامل ہے تاکہ کسی بھی خطرناک صورتحال کی بروقت نشاندہی کی جا سکے۔ اس کے علاوہ واٹر سپریشن سسٹم، فائر ٹینڈرز اور ایمرجنسی شٹ ڈاؤن سسٹمز بھی نصب کیے گئے ہیں۔

اٹک ریفائٹری لمیٹڈ کے پاس ایک مخصوص اور تربیت یافتہ فائر فائٹنگ ٹیم موجود ہے جو چوبیس گھنٹے کسی بھی ہنگامی صورتحال سے نمٹنے کے لیے تیار رہتی ہے۔ ادارے کی تاریخ میں متعدد ایمرجنسیز کو بروقت اور پیشہ ورانہ انداز میں انتہائی کم وقت میں مؤثر طریقے سے قابو کیا گیا، جس سے نقصانات کو کم سے کم رکھا گیا۔

اٹک ریفائٹری لمیٹڈ اس ضمن میں اپنی ایمرجنسی ریسپانس ٹیم کی محنت، لگن اور عزم کو قدر کی نگاہ سے دیکھتی ہے اور انہیں خراج تحسین پیش کرتی ہے

- ✓ فائر سیفٹی اصولوں پر عمل کریں
- ✓ ایمرجنسی گاڑیوں کو راستہ دیں
- ✓ اپنے بچوں کو سیفٹی کا شعور دیں

کیونکہ محفوظ معاشرہ ہی ترقی یافتہ قوم کی پہچان ہوتا ہے۔



نظم



از قلم: زین حسن

دل سے آواز تو آئی پر کہا کچھ بھی نہیں
میرے دامن میں میری چپ کے سوا کچھ بھی نہیں
ہم نے ہر زخم کو اک نام محبت دے کر
پوچھنے والوں سے کہہ ڈالا ، ہوا کچھ بھی نہیں
تخت والوں کی تو عادت ہے جفا کرنے کی
زخم دیتے ہیں مگر ان پہ دوا کچھ بھی نہیں
حق کی آواز اٹھاؤ تو مقدر قیدیں
ہے صرف شور مگر حق کی صدا کچھ بھی نہیں
ہے سبب خون وہ ہر بار بہاتے کیوں نہ؟
ان کے جب دل میں رہا خوف خدا کچھ بھی نہیں
ان کو اس قوم کی پستی کی فکر کیوں کر ہو؟
ان کو اس قوم کی جب آہ و بکا کچھ بھی نہیں
اے نفس زاد، شریرو! اب کمر کس لینا
مدتوں سے تمہیں کسی نے کہا کچھ بھی نہیں
اے میرے شہر کے لوگو! ذرا آنکھیں کھولو!
اب کہ غفلت کی کہانی میں رہا کچھ بھی نہیں
تیری شمشیر کی بیبت کا اثر ہو جو اگر
باطل وقت کا پھر زور رہا کچھ بھی نہیں
پھر بھی دے گا تیری تقدیر بدل وہ مولا
ہوں اٹھے ہاتھ اگر حرف دعا کچھ بھی نہیں
جس نے مٹی کو بھی بخشا ہے کرامت کا شرف
اس کے دربار میں راب کو عطا کچھ بھی نہیں
زین کے دل کو اس محشر کے بپا منظر میں
نام حیدر ہے تو پھر خوف قضا کچھ بھی نہیں

غزل



از قلم : ساجد حسین قریشی

جینے کی اس دوڑ میں، لوگ مرتے چلے گئے
منکر نہی کے شور میں، سب کرتے چلے گئے
اُس دور میں نارِ نمرود، کیا برد نہ بنی تھی
اس خام خیال میں مبتلا، لوگ سڑتے چلے گئے
زندگی کی رمق ان میں، کیا خاک پھوٹی
جو محد تا لحد بس، ڈرتے چلے گئے
سینہ سپر سلف تھے، باطل کے سامنے
اور ہم اپنے خون سے، لڑتے چلے گئے
زیست رواں دواں تھی یا ترقی معکوس تھی
ڈھلتی شام کے سائے تھے، بڑھتے چلے گئے



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