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The Soothsayer is an innovation, based on predictive maintenance to predict the failures and anomalies of the machines in the production at Rayong Gas Separation Plant, such as gas turbine, centrifugal compressor, fuel system, lubrication system etc. The Soothsayer, as a machine learning, learns from vast amount of historical data collected from machines sensors such as pressure values, temperature and vibration values which recorded and stored in the database 24/7. With certain amount and quality of data, the Soothsayer can predict whether the machine is normal or abnormal, by learning and analyzing the values and correlations of temperature, pressure, vibration etc. If the parameters deviate from the normal condition, the Soothsayer will detect the abnormality and inform an inspector and relevant persons proactively. This will the main objective which is to prevent and respond to machine anomalies in a timely manner.

It enhances from the traditional maintenance practice, Corrective Maintenance to Predictive Maintenance (Machine Learning and Deep Analytics), which will reduce the cost of natural gas production due to the far greater minimized in unplanned downtime and maintenance costs.

The digital information is used to maximize the benefits by analyzing the data from the machine sensors through a data science technique together with the engineering knowledge and expertise for the results enhancing reliability of the Gas Separation Plant, increasing economic value and increasing efficiency in maintenance work.

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