

**ATTOCK REFINERY LIMITED**



# **NEWSLETTER** **PIONEERS**

**In Petroleum Refining**

**Jul - Dec 2025**

**RECOMMENDED  
READS AND TOOLS**

**COMPANY EVENTS**

**REWARDS &  
RECOGNITION**

**TRAINING &  
DEVELOPMENT**

**SOCIAL  
RESPONSIVENESS**

**EMPLOYEES  
AFFAIRS**

**CREATIVITY  
CORNER**



## PATRON-IN-CHIEF



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Chief Executive Officer

## PATRON



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HOD (HR)

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Mr. Muhammad Ahmed  
Admin

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- |  |                      |
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| 2. Maintenance                           | Mr. Waqas Yaqoob     |
| 3. Engineering                           | Mr. Muhammad Qasim   |
| 4. Technical Services and P&D            | Mr. Saleem Hasrat    |
| 5. Human Resources & Administration      | Ms. Zainab Shahid    |
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| 9. Health, Safety, Environment & Quality | Mr. Muhammad Arshad  |

## 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 July to December 2025 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](mailto:newsletter@arl.com.pk)

**Enjoy Reading!**

# Events

## Horticulture Trainings at Attock Institute of Horticulture (AIH)

Attock Institute of Horticulture (AIH) conducted six months of training for gardeners, ARL Employees and hobby gardeners.



AIH conducted Short trainings for gardeners of other organizations including GIKI and CB (cantonment boards)



### Monsoon Tree plantations

As part of ARL's Corporate Social Responsibility and annual Green Plan, Attock Refinery Limited (ARL) Monsoon Tree Plantation drive to promote environmental sustainability. More than 3,000 fruits, flowering and shade trees were planted within the refinery premises and surrounding communities. This initiative reflects ARL's continuous commitment to a greener and healthier environment. Overall, ARL plants a minimum of 10,000 saplings each year under the Green Plan.



### Commissioning of Solar Powered Drip Irrigation Systems in Citrus Orchards

To ensure the efficient use of irrigation water in orchards, Attock Refinery Limited (ARL) has successfully commissioned new solar-powered drip irrigation systems covering 8 acres of newly established citrus orchards. This sustainable initiative optimizes water usage and eliminates fuel costs, leveraging renewable energy to ensure precise, efficient hydration for long-term crop health.



# Events

## Annual Chrysanthemum and Autumn Flower Show at Gardenia Hub, Islamabad

Attock Refinery Limited (ARL) participated in the Annual Chrysanthemum and Autumn Flower Show organized by the Capital Development Authority (CDA) at Gardenia Hub, Islamabad, held from December 5 to 7, 2025. ARL showcased a beautifully curated flower stall and secured 1<sup>st</sup> position in the competition.



## Chrysanthemum Flower Show, Allama Iqbal Park, Rawalpindi

Attock Refinery Limited (ARL) participated in the Chrysanthemum Flower Show organized by the Punjab Horticulture Authority (PHA) at Allama Iqbal Park, Rawalpindi, held from December 14 to 17, 2025. ARL showcased a beautifully curated flower stall and secured position in the competition.



## Rainwater Harvesting Pond

Keeping in view the global scenario of climate change and issues of water shortage and to combat these challenges through rainwater conservation for drought seasons, ARL has developed a sustainable water management system with a capacity of more than eight hundred thousand liters, designed to collect and store rainwater for irrigation and landscape maintenance. This project will significantly recharge ground water and reduce dependency on groundwater.



## Hajj Farewell 2025

ARL management congratulated the Hajj nominees and organized function at Elliot Club to honor the Pilgrims.



## BALLOTING FOR NON-MUSLIMS

The function was held on December 19, 2025, at Elliott Club, attended by all Non-Muslim NMS and CBA representatives. Mr. Stephen, Service No. 219959, Oil Movement Operative Senior - II, Oil Movement - II (CM), Operations department, was declared successful for visiting the Holy Places along with his spouse or dependant within Pakistan and was awarded a cheque amounting to Rs.400,000/- for this purpose.



**CBA Settlement (2025-27) signing Ceremony**  
CBA Agreement (2025 - 2027) signing ceremony was held on August 15, 2025.



# Events

## NMS Farewell Party 2026

The farewell party for NMS retirees was held at ARL Diner on December 31, 2025. M. Adil Khattak, CEO - ARL was the chief guest at the occasion, Senior Management, CBA representatives and a large number of NMS were also present. The chief guest in his address highly commended the dedication and contribution of the retirees and expressed warm wishes for their future well-being.



## HR Connect 2025

ARL HR Conference "HR Connect" was held on October 23, 2025. Renowned speakers and multiple participants from various organizations attended the conference.



## Christmas Party 2025

On December 25, 2025 ARL Management along with CBA representatives wished the Christian brothers and participated in the cake cutting ceremony.



# Events

## ASF Dengue Awareness Session 2025



Attock Sahara Foundation (ASF), in collaboration with Attock Refinery Limited (ARL), Attock Hospital (Pvt.) Limited (AHL) and District Health Authority Rawalpindi, organized a Dengue Awareness Session at Elliot Club Morgah on September 03, 2025. Representatives from the Local Community, ARL, AHL and ASF and CBA were present at the session. Dr. Ahsan Ghani (Chief Executive Officer Health Department), Dr. Hanaan (Deputy Director Health),



Mr. Usama Izhar (Entomologist) and Dr. Nawaz (Medical Officer AHL), shared valuable information with the participants regarding dengue and its prevention. At the end of the session, a Dengue Awareness Walk was also organized from Elliott Club to the CBA Union Office, emphasizing collective commitment towards dengue prevention.

## Certificate of Merit from ICMA for Best Sustainability Report Award 2024

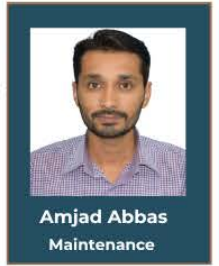


Attock Refinery Limited received certificate of merit from ICMA for Best Sustainability Report Award 2024 on November 06, 2025.

# MAN OF THE QUARTER (MOQ) AWARDS

## 2nd MOQ - 2025

The 2<sup>nd</sup> MOQ - 2025 awards ceremony was held at ARL Diner on July 29, 2025. Performance Awards and Safety Awards were presented to employees. The Valued Employee of the Quarter award for the 2<sup>nd</sup> Quarter was awarded to Mr. Amjad Abbas, Senior Officer (Planning), Maintenance Department. The Safe Man-Hours trophy for the 2<sup>nd</sup> quarter of 2025 was won by ISOM and PM-I.

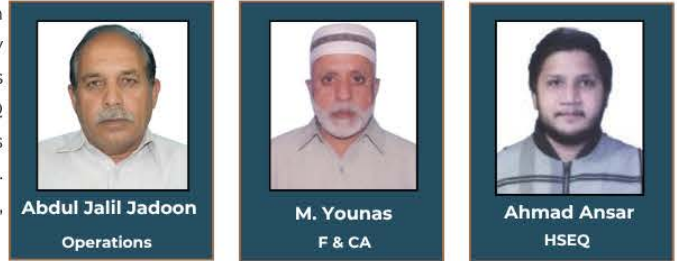


### PERFORMANCE AWARDS



# MAN OF THE QUARTER (MOQ) AWARDS 3rd MOQ - 2025

The 3rd MOQ - 2025 awards ceremony was held at ARL Diner on November 13, 2025. Employees were awarded performance and safety awards. Valued Employee of the Quarter award for the 3rd Quarter was awarded to Mr. Ahmed Ansar, Service No. 914239, Lab. Technician, HSEQ Department. The Safe Man-Hours trophy for the 3rd quarter of 2025 was won by ARL Diner. Man of the year Awards - 2024 were presented to Mr. Abdul Jalil Jadoon, Operations Department and Muhammad Younas, F&CA Department.



## PERFORMANCE AWARDS



## Induction of NMS Staff

After 36 years, a batch of 35 employees was enrolled in Non-Management Staff (Regular).



# TRAININGS

## Training on Energy Efficient Motors

▶ ARL organized a training workshop on “Energy Efficient Motors” through M/s ABB’s Ltd on July 01, 2025. The training was conducted by Mr. Jawad Raza.



## Training on Scaffolding

▶ ARL organized a two-day training workshop on “Scaffolding” through M/s Descon Training Institute, Lahore, on October 7 - 8, 2025. The training was conducted by the DTI trainer panel.



# TRAININGS

## Outbound Training Program on Team Retreat

- ▶ ARL organized an Outbound Training Program on “Team Retreat”, Kalam, Swat, through M/s Training Impact from October 16-19, 2025. The training was conducted by Mr. Haris Mehmood and Mr. Hamza Naseem.



## Army Officer Training – 2025

- ▶ ARL in coordination with Army Service Corps (ASC) School, Nowshera arranged 4 weeks Petroleum Processing training for the 16<sup>th</sup> batch of 14 officers from November 17, 2025, to December 12, 2025.

ARL team delivered lectures regarding Refinery Operations, Security and Product Storages Standards/Codes, Health, Safety and Quality Control practices to give them holistic understanding of Refinery Operations. Field visits and testing at the Quality Control Laboratory were also arranged for the officers during this training.



## INDUSTRIAL / EDUCATIONAL VISITS AT ARL

The following industrial and educational visits were arranged at ARL:

\*A delegation from National Institute of Public Administration (NIPA), comprising 22 participants, visited ARL on September 25, 2025.



\*A delegation from Karachi Nuclear Power Generation Station, Karachi comprising 17 participants, visited ARL on October 28, 2025.



\*A group of 35 students from Bahria University, Islamabad visited ARL on December 09, 2025.

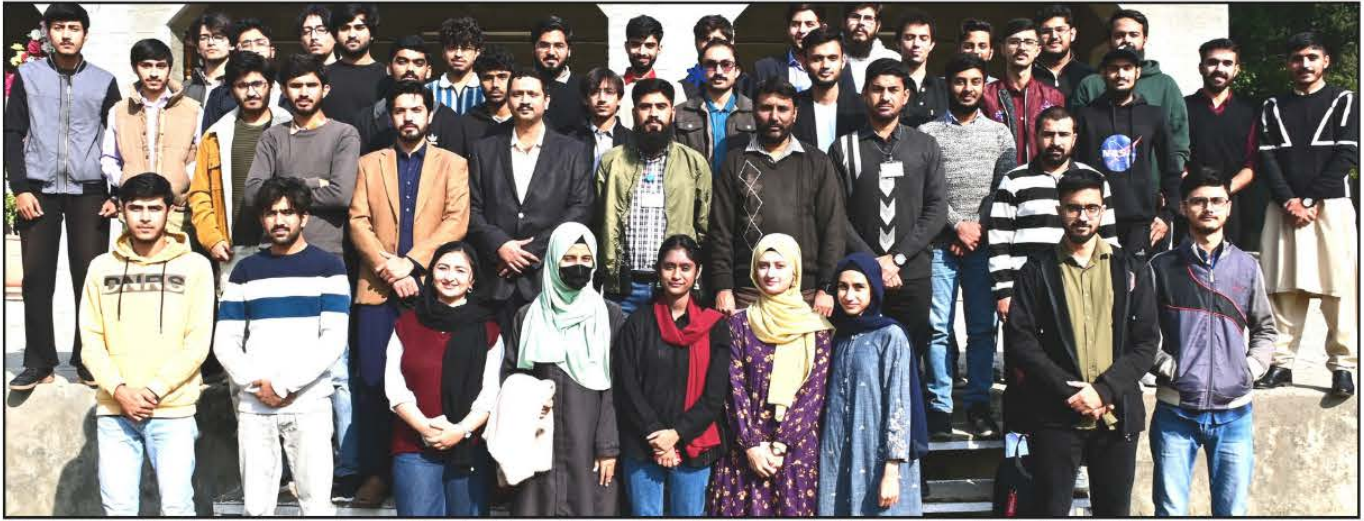


\*Two groups of 40 students each from Ghulam Ishaq Khan Institute of Engineering Sciences and Technology (GIKI), Swabi visited ARL on December 2 - 3, 2025.



## INDUSTRIAL / EDUCATIONAL VISITS AT ARL

\*Three groups of 45 students each from National University of Sciences & Technology (NUST), Islamabad visited ARL on November 18, 19 and 20, 2025.



\*A group of 45 students from Govt. High School AOC Morgah, Rawalpindi visited ARL on December 16, 2025.



\*A group of 45 students from University of Engineering and Technology (UET), Faisalabad visited ARL on December 23, 2025.



## Our Great Asset Our STAFF - NEW JOINERS DETAILS

Welcome to the Team members that thrives on enthusiasm and hard work. Your role here is essential and we are happy to have you in this journey.

Sr.No.	Name	Designation	Department	Date of Joining
1	Mr. Hassan Raza	Senior Officer (Operations)	Operations	22-Dec-25
2	Mr. Zia Ur Rehman	Senior Officer (Operations)	Operations	22-Dec-25
3	Mr. Muhammad Aamir Sultan	Engineer (TS)	Technical Services	23-Jul-25
4	Mr. Muhammad Furqan Khan	Shift Engineer (UO)	Operations	1-Aug-25
5	Mr. Haseeb Ullah	Senior Officer (QCL)	HSEQ	4-Nov-25
6	Mr. Ghazanfar Abbas	Senior Officer (QCL)	HSEQ	4-Nov-25
7	Mr. Aftab Ahmad	Senior Officer (Instruments)	Maintenance	31-Jul-25
8	Mr. Saif Ullah	Senior Officer (Instruments)	Maintenance	24-Jul-25
9	Mr. Faisal Ur Rehman	Senior Officer (Instruments)	Maintenance	24-Jul-25
10	Mr. Muhammad Abbas	Senior Officer (Instruments)	Maintenance	31-Jul-25
11	Mr. Abdul Rehman	Senior Officer (Instruments)	Maintenance	31-Jul-25
12	Mr. Shabab Ali	Senior Officer (Maintenance)	Maintenance	24-Jul-25
13	Mr. Muhammad Taimoor Satti	Senior Officer (Maintenance)	Maintenance	24-Jul-25
14	Mr. Muhammad Tayyab	Senior Officer (Maintenance)	Maintenance	24-Jul-25
15	Mr. Muhammad Rizwan Khan	Senior Officer (Maintenance)	Maintenance	24-Jul-25
16	Mr. Muhammad Nouman	Senior Officer (Design)	Engineering	1-Dec-25
17	Mr. Abdul Haseeb Ranjha	Senior Officer (Instruments)	Maintenance	8-Dec-25
18	Mr. Muhammad Ikram	Senior Officer (Instruments)	Maintenance	4-Dec-25
19	Mr. Mohsin Nisar	Senior Officer (Operations)	Operations	1-Dec-25
20	Mr. Umair Nisar	Junior Officer (Operations)	Operations	1-Dec-25
21	Mr. Muhammad Farooq	Junior Officer (Operations)	Operations	1-Dec-25
22	Mr. Asghar Tufail	Junior Officer (Operations)	Operations	1-Dec-25
23	Mr. Mudassar Farooq	Junior Officer (Operations)	Operations	1-Dec-25
24	Mr. Nouman Akhtar	Junior Officer (Operations)	Operations	1-Dec-25
26	Mr. Shahbaz Akhtar	Junior Officer (Operations)	Operations	1-Dec-25
27	Mr. Laeeq Ahmed	Junior Officer (Operations)	Operations	1-Dec-25
28	Mr. Muzamil Bashir	Junior Officer (Operations)	Operations	1-Dec-25
29	Mr. Muhammad Afan Khan	Senior Officer (Finance)	F & CA	26-Dec-25
30	Mr. Muhammad Riasam	Officer (Security)	HR & Admin	24-Dec-25
31	Mr. Sajeel Robin	Senior Officer (Operations)	Operations	31-Dec-25
32	Mr. Ammad Nazir	Senior Officer (Operations)	Operations	29-Dec-25
33	Mr. Muhammad Abdullah	Senior Officer (Operations)	Operations	29-Dec-25
34	Mr. Muhammad Haroon Javed	Senior Officer (Operations)	Operations	29-Dec-25
35	Mr. Saim Shoukat	Senior Officer (Operations)	Operations	29-Dec-25
36	Mr. Muhammad Anas	Senior Officer (Operations)	Operations	29-Dec-25
37	Mr. Syed Ali Hassan Shah	Senior Officer (Operations)	Operations	31-Dec-25
38	Mr. Choudhary Muhammad Ishaq	Senior Officer (Operations)	Operations	31-Dec-25
39	Mr. Saad Tanveer	Senior Officer (Operations)	Operations	29-Dec-25
40	Mr. Zohaib Mazhar	Senior Officer (Operations)	Operations	29-Dec-25

## 25 YEARS of SERVICE AWARD

In recognition of valuable association with ARL and upon completion of 25 years of dedicated service, the Management presented shields to the staff members.

Sr. No.	Name	Designation	Department
1	Mr. Ali Hassan	Senior Executive (IT)	C&MM
2	Mr. Zawar Hussain	Boardman (HBUs)	Operations
3	Mr. Fawad Aamir Riaz	In-charge (Estate Office)	HR & Admin
4	Mr. Muhammad Asim Khan	Senior Officer (ERO)	Maintenance
5	Mr. Abdul Jabbar	Executive (Shift Incharge)	Maintenance
6	Mr. Abdul Saeed	Executive (Shift Incharge)	Maintenance
7	Mr. Inam Ul Haq	Executive (Shift Incharge)	Maintenance
8	Mr. Sarfraz Akmal	Senior Officer (CRO)	Maintenance
9	Mr. Khalid Mahmood	Senior Officer (CRO)	Maintenance
10	Mr. Ijaz Hussain	Executive Maint. (Power Plant)	Maintenance
11	Mr. Abdul Waheed	Incharge PMS OM-II	Operations



MR. ABDUL WAHEED, SENIOR EXECUTIVE (OPERATIONS)



MR. IJAZ HUSSAIN  
EXECUTIVE (MAINTENANCE)  
POWER PLANT-MAINTENANCE DEPTT



MR. KHALID MAHMOOD  
SENIOR OFFICER (CRO)  
POWER PLANT-MAINTENANCE DEPTT



MR. ABDUL JABBAR  
EXECUTIVE (SHIFT INCHARGE)  
POWER PLANT-MAINTENANCE DEPTT



MR. FAWAD AAMIR RIAZ, INCHARGE (ESTATE OFFICE), HR & ADMIN DEPTT.



MR. ALI HASSAN, SENIOR EXECUTIVE (IT)  
(FROM 1-SEP-2000 TO 1-SEP-2025)



MR. ABDUL SAEED  
EXECUTIVE (SHIFT INCHARGE)  
POWER PLANT-MAINTENANCE DEPTT



MR. MUHAMMAD ASIM KHAN  
SENIOR OFFICER (ERO)  
POWER PLANT-MAINTENANCE DEPTT.



MR. ZAWAR HUSSAIN; BOARDMAN  
(HBUS) OPERATIONS



MR. SARFRAZ AKMAL  
SENIOR OFFICER (CRO)  
POWER PLANT-MAINTENANCE DEPTT



MR. INAM UL HAQ  
EXECUTIVE (SHIFT INCHARGE)  
POWER PLANT-MAINTENANCE DEPTT

## WELCOME CONNECT

Three batches of new joiners were warmly welcomed to the **“Welcome Connect Program”**. The interactive sessions provided a friendly and informative platform to exchange valuable feedback in a relaxed sitting over a cup of tea. During the session, the HOD (HR), along with his HR team and relevant Department Managers, met new joiners. The discussions focused on feedback regarding the working environment, challenges faced and suggestions for improvement.



A session was conducted with the employees whose services have been regularized in Management Cadre under the **“Welcome Connect Program.”** Management extends its appreciation and heartfelt congratulations to the staff who have achieved this important milestone. They were encouraged to carry this momentum forward, remain motivated and continue contribution with dedication and professionalism towards ARL’s ongoing growth and success.



# AI and Automation: Transforming the Future of Refineries



Muhammad Mustajab  
Maintenance

Artificial Intelligence (AI) and automation are no longer optional- they are becoming essential tools in modern refinery operations. As we progress through 2025, these technologies are revolutionizing how refineries operate by enhancing efficiency, improving safety, optimizing costs and enabling data-driven decision-making across all units.

## The Growing Role of AI in Refinery Operations

AI technologies are playing a crucial role in refining, where precision, consistency and real-time responsiveness are vital. From process optimization to predictive maintenance, AI is enabling smarter, faster and safer operations.

### Key AI Applications in Refineries:

- **Predictive Maintenance:** AI-powered models analyze equipment behavior to predict failures before they happen, reducing unplanned shutdowns and extending asset life.
- **Machine Learning:** By using AI-powered sensors, companies can detect defects or anomalies in production lines in real-time, ensuring better product quality and reducing waste.
- **Process Optimization:** AI tools optimize refining operations by continuously adjusting process parameters to maximize output, improve yield and reduce energy consumption.
- **Energy Management:** AI helps monitor and optimize energy usage across units like furnaces, compressors and boilers, significantly reducing energy costs and carbon footprint.

## The Benefits of Automation in Refinery

Automation, combined with AI, is reshaping refinery operations by automating routine, hazardous or complex tasks and allowing human operators to focus on critical decision-making.

### Key Benefits of Automation:

- **Operational Consistency:** Automated control systems eliminate variability in plant operations, leading to stable production and better compliance with environmental and safety standards.
- **Cost Reduction:** Automation reduces labor-intensive activities and manual errors, directly lowering operational and maintenance costs.
- **Improved Safety:** By minimizing human involvement in hazardous areas, like high-pressure vessels or high-temperature units, automation significantly enhances personnel safety. Robotics, drones and remote-controlled inspection tools reduce the need for confined space entry or shutdowns.
- **Enhanced Scalability:** With automation systems in place, companies can scale operations without the need for a proportional increase in resources. As demand fluctuates, automated systems can be easily adjusted to accommodate.



## Overcoming Challenges in AI and Automation Adoption

While AI and automation offer tremendous potential, implementing these technologies comes with its own set of challenges. Companies must address concerns like data security, employee retraining and the integration of new technologies into existing infrastructure. However, the long-term benefits often outweigh the initial investment and learning curve.

### Key Considerations for Successful Implementation:

- **Data Quality:** AI systems rely on high-quality, clean data to deliver accurate results. Companies need to ensure they are gathering the right data from the right sources to build reliable AI models.
- **Change Management:** Transitioning to AI-driven systems requires upskilling operators and engineers. Companies must invest in reskilling and upskilling their workforce to handle more strategic roles and manage new technologies.
- **Cybersecurity:** As digital integration increases, protecting critical refinery systems from cyber threats becomes a top priority. Robust cybersecurity frameworks and real-time monitoring must be implemented.

## Conclusion

AI and automation are transforming refineries into smarter, safer and more agile facilities. By leveraging these technologies, refineries can enhance performance, reduce downtime, meet environmental standards and remain competitive in a rapidly evolving energy landscape.

# The Role and Strategic Importance of Risk-Based Inspection Programs in Oil Refineries



Mr. Muhammad Shariq  
Engineering

## Introduction

Refinery and petrochemical plants operate under demanding conditions involving high pressure, high temperature, flammable hydrocarbons, and corrosive environments.

Equipment such as pressure vessels, piping systems, reactors, and storage tanks are continuously exposed to degradation mechanisms that can lead to failure. Such failures may result in safety incidents, environmental damage, production loss, and major financial impact.

Traditionally, inspection programs were time-based, meaning equipment was inspected at fixed intervals regardless of condition or criticality. While simple, this method does not prioritize high-risk equipment. Risk-Based Inspection (RBI) was developed to overcome this limitation by focusing inspection efforts where they are most needed. Industry standards such as Recommended Practice API 580 and API 581 issued by the American Petroleum Institute provide structured guidance for RBI implementation.

## Concept of Risk-Based Inspection

RBI is based on the principle:

$$\text{Risk} = \text{Probability of Failure (PoF)} \times \text{Consequence of Failure (CoF)}$$

- **Probability of Failure (PoF)** indicates the likelihood that equipment will fail.
- **Consequence of Failure (CoF)** measures the impact if failure occurs, including safety, environmental, and economic effects.

By combining these factors, equipment is ranked by risk. High-risk items receive more frequent, detailed inspections, while low-risk items have longer intervals. This approach optimizes inspection resources. Figure 1 shows the current risk ranking of 731 piping tags in a balanced risk matrix.

## Types of RBI Approaches

RBI can be implemented at different levels:

### 1. Qualitative RBI

Uses expert judgment and risk matrices to classify equipment as low, medium, or high risk. It is simple but less precise.

### 2. Semi-Quantitative RBI

Semi-quantitative RBI combines qualitative speed with quantitative rigor to calculate POF, COF, and overall risk, enabling prioritization, trending, and standardized inspection planning, often via software. Most RBI assessments use this approach due to its efficiency and repeatability.

### 3. Quantitative RBI

Quantitative RBI is largely theoretical, as complete data and models capturing all risk aspects do not exist.

In the petrochemical industry, RBI produces relative risk rankings rather than absolute values. Fully quantitative RBI methods remain unrealized, with most assessments falling between qualitative and quantitative—i.e., semi-quantitative.

## RBI Methodology

An effective RBI program follows these key steps:

### 1. Data Collection

Gather design data, operating conditions, inspection history, corrosion rates, and maintenance records. Reliable data is essential for accurate risk assessment.

### 2. Identification of Damage Mechanisms

Determine possible degradation mechanisms such as corrosion, stress corrosion cracking, erosion, fatigue, creep, and hydrogen damage.

### 3. Probability of Failure Assessment

Evaluate corrosion rates, remaining life, material properties, operating severity, and inspection effectiveness to estimate likelihood of failure.

### 4. Consequence of Failure Assessment

Assess potential impact on personnel safety, environment, production, and cost. For example, failure of a high-pressure hydrocarbon line has much higher consequences than a utility water line.

### 5. Risk Ranking and Inspection Planning

Combine PoF and CoF to rank equipment. Inspection intervals and techniques are then optimized:

- High risk: shorter intervals and advanced NDT
- Medium risk: standard intervals
- Low risk: extended intervals

### 6. Periodic Reassessment

RBI must be updated after inspections, process changes, or operational deviations to ensure continued accuracy.

**Advantages of RBI**

**Improved Safety:** Focuses attention on equipment with the highest risk of severe incidents.

**Cost Optimization:** Reduces unnecessary inspections and avoids unexpected failures.

**Enhanced Reliability:** Prioritizes critical equipment, reducing unplanned downtime.

**Efficient Resource Allocation:** Directs inspection efforts to areas with greatest impact.

**Regulatory Support:** Demonstrates structured mechanical integrity management in line with recognized industry practices.

**Challenges**

Implementation requires accurate data, skilled personnel, and organizational commitment. Initial investment in training and tools may be needed. However, long-term safety and economic benefits typically outweigh these challenges.

RBI Implementation at Attock Refinery Limited  
Attock Refinery Limited is presently undertaking

a comprehensive Risk-Based Inspection (RBI) study covering the process piping and equipment of its Isomerization Complex. This study is being executed by an independent third-party consultant to ensure compliance with applicable standards and best industry practices.

Upon successful completion of the project, the Inspection Department intends to extend the implementation of the RBI methodology to other operating units through in-house resources, thereby strengthening the refinery's overall inspection and integrity management framework.

**Conclusion**

Risk-Based Inspection is a vital tool in refinery and petrochemical plants. By shifting from time-based inspection to risk-focused planning, RBI ensures that inspection efforts target equipment posing the greatest threat to safety, environment, and business continuity. When properly implemented, RBI enhances safety, optimizes costs, and supports reliable plant operation, making it an essential component of modern asset integrity management.

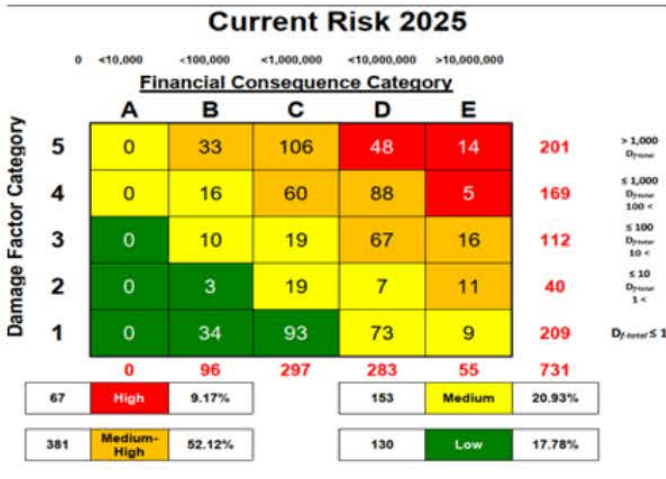


Figure 1

## The Hidden Dangers of Tobacco and and Nicotine Products in Pakistan



Syed Viqar ul Hassan Operations

The use of cigarettes, cigars, tobacco, vapes, e-cigarettes, and nicotine pouches is rising in Pakistan, posing serious health risks. These products are addictive and harmful, especially to teenagers whose brains are still developing, causing lasting damage to memory and learning.

Adults face risks like heart disease, cancer, stroke, and respiratory problems.



Despite myths, vaping and nicotine pouches are not safe alternatives they still deliver harmful nicotine and chemicals.



Tobacco causes over 130,000 deaths annually in Pakistan, mainly men, contributing to lung cancer, COPD, and heart disease. Teen exposure to second-hand smoke and nicotine products is widespread. Health experts call for stricter regulations, prescription-only sales, public education, and awareness campaigns to combat misleading marketing and reduce use. The Anti-Narcotics Force and Excise & Taxation Department jointly combat illegal trade, enforce laws, and support tobacco control, despite challenges like smuggling and social acceptance. Strong regulation, education, and enforcement are vital to protect youth, reduce addiction, and improve public health.

## Snow Adventure Trip to Kashmir Ganga Choti

By Waqas Qayyum, PS to AGM (C&MM) With Umair Shahzad, Sr. Officer (Ops) & Other Colleague Friends

In February 2026, during winter season, I, Waqas Qayyum along with my close friend Umair Shahzad and other colleague, planned an unforgettable and joyful trip to Ganga Choti in Azad Kashmir. Standing at a height of 3,045 meters (9,990 feet), the entire peak was covered in shining white snow, looking like a dreamland.

We started early in the morning from Rawalpindi, full of excitement and energy.

As we crossed the snowy roads of Sudhan Gali, the cold breeze and white mountains made our journey even more magical.

The real adventure began when we started walking toward the top. The path was fully slippery, and all covered in fresh snow. One by one, we slipped and into the snow, but despite our fall, we were laughing and enjoying. We supported each other, held hands, and continued climbing with teamwork and joy.

When we finally reached Ganga Choti, light snowfall had started. It was like a dream come true. Snowflakes were falling softly from the sky, covering trees, roads, and rooftops. The entire area looked like a white paradise.

We couldn't stop taking pictures. We made snowballs, played snow fights, and even tried to build a small snowman. Laughter echoed in the mountains. The view from the top was absolutely amazing clouds floating below us, endless white peaks, and pure silence of nature.

The short hike to the top of Ganga Choti was challenging because of the snow, but it made the adventure more exciting. Slippery paths, cold



breeze and being with friends made it memorable. Every step was worth it when we saw the breathtaking panoramic view from the peak. Standing there, we felt peace and freedom. It was one of those rare moments when you forget all worries of life.

The view was absolutely breathtaking endless snow-covered mountains, clouds floating below us, and pure natural beauty all around. We sat together in the snow, shared hot tea and snacks, took beautiful group photos, and created memories that will stay with us forever.

That day was not just a trip; it was a celebration of friendship, adventure, teamwork, and happiness. The snowy memories of Ganga Choti will always remain one of the most enjoyable experiences of our lives.

## Close drain Project at Sour Water Unit



Syed Viqar ul  
Hassan  
Operations

Attock Refinery Limited (ARL), located at Morgah, Rawalpindi, is Pakistan's first crude oil refinery. Under the Refinery Upgradation Project, ARL installed a Sour Water Unit (SWU) to treat sour water

containing hydrogen sulphide ( $H_2S$ ) and ammonia ( $NH_3$ ). To eliminate  $H_2S$  emissions and operational issues caused by open drains, a dedicated closed drain system was implemented. The system safely transfers sour water via underground piping to a closed drain vessel and onward to the sour water degassing drum. In 2018, M/s Gasco Engineering Limited (GASCO) provided detailed engineering, including process, hydraulic, piping, civil, mechanical, E&I design, and BOQ

### Project Cost and Phasing

Engineering was completed in 2018. Approved in FY 2019-20 at PKR 160 million, the project was delayed, executed in two phases, with materials received by October 2024 and construction in 2025. The cost was revised to PKR 220 million, with a PKR 20.5 million carry-forward to FY 2025-26.

### Execution of Phase-II. started in January 2025.

The second phase of the project required extensive civil excavation across the entire SWU plant, including vessels, pumps, heaters, and piping installation. This scope normally requires a shutdown of the Sour Water Unit

(SWU) along with the HDS and LHT (ISOM) units to ensure safe execution without any exposure, which would directly impact the production of isomerate and low-Sulfur diesel. Proceeding while

the plant remained operational, although far more challenging, avoided a costly system-wide shutdown—an approach that had never been implemented before.

**Major activities included:**

Civil, mechanical, and piping works included excavation, concreting, waterproofing, pipeline installation of the closed drain vessel, pump, heater, and instruments, with extensive testing under strict HSE controls. E&I works, commissioning, and SWU tie-ins were

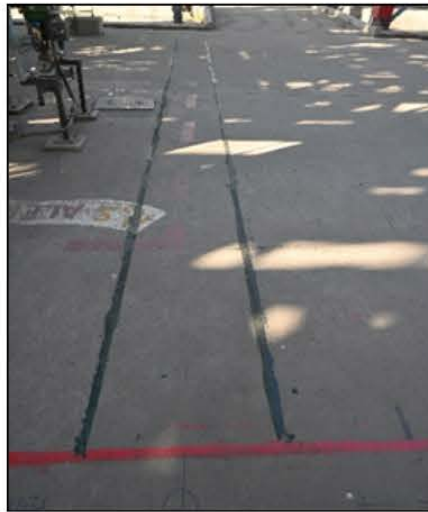
completed successfully in October 2025, with all systems tested, approved, and documented.

**Project Completion**

The Pre-Startup Safety Review (PSSR) was successfully conducted on October 30, 2025 with participation from all relevant departments. The project was completed safely, within revised budgetary limits, and with no major incidents.

**Conclusion**

The SWU Closed Drain System improved safety, environmental compliance, and reliability by eliminating open sour water drainage, while enhancing operators' technical and safety skills.



# “Healthy Aging” Book By Andrew Weil



Mr. Kamal Ud din  
Operations

Healthy Aging presents a refreshing perspective on growing older. Rather than promoting unrealistic “anti-aging” solutions, Andrew Weil encourages readers to accept aging as a natural biological process while taking practical, science-based steps to maintain vitality,

independence, and quality of life. His central message is clear: while we cannot stop aging, we can strongly influence how we age through informed lifestyle choices.

## 1. Understanding the Biology of Aging

Weil begins by explaining how genetics, environmental exposure, inflammation, and daily habits interact to shape the aging process. He challenges the common belief that aging automatically leads to decline and disease. Many age-related illnesses such as heart disease, diabetes, cognitive decline, and certain cancers are significantly influenced by modifiable factors like nutrition, physical activity, stress management, and preventive healthcare. Knowledge, Weil argues, individuals to take responsibility for their long-term well-being.

## 2. Chronic Inflammation and Diet

A major theme of the book is the role of chronic, low-grade inflammation in accelerating aging and disease. While inflammation is a natural defense mechanism, it becomes harmful when it persists over time.

To counter this, Weil promotes an anti-inflammatory diet that includes:

- Fruits and vegetables
- Whole grains
- Healthy fats (olive oil, omega-3 fatty acids)
- Lean sources of protein

He advises limiting processed foods, refined sugars, and unhealthy fats. Rather than extreme or restrictive dieting, he supports balanced, sustainable eating habits that nourish the body and protect it from long-term damage.

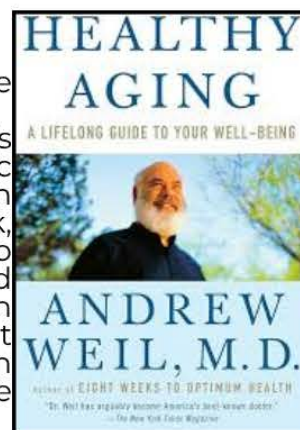
## 3. The Importance of Exercise

Physical activity is presented as one of the most powerful tools for healthy aging. Regular exercise:

- Preserves muscle mass
- Strengthens bones
- Improves cardiovascular health

- Enhances mood
- Maintains balance and flexibility

Weil recommends combining aerobic exercise, strength training, balance work, and stretching to maintain mobility and independence. Even moderate, consistent movement can significantly improve health outcomes.



## 4. Mental and Emotional Well-Being

Healthy aging extends beyond the body. Weil emphasizes:

- Stress management through breathing techniques, meditation, and yoga
- The importance of restorative sleep
- Cognitive engagement through reading, learning, puzzles, and conversation

Chronic stress weakens immunity and accelerates aging, while good sleep supports memory, hormonal balance, and cellular repair.

## 5. Social Connection and Purpose

Weil highlights that longevity is not just about avoiding disease it's about living meaningfully. Close relationships, community involvement, creativity, and a sense of purpose significantly influence both lifespan and life satisfaction. Emotional resilience and a positive outlook can positively impact physical health.

## 6. Preventive Healthcare

The book advocates proactive medical care, including regular checkups and appropriate screenings. Weil encourages open communication with healthcare providers and prevention-focused strategies rather than relying solely on treatment after illness develops.

## Overall Message

Healthy Aging delivers a hopeful and empowering message: aging can be a period of continued growth, wisdom, and vitality. By embracing balanced nutrition, regular exercise, stress management, mental stimulation, social engagement, and preventive care, individuals can extend health span the years lived in good health.

Weil reframes aging as an opportunity to live more consciously and intentionally, showing that growing older can be both healthy and deeply rewarding.

## Building a Lifestyle that Actually Works



Mr. Obaidullah  
HR

Everyone wants a life that works, where progress feels real, decisions feel clear, and there's a sense of calm instead of constant pressure. But most people get stuck in a loop, pushing harder, getting overwhelmed, slowing down, and then starting again.

Some focus only on achieving more, while others try to escape the stress completely. The truth is, a lifestyle that actually works does not come from choosing one over the other. It comes from bringing inner clarity and consistent action together. It starts with awareness, most of us go through our days on autopilot reacting, rushing, and repeating the same patterns without noticing. This is why change feels difficult. **You cannot improve what you do not see.** But the moment you begin to pay attention to your thoughts, your reactions, and how you spend your time you create a gap between impulse and action. In that gap, you gain control. You start making choices instead of just reacting and that's where real change begins.

As awareness grows, a deeper question naturally follows, who am I, becoming through the way I live? most people chase goals, success, recognition, better health, but goals are temporary. They depend on motivation, and motivation does not last. **What lasts is identity, when you begin to see yourself as someone disciplined, reliable, focused, or calm, your actions start to follow.** You don't have to force yourself as much because you are acting in line with who you believe you are. Instead of chasing results, you start becoming the kind of person who naturally produces them. That identity becomes real through your daily habits. **Life is not shaped by big, occasional efforts, but by small actions repeated consistently.** Simple things showing up prepared, managing your time well, staying organized, taking time to reflect may not seem important in the moment, but over time they build momentum. You do not need dramatic change. **You need consistency through small improvements, repeated daily which quietly transform your life.**

At the same time, your environment plays a bigger role than you think. **If your surroundings are full of distractions, even strong intentions struggle to survive.** But when your environment supports your habits making good actions easier and distractions harder discipline becomes natural. You stop relying only on willpower and start working with systems that support you. **Another key piece of building a lifestyle that works is focus.**

**Today, the biggest problem is not lack of opportunity it's too many options,** people try to do everything and end up making little progress in anything. Real effectiveness comes from clarity knowing what truly matters and giving your energy to that. This also means saying no to many things, even good ones. **When your focus is clear, your effort becomes more powerful and your progress becomes meaningful.**

This idea of focus also shows up in how successful individuals and organizations operate. They do not chase every opportunity or react to every trend. They stay grounded, build strong values, and committed to continuous progress over time. They combine humility with determination. They are not loud or impulsive but are consistent and disciplined. They know what matters, and stick to it.

One of the hardest parts of this journey is accepting that progress is slow at first, you may not see results immediately and it can feel like nothing is happening, this is where most people quit. But beneath the surface, something important is building momentum. Over time, small efforts add up and things start to feel easier, what once required effort becomes routine, this is why consistency always beats intensity, you do not need to do everything perfectly you just need to keep going. It is also important not to lose yourself in constant striving, it's easy to get caught in always wanting more, always thinking about the next goal but a lifestyle that actually works is not just about building the future it's also about experiencing the present. **Staying aware and grounded helps you stay balanced. It ensures that while you are improving your life and you are also living it.**

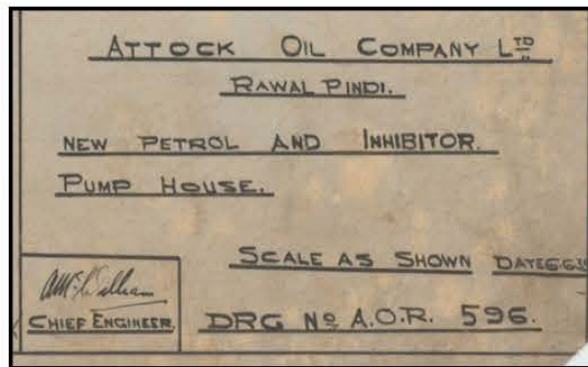
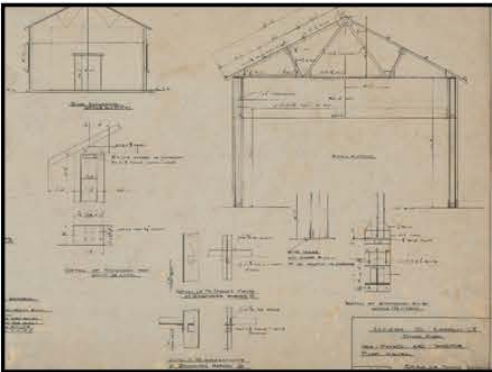
A lifestyle that actually works is built on **four simple foundations, awareness** of how you live, **clarity** about who you want to become, small daily habits that reflect that **identity and focus** on what truly matters. When these come together, progress is natural. One major and important element which we must remember **"there is no shortcut" but a system. It doesn't require dramatic change, just honest awareness, clear intention, and consistent action.** Success is not something you chase endlessly, it grows from how you live each day. Remember that your life is not shaped by what you do once, it is shaped by what you do repeatedly and when those daily actions align with who you want to become, your life begins to work not by chance but by design.

## Work Place Modernization at (Plant Maintenance-I) Maintaining ARL Heritage.



Mr. Talha Jahanzaib  
Maintenance

ARL has a history of preserving & maintaining old buildings and structures and further modernization as per current requirements. In continuation of its history, pump house building that was built in the year 1939 with the name Tag "New Petrol & Inhibitor Pump house" (Construction Drawing dated back to 06-06-1939) was upgraded over the years and has been recently transformed into modern Workplace still preserving the old structure.



Construction drawings of building dated 06-06-1939

Roof top Sheets were replaced along with Windows, doors & flooring. Modern workstations were installed for space optimization, improving work quality, flexibility and communication.



Pictures of the 1939 building currently as Plant Maintenance-1 Offices



Workstations installed at PM-1 for modernization & space optimization

The workshop building was also re-modeled for space utilization and separation of tools store and maintenance working areas with all maintenance accessories, machines and work benches.



Re-modeled Workshop Hall & modern tools Store

Available scaffolding material yard (Old compressor hall) was also converted in to workers area with work stations for supervisors by re-organization the scaffolding material on fabricated racks for storage optimization



Scaffolding material upgradation & space optimization with racks



Old scaffolding storage shed converted to workers area.

Shed for mechanical crane installed and heavy mechanical crane 10 TON was made fully functional for bundles fabrication work & cleaning jobs.



Shed structure & functional Overhead mechanical crane 10 Ton.

**Benefits of Modernization**

- Increased Productivity: Streamlined processes and better tools allow for faster, more efficient workflows.
- Improved Employee Experience: Enhanced, user-friendly, and flexible technology leads to higher satisfaction and retention.
- Cost Efficiency: Reduced dependency on physical infrastructure saves on operational costs.
- Agility & Continuity: Enhanced ability to respond to market changes and maintain operations during disruptions



از قلم: ساجد حسین قریشی

## غزل

خواب ہے میرا، تعبیر اس کی ہے  
 عکس ہے میرا، تصویر اس کی ہے  
 جتنا مانگا اتنا ہی، دور ہے مجھ سے  
 دعا ہے میری، تاثیر اس کی ہے  
 کتابِ زیست کے حساب کا، محاصل یہ  
 عجلت ہے میری، تاخیر اس کی ہے  
 لفظ جو بھی بولا، ترجمان ہے اس کا  
 زباں ہے میری، جاگیر اس کی ہے  
 قطعہ ذات کی فرد بندی، کر لی ساجد  
 کھنڈر ہے میرا، تعمیر اس کی ہے



از قلم : محمد بلال

## غزل

میرے شب و روز بھی کمال تھے  
 جب ان سے رابطے بحال تھے  
 وہ جتنی میٹھی باتیں تھیں  
 وہ سب سنہرے جال تھے  
 جو برباد ہوئے تیری محبت میں  
 میری زندگی کے قیمتی سال تھے  
 تیری آنکھوں کے عکس میں دیکھے میں نے  
 میری آنکھوں میں جتنے سوال تھے  
 میری صحبتوں سے جن کو عروج ملا  
 وہی میری وجہ زوال تھے  
 مٹی ہو گئے مٹی میں مل کر  
 وہ جو آپ اپنی مثال تھے

## Green Environment Initiatives

Horticulture plays an important role to overcome adverse environmental effects like air & water pollution, climate change, waste disposal, ozone layer depletion. To overcome the impacts of these challenges, Attock Refinery Limited (ARL) has well established Horticulture Section, responsible for development and maintenance of landscapes and plantations at company premises.



## Morgah Biodiversity Park

The Morgah Biodiversity Park (MBP) is a Pro-Poor Public-Private Partnership (5Ps) project of UNESCAP, Government of Pakistan and Attock Refinery Limited (ARL). The Park spreads over an area of 28 acres and comprises Aviary, Fish Pond, Butterfly Garden, Xerophytic Garden, Medicinal plants Garden having 272 out of 480 reported species of indigenous trees, shrubs and herbs of the Potwar region and various animal and bird species.





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