

Engen Petroleum

INDUSTRIAL DIGITAL TRANSFORMATION

01 / THE BUSINESS CHALLENGE

Modernizing Legacy Workflows in a High-Risk Environment

Operating a refinery requires absolute precision in safety and environmental compliance. Prior to AegarTech's intervention, Engen's business processes—ranging from safety assessments to environmental monitoring—relied on fragmented, often manual workflows. The lack of real-time visibility into water effluent quality and refinery-wide safety audits created operational risks and hampered rapid decision-making. The objective was to architect a unified ecosystem that transformed manual field-data into actionable executive intelligence.

02 / ENGINEERING INNOVATION

Full-Scale Power Platform & Azure Orchestration

AegarTech delivered a comprehensive digital transformation strategy centered on the Microsoft Power Platform. We engineered custom Power Apps for mobile safety assessments at the refinery, allowing field staff to capture data directly at the source. This was synchronized via Power Automate into a centralized governance framework. For environmental compliance, we architected Power BI dashboards that provide real-time data analytics on water effluent quality, ensuring jurisdictional alignment and immediate awareness of quality shifts. The entire solution is secured within an optimized Azure infrastructure, maintaining institutional control and data sovereignty.

03 / STRATEGIC DELIVERY PILLARS

Core Service Integration:

SAFETY AUTOMATION

Mobile safety assessment apps deployed for on-site refinery audits.

ENVIRONMENTAL ANALYTICS

Real-time Power BI reporting for water effluent quality monitoring.

M365 GOVERNANCE

Secure SharePoint & Teams optimization for refinery-wide collaboration.

CLOUD RESILIENCE

Full-scale Azure support including PaaS deployment and security auditing.

Focus: Shifting from manual data-entry to automated, low-code/no-code enterprise governance.

OPERATIONAL IMPACT

Unified

CONSOLIDATED REFINERY GOVERNANCE FRAMEWORK

Real-Time

ENVIRONMENTAL COMPLIANCE & WATER QUALITY VISIBILITY

THE AEGAR STACK

- Platform:** Microsoft Power Platform
- Apps:** Power Apps & Power Automate
- BI:** Power BI (Real-time)
- Cloud:** Azure PaaS / M365

RESILIENCE

Enterprise-grade deployment ensuring **zero-latency data flow** and high-availability for mission-critical safety audits.