



PIPELINE PRODUCT SURGE MITIGATION

Key Capabilities:

- Hydraulic Analysis
- Surge Mitigation Solutions
- Procurement
- Installation

Overview

Our Client supplies approximately a quarter of all Australia's petroleum products. They include petrol, liquefied petroleum gas (LPG), diesel, aviation fuel, propylene, solvents and bitumen. The Melbourne distribution terminal receives stores and distributes fuel products via existing pipelines.

There was evidence that product surge within the pipeline, during pump start-up and emergency shutdown operations, was contributing to reduced filter life.

Vecta were engaged to confirm that surge was a contributing factor, and engineer a solution.

Scope

The scope of work included the following:

- P&ID review;
- Review of operational parameters (start up and shutdown);
- Production of isometric drawings of the existing product piping network;

- Hydraulic analysis;
- Analysis of filter performance, including causal analysis;
- Confirmation of contributing factors to reduced filter life;
- Proposal of surge mitigation solutions;
- Agreed implantation of surge accumulator sizing, procurement and installation.

Challenges

- Data analysis of existing operating conditions;
- Unbiased approach to cause determination;
- Proving as built condition of installed pipework and equipment;
- Definitive timeframe for review and implementation.

Solutions

- Systematic approach to determination of the dominant cause of filter degradation;
- Detailed pipeline flow analysis;
- Engineered accumulator solution;
- Budget preparation and installation schedule for client approval.

Outcomes

Engineered surge mitigation solution engineered, procured and installed;

Initial indications of filter condition and lifespan improvement.

Want to Know More?

For more information please contact our office on +61 (03) 9326 9384, email info@vectagroup.com.au, or visit our website vectagroup.com.au