

EPQL Electrifying with ISO55001

The pioneer Independent Power Producer in South Asia
achieving ISO55001 certification for Asset Management



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Asset Management - EPQL

The 217 MW Engro Powergen Qadirpur Limited (EPQL) power plant in Qadirpur is presently the only green facility of its kind in Pakistan to utilize permeate gas for reduced carbon emissions. It had also become amongst the first in ISO55001 Asset Management certification not just in Pakistan but South Asia in 2019. This project is unique in utilizing low BTU gas previously being flared through Qadirpur Gas Field for almost a decade. The desire to be innovative and ahead of the curve was hence intrinsic since the creation of this project.



Why the need for the ISO55000 Standard at EPQL?

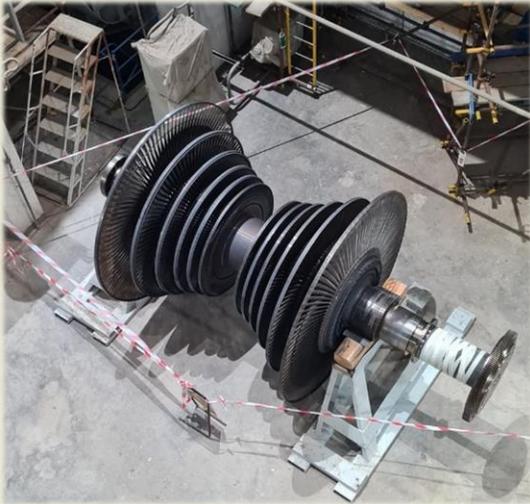
Engro as a company has always had a core focus on safety and effective process management. In line with the broader Engro corporation, the processes, and systems at Engro Powergen Qadirpur Limited (EPQL) were also aligned with the Dupont Standards from the time of its commissioning. The DuPont standard proved to be a good starting point to translate our procedures to the more specific ISO5500x asset management system better focused on leaner more automated energy sector entities with fewer but more specific components e.g., large Turbines and Generators.



LEADERSHIP COMMITMENT

The senior leadership including CEO Mr. Shahab Qader and GM Asset Management Mr. Imran Aslam had clear foresight to push the goal for a world class asset management system. It had to be par excellence and a stringent auditing body BSI was selected for this endeavor. The asset management team decided to educate itself with more contemporary asset management systems that could outline asset handling over their entire lifecycles. It also served as a catalyst for us to commit to the objective of enhanced maintenance excellence using a complete asset management standard. This is when the ISO 55000 was selected based on extensive asset management subjects and landscape it provided. We followed that up with an in-house SAM+ cyclic audit to gauge our own preparedness for the certification after developing procedures that we felt were missing. A comprehensive Asset Management Policy was drafted and approved by the energy vertical CEO of Engro Mr. Ahsan Zafar Syed.





Implementing the ISO55001 Asset Management System

The main objective to follow a dedicated asset management standard was the efficiency it offered without overburden. The power sector in Pakistan is unique that Independent Power Plants (IPPs) are on BOOT basis for the private sector and therefore have very defined timelines and asset lifecycles. The electricity buyer being the government itself, gives us a very predictable and almost constant demand curve. So many variables in industries such as FMCGs are eliminated. This enables us to focus strictly on assets themselves which are large, technically complex, and expensive. The Asset Management standard is therefore very relevant for our site and the power sector in general.

HSE being the core value of Engro the crucial challenge that we faced was to align our existing procedures from DuPont Process safety Management (PSM) to the ISO5500x system without compromising our compliance of either system. The resources on GFAM landscape and the IAM anatomy document were quite helpful. We could see how the system was developed and the major subject areas of the standard and therefore much better able to form our procedures against each. It would also serve as a beacon when we later prepared our documentation for the ISO55001 certification audit.



Our core aim was to use this new standard to streamline our corporate and top-level objectives and to translate them into tangible goals for our assets. To push this change, we also renamed our maintenance department to Asset Management and aligned our goals in line with this new direction. A new comprehensive Strategic Asset Management Plan (SAMP) was developed as the centerpiece for this change and all our asset management policy, methodology, strategy, and procedures were made a part of this extensive document. It would go on to serve as the guiding document for the entire lifespan of this power plant and would be religiously reviewed every 3 years.

BIGGER PICTURE

Adhering to this standard enabled the management and engineers to look at the operations and maintenance of assets in a more holistic manner from installation to de-commissioning. It enabled us to streamline and optimize our preventative maintenance plans and activities, reduce overhead costs, and better amortize our assets. We were already following stringent safety and process hazard analysis regimes under the DuPont system but were able to retaylor the frequency and in some cases the method of conducting these audits to better suit our own needs using the ISO5500x guidelines.

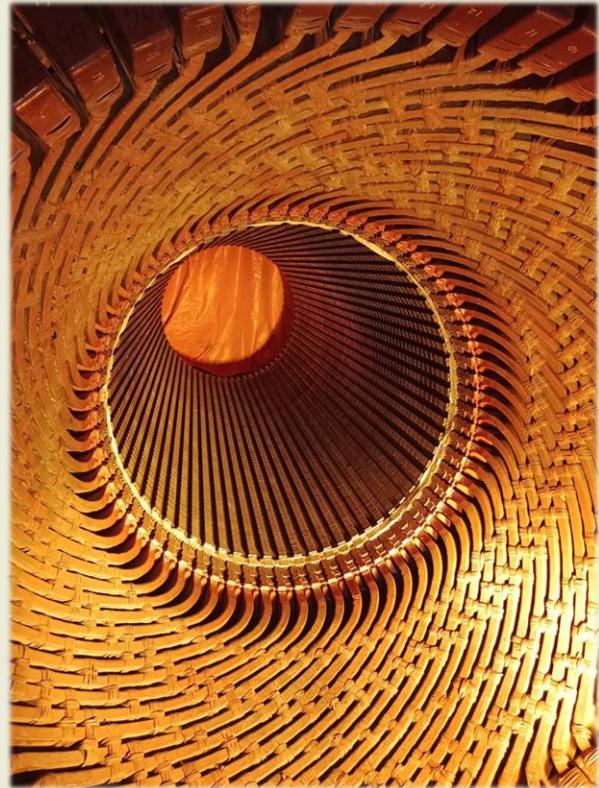
COVID MANAGEMENT

The more efficient maintenance helped us overcome the huge challenge of Covid-19 as we were able to critically assess and postpone our 6 yearly major inspection at EPQL which would have required entry of hundreds of personnel and made the task of quarantining and testing impossible at our site. With proper checks and balances we were able to delay this outage for another 1 year until the threat of Covid had become much more manageable with vaccines and rapid testing.

TEAM PERFORMANCE

The SAMP and framework of this standards is also helping us constantly align our individual objectives in line with the bigger picture. The strategic objectives set for our asset performance and site availability are core drivers to branch down the roles and responsibilities all the way to our field teams. The performance appraisal cycles are therefore aligned to the overall betterment of physical assets and ensuring optimal asset utilization.

Benefits of the ISO55001 Asset Management System



EQUIPPED FOR THE FUTURE

The experience and expertise we gained from the certification journey undertook for ISO55001, we are actively sharing within the larger Engro Corp. and enabling our sister companies and subsidiaries in implementing some of these best practices. It is also extending outside our own umbrella as we championed the concept and helped other energy entities and IPPs to adapt towards this asset management system. At least one other site has already certified themselves in Pakistan and we are certain more would follow. We strive to not only maintain our proficiency in the system and push for continuous improvement at EPQL for our maintenance, engineering and operations of assets but also chip in for the development and evolution of the ISO55001 standard itself wherever possible.