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Failure Mode and Effect Analysis (FMEA)

A Failure Mode and Effect Analysis (FMEA), which looks into the potential failures of a system and how best to prevent these and/or mitigate their effects, gives companies an insight into the current risks of their assets and their future operability.

THE Applus+ SOLUTION

Monitoring possible failures, and their associated causes, within a work system is vitally important in industrial operations. Most plants and pipelines undergo change throughout their life-cycle, in terms of operations, regulatory updates and variations in maintenance, inspection and integrity planning. A key issue for owners and operators is the skills gap resulting from the departure of highly trained in-house staff.

Applus+ undertakes FMEA when risk-based maintenance and inspection methodologies are implemented or updated. In many cases, we are already involved in data collection for plant facilities and are familiar with their management systems.

FMEA is a proven methodology for improving performance metrics including uptime, reliability, safety and quality. We can assist in the sorting and preparation of performance records and inspection data to help FMEA teams to work more efficiently together. We provide expertise in areas where in-house specialists are unavailable. Applus+ also provides high-level inspection engineers able to facilitate FMEA and deliver analytical and engineering support to the company’s team. We are able to deliver 'bottom-up' and 'top-down' capabilities to determine risks and priorities. We can also draw on our wide-ranging experience in using FMEA outcomes as an input for implementing RCM, RBI or CBM systems, and updating these systems after each maintenance cycle.

Target customers

Throughout their life-cycle, all plants and pipelines undergo changes in condition and/or use. By carrying out Failure Mode and Effect Analyses, Applus+ helps companies to assess the operability of their plants and pipelines and advises on risk management.

Key customer benefits

Using FMEA, Applus+ helps companies to improve the uptime, reliability, safety and quality of their equipment and, in so doing, to optimise their future operations.