PROAIM
ACHIEVING DATA-DRIVEN RELIABILITY

For a refinery in Asia, the spare parts policy was not related to the component failures. On many occasions, the spare part was not available, and sometimes, when in stock, the spare part had past its storage shelf life.

The client needed a new methodology to manage the spare parts based on predicted failure rates, and to only store the minimum spares necessary.

BENEFITS

- Reduction of spare parts inventory by over $214,000

- Identify critical spares to ensure plant availability is not effected by lack of spares

METHODOLOGY

1. Download historical maintenance records from the CMMS

2. Assess historical asset availability & reliability

3. Define failure modes for on-site equipment

4. Define critical equipment & associated spares

5. Build the financial optimization model

6. Run optimizations and consult with key staff on the final results

7. Implement results within the management systems.

OBJECTIVES

Calculate the optimized case for each critical spare based on:

1. Component criticality

2. Downtime penalties

3. Actual failure frequency

4. Inventory depreciation

5. Warehousing costs

6. Spare part capital costs

7. Spare part availability & shipping time

8. Logistics of replacement

ABOUT PROAIM

A reliability-engineering consultancy based in the U.K. with operations across the globe.

Providing specialist bespoke consultancy with integrated RAM technology and training solutions in the area of reliability and maintenance engineering.

We enable our clients in asset centric process industries, primarily upstream oil and gas and petrochemical sectors to achieve the safety, production output and cost targets for their business.

ProAIM is one of the leading companies able to quantify the true life cycle costs from design to decommissioning by combining RAM and Process Synthesis with ProAIM's patented RAM-int.

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